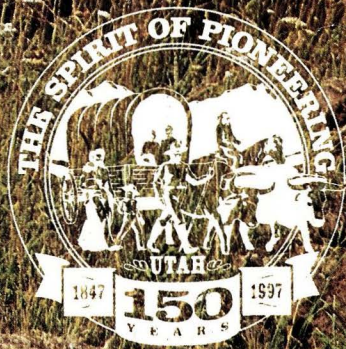
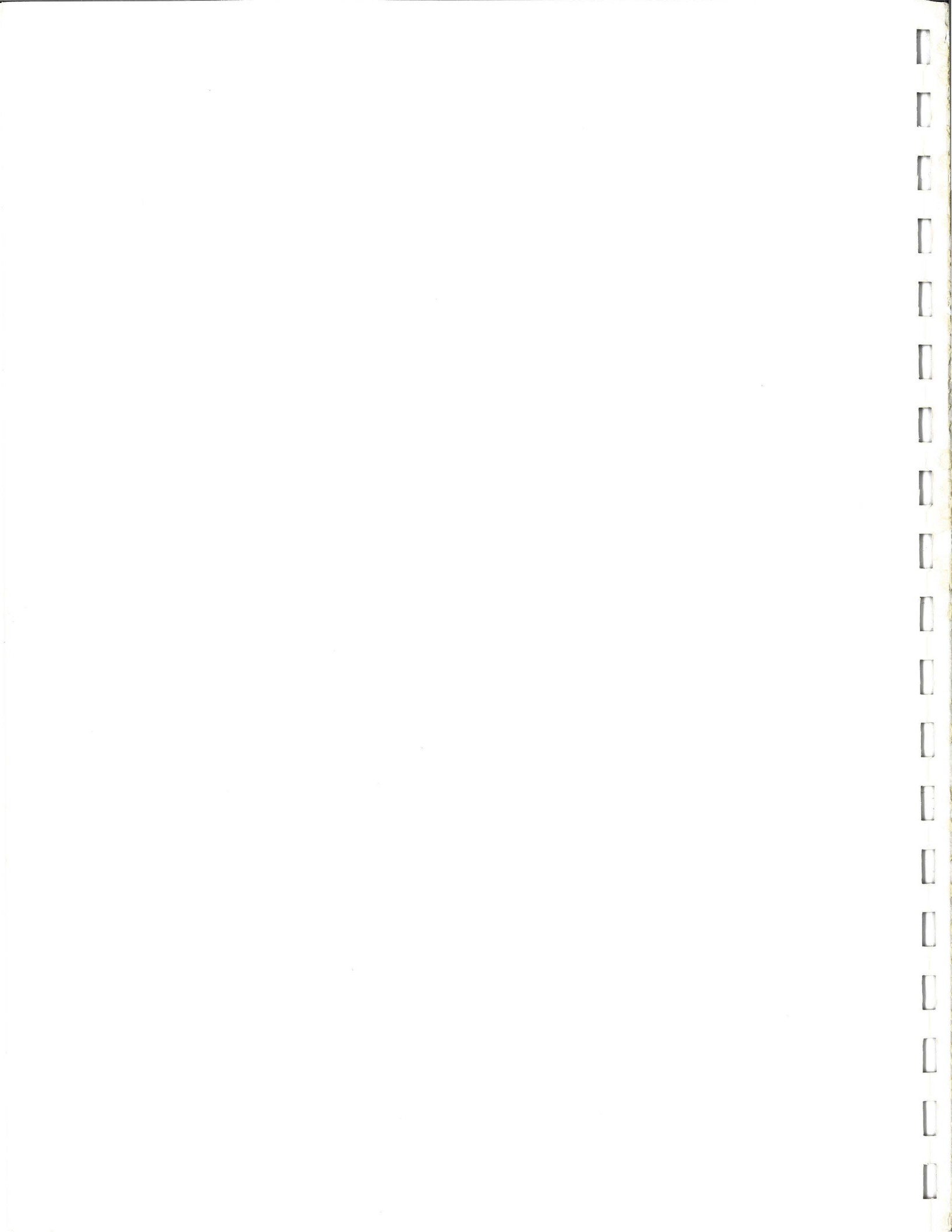


1997 UTAH AGRICULTURAL STATISTICS  
AND  
UTAH DEPARTMENT OF AGRICULTURE AND FOOD  
ANNUAL REPORT







Michael O. Leavitt,  
Governor,  
State of Utah



Greetings,

This year marks a special celebration in our state. One hundred and fifty years ago this Summer the first group of Mormon pioneers entered the Salt Lake Valley, and called it home. Those pioneers brought with them potato and wheat seeds, and before the people erected buildings, or established a government, they did something vital to any civilization—they planted their food supply.

As we approach a new century, I am reminded of this simple yet vital priority demonstrated by our ancestors. We must not overlook the importance of sustaining a reliable food source as Utah faces the challenges associated with our remarkable growth. This is one reason why I created the Critical Land Conservation Committee which is helping communities identify and preserve important agricultural, wildlife and other lands. I encourage you to review the valuable information contained in the committee's report. It is accessible through the World Wide Web at: [www.gvnfo.state.ut.us/planning/opland/opland.htm](http://www.gvnfo.state.ut.us/planning/opland/opland.htm).

I wish to thank two organizations for taking action recently to preserve some of that critical land: The Nature Conservancy, for its work to purchase the historic Dugout Ranch in Southern Utah, and the Utah Open Lands Trust, for purchasing easement rights to the Gene Wheadon farm in Draper. These are two of what I hope to be a growing number of projects designed to protect Utah farmland.

As we celebrate the Utah Pioneers' Sesquicentennial, I encourage our citizens and community leaders to recognize, as our ancestors did, the value of our food-producing lands.

Sincerely,

A handwritten signature in black ink that reads "Michael O. Leavitt". The signature is written in a cursive, flowing style.

Michael O. Leavitt, Governor  
State of Utah

# Introduction

This publication is provided to help inform farmers, ranchers, and the public about activities within the Utah Department of Agriculture, and provide a detailed look at Utah's agricultural production. Also included are budgets for helping farmers and ranchers evaluate the potential profitability of various agricultural commodities produced in the State.

The Utah Agricultural Statistics Service of USDA's National Agricultural Statistics Service (NASS) and the Utah Department of Agriculture and Food have jointly prepared this publication for the past 27 years. Estimates presented in the publication are current for 1996 production, and January 1, 1997 inventories. Data users that need 1997 information or historic data should contact the Utah Agricultural Statistics Service, phone 524-5003 or 1-800-747-8522 if outside the Salt Lake calling area. Statistics for other States and the United States are also available at the office.

The agricultural statistics in this publication are the result of farmers, ranchers, and agribusinesses responding to various survey questionnaires during the year. Information they provided about their operations is confidential and used only in combination with other reports. A special thanks for their voluntary contribution to help make the estimates possible. Our NASDA enumerators are very impressed with the patients and dedication of Utah's farmers and ranchers in providing survey information and wish to extend a thank you to them also.

Estimates are subject to revision and previous years may have been revised in this publication. Data users should use this publication for previous years data.

Information and statistics are an important part of decision making for farmers and ranchers. The internet has provided a tool to disperse a variety of information in a easily accessible timely manner. I found the following Web pages sources of interest to agriculture and thought you might be interested in them.

## U. S. Department of Agriculture

(Includes all USDA Agencies) . . . . .	<a href="http://www.usda.gov/">http://www.usda.gov/</a>
<b>National Agricultural Statistics Service</b>	
(Plus Census of Agriculture) . . . . .	<a href="http://www.usda.gov/nass/">http://www.usda.gov/nass/</a>
Utah Agricultural Statistics Service . . . . .	<a href="http://www.nass.usda.gov/ut/">http://www.nass.usda.gov/ut/</a>
USDA Market News . . . . .	<a href="http://www.usda.gov/ams/sermrknw.htm">http://www.usda.gov/ams/sermrknw.htm</a>
<b>USDA-Natural Resources Conservation Service</b>	
(Includes Utah Snow Surveys) . . . . .	<a href="http://utdmp.utsnow.ncrs.usda.gov">http://utdmp.utsnow.ncrs.usda.gov</a>
Fedstats (Statistics from Federal Agencies) . . . . .	<a href="http://www.fedstat.gov/">http://www.fedstat.gov/</a>
Agriculture Sources . . . . .	<a href="http://www.agsource.com/">http://www.agsource.com/</a>
Utah Department of Agriculture and Food . . . . .	<a href="http://www.ag.state.ut.us/">http://www.ag.state.ut.us/</a>
Salt Lake City National Weather Service . . . . .	<a href="http://nimbo.wrh.noaa.gov/saltlake/slc.noaa.html">http://nimbo.wrh.noaa.gov/saltlake/slc.noaa.html</a>
Western Regional Climate Center . . . . .	<a href="http://wrcc.sage.dri.edu/">http://wrcc.sage.dri.edu/</a>
Utah Climate Center . . . . .	<a href="http://climate.usu.edu/">http://climate.usu.edu/</a>
USU Extension Service . . . . .	<a href="http://est.usu.edu/">http://est.usu.edu/</a>
National Farmers Union . . . . .	<a href="http://www.nfu.org/text-index.shtml">http://www.nfu.org/text-index.shtml</a>
Utah Farm Bureau . . . . .	<a href="http://www.fb.com/utfb/">http://www.fb.com/utfb/</a>
National Cattlemens Association . . . . .	<a href="http://www.beef.org">http://www.beef.org</a>

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DelRoy J. Gneiting, State Statistician  
Utah Agricultural Statistics Service



This report is published as a cooperative effort between Federal and State Government.

## FEDERAL PARTICIPATION

*U.S. Department of Agriculture  
National Agricultural Statistics Service*

Donald M. Bay, Administrator  
Fred S. Barrett, Deputy Administrator for Field Operations

*Utah Agricultural Statistics Service*

176 North 2200 West, Suite 260  
P.O. Box 25007  
Salt Lake City, Utah 84125-0007  
801-524-5003

FAX No. 801-524-3090  
Web page: <http://www.nass.usda.gov/ut/>  
E-mail address: [nass-ut@nass.usda.gov](mailto:nass-ut@nass.usda.gov)

DelRoy J. Gneiting, State Statistician  
Roland Albert, Deputy State Statistician

Molly Elson, Administrative Technician

Kathy Whyte, Typist

Statisticians

Joel Gentillon  
Kerry McBride  
Joe Samson

Support Staff

Linda Spicknall

## STATE PARTICIPATION

*Utah Department of Agriculture and Food*

350 North Redwood Road  
P.O. Box 146500  
Salt Lake City, Utah 84114-6500  
801-538-7100

FAX No. 801-538-7126  
Web page: [www.ag.state.ut.us](http://www.ag.state.ut.us)  
E-mail address: [agmain.lmlewis@email.state.ut.us](mailto:agmain.lmlewis@email.state.ut.us)

Cary G. Peterson, Commissioner  
Van Burgess, Deputy Commissioner  
Larry Lewis, Public Information Officer

We would like to thank Debra Spielmaker, Utah Agriculture in the Classroom; USDA-APHIS, Animal Damage Control; Gary Neuenswander, USU Experiment Station; and John DeVilbiss, USU Extension Information for helping to provide the photographs used in this publication.

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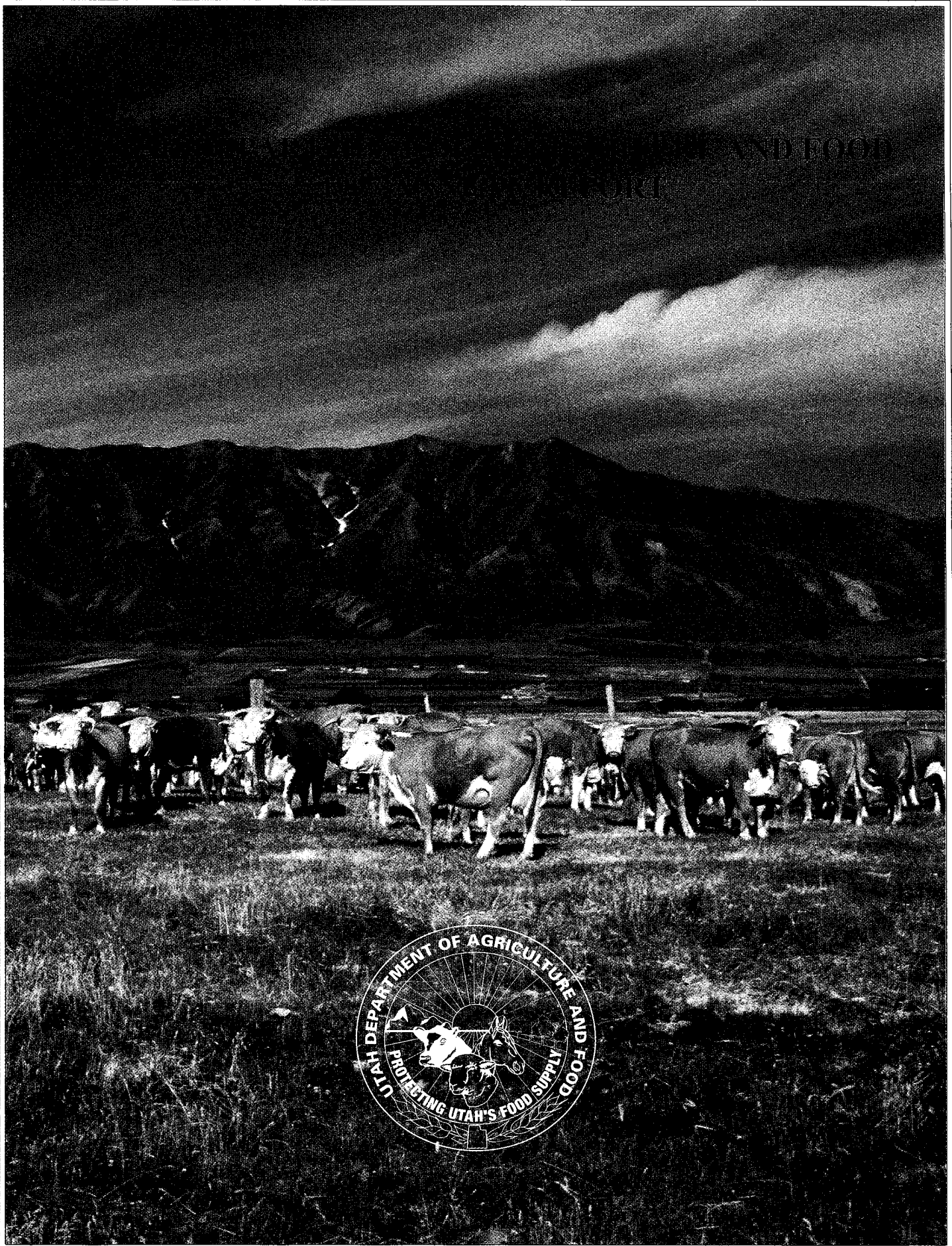
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## Utah Counties and Districts Chart







# Utah Department of Agriculture and Food

## Administration

Cary G. Peterson  
Commissioner

Van Burgess  
Deputy Commissioner

Renee Matsuura  
Director of Administrative Services

Randy Parker  
Director of Agricultural Marketing and Conservation

Dr. Michael R. Marshall  
Director of Animal Industry/State Veterinarian

Dr. David H. Clark  
Director of Laboratory Services/State Chemist

G. Richard Wilson  
Director of Plant Industry

Kyle R. Stephens  
Director of Regulatory Services

Larry Lewis  
Public Information Officer

Eileen Frisbey  
Administrative Assistant

Joan Winger  
Administrative Secretary

## Agricultural Advisory Board

Kenneth R. Ashby, Chairman  
Utah Farm Bureau Federation

Lee Reese, Vice Chairman  
Utah Farmers Union

Jeffrey A. Hardy, Utah Dairymens Association

Terry Peterson, Utah Wool Growers Association

Scott Johnson, Utah Cattlemens Association

George Dyches, Food Processing Industry

Merl Thurgood, Utah Horse Industry

William Rigby, Utah Association of Conservation Districts

Grant Tingey, Utah Livestock Marketing Association

Carma Wadley, Consumers' Representative

Dr. James Eaton, Utah Veterinary Medical Association

## Department Phone Directory - Area Code (801)

For information and numbers not listed below.....538-7100

Internet homepage: [www.ag.state.ut.us](http://www.ag.state.ut.us)

Internet email: [agmain.lmlewis@email.state.ut.us](mailto:agmain.lmlewis@email.state.ut.us)

### Commissioner's Office

Commissioner ..... 538-7101

Deputy Commissioner ..... 538-7102

Compliance Specialist ..... 538-7141

Public Information Officer ..... 538-7104

Administrative Assistant ..... 538-7105

### Administrative Services

Director ..... 538-7110

Budget and Accounting ..... 538-7032

Data Processing Services ..... 538-7113

GIS ..... 538-9904

Personnel and Payroll ..... 538-7112

### Agricultural Marketing and Enhancement

Director ..... 538-7108

Ag Resource Development Loans ..... 538-7176

Environmental Quality ..... 538-7175

Livestock & Market News ..... 538-7109

Environmental Quality Information Specialist ..... 538-7098

Soil Conservation ..... 538-7171

Agricultural Statistics (USDA) ..... 524-5003

Animal Damage Control ..... 975-3315

### Animal Industry

Director ..... 538-7160

Animal Health ..... 538-7162

Animal Identification (Brands) ..... 538-7166

Aquaculture ..... 538-7029

Elk Farming ..... 538-7137

Meat Inspection ..... 538-7117

Serology Laboratory ..... 538-7165

### Chemistry Laboratory

Director ..... 538-7128

Bacteriology Laboratory ..... 538-7129

Feed & Fertilizer Laboratory ..... 538-7134

Meat Laboratory ..... 538-7132

Pesticide Residue Laboratory ..... 538-7135

### Plant Industry

Director ..... 538-7180

Entomology ..... 538-7184

Fresh Fruit & Vegetable Inspection ..... 538-7183

Seed & Feed Inspection ..... 538-7187

Grain Grading Lab (Ogden UT) ..... 392-2292

Insect Infestation Emergency Control ..... 538-7180

Noxious Weeds ..... 538-7183

Pesticides/Fertilizers ..... 538-7188

Seed Laboratory ..... 538-7182

### Regulatory Services

Director ..... 538-7150

Bedding, Quilted Clothing, & Upholstered Furn. 538-7151

Dairy Compliance ..... 538-7145

Egg & Poultry Compliance ..... 538-7148

Food Compliance ..... 538-7149

Label Evaluation ..... 538-7151

Meat Compliance ..... 538-7144

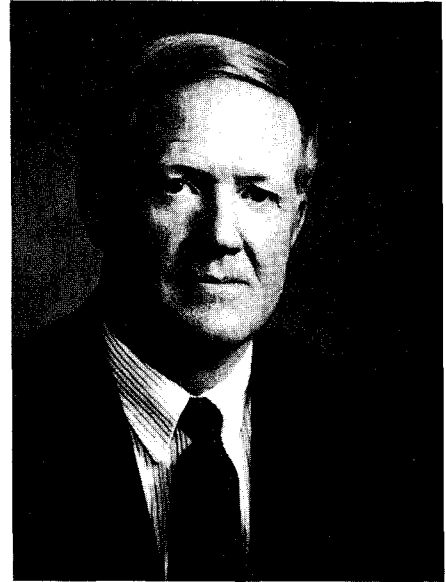
Metrology (measurement) Laboratory ..... 538-7153

Motor Fuels Testing Laboratory ..... 538-7154

Weights & Measures ..... 538-7158



Commissioner of Agriculture  
and Food  
Cary G. Peterson



Thank you for your interest in Utah Agriculture.

This past year was exciting for agriculture on several fronts:

- We saw our first Salt Lake valley farm protected from the pressures of urban sprawl.
- We changed the name of our department to the Utah Department of Agriculture and *Food*, to better reflect our duties, and what we believe to be important.
- Our state reached two million in population, an event that carries with it much pride, but it also underlines our responsibility to meet the challenges of growth.

I am proud to report on agriculture's growing contribution to Utah's economy. Thanks to a healthy foreign market, Utah's agricultural exports hit record numbers for the fifth straight year in 1996. Utah's raw and processed food exports account for \$280 million, or roughly 7 percent of the state's total export sales. Our agricultural exports bring jobs and prosperity to our state.

As Commissioner of Agriculture and Food I am encouraged with the steps we've taken this year to preserve Utah farmland. Governor Leavitt's Critical Land Conservation Committee generated needed information to encourage local communities to identify and preserve important agricultural lands. The first ever initiative to generate funds to acquire development rights of farmland was debated by the 1997 Legislature. Although the bill failed, it increased public exposure to farmland protection.

This year I believe more of us recognized the effects that urban sprawl has placed on our environment. Air and water pollution, highway gridlock, higher taxes, lower quality of living all have roots in urban sprawl. In many places around the country, and in Utah, new home starts and the number of automobiles is growing faster than the population. Chicago and Cleveland report small or negative population growth, yet their suburbs grew by 33 to 45 percent.

Our water, energy and mineral resource base is finite, and when we lose a piece of it to sprawl, our quality of life slips a notch, and our cost of living rises. *When your last crop is asphalt, you've plowed under a food producing natural resource—a farm.*

Utah is known as the crossroads of the West, a place where pioneer travelers made decisions that affected their lives forever. Utah is now at a crossroads in time as we ponder the challenges created by our remarkable growth. The decisions we make today will write our legacy for the future.

I encourage our citizens and leaders to recognize the broad-reaching values of our food producing land and take the necessary action to protect this natural resource.

Thank you,

A handwritten signature in black ink that reads "Cary G. Peterson". The signature is written in a cursive, flowing style.

Cary G. Peterson, Utah  
Commissioner of Agriculture and Food

# Mission Statement

The mission of the Utah Department of Agriculture and Food is to insure a high-quality, safe, readily available and sustained supply of food and fiber for the citizens of the state of Utah.

In doing this, we will promote the responsible stewardship of our state's land, water and other resources through the best management practices available. We will promote the economic well-being of Utah and her rural citizens by adding value to our agricultural products. We also aggressively seek new markets for our products. And we will inform the citizens and officials of our state of our work and progress.

In carrying out that mission, department personnel will take specific steps in various areas of the state's agricultural industry, such as the following:

## Regulation

Department operations help protect public health and safety as well as agricultural markets by assuring consumers of clean, safe, wholesome, and properly labeled and measured or weighed products. This includes products inspected by UDAF's animal industry, plant industry, weights and measures, and food and dairy inspectors, compliance officers and field representatives.

It involves chemical analysis by the state laboratory, which is part of the department. It also includes other consumer products such as bedding, quilted clothing and upholstered furniture.

This inspection also protects legitimate producers and processors by keeping their markets safe from poor products and careless processing.

## Conservation and Enhancement

Through its variety of programs in this area, the department will work to protect, conserve and enhance Utah's agricultural and natural resources, including water and land, and to administer two low-interest revolving loan funds aimed at developing resources and financing new enterprises.

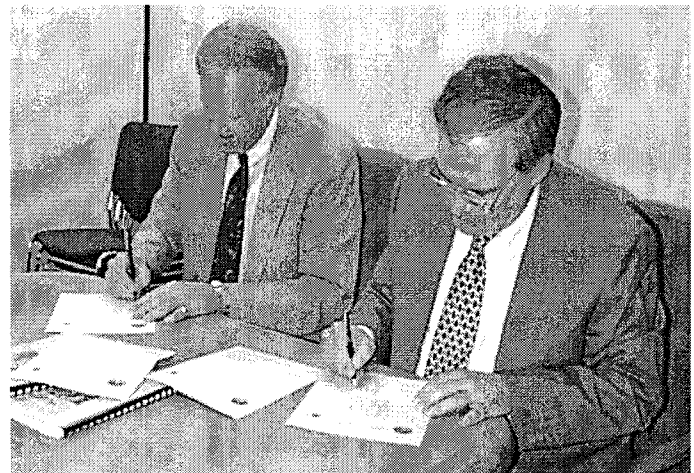
## Marketing and Promotion

UDAF marketing section strengthens Utah's agriculture and allied industries financially by expanding present markets and developing new ones for Utah's agricultural products, locally, in the United States, and overseas as well. It also helps develop new products and production methods and promotes in-state processing of Utah agricultural products for a stronger state economy.



*(above) UDAF's Marketing Division sponsored several Utah agribusinesses at the 1997 U.S. Food Export Showcase in Chicago, Illinois. The Showcase introduced thousands of foreign buyers to Utah-made agricultural products. The foodshow is intended to increase Utah agribusiness exports and add value to Utah's raw agricultural products. Utah Ag. exports hit \$280 million in 1995-96. That's roughly 7 percent of the states total export value.*

*(below) EPA Acting Regional Administrator, Jack McGraw, (right) and Utah Commissioner of Agriculture and Food, Cary Peterson, sign a certificate of recognition for Plant Industry's Ground Water/Pesticide State Management Plan. Utah is the first state in our region to complete such a plan which is designed to protect the state's water resource. McGraw called the accomplishment "No small feat."*







## Commissioner's Office

Commissioner Cary G. Peterson began his second four year term in office by working to accelerate the positive aspects of the Utah Department of Agriculture and Food (UDAF). One of the first steps he took was the renaming of the department to the Utah Department of Agriculture and Food. The addition of the word food to the title is intended to remind producers and consumers that before we have food, we must first have agriculture.

Department employees designed a new department seal which depicts the various aspects of Utah agriculture. The employee-created seal saved Utah taxpayers nearly \$3,000 in design costs.

Utah agriculture entered the world of the Internet with the introduction of the department's World Wide Web homepage.

The site offers important information about the UDAF as well as on many other topics such as: consumer food safety, weather, and livestock markets. The site's address is: [www.ag.state.ut.us/](http://www.ag.state.ut.us/)

The state of Utah reached a population of two million in 1996. The event underscored the importance of balancing the needs of growth with the need to protect our food producing resources. Commissioner Peterson continued his efforts to protect farm and ranchland by pointing out the many environmental, economic and social consequences associated with urban sprawl. A summary of the concerns regarding sprawl include:

- ★ Urban sprawl and the number of automobiles is growing faster than the population in several states.
- ★ Food costs could increase by three to five times as America's population doubles during the next 50 years.
- ★ Under current growth patterns, six-tenths of an acre of food-producing farmland will be available for each person in America in 50 years. Currently, each American needs 1.2 acres of farmland to supply their nutritional needs.
- ★ Urban sprawl is a tax drain on cities and towns, while productive farm/ranchland generate a tax surplus.

Commissioner Peterson took his support for the completion of the Spanish Fork Canyon-Nephi Pipeline portion of the Central Utah Water Project directly to the people. His in-depth essay on how the new water source would expand the resource base and add to the region's quality of life appeared in various newspapers and magazines. He pointed out that urban sprawl along the Wasatch Front is forcing the state to seek a new food-growing greenbelt in Juab and Southern Utah counties.

Commissioner Peterson also worked to protect Utah farms and ranches by making their operations more profitable. He encouraged farmers to consider raising crops and livestock, that when processed, will generate added value and revenue. Such items are: elk, ostrich, trout, and various niche row crops. The UDAF supported a bill in the 1997 legislature that established elk farming in Utah.

Governor Leavitt appointed Commissioner Peterson to help lead the specially created Critical Land Conservation Committee. That committee is helping communities identify and preserve important agricultural, wildlife and other lands. As a result of the committee's and other groups' work, two important tracks of land were set aside recently.

The Nature Conservancy is working to purchase the historic Dugout Ranch in Southern Utah, and the Utah Open Lands Trust purchased easement rights to the Gene Wheadon farm in Draper.

Soil and water conservation made strides in 1996 by educating communities' planning and zoning leaders about the importance of farmland and watershed protection. The Utah Soil Conservation Commission began using portions of a \$270,000 fund to develop grassroots conservation projects.

The commissioner also closely worked with division directors to guide programs that protect our food supply.

### Agribusiness Exports

Utah food and agriculture producers and processors set an export record in 1996, totaling \$280 million. This represents the fifth consecutive record. Agricultural commodity exports grew to nearly \$160 million, while manufactured food exports nearly doubled to around \$120 million during 1995-96.

Utah has one of the fastest growing agribusiness export industries as global customers discover the wide range of high quality products available in Utah.

### Food Safety Program

The quality of America's food supply is unmatched. However, there are threats from new microorganisms and familiar ones that are growing resistant to treatment. This is creating a new challenge to maintain the high quality food that consumers expect. Utah is meeting that challenge by adopting a new Food Establishment Sanitation Rule.

The new Pathogen Reduction; Hazard Analysis and Critical Control Point (HACCP) Systems took effect in July of 1996. This initiative is the most sweeping change in meat and poultry

***"When your last crop is asphalt,  
you've plowed under a food producing  
natural resource--a farm."***

*C. P.*

Van Burgess  
Deputy Commissioner  
Utah Department of  
Agriculture and Food



inspection since it's beginning, more than 90 years ago. The new, HACCP-based system is a framework based on sound scientific principals. The focus of the program is to require the reduction, minimization, or elimination, of micro organisms in raw products leaving inspected establishments.

#### **Animal Identification**

The bureau was very involved in helping legislative research write a new elk farming law that was passed by the 1997 legislature. The bureau will be asked to regulate this new industry which will allow the farming of domestic elk on an individual's private ground.

Renewal of some 20,000 livestock brands and earmarks was accomplished in 1996. As mandated by law, the process occurs every five years in order to keep brands current. An improved renewal notice system contacted every brand or earmark owner early in the year.

#### **Ground Water/Pesticide Protection Program**

The EPA offered the UDAF special praise for establishing the region's first Ground Water State Management Plan. The program is a new regulatory mechanism under FIFRA to prevent pesticide contamination of the nation's ground water resources. The pesticide management plan is a state program that has been developed through cooperative efforts of the UDAF with various federal, state and local resource agencies. The plan includes an assessment of risks posed to the state's ground water by a pesticide and a description of specific actions the state will take to protect ground water resources from potentially harmful effects of pesticides.

#### **Chemistry Laboratory**

Commissioner Peterson appointed Dr. David H. Clark as State Chemist and Director of the State Laboratory after the retirement of State Chemist, Ahmad Salari.

The Dairy Microbiology Section has successfully obtained full certification by FDA on all twelve methodologies that were evaluated. This year all analysts received 100 percent correlation on all methods submitted and continue to show excellent performance on their methods. In the spring of 1996, the section was able to adapt new methods to help Gossner Foods, Inc. of Utah with their export requirements of UHT milk to Hong Kong. By testing the product in-state, the process of exporting was expedited and cost was reduced.

#### **Legislative Action**

Deputy Commissioner, Van Burgess assisted Utah Legislators in 1997 as lawmakers considered and acted on numerous agriculture-related bills. Listed below is some of the legislation

that most affected farmers and ranchers. **HB-25 Public Water Supply Agency** - Iverson - Allows the State Engineer to extend time to put water applications to beneficial use for public water supply agencies. **HB-33 Designation of State Fruit** - Hunsaker - Designates the cherry as the official state fruit. Highlights the cherry industry and the importance of agriculture generally. **HB-57 Penalty for Theft of Animals** - Butters - Increases penalty for release of mink and other livestock to a felony. **HB-90 Elk Farming** - Johnson - Authorizes elk farming in Utah and prescribes strict regulation of such activities to protect wildlife populations and livestock. UDAF is responsible for animal health issues. **HB-98 Local Taxing Authority** - Valentine - Modifies the business license fee and taxing authority of municipalities. **HB-131 Diligence in Water Claims** - Styler - A bill that modifies the notice requirement for filing diligence claims. **HB-174 Immunity to dam Owners** - Johnson - Protects dam owners from liability for associated recreational activities when no fee is charged. **HB-216 Rural Health Care Provider Amendments** - Hammond - requires Health Maintenance Organizations to pay for medical services rendered to an enrollee by an independent hospital, federally-qualified health center or credentialed staff member located in a county. **HB-275 Wildfire Suppression Fund Amendments** - Gowans - Clarifies responsibility of state fire control agency and expands purposes for which such funds can be used, giving more flexibility to counties. **HB-289 Cougar and Bear Depredation Loss** - Evans - Moves depredation payment program from 50 percent of value of livestock lost to cougar and bear to 100 percent, and moves funding to the general fund and away from DWR funds. **HB-290 Appropriation for County Land Use Planning** - Iverson - Appropriates \$150,000 to Office of Planning and Budget to be distributed to Southern Utah University to conduct workshops on county land planning and to southern Utah counties for matching funds for training. **SB-361 USU Pasture and Forage Initiative** - Anderson - Appropriates \$125,000 to the USU Agriculture Experiment Station to initiate a research and education program to benefit the livestock industry and improve productivity of pastures in the state. **HB-366 Soil Conservation District Elections** - Brown - Redefines election procedures for soil conservation districts to insure landowner interests are protected on such boards. **HB-381 Agricultural Protection Areas** - Butters - Makes procedural modifications to the Agriculture Protection Area Act. **SB-12 Underground Coal Mining Water Replacement** - Dmitrich - Requires coal mining operations to replace any water right interrupted or diminished by coal mining. **SB-35 Department of Agriculture and Food Name Change** - Blackham - Changes the name of the Department of Agriculture, and Commissioner of Agriculture to add the word food. **SB-36 Income Tax Credit for Energy Savings** - Evans - Reinstates an income



tax credit for energy efficiency activities for residential and commercial purposes, including agriculture. **HB-203 Agriculture Protection Areas** - Blackham - Clarifies provisions of the agriculture protection areas statute to make it easier to establish protection areas. **SB-253 Motor Fuel Tax Increase/Sales Tax Decrease/Environmental Surcharge Transfer** - McAllister - A combination of tax bills, increases the motor fuel tax by five cents per gallon, reduces the state sales tax by 1/8 cent, and transfers 1/2 cent motor fuel tax from the environmental surcharge for underground storage tanks to the motor fuel tax formula.

#### **Century Farms and Ranches**

The Century Farms and Ranches Program received 33 applications for inclusion in the program during 1996-97. This is the second year of a continuing program to honor family ranches and farms in Utah that have been operating for 100 years or more. Owners are scheduled to be recognized during ceremonies at the State Fair in Salt Lake City. Applications for inclusion in the program are available from the UDAF or the Utah Farm Bureau.

#### **Foundation For Agriculture In The Classroom**

Teaching Utah's youth to understand and appreciate farming and ranching is the goal of this program. Teachers use a handbook written for kindergarten through sixth grade which ties agricultural demonstrations, experiments and lessons to the core curriculum. The program is a partnership between the Foundation and Utah State University Extension Service. Highlights for 1996-97 are:

Developed a highly informative web site on the Internet that offers virtual field trips, valuable resources for teachers, the AITC quarterly newsletter, and other information. The address is: <http://ext.usu.edu/aitc>. An eight page newsletter containing information about agriculture, classroom activities and a kids page is published and mailed to teachers three times a year. The program reaches more than 1200 teachers in 352 Utah schools. Four different teacher in-service courses are offered that correspond to the Utah State Office of Education core guidelines. The program also offers an informational kiosk for children and adults at Thanksgiving Point in Utah county.

#### **Agricultural Investigation and Compliance**

The department's Compliance Specialist, working with the Attorney General's Office, investigates violations of department statutes and rules. The specialist works with UDAF division directors enforcing actions resulting from administrative hearings.

The Agriculture Investigator also works with the Animal Damage Control (ADC) program carrying out predator control on public and private rangelands. The program protects Utah livestock and wildlife. The program is affected as regulatory challenges of

federal agencies arise -- predator control suffers and livestock losses increase.

A major responsibility is to protect Utah producers and consumers by licensing and bonding all individuals who buy and sell agricultural products.

In 1996 the Compliance Specialist successfully investigated, and helped bring to justice, several individuals charged with defrauding a Colorado livestock investing company.

#### **Public Information Office**

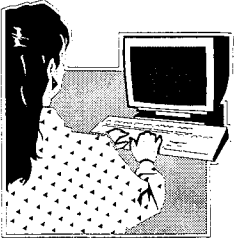
The timely flow of information to agriculture producers, the general public, news media and State employees is vital to the goals of the department.

The UDAF went on-line in 1996 with its official Internet web site: [www.ag.state.ut.us/](http://www.ag.state.ut.us/). The site is designed to offer the most up-to-date agriculture-related information to farmers, ranchers and consumers. The site gives readers access to many UDAF documents, regulations, manuals, and other helpful information. It also offers links to hundreds of other sites containing consumer, environment, weather, and technical information. In the future the site will allow the public to conduct business with the department via computer.

The UDAF employees committee joined with the Public Information Office to celebrate National Agriculture Week in March by sponsoring a special luncheon. Made in Utah agricultural products were served to guests who included members of Governor Leavitt's office, legislators, UDAF employees, and students from Backman Elementary School. Several Backman students voiced radio spots that promoted Utah agriculture and National Agriculture Day.



*Teacher Vickie Pentz demonstrates the differences between various feeds and seeds to Morgan County elementary school children during one of the many farm field days offered by the Agriculture in the Classroom program.*



# Administrative Services

Renee Matsuura  
Director



The goal of Administrative Services is to provide continuous, efficient and high-quality administrative support and services to the public and to agency users to assist the overall development of agriculture in Utah.

## Information Technology Section

The Information Technology Services Section of Administrative Services established a department web site to make information easily accessible from the Internet.

The site's address is, "www.ag.state.ut.us". It now has information on market news, licensing, regulatory requirements, brands, consumer information, and many other topics. The site was developed and enhancements to add graphical images to attract visitors to our web site. In January we placed a counter on the system to evaluate the number of visitors to the home page. We found that thousands of people have visited the site.

UDAF field inspectors throughout the state have jumped into the fast track of technology by using laptop computers to generate reports and receive on-line e-mail messages from the main office. Our goal is to directly download the information gathered by inspectors into the department's main computer. The home page is like a seedling that continues to grow, so you can expect new information that will be available to you.

Agriculture's Information Technology section has developed a new pesticide applicator exam that will enable pesticide applicators to take their tests on a computer at several locations throughout the state. The system replaces the manual paper tests. Currently applicators are being certified in Salt Lake, Provo, Richfield, and St. George. Sites in Ogden, Brigham City and other locations will be available at the beginning of next year. This program was written while the programmer was on a pilot telecommute program for the department which is the wave of the future regarding how employees are able to accomplish their job duties. The programmer telecommutes once a week and his work productivity has increased 100 per cent.

During 1996, the department's GIS (geographic information system) went from concept to reality. The UDAF is now able to produce high-quality maps and spatial data using the latest in hardware and software. Some of the GIS projects undertaken in the past year include: mapping important farmland for several Utah counties, using GPS (Global Positioning System) to locate and map ground water sampling sites throughout the state, pinpointing the locations of noxious weeds along roadsides in Central Utah, and mapping of insect trap site locations along major Utah highways. Many other projects are planned for 1997.

## Human Resource Management

The state has been in the recruiting business now for a year using the Utah Skills Match. Applicants have been sending in resumes with the hopes the skills on their resumes match the job standards and experience required for the position. We are scheduled to become a "paperless" office later this year by eliminating unnecessary tasks, enhancing employee transactions, shortening the length of time required to complete each business function regarding personnel actions. The department offered and completed a time-management class for all interested employees, and continues to provide educational assistance to our workers.

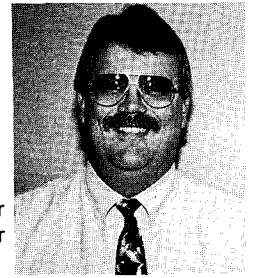
The department created a Commute/Telecommute/Work Schedule (CTS) team to research and analyze commute, telecommute and work schedule options. The team performed very well under a quick deadline. It made the following recommendations: The department offer telecommuting to employees as a means to accomplish their work from home, purchase UTA ECO passes for department employees, reimbursing employees ½ the cost of other mass transit used and implementing alternative work schedules. This was in line with the Governor's directive to reduce pollution and congestion along the Wasatch Front and provide greater flexibility in scheduling employees to curtail traffic congestion during the reconstruction of I-15, and meeting our goal to maintain a high level of work and customer service.

## Financial Services

Continuing to provide exceptional customer service is our motto. The administrative services division reorganized staff to meet the Governor's challenge of taking our service to another level. Employee positions and job duties were evaluated to find ways to better service internal and external customers. We are cross-utilizing employees and have improved payments to vendors. Another area of focus was to improve turnaround time of travel reimbursements to employees. Since we have been able to enter them on-line, the turnaround time is now a week instead of three to four weeks. In the fall of 1997 the Division of Administrative Services will face the challenge of implementing and using a new accounts receivable program. We will also begin using the Windows 95 computer program which will require more training for our staff as we prepare to meet the challenges facing us in the future.



# Ag. Marketing & Conservation



Randy Parker  
Director

The goal of the Division of Agriculture Marketing and Conservation is to assist in the economic development of production agriculture and to protect and enhance the state's natural resources. The division works with agricultural producers and agribusinesses in expanding markets, adding value to locally grown commodities, developing new products and promoting in-state value-added processing for local, national and international markets. In addition, the division works with farmers and ranchers to protect and enhance the soil and water resources through soil and water conservation and water quality programs.

### Agribusiness Council

The Governor's Agribusiness Development Council serves as a bridge between UDAF and the Department of Community and Economic Development. It is the catalyst for developing and implementing strategies for adding value to Utah's agricultural commodities and strengthening the rural economy. The council assisted in publishing the first *Utah Food And Agriculture Directory* to help local processors identify local suppliers. In addition, the directory helps the division promote the wide array of Utah food and agriculture to national and international markets. Members of the council represent production and processor sectors and are helping focus on new technology, innovation, niche market development, and the finance problems facing food and agriculture.

### Food and Agriculture Exports Post Record in 1996

Utah food and agriculture producers and processors set an export record in 1995-96, rising to \$280 million. This represents the fifth consecutive record. Utah has one of the fastest growing agribusiness export industries as global customers discover the wide range of high quality products available in Utah. A growing market for Utah's high-value food products is the Pacific Rim. Livestock and livestock products continue to pace Utah export growth, with dairy products, alfalfa hay, fruit and poultry doing well.

### International Market Development

The division has focused on assisting agriculture and food manufacturing in global market development. Working with the 12-member state Western U.S. Agricultural Trade Association (WUSATA) and the U.S. Department of Agriculture's Foreign Agriculture Service (FAS), the division has assisted value-added food manufacturers in identifying opportunities and strategies for international market development.

As a member of WUSATA, the division has been involved in a number of export programs and initiatives. Utah consumer-ready food processors are eligible to access Congressionally appropriated Market Access Program (MAP) funds, a cost sharing

program that assists in international market development. During fiscal year 1996-97, six Utah companies were approved for more than \$170,000 in matching funds. In addition, the division manages projects in Hong Kong and Japan where companies from Utah and the western region are eligible to participate.

The division also participates in U.S. Livestock Genetics Export, Inc., (USLGE) to assist Utah livestock producers in developing export markets for sheep, beef and dairy cattle. Through MAP funding--provided by USLGE--we have participated in trade missions that have brought cattle buyers from Northern Mexico to Utah ranches.

This past year we have worked with a number of international guests interested in promoting and/or developing export trade with Utah. We hosted a Southeast Asia delegation from the Cochran Fellowship program where food industry representatives from Singapore, Malaysia, Thailand, and the Philippines met with Utah food processors for a match-making opportunity. Representatives of Japanese trading companies Nissho Iwai and J. Osawa met with Utah companies interested in that market.

The division coordinated Utah and regional participation in the "Great American Food" promotion in Hong Kong's GrandMart Club Stores. Gossner Food's shelf stable milk, Clover Club potato chips, and Salt Lake Nut Company were featured in the promotion. In an effort to introduce and expand the Hong Kong market.

In December, Kiyoshi Ide, Governor of the American Chamber of Commerce visited Utah as part of a western U.S. tour. His focus was to discuss opportunities for American food companies in Japan, trade liberalization and dietary supplements exports.

In conjunction with WUSATA and FAS, the division has featured educational opportunities for Utah agribusinesses. We held two export readiness training sessions to help companies formulate strategies and identify target countries. Two seminars were held that focused on the growing markets in South China and Japan. The seminars also helped identify resources for export financing and payment methods.

### Great American Food Shows

The division works with U.S.D.A. Foreign Agriculture Service to introduce Utah's high-quality, consumer-ready food and agriculture products to the world through the Great American Food Shows. Utah companies interested in developing global markets are able to display products to prospective consumers, importers, wholesalers, and retailers.

Utah food manufacturers successfully participated in major shows including: SIAL, held in Paris, France the second largest in Europe attracting 120,000 people; FOODEX Tokyo that attracted 90,000 people; Food Marketing Institute's AsiaMart -

Hong Kong that attracted 6,000. At AsiaMart, the division managed an eight-booth WUSATA pavilion that included Cookie Tree Bakeries and Clover Club Snack Foods from Utah.

For the first time, a Utah pavilion was established at U.S. Food Export Showcase held in Chicago. Sponsored by the National Association of State Departments of Agriculture, the show is fast becoming the premiere food show in the U.S. Participants and their products at Food Export Showcase included: Zion View Ostrich - ostrich products; G & H Lapin - rabbit; AFI - Flashgril'd steaks; McFarland's Foods - chicken bacon; and Clover Club - snack foods.

### **Marketing**

The division continues to assist companies in developing markets locally, nationally and internationally to add value to Utah-grown commodities. To assist in this effort, a marketing facilitator was added to the staff to help develop marketing tools and strategies for market development. The division distributes the *Utah Hay Directory* to promote the high-quality hay grown in Utah. The *Utah Food and Agriculture Directory* was developed to promote the fast-growing food processing industry and draw attention globally to Utah.

### **Product of Utah**

The Product of Utah program is designed to identify Utah grown and produced products to local consumers. It emphasizes a wide range of agriculture and food products, however in recent years attention has grown regarding Utah sports and recreation. Utah's worldwide focus as an outdoor destination has stimulated a broader use of the logo as people come to Utah for hunting, biking, camping, etc.

The program continues to grow and currently has approved use of the logo for over 200 Utah businesses. The division has used an advertising campaign featuring Governor Michael Leavitt and Commissioner Cary Peterson urging Utahns to "Buy Products of Utah".

### **Market News Reporting**

The Market News Section provides a vital service to the state's agriculture and agribusiness community. Market information, critical to making business decisions, is provided through print media, broadcast media, call-in, a weekly mail market summary and the most-up-to-date information on the department's world wide web site. There are currently over 435 subscribers to the weekly Market News Report. Division personnel or contract reporters monitor auctions in Cedar City, Salina, Spanish Fork and Ogden. In addition, marketplace data is gathered for the weekly hay report. The information includes both buyer and seller data to provide an unbiased report.

### **Junior Livestock Shows**

The division administers the Legislature's mandated and funded program that assists the state's junior livestock shows. To receive funds, each show must agree to comply with the Junior Livestock Show Association rules that provide an educational opportunity for youth participants on a state-wide basis. The funding provided by the legislature must be used for awards to

FFA and 4-H participants and not for other show expenses. During the past year, 18 junior shows were awarded funds to assist in this youth development program.

### **Utah Horse Racing Commission**

The 1992 Legislature provided the statutory responsibility for the division to establish a regulatory structure for Utah's horse racing industry and the associated tracks. The five-member Racing Commission appointed by Governor Leavitt oversee the state's sanctioned tracks. This authority provides the mechanism for recognition of race times by the American Quarter Horse Association. During the past year more than 40 percent of the horses received a Rating of Merit (ROM), an index that establishes horse values and stud fees. Without this official sanctioning body for Utah quarter horse races and the recognized time indexes, millions of dollars of value would be lost to the Utah horse racing industry.

The Commission established a split sample rule, requiring tracks to hold a portion of the blood or urine sample, when possible, for later analysis if necessary. A highlight of the 1997 race season was the approval of new track facilities in St. George.

### **Water Quality**

The division's Environmental Quality Section administers Utah's Non-Point Source (NPS) pollution control and prevention program. This section works closely with the Utah Division of Water Quality and is partially funded through a federal grant from the Environmental Protection Agency. Projects are also supported by matching funds from state and local government agencies and private sources. The program is divided into several parts: watershed management projects, which are on-the-ground conservation efforts; and the development of public information and educational material such as, newsletters, brochures, and videos.

The NPS water pollution control program continues to make great strides in priority watersheds throughout the state. Since 1990 more than \$5 million has been directed toward stream bank stabilization, animal waste storage facilities, revegetation, and other work in the Little Bear River watershed in Cache County. This work has decreased water pollution and increase fisheries habitat in the watershed. Similar efforts continue in Otter Creek in Piute and Sevier counties, as well as in Chalk Creek in Summit County. The Beaver River watershed water quality project in Beaver County is still in its early stages. A coordinated resource management plan for this watershed is expected to be completed during the summer of 1997 which will serve as the catalyst for full fledged water quality protection efforts for the Beaver River watershed. The technical expertise and funding from various state and federal government agencies; state, local, and private matching funds and participation and support by local farmers and ranchers have all been critical in carrying out this program

A CD-ROM computer program designed to teach watershed management skills to students and landowners is now available. The program includes several short video clips about the best management practices and successes in Utah's NPS program.



### **Ground Water and Rangeland**

The department is now involved in monitoring two resources that have a great impact on agriculture - ground water and rangeland. The State Ground Water Program checks ground water quality throughout the state as requested by local conservation districts. The primary focus of this program is to check irrigation and livestock water quality, with single family wells also being evaluated. The data helps farmers and ranchers in their efforts to increase production and water quality.

Rangeland is a major resource in the state. With a large portion of the rangeland suited for grazing the UDAF is now a primary player in the Range Monitoring Program. UDAF works closely with the Division of Wildlife Resources in monitoring range conditions and trends. This program provides rangeland condition data to ranchers helping them make good decisions.

### **Soil Conservation**

The two major objectives of the Soil Conservation Section are: 1) to help empower Utah's private land managers to direct the local-state-national land and watershed conservation and development partnership programs; and, 2) to help slow the loss of Utah's prime and important farmland. To accomplish these objectives, financial and administrative support is provided through the section to Utah's 38 Soil Conservation Districts (SCD), the Utah Soil Conservation Commission, and Utah's Partners for Conservation and Development.

The five member boards of SCD Supervisors are locally elected by private land managers. SCDs deliver, at the local level, state funded soil conservation initiatives such as the Agricultural Resource Development Loan (ARDL) and technical assistance programs.

Millions of matching grant federal dollars each year come to Utah's private land managers for soil and water projects. SCDs also have significant involvement with state water and wildlife programs at the local level.

Approximately \$845,000 of legislatively appropriated and ARDL fund fees were made available to SCD Boards and Supervisors, and the UACD through UDAF for FY97. Of this, 32 percent was new appropriations for SCDs and UACD to enhance local initiatives to protect critical agricultural and watershed lands from the negative impacts of poorly planned growth. In addition to these dollars, SCD Supervisors, and their volunteers, donate many hours to carry out their various conservation programs.

The Utah Soil Conservation Commission (USCC) directs and coordinates the state's soil conservation programs. It sets policies for SCDs and the ARDL program, and it allocates state funding to conservation programs. It is a 12-member state board. Eight members are private land manager representatives from throughout Utah who are SCD Supervisors. The other four members are agency heads from: USU Extension; and, the state departments of Natural Resources, Environmental Quality, and Agriculture. This division's soil conservation section is the primary administrative support for the USCC.

In addition, the section participated with Utah Partners for Conservation and Development activities especially the Partners Action Team and Education Work Group. The partnership is a cooperative effort to make all entities working in soil and water conservation more productive.

### **Agricultural Resource Development Loans**

Low-interest ARDL loans are available through the Utah Soil Conservation Commission in cooperation with the division's program. ARDL loans are made for a maximum term of 12 years at 3 percent interest with a one-time technical assistance fee of 4 percent. The objectives of the program are to: conserve soil and water resources; increase agricultural yields for croplands, orchards, pasture, range and livestock; maintain and improve water quality; conserve and improve wildlife habitat; prevent flooding; conserve and/or develop on-farm energy; and reduce damages to agriculture as a result of flooding, drought or other natural disasters.

The Legislature appropriated \$130,000 in FY 1996-97. The ARDL program currently has more than \$22.9 million in assets and more than \$14.2 million out in loans. More than \$36 million has been advanced for improvement projects by the ARDL program since its beginning. The program continues to grow from interest collected on revolving loan funds. There are approximately 950 individual loans outstanding in the program.

### **Rural Rehabilitation Loans**

The Rural Rehabilitation Loan Program is another source of low-interest loans for farmers and ranchers. The purpose of this program is to help those who want to buy, begin or improve an agricultural operation but who have trouble getting conventional financing. The current interest rates for these loans are from 5 to 6 percent. Total assets for this fund are more than \$3.4 million with \$2.8 million out in 69 individual loans. Delinquencies in both loan programs are very low and are under 2.5 percent.

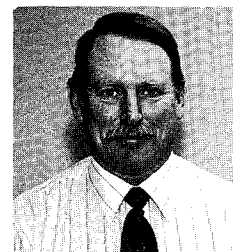
Both loan programs have successfully provided assistance to many farmers and ranchers in implementing conservation improvements and practices they otherwise could not afford. In addition, the program coordinators have worked conscientiously to protect the integrity of the program through monitoring, collection procedures and adequate collateral.

### **Petroleum Storage Tank Loans**

In addition to the agriculture loans, the division manages the Petroleum Storage Tank Loan program in cooperation with the Division of Environmental Response (DERR) of the Department of Environmental Quality (DEQ). The division is responsible for underwriting, closing, documenting and accounting for the loans, and DERR approves the bids, inspects the projects and controls the funding. The program was created by the Legislature to make funds available to upgrade underground storage tanks according to the Utah UST Act. The applicants are mostly small petroleum retailers whose businesses are in rural areas of the state. The program provides for secured loans of up to \$45,000 to finance up to 80 percent of the costs of the individual projects. Terms permit loans of up to 10 years at 3 percent interest and no fees. The program is important in that it allows many small businessmen to remain in business despite the expense of complying with environmental laws and regulations. The level of loan activity is steadily increasing. The \$2 million fund is also a revolving fund with loan repayments expected to available to fund future loans.



# Animal Damage Control



Mike Bodenchuk  
Director

Every year, Utah wool growers lose millions of dollars due to predation. Cattlemen are suffering fewer losses but they still experience costly losses to coyotes, cougars, black bears, and other predators. Annual livestock losses to predators in Utah cost producers, and ultimately consumers, about \$3 million, even with a predation control program in place.

To help reduce this drain on the state's economy, the U.S. Department of Agriculture and the Utah Department of Agriculture and Food conduct a cooperative program called Animal Damage Control (ADC).

The cooperative program, which includes 18 state hunters and 16 federal employees, is held up as a model of cooperation throughout the nation.

Environmental assessments, finalized in 1996, addressed possible environmental consequences resulting from the program. While no significant environmental impacts were noted, changes were indicated which allow ADC to better accomplish its mission while protecting both agricultural and natural resources. The alternatives selected allow ADC to include protection of wildlife species, notably mule deer and endangered species, when conducting predator damage management activities.

The program is financed jointly, with the federal government paying about half the costs and state government and livestock producers paying the balance. In Utah, livestock owners pay a fee, nicknamed a "head tax", set by state law. Collection of the head tax changed in 1996 from a billing system to automatic payment at the point of sale. For sheep, the tax is withheld from proceeds of raw wool sales. For cattle, it is collected during the brand inspection. The fee for turkeys is paid by grower cooperatives. The change in collection process has allowed stable funding for the ADC program, and in 1996 we were able to fill two long-standing vacancies in the state work force.

The objectives of the program are to minimize livestock and wildlife losses to predators on private, state and federal lands. ADC carries out this objective by removing predators when they cause damage. The program targets only offending animals or populations of offending coyotes.

Methods are used as selectively as possible to minimize impacts to other wildlife. Methods used to control coyotes include aerial hunting, calling and shooting, trapping, denning, M-44 cyanide ejectors, and livestock protection collars. Cougar and black bears also pose a serious problem to livestock producers in portions of the state. Control of predation by these two species is coordinated through the Utah Division of Wildlife Resources, and is limited to offending individuals only. Once predation is confirmed the offending predator may be removed if it is determined that it poses a continued threat to livestock in the area.

State law allows partial payment to livestock owners for confirmed losses caused by bears or cougars. ADC employees assist by confirming the vast majority of depredation by these species.

The results of a three year study by Utah State University (USU) on the effects of winter aerial hunting has shown a positive effect in reducing predation by coyotes. Aerial hunting sheep summer range in mid to late winter effectively reduced predation, reduced the need for ADC manpower, and reduced the potential for conflicts with other forest users during the grazing season. ADC provided valuable information and assistance to the study.

ADC also assists producers in developing non-lethal methods for reducing predation. ADC is cooperating with USU in monitoring the use of llamas for deterring predation on sheep. Alternatives, such as radios on the bed grounds, regular movement of sheep herds and the like are regularly recommended by ADC specialists and implemented by the producers.

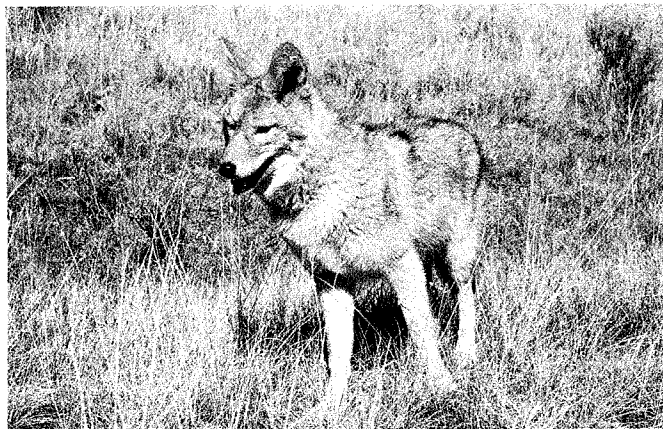
Protection of the state's deer herds began in 1996. Through a coordinated effort, deer fawning range was protected in 13 deer management units where fawn survival was determined to be very low. ADC will continue to coordinate this effort which assists the state in achieving its wildlife management goals.

Human health and safety concerns are also addressed by the ADC program. ADC specialists addressed numerous human safety concerns involving predators, birds and small mammals.

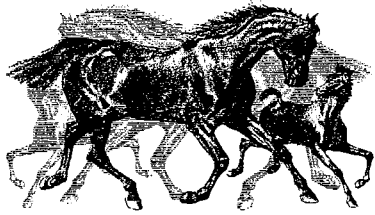
Even with the ADC program in place, losses due to predation were crippling to the livestock industry. With changes in the program, ADC is better equipped to address these losses.

## UTAH SHEEP LOSSES TO PREDATORS - 1996

Predator	Sheep	Lamb
Coyote	4,300	19,600
Cougar	2,000	6,500
Bear	1,300	1,600
Eagle	--	1,500
Total	7,600	29,200



*ADC also assists producers in developing non-lethal methods for reducing coyote predation such as the use of llamas to protect livestock herds.*



# Animal Industry

Dr. Michael R. Marshall  
Director



The Animal Industry Division of the Utah Department of Agriculture and Food contains five main bureaus or categories:

- 1) Animal Health, with special attention to animal diseases that can be transmitted to humans.
- 2) Serology Laboratory, testing of animal blood for disease detection and control.
- 3) Meat and Poultry Inspection, to assure wholesome products for consumers.
- 4) Animal Identification (brand registration and inspection) to discourage livestock theft.
- 5) Fish Health, protecting the fish health in the state and dealing with problems of fish food production and processing.

Major accomplishments in these areas during the past year are as follows.

## Animal Health

Disease free status was maintained in the following disease categories:

- |               |                       |             |
|---------------|-----------------------|-------------|
| * Brucellosis | * Tuberculosis        | * Scabies * |
| Pseudorabies  | * Salmonella pullorum |             |

Extensive monitoring revealed no further outbreaks of avian influenza or vesicular stomatitis in 1996, as experienced in 1995. Monitoring programs continued from prior years include those for dog heartworm, equine encephalitis, rabies, brucellosis (undulant fever), tuberculosis, pseudorabies, salmonella sp., mycoplasma sp., psittacosis (parrot fever), etc. A survey of all the major egg laying establishments in the state was negative for salmonella enteritidis. This was performed as a joint response by the UDAF and the Utah Department of Public Health in response to a salmonella enteritidis outbreak in humans.

Division veterinarians met on a regular basis with the various livestock enterprise groups, farm organizations, veterinary associations, and other groups in the state. The department veterinarians monitored livestock imports into the state by reviewing 9,949 certificates of veterinary inspection and several hundred livestock movement reports filed at the ports of entry. Approximately 200 violations of Utah Import Regulations were investigated, four quarantines were issued and six citations were given with fines of \$498 collected.

Exotic animals and domesticated animals that were traditionally wild consume an increasing portion of department resources. Animals such as bison, elk, ostrich, emu, game birds, exotic pets, etc. are all experiencing increasing popularity. The department continues to monitor disease problems that are peculiar to these various animal populations. The department was heavily involved

in making recommendations for establishing disease and herd controls in the current legislation establishing domestic elk farming as a valid industry in Utah this year. The responsibility for implementing these controls will fall with the Animal Health and the Animal Identification Bureaus beginning in 1997.

The Animal Health Bureau has also become involved in the animal food industries of Utah. We have been asked by the brine shrimp industry in recent years to aid them in exporting their product to foreign markets by certifying their shipments in compliance with the import requirements of the various countries. In doing this, division veterinarians have conducted 34 inspections of brine shrimp facilities and issued 468 export certificates. A similar program in the dog jerky industry has been the impetus of 65 inspections of facilities and issuance of the appropriate export/import certificates.

Animal Health has the responsibility of providing veterinary supervision and service to the livestock auction markets in Utah in furtherance of our disease control and monitoring programs. The program is administered by division veterinarians and private veterinarians on contract with the state. More than 500 sales promoted by 11 licensed and bonded sale yards in the state were serviced on a weekly basis under this program.

Several national disease prevention programs are administered by Animal Health personnel. Among these are the National Poultry Improvement Program, as well as brucellosis, tuberculosis, pseudorabies, and other programs already mentioned. A National Pork Identification program is set for implementation in 1997.

## Meat and Poultry Inspection

The Meat and Poultry Inspection Bureau has experienced some significant increases in quantity of services to meet the demands of the meat and poultry industry. In the past year, four meat and poultry packing establishments have applied for and have been granted inspection services. These increases in inspection requests have been made without increasing personnel. This has been accomplished through efficient scheduling of the inspection work force utilizing the performance based inspection system; a computer program initiated last year.

The bureau has entered the first phase of Hazard Analysis, Critical Control Point (HACCP) system of inspection. This first phase concentrates on sanitation standard operating procedures. This is a dramatic move from the command and control philosophy which has been the norm in the past. With this new system, the meat and poultry establishment owner develops a sanitation operating procedure which is a document stating what will be done, how it will be done, and who will do it. This is a departure from the past where inspection took the responsibility of making sure the packing plant followed the required sanitation steps. With

the new system, the inspector will monitor and evaluate the effectiveness of the sanitation plan that has been developed as well as the management of meat and poultry packing establishments. Only if the plant fails to follow their own written procedure or take the appropriate action will the inspector take control of the situation to assure proper sanitation is maintained. HACCP inspection is not, at the present time, a mandatory program but will be the scientific basis for inspection in the future. Many of the meat and poultry producers have initiated HACCP programs in their plants. HACCP training has been provided for many of the inspection personnel in the bureau. This program identifies the critical control points, though the production process, at which product is most likely to become contaminated or adulterated. Training is a vital part of meat and poultry inspection and was given top priority in the development of all inspectors. The bureau established a training program that is certified as equal to that of the federal program.

In order to achieve compliance with the law and regulations the bureau has initiated three administrative hearings. These hearings have resulted in administrative settlement agreements which have achieved the desired effect--compliance with the law.

#### Serology Laboratory

In 1996, the state-federal cooperative laboratory conducted the following tests:

Brucellosis serology tests	58,419
Brucellosis ring tests (milk)	8,795
Rivenol brucellosis confirmation tests	298
Equine infectious anemia tests	344
Other miscellaneous tests	16

The laboratory also dispensed a total of 126,050 doses of brucella strain 19 vaccine. In addition, 53 vials of tuberculin test reagent were dispensed.

The laboratory staff and the animal health section issued 1,858 import permits for livestock, poultry and other animals.

#### Animal Identification

The Livestock (Brand) Inspection Bureau consists of 12 full-time "special function officers" and 50 part-time inspectors. Their job is to protect the Utah livestock industry from theft of livestock. In addition to inspecting all cattle and horses at the state's 10 weekly auctions, field inspections are done on all livestock prior to changing ownership, leaving the state, and going to slaughter. During 1996 just less than 700,000 individual cattle and horses were inspected with \$1.1 million worth of livestock returned to their proper owners.

Renewal of some 20,000 livestock brands and earmarks was accomplished in 1996. As mandated by law, the process occurs every five years in order to keep brands current. An improved renewal notice system contacted every brand or earmark owner

early in the year. When notices were returned the department issued a laminated wallet-size "proof of ownership card." The ownership card is intended for use during travel and when selling animals at the auctions. The department produced a centennial edition brand book in the spring of 1996, listing all brands recorded. This book is available to the public at a cost of \$25. Many ranchers are switching their brand from rib to a hip position to help reduce hide damage. In addition to the renewal process, the bureau recorded 816 new brands during 1996.

The brand department started collecting the cattlemen's part of predator control money in 1996. Starting in October of 1995, livestock inspectors started adding a 25 cent per head fee to the brand inspection when calves or cull cows were sold. This money, like the beef promotion money which has been collected by the brand inspectors for many years, will simply be forwarded to the Animal Damage Control program for its use. During 1996 \$96,000 was collected by the brand bureau. Sheepmen will continue to have their allotment collected by the wool houses and forwarded to the department.

In an effort to assist and give training to the state's port-of-entry personnel, a livestock inspector was assigned to work monthly in each port-of-entry. These inspectors are authorized and equipped to chase down those livestock transporters who ignore the signage requiring all livestock hauling vehicles to stop. This is an effort to help prevent diseased animals from entering, and stolen animals from leaving the state.

A new computer program has been developed to reduce the turn around time to complete horse lifetime travel permits.

The bureau was very involved in helping legislative research write a new elk farming law that was passed by the 1997 Legislature. The Brand Bureau will be ask to regulate this new industry which will allow the farming of domestic elk on an individual's private ground.



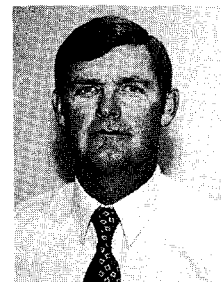
*The 1997 Elk Farming legislation gave the Division of Animal Industry the responsibility of regulating the health of domestic elk on new farms in the state. The division's Brand Bureau will also monitor elk identification.*





# Chemistry Laboratory

Dr. David H. Clark  
Director



The Utah Department of Agriculture and Food Chemistry Laboratory operates as a service for various divisions within the department. The laboratories provide chemical and microbiological analyses.

The majority of the samples analyzed are collected and forwarded by various field inspection units from the Division of Plant Industry, Division of Regulatory Services, and Federal and State Meat Inspection Programs.

The Chemistry Laboratory examines, checks and analyzes product content regarding proper labeling to protect the consumer, farmer, and industry against misbranded, adulterated and poor quality agricultural products.

Feed, fertilizer, meat, and meat products, pesticide formulation, pesticide residue, and filling material in bedding, garments, and furniture are tested for specific ingredients as stated by label guarantee. Products are also examined for the presence of undesirable materials, such as filth, insects and rodent contamination, adulterants and inferior product.

The Dairy Microbiology Laboratory tests in four major areas: Grade "A" raw milk, industry laboratory certification, quality milk and consumer products. This section is certified by FDA to test for bacteria numbers, coliform counts, somatic cell counts, antibiotics, proper pasteurization, fat content, and addition of water.

The Meat Laboratory analyzes meat and meat product samples obtained during regular inspections of plant and processing facilities to conform to USDA standards.

The Pesticide Formulation Laboratory is primarily concerned with testing agricultural pesticides such as weed killer, insecticides, rodenticides, and fungicides to see that labeling and active ingredients are proper.

The Pesticide Residue Laboratory tests and detects levels of insecticides, herbicides and fungicides in plants, fruits, soil, water and milk products.

Commercial feed samples are brought to the laboratory where they are analyzed for protein, fat, fiber, minerals, and vitamins.

Ground and surface water are analyzed for possible pesticide contamination that pose an environmental concern to the public.

Fertilizer samples are analyzed for primary and secondary micronutrient content.

Special consumer complaint samples are also examined for the presence of undesirable materials such as filth, insects, rodent contamination and adulterations. Lab analysts verify complaints for possible action by the Department.

## Accomplishments

The acquisition of new equipment for sample preparation of water, milk, plant and soil samples for pesticide residues will help us save money and increase productivity for years to come.

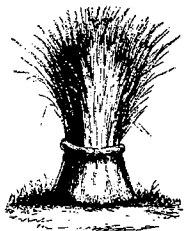
Methods have been developed to use HPLC to measure vitamin A in animal feeds and analysis of potassium in fertilizer samples by atomic absorption (AA). Those methods have saved money by reducing time needed for analysis, eliminated the use of some toxic chemicals, and still produce acceptable results.

The Dairy Microbiology Section has successfully obtained full certification by FDA on all twelve methodologies that were evaluated. To maintain their certification, each analyst must participate in the annual series of split samples sent out twice yearly by FDA. This year all analysts received 100 percent correlation on all methods submitted and continue to show excellent performance on their methods. In the spring of 1996, the section was able to adapt new methods to help Gossner Foods, Inc., of Utah with their export requirements of UHT milk to Hong Kong. By testing the product in-state, the process of exporting was expedited and cost was reduced. The Dairy Microbiology Section also serves as the FDA Central Milk Lab for the State of Utah and through its supervision serving as the State Milk "Laboratory Evaluation Officer" (LEO) has jurisdiction over all certified milk labs within the state. Currently, there are eight facilities listed with 28 analysts under the LEO's jurisdiction. The LEO perform yearly proficiency testing on all analysts by split sample testing and is responsible for on-site evaluation and training of all certified analysts throughout the state.

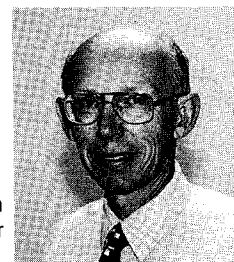
The following is a breakdown of sample analyses performed in the various programs by the State Chemist's Office for the year 1995 and 1996.

	<u>1995</u>	<u>1996</u>
Federal/State Meat	1,444	1,227
State Meat	1,671	1,361
Montana Meat Samples	291	261
Dairy Microbiology	28,633	28,279
Fertilizer	810	890
Feed	1,244	933
Pesticide Formulation	33	3
Pesticide Residue	22	224
Special Samples	76	25
State Groundwater	2,942	4,800
Pesticide Residue in Milk	462	0
<b>TOTAL</b>	<b>37,720</b>	<b>38,003</b>

In addition to the above analytical work, a total of 626 analyses were performed on various check sample programs, an increase of 53.35 percent. Check sample programs are vital and essential for maintaining the quality control, quality assurance, and accuracy of results.



# Plant Industry



G. Richard Wilson  
Director

The Division of Plant Industry is responsible for ensuring consumers of disease free and pest free plants, grains, seeds, as well as properly labeled agricultural commodities, and the safe application of pesticides and farm chemicals.

## Entomology

The Utah Department of Agriculture and Food (UDAF) currently administers nine insect and plant quarantines which require inspection and enforcement by the state entomologist. Effective enforcement demands cooperation with federal agencies and regulatory officials of other states and countries. Quarantines currently in effect are for European corn borer, gypsy moth, apple maggot, plum curculio, cereal leaf beetle, pine shoot beetle, Japanese beetle, mint wilt and Karnal bunt. Karnal bunt was added as an emergency order on March 28, 1996. Karnal bunt, a serious fungal disease of wheat, durum wheat, and triticale has been found in areas of Arizona, California, New Mexico, and Texas. Quarantine enforcement is necessary to prevent serious plant pests from becoming established in Utah where they could cause significant economic losses to agriculture and related industries and to allow for Utah agriculture to participate in domestic and foreign markets.

During 1996, there were approximately 700 state and federal phytosanitary certificates issued under the direction of the state entomologist. These certificates allow Utah agriculture to ship plants and plant products to other states and foreign countries. The state entomologist also responded to more than 400 public requests for professional advice and assistance, such as insect identification, news releases, control recommendations, and participation in various education meetings and workshops.

## Apple Maggot

The apple maggot survey and detection program in Utah requires the efforts of the state entomologist, one full time program supervisor, two field scouts and necessary secretarial help. The program was implemented to provide for our continued participation in export markets. In 1996, 15,000 traps were used in the adult survey. Since the program's beginning in 1985, 141,128 trees (15,681 trees per year) have been removed from uncared for and abandoned orchards. Approximately 912 property owners are contacted annually on orchard spray management techniques.

## Bee Inspection

The Utah Bee Inspection Act provides for inspection of all apiaries annually in order to detect and prevent the spread of infectious bee diseases. Without a thorough inspection program, highly contagious diseases could spread rapidly, resulting in serious losses to the bee industry in Utah with corresponding

losses to fruit and seed crop producers who are dependent on bees for pollination. During 1996, 35,000 colonies of bees were inspected with the incidence of disease below 3.5%.

## African Honey Bee

A new survey and detection program for African Honey Bee in cooperation with USDA APHIS has been in effect for the southern border areas of Utah since 1994. Early detection supported with information and education will be a major defense mechanism against this devastating and alarming insect.

## Cereal Leaf Beetle

Cereal leaf beetle was discovered in Morgan County in 1984. It has since been found in 14 counties of Northern Utah. Because cereal leaf beetle can cause a reduction in small grain production up to 75 percent, and because domestic grain markets require insect free shipments, the UDAF in cooperation with Utah State University conducts an annual survey and detection program for this insect. A cooperative insectary program is also underway for this insect in Cache and Davis Counties.

## Gypsy Moth

Gypsy moths were first found in Salt Lake City in the summer of 1988. Since that time the UDAF has been the lead agency in the administration of a major biocontrol program that has had a 95 percent success rate. Moth catches have been reduced from 2,274 in 1989 to three in 1996. The major benefits of this program are:

1. Cost effectiveness
2. Public nuisance reduction
3. Forest and natural resource protection
4. Watershed protection.

Eradication efforts still show significant progress. No treatment will be done in 1997. Trapping programs will remain vigorous.

## Cricket/Grasshopper

Because of the success with control programs for rangeland insects during 1989-96, the department was able to avoid all major insect control programs on rangeland during 1996, including Mormon cricket.

The 1996 fall rangeland insect survey was completed the last week of August. Information from this survey has indicated that we may have 20,000 acres infested with grasshoppers in 1996, and possibly 4,000 acres infested with Mormon crickets.

### Fertilizer Program

The Plant Industry Division administers the Utah Commercial Fertilizer Act. The division regulates the registration, sale, use and storage of fertilizer products. Fertilizer blenders' licenses are issued by the division. Working closely with the state chemist, we sample and analyzed fertilizers used in the state. The district field representatives help monitor the fertilizer program in the different districts of the state. These field representatives help answer questions related to fertilizer usage and violations that may occur in the fertilizer usage. Whenever hearings are scheduled, the evidence collected by the field representatives is vital. Partners in the fertilizer program are the Utah State University personnel and the Soil Improvement Committee. They help with decisions on new projects and soil amendments for registration. The division reports the fertilizer usage to the national fertilizer institute and manufacturer.

Major functions performed in this program in 1996.

1.No. of fertilizer manufacturers contacted	235
2.No. of products received and registered	1,909
3.No. of fertilizers sampled, collected, and analyzed	309
4.No. of samples which failed to meet guarantee	25
5.No. of blenders licensed	25
6.Fertilizer tonnage distributed for agricultural use	119,119

#### Shipping Point and Cannery Grading Summary

	1995/1996	Weight Inspected
Onions	370 insp.	16,777,570 lbs.
Cherries	2,120 insp.	1,682,486 lbs.
Peaches	3 insp.	63,952lbs.
Apricots	0 insp.	**
Apples	32 insp.	1,196,158 lbs.
Squash	2 insp.	44,800 lbs.

\*\*Shipped without inspections or grading.

### Nursery Inspection

- 1.The division licenses annually all firms or individuals selling nursery stock (547 licenses were issued in 1996).
- 2.Field Representatives visit nurseries annually and enforce the law pertaining to proper labeling, condition of stock and freedom from serious insect pest, plant diseases and noxious weeds. They provide inspection certificates to permit interstate shipment of stock as necessary. In 1996, 1,067 inspections were conducted.
- 3.All plant materials coming into the state require an origin certificate declaring the plant material free from insect pests, disease and noxious weeds. The field representatives inspect these materials as necessary.
- 4.There were 35 violations of the Utah Nursery Act.

### USDA Record keeping Program

The UDAF surveyed 100 certified private applicators in the USDA Federal Pesticide Record Keeping Program. This program is part of the Food, Agriculture, Conservation and Trade (FACT) Act of 1990. The law requires all certified private applicators to keep records of restricted-use pesticide applications. They have nine items to record. These records are to be kept for

two years. Each year the department randomly selects approximately 100 private applicators and inspects their records to see if this information is kept correctly. The farmers may use any reasonable system to record the information. Only authorized representatives of the federal and state government are allowed to see the applicators' pesticide records.

### Pesticide Program

The UDAF administers the Utah Pesticide Control Act which regulates the registration and use of pesticides in Utah. This act authorizes pesticide registration requirements and the pesticide applicator certification program. The UDAF is also the lead state agency for pesticide use enforcement under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The UDAF administers sections of FIFRA under which programs are developed and implemented by cooperative grant agreements with the Environmental Protection Agency (EPA). These programs include the Worker Protection Program, Endangered Species Program, Ground Water/Pesticide Protection Program, Certification Program, and Pesticide Use Enforcement.

### Worker Protection Program

This program provides general training, worker and handler pesticide safety training, "train the trainer" programs, training verification, outreach and communication efforts, reporting and tracking, and performance review actions. The UDAF has adopted the national Worker Protection Standards (WPS) Verification Program and distributes WPS Worker and Handler Verification cards to qualified WPS trainers.

### Endangered Species Pesticide Program

The EPA's Office of Pesticide Programs provides for individual states to develop an Endangered Species Pesticide Plan. Utah's Threatened and Endangered Species/Pesticide Plan allows the state to provide protection for federally listed species from pesticide exposure while tailoring program requirements to local conditions and the needs of pesticide users. Utah's plan focuses on the use of pesticides as they relate to the protection of threatened and endangered species on private agricultural land and lands owned and managed by state agencies. The UDAF is the lead state authority responsible for administering the plan. Through an interagency review committee, special use permits or landowner agreements can be established to allow for the continued use of certain restricted pesticides for those locations that contain threatened and endangered species or their habitats.

### Ground Water/Pesticide Protection Program

The EPA congratulated the department for establishing the region's first Ground Water State Management Plan which will help prevent pesticide contamination of the ground water resources. The Utah Ground Water/Pesticide State Management Plan is a state program that has been developed through cooperative efforts of the UDAF with various federal, state, and local resource agencies. The plan includes an assessment of risks posed to the state's ground water by a pesticide and a description of specific actions the state will take to protect ground water resources from potentially harmful effects of pesticides.

### Certification Program

The department entered into a cooperative agreement with EPA to undertake the following as part of the department's pesticide certification program: maintaining state certification programs, state coordination with Utah State University Extension Service, state evaluation and participation in training programs, conduct certification activities, maintain records for certified pesticide applicators, and monitor certification program efforts. The department develops and prepares pesticide applicator certification manuals and examinations as part of the licensing requirements of the state.

### Pesticide Use Enforcement

The department enforcement activities include the following: cancellation and suspension of pesticide products, general compliance monitoring, tracking, sample collection and analysis, enforcement response policy, ground water and endangered species pesticide enforcement activities, and FIFRA section 19(f) enforcement actions.

#### Pesticide Activity for 1995-96

1.No. of pesticide manufacturers/registrants contacted	705
2.No. of pesticide products registered	7,436
3.No. of inspections of pesticides sales establishments	155
4.No. of pesticide samples collected	42
5.No. of investigations of pesticide uses	89
6.No. of violations	13
7.No. of pesticide applicator training sessions	33
8.No. of applicators certified commercial, non-commercial, private	5,761
9.No. of Pesticide dealers licensed	97

### Seed Inspection and Testing

Administration of the Utah Seed Act (Title 4, Chapter 16) involves the inspection and testing of seeds offered for sale in Utah. Work performed in FY 1995-1996 is summarized below:

1.No. of seed samples tested	2,222
2.No. of violations determined	92

### Seed Testing and Seed Law Enforcement

The seed analysts and seed laboratory technicians conduct tests on seed samples submitted by agricultural inspectors, seed companies, and other interested parties. Most common tests include percent germinations, purity, and presence of noxious weeds, although other tests are performed upon request.

Inspectors monitor the seed trade by collecting representative samples for testing and by checking for proper labeling of all seed offered for sale and for the presence of noxious weeds and other undesirable factors.

### Noxious Weed Control Program

In administering the Utah Noxious Weed Control act (Title 4, Chapter 17), the state weed specialist coordinates and motivates weed control programs throughout the state. Approximately 2,010 visits and inspections were made by the 13 agricultural field representatives located throughout the state. This

includes visits and or direct contact with the agencies listed below:

1. Retail establishments
2. Weed supervisors and other county officials
3. State agencies
4. Federal agencies
5. Utility companies
6. Private landowners
7. Hay and straw certification

### Control of Noxious Weeds

The division weed specialist coordinates weed control activities among the county weed organizations and the agricultural inspectors.

Surveys of serious weed infestations are conducted and control programs are developed through the county weed supervisors, county weed boards, and various land-owning agencies.

The weed specialist and the inspectors work continually with extension and research personnel in encouraging the use of the most effective methods to control the more serious weeds.

Noxious weed free hay certificates - - closure of forest lands January 1, 1994.

#### Activities in hay and straw certification

- a. Inspections in 23 counties.
- b. Inspections for 116 producers.
- c. Approximately 155,000 bales inspected.
- d. Number of inspections 161,477

### Commercial Feed Program

Administration of the Utah Commercial Feed Act, (Title 4, Chapter 12) involves inspection, registration, and sampling of commercial feed products. Activities performed in this program in 1996 are summarized below:

1.No. of feed manufacturers or registrants contacted	480
2.No. of feed products registered	4,894
3.No. of analysis requested of chem lab	1,246
4.No. of feed samples collected and tested	438
5.No. of violations	37

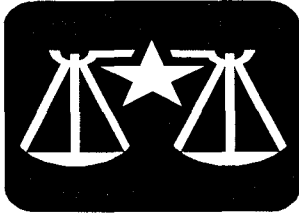
### Grain Inspection

Grain inspection services are provided under authority of Title 4, Chapter 2, Section 2, and under designated authority by the Federal Grain Inspection Service. Following is a summary of work performed during the past fiscal year under dedicated credit provisions, with expenses paid by revenue received for grading services:

1.Number of samples	16,999
2.Number of miscellaneous tests conducted:	27,856
3.Total number of activities performed:	44,855

NOTE: Volume of work is influenced each year by a number of factors, among which are weather conditions, governmental crop programs, and marketing situations.





# Regulatory Services

Kyle R. Stephens  
Director



Mission Statement -- Ensure consumers have a safe, wholesome, properly labeled supply of food, fabric, and other agricultural commodities.

The food safety program works to ensure:

- Foods are safe, wholesome and sanitary
- Food products are honestly, accurately, and informatively represented
- These products are in compliance with Utah's laws and regulations
- Non-compliance is identified and corrected
- Unsafe or unlawful products are removed from the market

The quality of America's food supply is unmatched. However, there are threats from new microorganisms and familiar ones that are growing resistant to treatment. This is creating a new challenge to maintain the high quality food that consumers expect. Utah is meeting that challenge by adopting a new Food Establishment Sanitation Rule. This rule will update the current rules and be based on current science. Every two years the rule will be upgraded to reflect scientific changes in the rapidly evolving food industry.

### Inspections during 1996

Establishment Type	Number	Inspections
Bakeries	317	601
Grain Processors	10	14
Grocery Stores	1,094	1,571
Meat Departments	309	557
Food Processors	369	536
Warehouses	276	305
Bottled Water	11	28
TOTAL	2386	3612

In order to protect the consumer, food that is suspected of being misbranded or adulterated is prevented from moving in commerce. This is achieved through Voluntary Hold Orders and Releases. In 1996, eight hold orders involving 43,423 pounds of food, and four hold order releases were issued. During 1996, 7,701 pounds of food was voluntarily destroyed because it was suspected of adulteration.

When voluntary compliance cannot be achieved, we take additional regulatory action in the form of Warning Notices and Administrative Action. In 1996, we sent out 70 Warning Notices concerning non-compliance with the Utah Wholesome Food Act (WHF) and the Utah Food Establishment Sanitation Rule (FSR). We issued six Notices of Violations and held hearings. As a result of these hearings six Administrative Orders were written to ensure compliance.

The Food Program had many interesting cases in 1996. The Dietary Supplement and Education Act of 1994 (DSHEA) went into effect causing great confusion. We had a dietary supplement company that was obtaining their raw ingredients from an industrial bulk loading dock that was contaminated by a road coating material. The case was eventually settled with both parties achieving their goals and the public receiving a safer product. Many lessons were learned about the Dietary Supplement Act and how to approach dietary supplement companies to achieve compliance.

The Utah Department of Agriculture and Food (UDAF) issued a Notice of Violation against a company putting municipal water into a product labeled "Spring Water". The individual had a criminal background and it was clear that his intent was to defraud the public. Our prompt investigation into the matter prevented this adulterated and fraudulent product from moving in commerce.

UDAF issued another Emergency Notice of Violation to a juice processing company that had sewage backing up into their facility creating the potential for adulterated products. The problem was fixed within 24 hours.

The world is changing rapidly and the food industry is no exception. Global communication is changing the way we do business and our food laws and rules are now on the Internet. The Internet access will allow increasing numbers of government and private organizations in the health fields to communicate in new and more effective ways.

### Dairy Compliance Program

The primary goal of the Dairy Compliance program is to provide effective public health control throughout the production, processing, handling, and distribution of milk and milk products. This is done to facilitate the shipment and acceptance of high sanitary quality milk and milk products.

Utah continues to see the number of permitted dairy producers decline, due to the volatile economic situation in the dairy industry during the past year. High feed prices, low return for culled animals, high cost of replacements, and wildly fluctuating milk prices, all contributed to the decline. The total number of permits declined 4 percent during 1996, the same as 1995. We are currently providing inspection to 441 Grade A producers compared to 457 at this time last year. The number of Manufacturing Grade producers dropped to 125 from 131 in 1995. The number of dairy processing facilities remained the same at 42.

The Dairy Compliance Program continues to seek voluntary compliance whenever possible. However, when voluntary compliance cannot be achieved, regulatory action is initiated. In all, 2,457 inspections were conducted; 106 permits were sus-

pending; three administrative hearings were held; and 1.9 million pounds of adulterated and misbranded product were removed from commerce by division compliance officers.

We are continuing our partnership agreement with FDA. This cooperative program is based on inspection activities of our staff of non-IMS processors in Utah, (those processors not under the direction of the Interstate Milk Shippers Conference). As provided in the agreement FDA accepts our inspections in lieu of FDA performing the inspections, eliminating costly duplication. We conducted approximately 300 inspections during 1996 and provided the information to FDA for their review.

One of the major issues before the National Conference on Interstate Milk Shipments (IMS) in 1996 was redefining the role of the FDA as it relates to the IMS program. That is to say, the states would take more responsibility for coordination of the IMS program.

In November, FDA published a regulation that should clear up some confusion about fluid milk labeling. The descriptors for milk will now be consistent with the way they're used on other foods. Skim (or nonfat) milk can be called "fat free"; 1 percent can be called "light"; 2 percent milk will now be called "reduced fat" (no longer low-fat). We will work with dairy processors during the coming year to ensure labels are correct.

One of the most significant developments in the Utah dairy industry will take place sometime in the second half of 1997. Dannon Yogurt will finally commence production at their West Jordan location. In addition, Doc's Cheese in Richmond has joined forces with Einstein's Bagels as the exclusive national supplier of cream cheese to Einstein's.

### **Egg & Poultry Grading Program**

The Egg & Poultry Grading Program provides needed services to the egg and poultry industry and the consumers of Utah. Eggs are a valuable food produced for the consumer, are highly nutritious, and are an important part of our diet. Eggs are a potentially hazardous product and require special processing and handling.

The various program activities include: Shell egg grading - retail egg grading - fee grading - shell egg surveillance - egg products inspection - poultry grading- USDA destination poultry grading (school lunch program)

Shell eggs are inspected at both wholesale and retail establishments for wholesomeness, grade and size. Grading standards have been established that allow the sale of eggs. The Utah Shell Egg Law provides authority for checking the eggs to meet these standards. Utah adopts USDA egg, egg product and poultry standards. Grading standards must be followed because approximately 10 percent of nest run eggs fall in the restricted category — that is, checks, leakers, loss, and dirties. Without egg grading, the percentage of restricted eggs in the carton increase and eggs would not meet standards established to protect consumers.

USDA egg grading is a program made available by the U.S. Department of Agriculture to egg plants who want their eggs to bear the USDA grade shield. This grading service is provided on a voluntary basis to those who request it and pay for such services. We administer this service using licensed department

employees, USDA standards, regulations and supervision. The use of the official USDA grade shield certifies that the eggs have been graded under continuous inspection for quality and size.

In calendar year 1996, there were 152,775 cases (30 dozen eggs per case) of eggs graded in Utah. Of these, 548 cases were embargoed due to excess restricted eggs or being below USDA standards. The low percentage of embargoed eggs on the retail level indicates the high degree of compliance to the Shell Egg Law in the marketplace.

The Egg Products Inspection Act outlines the requirements for egg handlers and producers. Utah currently has one egg breaking plant which is under continuous inspection. Egg breaking plants are inspected to see that eggs are properly received, refrigerated, washed, candled, sanitized, properly broken, pasteurized, formulated, and packaged under the safe, clean, sanitary conditions that meet USDA standards and regulations. Egg products include dried, liquid and frozen eggs. Egg products are used extensively in the food industry in the production of bakery items, pasta products, ice cream, egg nog, etc. and is used by restaurants and institutions in meals.

In 1996, there were 48,213 cases of eggs broken and pasteurized.

The Shell Egg Surveillance Program requires egg producers and handlers to be registered with USDA and licensed personnel conduct quarterly visits. The primary purpose of these inspections is to survey compliance to the Federal Egg Products Inspection Act. The law covers the handling and disposition of restricted eggs — checks, leakers, loss eggs (such as bloods and rots), inedible eggs and dirties. Some restricted eggs, if sound and properly labeled, may be used at a breaking plant. Leakers, loss and inedible eggs must be denatured, destroyed or diverted to animal feed.

Poultry grading involves the Utah turkey industry, which is a major turkey producing state. Poultry grading is a voluntary program paid for by industry. Graders from the section, who are licensed by USDA, provide grading services at the plants. Grading on whole birds and parts provides consumers with products meeting USDA quality standards. Poultry grading also involves destination grading for poultry used in federal food programs such as school lunch, military and export activities.

In 1996, the graders at Moroni and Salina were responsible for grading 107,650,460 pounds of live turkeys. Production in 1997 is projected to see a slight increase.

There are two turkey plants in Utah located at Moroni and Salina. Both plants have expanded facilities for increased value-added processing of turkey products. This expansion will increase the production of both plants and increase grading activities.

Changes in the Egg & Poultry Program occurred in 1996. The number of hours in egg grading at a resident plant dropped from 1995 because of the closure of Fallbrook Egg Company. The numbers of hours spent in retail egg grading dropped because of losing one FTE in the program and the increase of hours spent in USDA fee grading. Poultry grading hours increased as did the number of pounds of turkey graded.

An increase in turkey production is projected for 1997.

### Meat Compliance Program

The Meat Compliance Program goal is to control and limit the movement in commerce, of adulterated or misbranded meats. Another goal is to provide accurate information concerning complex meat laws to all who are involved in the meat business.

July 25, 1996 marked the passage of The Pathogen Reduction; Hazard Analysis and Critical Control Point (HACCP) Systems; Final Rule, 9 CFR Part 304, et al. This initiative is the most sweeping change in meat and poultry inspection since its beginning, more than 90 years ago. The rule provides flexibility to customize sanitation plans, eliminating inconsistent "command and control" sanitation requirements previously found in the regulations. The new, HACCP-based system is a framework based on sound scientific principals. "The focus of the program is to require the reduction, minimization, or elimination, of micro organisms in raw products leaving inspected establishments." (Speech by T. Billy, FSIS NCBA)

Under the new system, inspection personnel will exercise the following regulatory oversight responsibilities: Evaluation--decide that each plant's sanitation SOP (Standard Operating Procedure) and HACCP plans conform with regulatory requirements. Verification--decide, annually, that a plant is carrying out its SOP and HACCP plan, including microbial verification. Documentation--prepare written material to document failure to meet regulatory requirements. Enforcement--act when a plant is not in conformance with established regulatory requirements. Meat compliance personal will have added responsibilities in official plants. Compliance officers will help in documentation and enforcement actions involving meat and poultry facilities found in violation.

The Meat Compliance program is also responsible for the implementation of the Seafood Hazard Analysis Critical Control Point Rule. Federal law requires implementation by December, 1997. We are currently working with several seafood handlers to prepare for this change.

The Interstate Shellfish Sanitation Conference regulates harvest to consumption of raw shellfish. We participate in this program and have been involved in a nationwide recall of shellfish contaminated with vibrio vulnificus.

During calendar year 1996, the Meat Compliance Program conducted 1259 random reviews of state businesses and twenty-two planned compliance review of previous violators of meat laws. In addition, 57,870 pounds of adulterated or misbranded meats were embargoed or destroyed. Compliance investigations resulted in 24 letters of warning issued and two informal administrative hearings with fines of \$500. Compliance officers collected more than 400 ground beef samples. The state chemist tested the samples for fat, sulfites, and added water the results showed a high degree of compliance.



### Bedding, Upholstered Furniture and Quilted Clothing

The purpose of the Bedding, Upholstered Furniture and Quilted Clothing Program is to protect consumers against fraud and product misrepresentation, to assure Utahns hygienically clean products and to provide allergy awareness when purchasing these articles. Utah law requires manufacturers supply dealers and wholesalers of these products and components used to make or repair such products, to obtain an annual license from the Department of Agriculture and Food for their particular type of business. This law does not apply to isolated sales of such articles by persons who are not primarily engaged in the making, processing, or repair of these articles.

Product labels are required to list the enclosed fibers and their percentages. This enables consumers to make price/value/performance-based buying decisions. It also encourages fair competition among manufacturers by establishing terminology uniformity and accurate component disclosure.

Television news shows, such as Dateline, 60 Minutes, and 20/20 have focused on the need for regulation of these products by showing how secondhand mattresses, bedding and furniture are sometimes recovered and sold to unsuspecting consumers as "all new material".

The department works with industry representatives and with regulatory officials from other states to establish uniformity in nomenclature, labeling and standards for these products. License fees fund an inspection program which allows products to be tested to ensure contents are accurately labeled. During 1996, 1495 licenses generated \$80,885 in general revenue making the program self-sustaining.

### Food Labeling

Utahns have long displayed their entrepreneurial spirit and this continues to manifest itself in the numbers and varieties of new food products developed yearly within the state. Label drafts are submitted for review and correction prior to printing. This avoids costly reprinting in the case of labeling violations, and helps assure that consumers get complete and accurate information in a uniform format on all products. Several hundred labels were reviewed during 1996. Most of these were voluntarily submitted by manufacturers, other reviews were generated by complaints or random inspections.

The proper labeling of food ingredients is a vitally important issue to consumers who have food sensitivities or other dietary restrictions. Reports of allergic reactions to incompletely or incorrectly labeled foods have increased during 1996. The Food and Drug Administration (FDA) is considering whether or not to clarify its regulations to ensure that manufacturers fully understand ingredient labeling and to ensure that even insignificant amounts of the most commonly known allergens are

disclosed on product labels. One focus of inspections conducted at store level to educate employees about the need to correctly and consistently label all packaged foods before they are offered for sale.

Various types of bottled waters and bottled water beverages have proliferated in the marketplace during the last couple of years. The bottled water rule, which established standards of identity for types of drinking water, became effective on May 13, 1996. Definitions have been established for "artesian water," "ground water," "mineral water," "purified water," "sparkling bottled water," "spring water," "sterile water," and "well water". This rule prohibits using words or graphics which would mislead consumers as to the kind of water being offered for sale. Water from public water systems must either state that the water is "from a municipal source" or use terminology which identifies the kind of purification system used to further treat such municipal water. This will prohibit fraudulent labeling and will enable consumers to make informed buying decisions.

Label laws and rules continue to change as new technology creates new products. Correct and complete food labels help to protect consumers and contribute to a safe and healthful food source for all of us. However, consumers are still ultimately responsible to read and understand the label and make choices based on their personal needs.

#### **Weights and Measures**

The weights and measures program ensures that equity prevails in the market place, and that commodities bought or sold are accurately weighed or measured and properly identified. These activities are enforced through the Utah Weights and Measures Act and five accompanying Administrative Rules.

The Weights & Measures Program operates in the following areas:

##### **General Inspections**

Our five inspectors checked 5,330 small capacity scales (0 to 49 lbs.), 1,150 medium capacity scales (50 to 999 lbs.) and 17,297 gasoline pumps. Every type of item is subject to either a scanning inspection, package checking or label review. In 1996, there were 18,258 random packages checked, which represents a total of over 200,000 packages.

During 1996, Inspector Brett Gurney was sent to Annapolis, Maryland for a week long course on package checking and received valuable training. This training was then presented to four other program inspectors in December, 1996.

##### **Large Capacity Scales**

There are three inspectors involved in testing large capacity scales (1000 lbs. and up). These devices may include scales used for weighing livestock, coal, gravel, vehicles, etc., with inspections conducted at auction yards, ranches, ports of entry, mine sites, construction sites, gravel pits, railroad yards, etc.

A total of 1,442 large capacity scale inspections were conducted in 1996.

#### **L P Gas Meters**

With the addition of a new LP Gas trailer and a newly trained inspector, this program was put back into service and there were 348 meters tested in 1996.

#### **Large Capacity Petroleum and Water Meters**

Inspections are conducted on airport fuel trucks, all fuel delivery trucks, cement batch plant water meters, and other large meters. During 1996 there were 434 inspections of these items.

#### **Metrology Laboratory**

The metrology lab houses the primary weight, length and volume standards for the State of Utah. During 1996 we purchased three new mass comparitors (22-gram, 5-KG and 60-KG) to help become more accurate and efficient and maintain accreditation with the national program. Industry relies on the services of this facility to certify equipment used for weight, length or volumetric measurement in commercial business. The state metrologist also received training during 1996 and continues to work toward full accreditation by the National Institutes of Standards and Technology.

#### **Motor Fuel Laboratory**

In 1996, a new portable octane analyzer and portable vapor pressure meter were purchased. These two pieces of equipment can be used in the field for testing. Any questionable samples are then brought back to the lab for confirmation testing and regulatory action.

From 1993 to 1996, we have seen an increase of about 31 percent in small and medium devices and 42 percent increase in gasoline dispensing devices. This increase is due primarily to industry and population growth. During 1996, two inspectors retired from service and two new inspectors were hired and trained.

As population and industry growth continues, so does the need for business and associated industry. Along with that comes the increased need to provide weights and measures inspection service to those affected. And with the technological advancements in the field of electronics, this presents increased challenges with weights and measures inspections. To help address this issue, we purchased a laptop computer and inspection software that is being field tested during 1997. With this new equipment, we hope to be able to increase our productivity without adding additional personnel while at the same time meeting the demands of a growing program.

#### **Administrative Hearings Program**

The administrative hearings program of the department is assigned to this division. The overall attitude of the department is to gain voluntary compliance to violations of the Utah Agricultural Code. When that is not accomplished, the department issues notices of violation and provides an opportunity for a hearing. During 1996, we conducted 16 informal hearings and issued an administrative order or settlement agreement on all 16 cases. The orders and settlement agreements resulted in \$33,200 in civil penalties and up to two years probation for each case.

Administrative procedures are an effective tool in gaining compliance without going through the lengthy judicial process.



# Utah Horse Industry



*Horses have always played an important role in the economy of Utah and the United States. The following information is a summary of a 1994 report on Utah's horse populations compiled by E. Bruce Godfrey, professor of economics at Utah State University. The information was collected from a questionnaire distributed to 2,500 residents.*

Early in the history of Utah horses and other equine were a major source of power and beasts of burden.

Horse populations on farms in the United States have steadily declined in the years from 1930 to 1960. Since then, horse ownership apparently has increased especially among non-farmers, although few data are available concerning horse ownership by non-farmers.

Most horse owners are located along the Wasatch Front where most of Utah's population is located. More than 60 percent of the horses are owned by people who live in Salt Lake, Utah, Weber, Davis, Cache, and Box Elder Counties. The large number of households in the urban counties resulted in a concentration of horse numbers in these counties, even though the number of horses owned per household was smaller in urban than rural counties.

## Income and Profession

Households who own horses in Utah had relatively high incomes. The percentage of horse owners with low incomes (less than \$20,000) was smaller than the general population, and the percentage of people in the upper income groups (above \$50,000) was higher than the general population.

More than 40 percent of the respondents were college graduates. Seventeen percent have an advanced college degree.

Horse owners in Utah are apparently one family-or-urban-oriented. Nearly two-thirds of respondents to the survey indicated they were a "family pleasure horse" operation.

Most horse owners in Utah keep their animals on lands they own. Only 25 percent kept their animals on someone else's property. Most of the "farms and ranches" were not large.

While most owners were fairly young, 71 percent of respondents stated they owned horses for more than ten years.

While families own the largest portion of horses in Utah, commercial operations own a greater number per unit.

## Economic Importance

Since most horses in Utah are kept for pleasure-use, their individual economic impact is quite small. Yet the revenue from associated services is measured in the millions of dollars.

Horse owners spend more than \$775 per year in feed, medical bills, boarding, and other needs in order to maintain their animals. This generates an estimated \$156 million on Utah's herd of 182,700 horses. Other capital costs for barns, corrals and tack are estimated at more than \$560 million dollars. Owners placed an average value on their animals at \$1,600 each, for an aggregate value of nearly \$293 million statewide.

## Numbers of Animals

Horses were located in every area and county of the state, but the number of animals has changed over time. There were about 133,000 head in 1975. Since then, the population in Utah has increased by about a half million people, and a larger portion of Utahns live in the urban counties along the Wasatch Front. This change in population may or may not have altered horse numbers in Utah.

Responses to the questionnaire indicated that 8.7 percent of the households had equine (horses, mules and donkeys), which would represent about 48,100 households (552,500 households times 8.7 percent) in the state. The average household owned an average of 3.80 equine on Jan. 1, 1992, which would mean that there were approximately 182,700 equine in Utah at the start of 1992.

Horse ownership in the United States probably peaked in the late 1980s. Data from the Utah Department of Agriculture and Food also suggest that the inspection of horses at auction yards peaked in FY 1989-90.

## Breeds

Quarter horses dominated the horse population in Utah. Other popular breeds are listed below:

<u>Breed/Type</u>	<u>Grade</u>	<u>Registered</u>	<u>Total</u>	<u>Percent</u>
Quarter Horse	32,400	58,700	91,100	49.78
Arabian	4,800	20,800	25,600	13.99
Paint	7,050	6,350	13,400	7.32
Thoroughbred	900	12,400	13,300	7.27
Appaloosa	4,750	4,200	8,950	4.89
Mules	3,500	0	3,500	1.91

## Uses/Interests

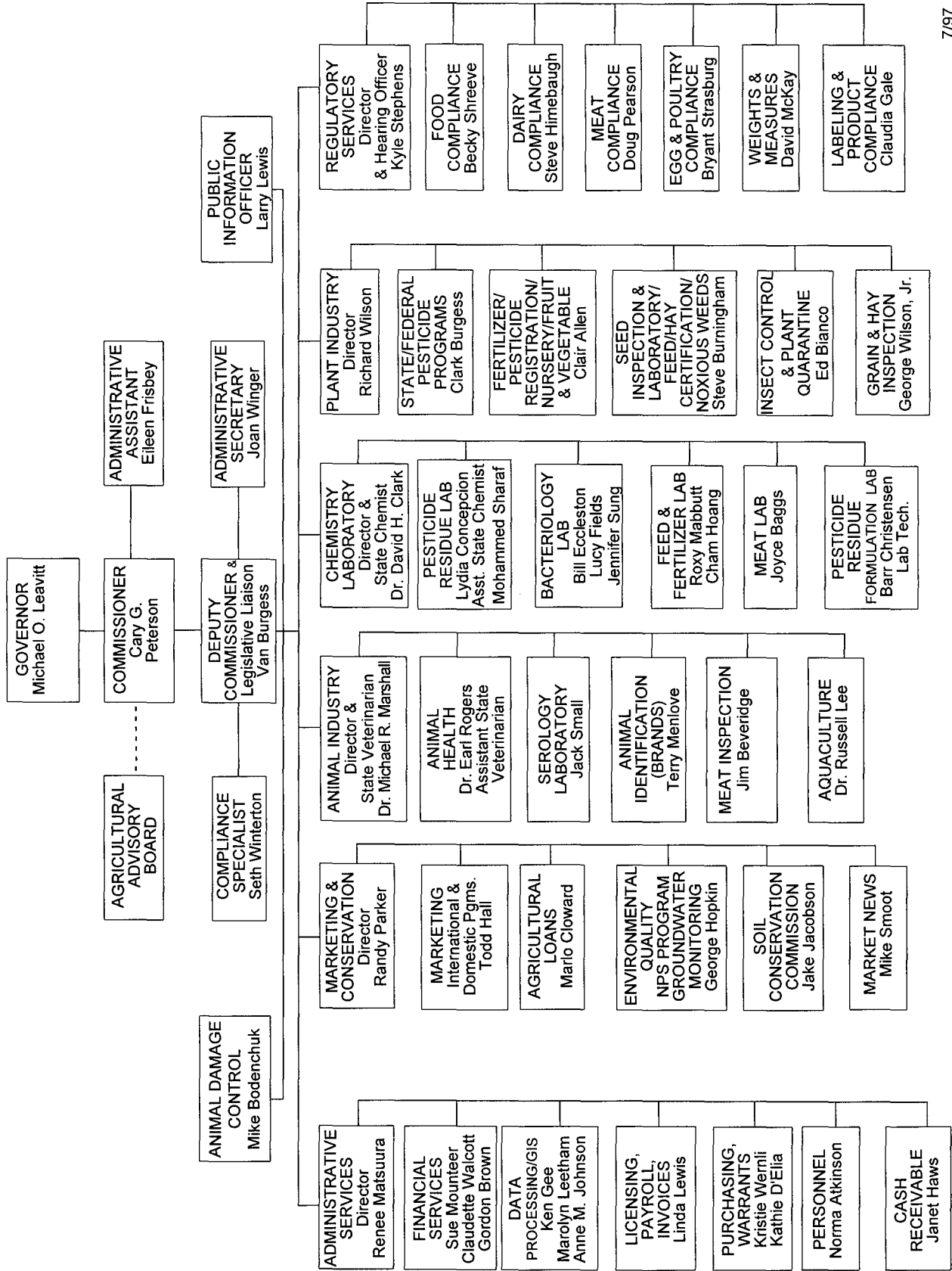
Pleasure riding was clearly the primary interest of horse owners. Pleasure riding, youth activities, and hunting activities that received the highest rankings, are activities that could be considered family related.

## Income

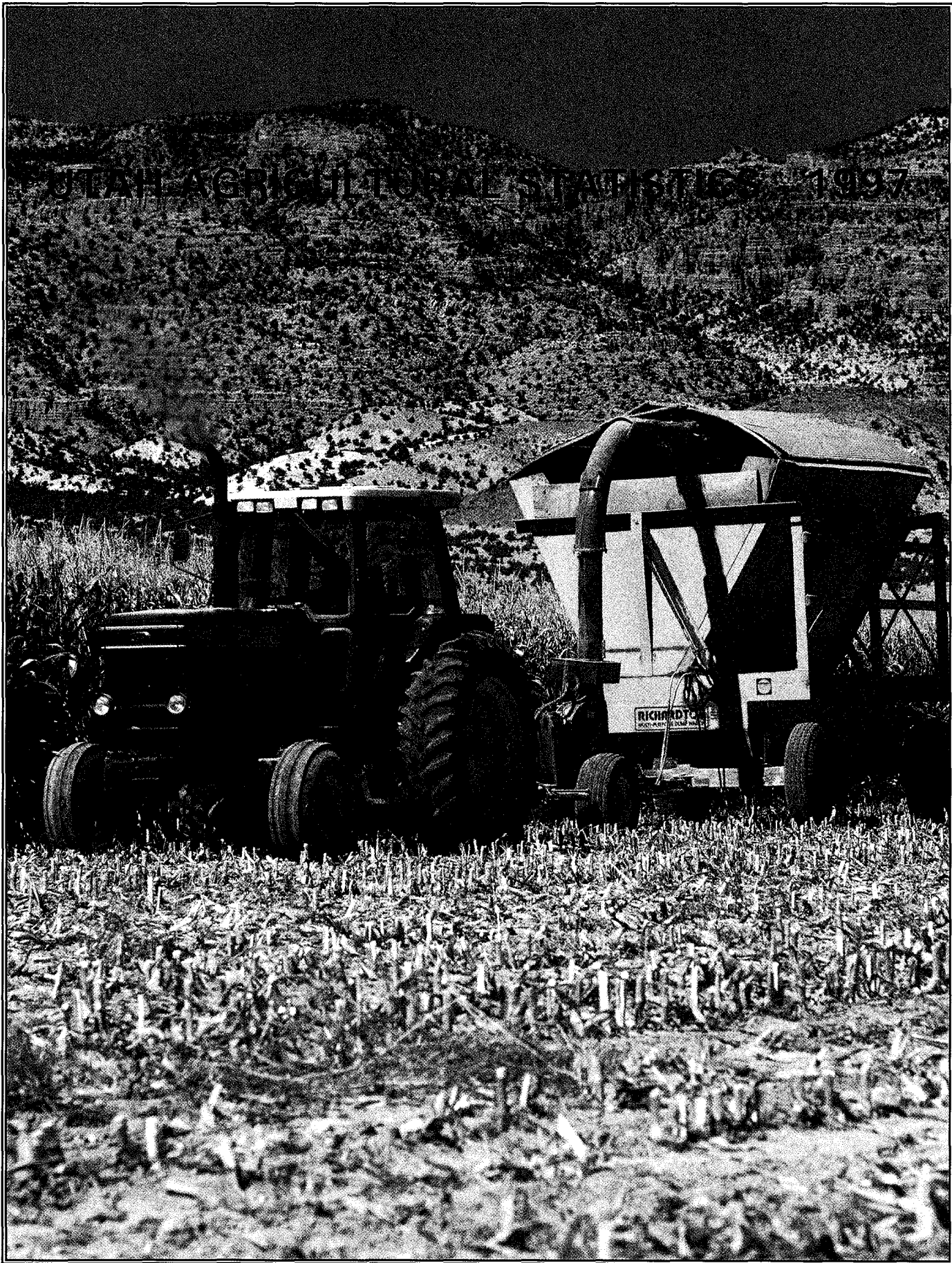
Less than 5 percent of respondents indicated that they received any income from the horses they owned. Thus, horses apparently generated relatively little income, primarily because horses were largely used for pleasure-related activities. The primary group who earned any horse-related income did so from breeding, racing and show-related activities.

One activity that generated income and primarily involved Utah horses was breeding. About 90 percent of the stallions in the state were used for breeding and the average stud fee was just over \$400. This yielded an estimated total income of nearly \$5 million (for information on horse racing in Utah, see Marketing and Conservation in this annual report).

# UTAH DEPARTMENT OF AGRICULTURE AND FOOD Organizational Chart



UTAH AGRICULTURAL STATISTICS 1997



## Area & Population of Counties, Utah

County	United States Census - 1990								July 1, 1996 Est. 1/
	Total Land Sq Miles	Total Population	Urban		Rural				
			Total Urban	Percent of Total	Total Rural	Percent of Total	Total Farm	Percent of Total	
Beaver . . .	2,590	4,765	--	--	4,765	100.0	87	1.8	5,607
Box Elder	5,724	36,485	19,852	54.4	16,633	45.6	1,328	3.6	39,484
Cache . . . .	1,165	70,183	55,232	78.7	14,951	21.3	1,429	2.0	82,097
Carbon . . .	1,479	20,228	8,727	43.1	11,501	56.9	183	0.9	21,420
Daggett . .	698	690	--	--	690	100.0	119	17.2	803
Davis . . . .	305	187,941	186,544	99.3	1,397	0.7	154	0.1	219,644
Duchesne	3,238	12,645	3,915	31.0	8,730	69.0	1,239	9.8	14,032
Emery . . . .	4,452	10,332	--	--	10,332	100.0	414	4.0	10,810
Garfield . . .	5,175	3,980	--	--	3,980	100.0	142	3.6	4,386
Grand . . . .	3,682	6,620	3,971	60.0	2,649	40.0	102	1.5	8,797
Iron . . . . .	3,299	20,789	13,443	64.7	7,346	35.3	176	0.8	28,031
Juab . . . . .	3,392	5,817	3,515	60.4	2,302	39.6	193	3.3	7,444
Kane . . . . .	3,992	5,169	3,148	60.9	2,021	39.1	62	1.2	5,956
Millard . . .	6,590	11,333	2,998	26.5	8,335	73.5	598	5.3	11,958
Morgan . . .	609	5,528	--	--	5,528	100.0	214	3.9	6,693
Piute . . . . .	758	1,277	--	--	1,277	100.0	84	6.6	1,508
Rich . . . . .	1,029	1,725	--	--	1,725	100.0	87	5.0	1,822
Salt Lake . .	737	725,956	721,342	99.4	4,614	0.6	73	2/	818,860
San Juan . .	7,821	12,621	3,162	25.1	9,459	74.9	45	0.4	13,188
Sanpete . .	1,588	16,259	3,363	20.7	12,896	79.3	380	2.3	19,999
Sevier . . . .	1,910	15,431	5,593	36.2	9,838	63.8	225	1.5	17,682
Summit . . .	1,871	15,518	4,468	28.8	11,050	71.2	440	2.8	23,562
Tooele . . .	6,946	26,601	18,174	68.3	8,427	31.7	254	1.0	30,492
Uintah . . .	4,477	22,211	9,242	41.6	12,969	58.4	893	4.0	24,275
Utah . . . . .	1,998	263,590	244,834	92.9	18,756	7.1	1,539	0.6	317,879
Wasatch . .	1,181	10,089	4,782	47.4	5,307	52.6	183	1.8	12,585
Washington	2,427	48,560	35,898	73.9	12,662	26.1	89	0.2	72,888
Wayne . . .	2,461	2,177	--	--	2,177	100.0	146	6.7	2,389
Weber . . . .	576	158,330	147,172	93.0	11,158	7.0	807	0.5	178,068
<b>State Total</b>	<b>82,168</b>	<b>1,722,850</b>	<b>1,499,375</b>	<b>87.0</b>	<b>223,475</b>	<b>13.0</b>	<b>11,685</b>	<b>0.7</b>	<b>2,002,359</b>

1/ State Office of Planning and Budget, State of Utah. 2/ Less than 0.1 percent of total county population.

## Farm Population vs. Total Population, Utah, 1930-1990 Census

Year	Total Population	Farm Population	
		Number	Percent of Total
	1,000		Percent
1930	508	116	22.8
1940	550	105	19.1
1950	689	81	11.8
1960	891	65	7.3
1970	1,059	38	3.6
1980 1/	1,461	24	1.7
1980 2/	1,461	18	1.3
1990 2/	1,723	12	0.7

1/ Farm definition: 10 or more acres with annual sales of Agricultural products of \$50 or more; or less than 10 acres with annual sales of \$250 or more. 2/ Farm definition: A place with annual sales of \$1,000 or more.

## Ranking: Utah's Rank and United States Total, Top Six States, by Agricultural Category

Top Six States						Utah's Rank	United States Total
First	Second	Third	Fourth	Fifth	Sixth		
<b>GENERAL</b>							
<b>NUMBER OF FARMS &amp; RANCHES, 1996</b>							
TX	MO	IA	KY	MN	CA	37	
205,000	104,000	98,000	88,000	87,000	82,000	13,400	2,063,010
<b>LAND IN FARMS &amp; RANCHES, 1996 (1,000 Acres)</b>							
TX	MT	KS	NE	SD	NM	28	
127,000	59,700	47,800	47,000	44,000	43,700	11,000	968,048
<b>CASH RECEIPTS FROM FARM MARKETINGS, 1995 (Million Dollars) 1/</b>							
CA	TX	IA	NE	IL	KS	37	
22,261	13,288	10,959	8,690	7,887	7,521	815	185,750
<b>FIELD CROPS</b>							
<b>HARVESTED ACREAGE PRINCIPAL CROPS, 1996 (1,000 Acres) 2/</b>							
IA	IL	ND	KS	MN	NE	36	
24,057	23,183	22,237	20,899	19,587	18,327	1,070	313,533
<b>CORN FOR GRAIN PRODUCTION, 1996 (1,000 Bushels)</b>							
IA	IL	NE	MN	IN	SD	40	
1,718,100	1,468,800	1,186,900	868,750	670,350	370,000	2,730	9,293,435
<b>CORN FOR SILAGE PRODUCTION, 1996 (1,000 Tons)</b>							
WI	NY	PA	CA	MN	IA	27	
11,245	7,905	6,475	6,375	6,175	3,960	882	83,094
<b>BARLEY PRODUCTION, 1996 (1,000 Bushels)</b>							
ND	ID	MT	MN	WA	CA	10	
143,000	53,290	51,600	33,280	27,280	13,200	8,200	396,851
<b>OATS PRODUCTION, 1996 (1,000 Bushels)</b>							
SD	ND	WI	MN	IA	PA	29	
21,600	19,000	17,400	15,120	12,920	7,560	648	155,225
<b>ALL WHEAT PRODUCTION, 1996 (1,000 Bushels)</b>							
ND	KS	WA	MT	SD	ID	30	
395,130	255,200	182,670	176,710	139,270	119,200	7,760	2,281,763
<b>OTHER SPRING WHEAT PRODUCTION, 1996 (1,000 Bushels)</b>							
ND	MT	MN	SD	ID	WA	9	
313,500	106,600	100,800	83,250	50,400	18,170	1,680	687,875
<b>WINTER WHEAT PRODUCTION, 1996 (1,000 Bushels)</b>							
KS	WA	OK	TX	NE	CO	29	
255,200	164,500	93,100	75,400	73,500	70,400	6,080	1,478,048
<b>ALL HAY PRODUCTION, 1996 (1,000 Tons)</b>							
SD	CA	TX	NE	KS	MO	25	
8,200	8,008	7,815	7,445	7,010	6,920	2,516	149,457
<b>ALFALFA HAY PRODUCTION, 1996 (1,000 Tons)</b>							
CA	SD	WI	NE	MN	IA	15	
6,580	5,500	5,250	5,040	4,573	4,320	2,180	79,377
<b>ALL DRY EDIBLE BEANS PRODUCTION, 1996 (1,000 Cwt)</b>							
ND	MI	NE	CA	CO	ID	17	
7,524	4,640	3,705	2,337	2,250	1,907	10	27,354
<b>ALL POTATO PRODUCTION, 1996 (1,000 Cwt)</b>							
ID	WA	CO	OR	WI	ND	29	
139,960	94,990	31,890	31,684	31,590	28,820	1,176	497,119

1/ In accordance with USDA, ERS Ranking of States and Commodities by Cash Receipts, 1995. 2/ Crop acreage included are corn, sorghum, oats, barley, wheat, rice, rye, soybeans, peanuts, sunflowers, cotton, all hay, dry edible beans, potatoes, tobacco, sugarcane, and sugar beets.



**Ranking: Utah's Rank and United States Total, Top Six States, by Agricultural Category**

Top Six States						Utah's Rank	United States Total
First	Second	Third	Fourth	Fifth	Sixth		
<b>FRUITS &amp; VEGETABLES</b>							
<b>APPLE PRODUCTION, ALL COMMERCIAL, 1996 (1,000 Lbs)</b>							
WA	NY	CA	MI	PA	VA	18	
5,500,000	1,050,000	900,000	725,000	420,000	300,000	48,000	10,434,000
<b>APRICOT PRODUCTION, 1996 (1,000 Tons)</b>							
CA	WA					0	80
76	4	--	--	--	--		
<b>PEACH PRODUCTION, FREESTONE, 1996 (1,000 Lbs)</b>							
1/ CA	NJ	PA	MI	CO	WV	15	
633,000	78,000	75,000	40,000	17,000	16,000	7,000	977,300
<b>PEAR PRODUCTION, 1996 (1,000 Tons)</b>							
WA	CA	OR	NY	MI	PA	7	
295	285	170	15	6	4	2	779
<b>SWEET CHERRY PRODUCTION, 1996 (1,000 Tons)</b>							
WA	OR	CA	MI	UT	ID	5	
69	32	25	22	2	2	2	154
<b>TART CHERRY PRODUCTION, 1996 (1,000 Lbs)</b>							
MI	UT	NY	PA	WI	OR	2	
195,000	25,000	19,000	7,500	6,100	2,500	25,000	270,300
<b>ONION PRODUCTION, ALL FRESH, 1996 (1,000 Cwt)</b>							
CA	OR	WA	ID	CO	TX	12	
16,066	9,474	6,636	5,590	5,525	4,954	987	61,568
<b>LIVESTOCK, MINK, &amp; POULTRY</b>							
<b>ALL CATTLE &amp; CALVES, JAN. 1, 1997 (1,000 Head)</b>							
TX	KS	NE	OK	CA	MO	35	
14,100	6,550	6,550	5,400	4,550	4,450	930	101,209
<b>BEEF COWS, JAN. 1, 1997 (1,000 Head)</b>							
TX	MO	OK	NE	SD	MT	28	
5,460	2,075	1,965	1,932	1,660	1,570	355	34,280
<b>BREEDING HOGS, DEC. 1, 1996 (1,000 Head)</b>							
IA	NC	MN	IL	IN	NE	22	
1,250	1,000	540	520	460	450	40	6,663
<b>HONEY PRODUCTION, 1996 (1,000 Lbs)</b>							
CA	FL	SD	ND	MN	MI	24	
27,300	25,200	23,280	19,780	11,550	8,640	1,564	177,097
<b>MINK PELT PRODUCTION, 1995 (Pelts)</b>							
WI	UT	MN	OR	ID	WA	2	
676,000	570,000	306,000	198,000	170,500	105,000	570,000	2,691,700
<b>ALL SHEEP, JAN. 1, 1997 (1,000 Head)</b>							
TX	CA	WY	CO	SD	MT	7	
1,400	960	720	575	450	432	375	7,937
<b>CHICKENS, LAYERS INVENTORY, DEC. 1, 1996 (1,000 Head)</b>							
CA	OH	PA	IA	IN	GA	33	
26,650	26,300	21,300	20,609	20,401	19,210	1,734	303,248
<b>MILK COW INVENTORY, JAN. 1, 1997 (1,000 Head)</b>							
WI	CA	NY	PA	MN	TX	26	
1,410	1,270	700	643	595	390	90	9,281
<b>TROUT SOLD, 1995</b>							
ID	NC	CA	PA	UT	CO	5	
1/ 43,700	8,860	2,909	3,203	1,511	1,686	1,511	73,764

1/ Does not include fingerlings.

## Record Highs and Lows: Acreage, Yield, and Production of Utah Crops

Item	Unit	Record High		Record Low		Year Record Started
		Quantity	Year	Quantity	Year	
<b>CORN FOR GRAIN</b>						
Acres Harvested	1,000 Acres	24	1918 & 92	2	1963 & 66	1882
Yield	Bushels	140.0	1987,90&91	14.7	1889	
Production	1,000 Bushels	3,240	1992	85	1934	
<b>CORN FOR SILAGE</b>						
Acres Harvested	1,000 Acres	80	1975 & 76	2	1920-22	1919
Yield	Tons	22.0	1994	6.0	1934	
Production	1,000 Tons	1,501	1980	17	1921	
<b>BARLEY</b>						
Acres Harvested	1,000 Acres	190	1957	8	1898	1882
Yield	Bushels	90	1995	22.0	1882	
Production	1,000 Bushels	12,880	1982	242	1882	
<b>OATS</b>						
Acres Harvested	1,000 Acres	82	1910	8	1991 & 94	1882
Yield	Bushels	78.0	1993	25.0	1882 & 83	
Production	1,000 Bushels	3,338	1914	550	1977	
<b>ALL WHEAT</b>						
Acres Harvested	1,000 Acres	444	1953	65	1880 & 81	1879
Yield	Bushels	53.9	1995	15.4	1919	
Production	1,000 Bushels	9,750	1986	1,139	1882	
<b>SPRING WHEAT</b>						
Acres Harvested	1,000 Acres	160	1918	16	1972	1909
Yield	Bushels	75.0	1995	18.7	1919	
Production	1,000 Bushels	4,000	1918	704	1972	
<b>WINTER WHEAT</b>						
Acres Harvested	1,000 Acres	342	1953	120	1909	1909
Yield	Bushels	50.0	1995	12.7	1919	
Production	1,000 Bushels	8,100	1986	1,862	1924	
<b>ALL HAY</b>						
Acres Harvested	1,000 Acres	705	1996	402	1909	1909
Yield	Tons	3.89	1993	1.51	1934	
Production	1,000 Tons	2,644	1995	679	1934	
<b>ALFALFA HAY</b>						
Acres Harvested	1,000 Acres	562	1930	359	1934	1919
Yield	Tons	4.40	1993	1.67	1934	
Production	1,000 Tons	2,344	1995	600	1934	
<b>OTHER HAY</b>						
Acres Harvested	1,000 Acres	180	1947	92	1934	1924
Yield	Tons	2.20	1993	0.86	1934	
Production	1,000 Tons	336	1987 & 1996	79	1934	
<b>DRY EDIBLE BEANS</b>						
Acres Harvested	1,000 Acres	20	1970	0.6	1996	1934
Yield	Pounds	1,600	1996	200	1956,59,62 & 77	1954
Production	1,000 Cwt	91	1947	2	1977	1934
<b>FALL POTATOES</b>						
Acres Harvested	1,000 Acres	19.6	1943	4.2	1996	1882
Yield	Cwt	280	1996	45	1886	
Production	1,000 Cwt	2,153	1946	405	1886	
<b>SUMMER STORAGE ONIONS</b>						
Acres Harvested	Acres	2,400	1944	550	1954 & 66	1939
Yield	Cwt	525	1992	200	1940	
Production	1,000 Cwt	1,050	1992	150	1952	
<b>APPLES</b>						
Utilized Production	Million Lbs	63.0	1987	2.7	1889	1889
<b>APRICOTS</b>						
Utilized Production	Tons	10,000	1957	0	1972 & 95	1929
<b>PEACHES (Freestone)</b>						
Utilized Production	Million Lbs	44.2	1922	1.5	1972	1899
<b>PEARS</b>						
Utilized Production	Tons	8,750	1954	200	1972	1909
<b>SWEET CHERRIES</b>						
Utilized Production	Tons	7,700	1968	0	1972	1938
<b>TART CHERRIES</b>						
Utilized Production	Million Lbs	30.0	1992	1.3	1972	1938

## Record Highs and Lows: Utah Livestock, Poultry, Mink, and Honey

Item	Unit	Record High		Record Low		Year Record Started
		Quantity	Year	Quantity	Year	
<b>CATTLE &amp; CALVES</b>						
Inventory Jan. 1 . . . . .	Thou Hd	950	1983	95	1867	1867
Calf Crop . . . . .	Thou Hd	395	1996	129	1935	1920
Beef Cows Jan. 1 <u>1/</u> . . . . .	Thou Hd	374	1983	107	1939	1920
Milk Cows Jan. 1 <u>1/</u> . . . . .	Thou Hd	126	1945	14	1867	1867
Milk Production . . . . .	Mil Lbs	1,547	1996	412	1924	1924
Cattle on Feed Jan. 1 . . . . .	Thou Hd	81	1963 & 66	33	1986	1959
<b>HOGS AND PIGS</b>						
Inventory Dec. 1 <u>2/</u> . . . . .	Thou Hd	196	1944	4	1867-69	1867
<b>SHEEP AND LAMBS</b>						
Stock Sheep Inventory Jan. 1 . . . . .	Thou Hd	2,935	1931	167	1867	1867
Lamb Crop . . . . .	Thou Hd	1,736	1930	325	1996	1924
Sheep & Lambs on Feed <u>3/</u> . . . . .	Thou Hd	295	1937	18	1988	1920
Market Sheep & Lambs Inv Jan.1 . . .	Thou Hd	85	1995	36	1997	1995
<b>CHICKENS</b>						
Hens & Pullets of Laying Age Dec. 1	Thou Hd	2,750	1944	1,166	1965	1925
Egg Production Total for Year . . . . .	Mil Eggs	513	1995	142	1924	1924
<b>HONEY</b>						
Production . . . . .	Thou Lbs	4,368	1963	848	1946	1913
<b>MINK</b>						
Pelts Produced . . . . .	Thou Pelts	780	1989	283	1973	1969

1/ Cows and heifers two years old and over prior to 1970, cows that have calved starting in 1970.

2/ January 1 estimates discontinued in 1969. December 1 estimates started 1969.

3/ Sheep and lambs on feed were discontinued after 1994.

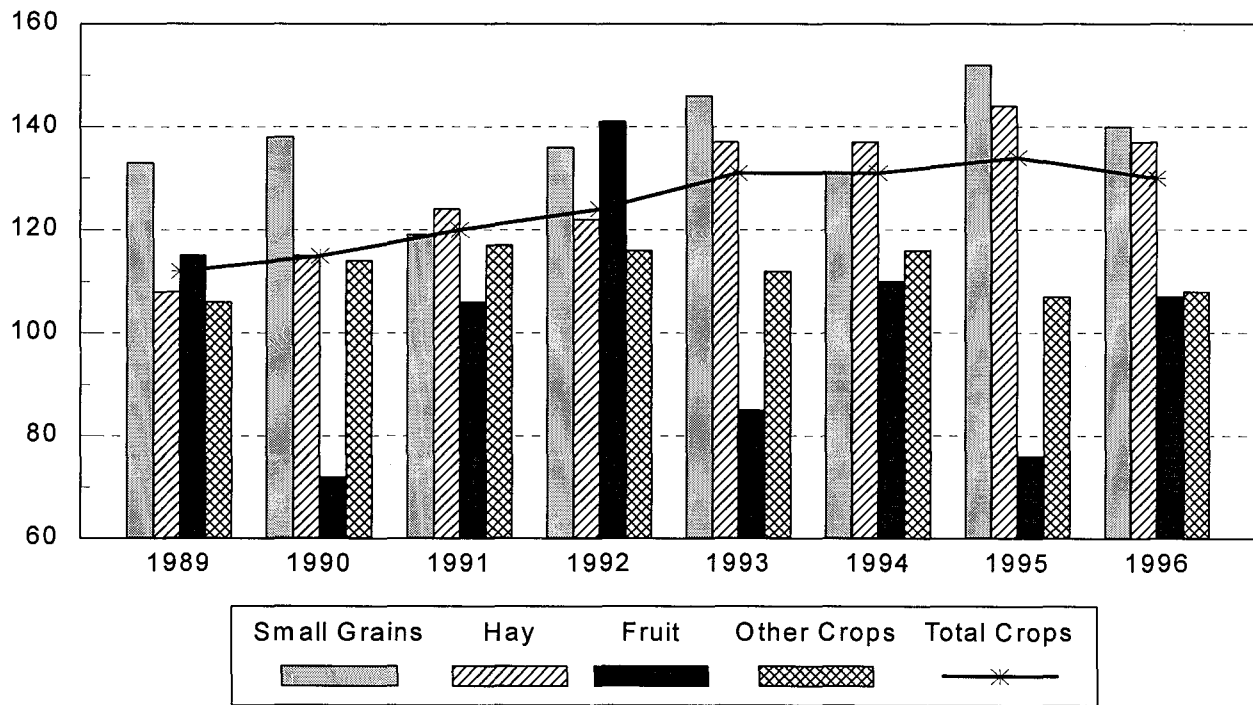
**Crop Production Index (1977 = 100): Crops, by Commodity Grouping, Utah, 1989-96**

Year	Small Grain	Hay	Fruit <sup>1/</sup>	Other Crops	Total Crops
	Percent				
1989	133	108	115	106	112
1990	138	115	72	114	115
1991	119	124	106	117	120
1992	136	122	141	116	124
1993	146	137	85	112	131
1994	131	137	110	116	131
1995	152	144	76	107	134
1996	140	137	107	108	130

<sup>1/</sup> Fruit production index is derived from total production.

## Utah Crop Production Index 1989 - 96

Index (1977=100)



# Number of Farms

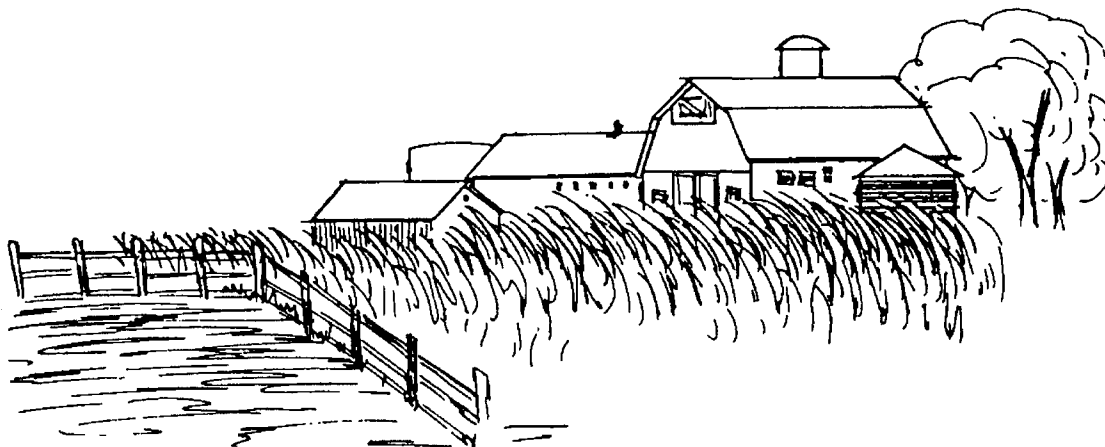
**UTAH:** The number of farms in Utah in 1996 was estimated at 13,400, same level as 1995. Total land in farms for 1996 was 11.0 million acres, down one percent from last year. The average size of farms in Utah decreased to 821 acres from 828 acres in 1995.

**UNITED STATES:** The number of farms in the United States in 1996 was estimated at 2.06 million, virtually unchanged from 1995. Total land in farms was 968 million acres, down 4.0 million acres from the previous year. The average farm size, at 469 acres, was unchanged from 1995.

**Farm Numbers and Acreage: Utah and United States, 1989-96 <sup>1/</sup>**

Year	Utah			United States		
	Farms	Land in Farms		Farms	Land in Farms	
		Average Size	Total		Average Size	Total
	Number	Acres	1,000 Acres	1,000 Farms	Acres	1,000,000 Acres
1989	13,000	869	11,300	2,175	456	991
1990	13,200	856	11,300	2,146	460	987
1991	13,300	850	11,300	2,117	464	982
1992	13,200	856	11,300	2,108	464	979
1993	13,000	862	11,200	2,083	469	976
1994	13,000	854	11,100	2,065	471	973
1995 <sup>2/</sup>	13,400	828	11,100	2,072	469	972
1996 <sup>3/</sup>	13,400	821	11,000	2,063	469	968

<sup>1/</sup> A farm is defined as a place with annual sales of agricultural products of \$1,000 or more. <sup>2/</sup> Definition changed in 1995 to include operations with no sales but which have 5 or more horses not including operations that are either stables or racetracks only. <sup>3/</sup> Preliminary.





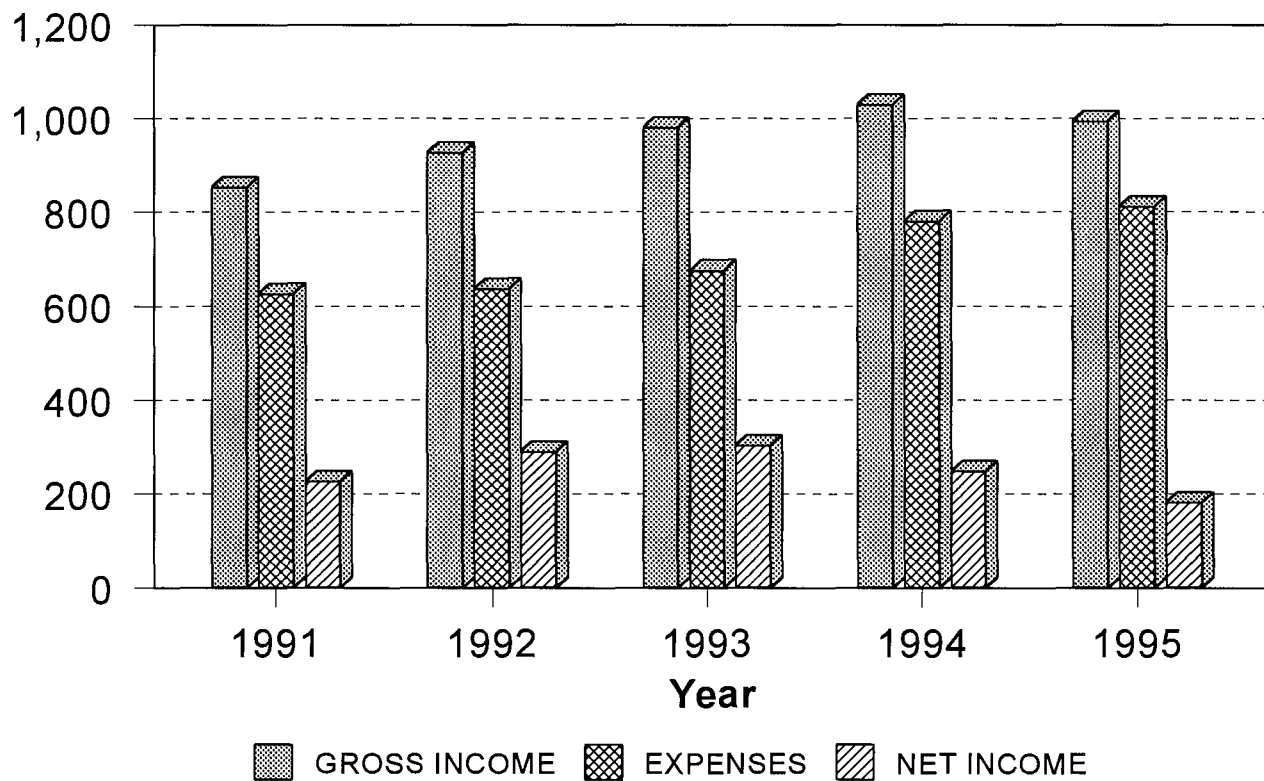
# Farm Income

Marketing of Utah crops and livestock in 1996 produced cash receipts totaling \$869.3 million according to preliminary data released by USDA'S Economic Research Service. This was 7 percent above 1995. Cash receipts from livestock, of \$646.1 million, were 9 percent above 1995. Cash receipts from crops, at \$223.1 million, were up 1

percent from the previous year. Gross farm income in Utah during 1995 was \$992.9 million, down 3 percent from 1994. Net farm income was \$181.3 million compared with \$248.3 million in 1994. Total production expenses during 1995 were \$811.6 million, 4 percent above those of 1994.

## EXPENSES, GROSS AND NET FARM INCOME Utah Farms 1991-1995

Million Dollars



**Cash Receipts: by Commodity, Utah, 1993-96** <sup>1/</sup> <sub>2/</sub>

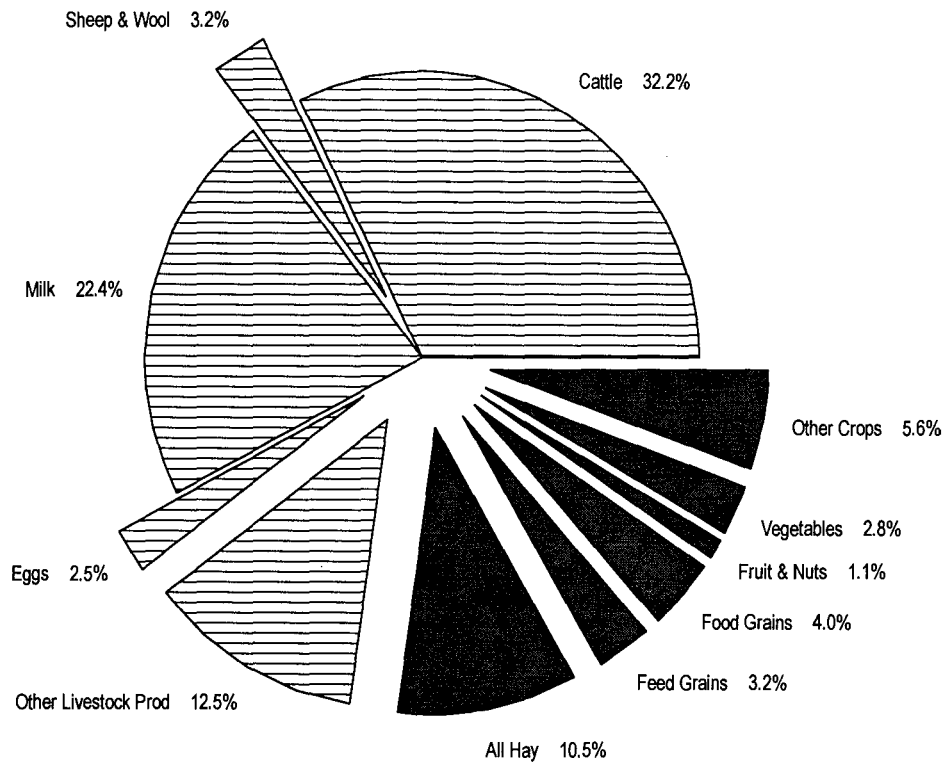
Commodity	1993		1994		1995		1996	
	1,000	Percent	1,000	Percent	1,000	Percent	1,000 Dollars	Percent
<b>ALL COMMODITIES</b>								
All Commodities	831,397	100.0	826,942	100.0	815,400	100.0	838,225	100.0
<b>LIVESTOCK &amp; PRODUCTS</b>								
Livestock & products	613,708	73.8	597,101	72.2	592,443	72.7	613,206	73.2
Meat Animals	324,755	39.1	301,793	36.5	290,983	35.7		
Cattle & Calves	301,883	36.3	280,846	34.0	261,437	32.1		
Sheep & Lambs	17,218	2.1	16,195	2.0	22,611	2.8		
Hogs	5,654	0.7	4,752	0.6	6,935	0.9		
Dairy Products	165,065	19.9	181,930	22.0	181,837	22.3		
Milk, Wholesale	152,339	18.3	168,144	20.3	169,763	20.8		
Milk, Retail	12,726	1.5	13,786	1.7	12,074	1.5		
Poultry/Eggs	70,566	8.5	59,531	7.2	69,114	8.5		
Chicken Eggs	23,655	2.8	18,453	2.2	20,135	2.5		
Other Poultry	720	*	834	*	7,867	1.0		
Miscellaneous Livestock	53,322	6.4	53,847	6.5	50,509	6.2		
Wool	2,240	*	2,690	*	3,535	*		
Other Livestock	46,878	5.6	47,464	5.7	42,732	5.2		
Mink pelts	15,494	1.9	20,460	2.5	17,490	2.1		
All other livestock	31,384	3.8	27,004	3.3	25,242	3.1		
Honey	1,224	*	1,345	*	644	*		
<b>CROPS</b>								
Crops	217,689	26.2	229,841	27.8	222,957	27.3	225,019	26.8
Food Grains	21,585	2.6	25,249	3.1	32,220	4.0		
Wheat	21,585	2.6	25,249	3.1	32,220	4.0		
Feed Crops	104,543	12.6	112,813	13.6	112,468	13.8		
Hay	79,745	9.6	91,870	11.1	88,069	10.8		
Barley	18,247	2.2	14,364	1.7	18,175	2.2		
Corn	5,510	0.7	5,796	0.7	5,704	0.7		
Oil Crops	1,108	*	1,421	*	1,447	*		
Vegetables	35,338	4.3	31,913	3.9	23,403	2.9		
Potatoes	8,254	1.0	8,203	1.0	7,956	1.0		
Onions	9,914	1.2	6,714	0.8	4,933	0.6		
Miscellaneous Vegetables	14,643	1.8	14,447	1.7	10,036	1.2		
Fruits/Nuts	11,085	1.3	12,275	1.5	8,975	1.1		
Apples	6,117	0.7	5,268	0.6	3,726	0.5		
Fresh	5,517	0.7	4,655	0.6	3,016	*		
Cherries, tart	960	*	2,266	*	624	*		
Peaches	1,392	*	1,518	*	1,550	*		
Other Berries	471	*	343	*	675	*		
Miscellaneous Fruits/Nuts	310	*	296	*	294	*		
All Other Crops	44,030	5.3	46,170	5.6	44,444	5.5		
Other Seeds	1,302	*	1,252	*	1,277	*		
Other Field Crops	640	*	387	*	490	*		
Greenhouse/Nursery	35,546	4.3	36,842	4.5	34,985	4.3		
Floriculture	23,499	2.8	24,795	3.0	28,307	3.5		
Christmas trees	137	*	140	*	143	*		

<sup>1/</sup> Source: "Economic Indicators of the Farm Sector: State Financial Summary." Economic Research Service, USDA <sub>2/</sub> Individual dollar values and percents may not add to commodity grouping totals because some individual commodities with less than \$1,000,000 are not published separately, or included in "other" or "miscellaneous". Percents may not add to totals due to rounding. \* Less Than 0.5 percent.

The graph below displays the predominance of livestock in Utah's agricultural economy. Livestock accounted for 72.8 percent of farm cash receipts in 1995, down from 73.0 percent in 1994. Cattle was the single largest contributing commodity producing

32.2 percent of the total cash receipts. Milk was second with 22.4 percent of the receipts. Cash receipts from hay sales, with 10.5 percent, was the largest cash producing crop and was the third highest contributing commodity overall.

## Utah Cash Receipts By Commodities 1995



Livestock & Livestock Products = 72.8%  
Crops = 27.2%

**Farm Income: Cash Receipts, Gross & Net Income from Farming, Utah, 1992-95 <sup>1/</sup>**

Item	1992	1993	1994	1995
..... Million Dollars .....				
Gross Farm Income	926.0	979.1	1,028.7	992.9
Gross cash income	827.2	897.4	914.2	880.0
Farm Marketings	766.1	831.4	826.9	815.4
Crops	193.5	217.7	229.8	223.0
Livestock & products	572.6	613.7	597.1	592.4
Government Payments	36.0	36.6	32.1	24.5
Farm-related Income	25.1	29.4	55.2	40.1
Noncash income	67.0	76.2	93.9	96.7
Value of home consumption	8.3	6.6	7.7	6.7
Rental value of dwellings	58.7	69.6	86.2	90.1
Operator & other dwellings <sup>2/</sup>	55.1	65.7	82.6	83.8
Hired Laborer dwellings	3.6	3.8	3.6	6.2
Value of inventory adjustment	31.8	5.6	20.6	16.1
Total production expenses	636.2	675.5	780.5	811.6
Intermediate product expenses	386.0	419.6	490.0	501.6
Farm origin	155.3	168.8	179.1	190.7
Feed purchased	88.3	87.4	105.4	122.5
Livestock & poultry purchased	56.0	69.7	60.1	55.1
Seed purchased	10.9	11.6	13.6	13.0
Manufactured inputs	49.6	51.7	61.1	66.8
Fertilizer & lime	14.0	16.0	20.8	22.1
Pesticides	7.1	7.8	9.2	9.6
Fuel & oil	28.5	27.8	31.1	35.1
Other	181.1	199.1	249.9	244.2
Repair & maintenance	55.9	55.6	68.6	68.2
Other miscellaneous	125.2	143.5	181.3	176.1
Interest	57.5	49.1	53.5	57.4
Real Estate	29.5	25.1	25.0	25.6
Nonreal estate	28.0	24.0	28.5	31.8
Contract & hired labor expenses	57.9	70.7	91.1	96.8
Net rent of nonoperator landlords <sup>3/</sup>	6.8	4.4	7.3	11.0
Capital consumption	106.6	108.9	112.8	117.3
Property Taxes	21.4	22.9	25.7	27.4
<b>NET FARM INCOME <sup>4/</sup></b>	<b>289.8</b>	<b>303.6</b>	<b>248.3</b>	<b>181.3</b>
Gross receipts of farms	870.9	913.4	946.2	909.1
Farm production expenses	608.9	647.2	743.4	774.1
Nonfactor payments	491.5	528.3	596.5	615.5
Intermediate product expenses	380.4	414.7	479.8	494.4
Capital consumption	88.4	89.8	90.9	92.7
Property taxes	19.3	20.4	22.7	23.7
Contract labor	3.4	3.5	3.2	4.7
Factor payments	117.4	118.9	146.9	158.6
Interest	56.1	47.3	51.6	55.5
Hired labor compensation	54.5	67.2	88.0	92.1
Net rent to nonoperator landlords <sup>3/</sup>	6.8	4.4	7.3	11.0
<b>RETURNS TO OPERATORS <sup>5/</sup></b>	<b>262.0</b>	<b>266.2</b>	<b>202.8</b>	<b>135.0</b>
Gross cash income	827.2	897.4	914.2	880.0
Cash expenses	520.6	557.3	652.7	679.1
Cash expenses, excluding net rent	510.1	549.3	641.5	664.1
Intermediate production expenses	380.4	414.7	479.8	494.4
Interest	56.1	47.3	51.6	55.5
Cash labor expenses	54.3	66.9	87.5	90.6
Property taxes	19.3	20.4	22.7	23.7
Net rent to nonoperator landlords <sup>6/</sup>	10.5	8.1	11.2	15.0
<b>NET CASH INCOME</b>	<b>306.6</b>	<b>340.1</b>	<b>261.5</b>	<b>200.9</b>

<sup>1/</sup> Source: "Economic Indicators of the Farm Sector: State Financial Summary; Economic Research Service, USDA. <sup>2/</sup> Value added to gross income. Net value added to net farm income equals difference in net farm income and returns to operators. <sup>3/</sup> Includes landlord capital consumption. <sup>4/</sup> Statistics in and above the Net Farm Income line represent the farm sector, defined as including farm operators' dwellings located on farms. Statistics below the Net Farm Income line represent only the farm businesses to the exclusion of the operators' dwellings. <sup>5/</sup> Returns to operators is equivalent to net farm income excluding the income and expenses associated with farm operators' dwellings. <sup>6/</sup> Excludes landlord capital consumption.

**Farm Balance Sheet: (Excluding Operator Households), Utah, December 31, 1991-95 <sup>1/ 2/</sup>**

Item	1991	1992	1993	1994	1995
..... Thousand Dollars .....					
<b>ASSETS</b>					
Total Farm Assets .....	5,586.4	6,038.2	6,357.0	6,946.0	7,894.1
Real Estate .....	4,433.6	4,841.2	5,172.8	5,781.1	6,589.3
Livestock & Poultry <sup>3/</sup> .....	566.3	637.9	626.9	626.4	512.9
Machinery & Motor Vehicles <sup>4/</sup> ..	441.0	431.8	437.4	447.7	454.5
Crops <sup>5/</sup> .....	91.8	87.2	95.1	110.6	94.4
Purchased Inputs .....	21.9	28.9	27.9	23.6	14.3
Financial .....	31.8	11.2	-3.0	-43.3	228.7
<b>CLAIMS</b>					
Farm Debt .....	660.8	653.7	650.4	668.6	688.3
By Purpose:					
Real Estate Debt .....	355.8	352.9	340.4	339.4	348.1
Non-Real Estate Debt <sup>6/</sup> .....	305.0	300.8	310.0	329.2	340.1
By Lender:					
Farm Credit System .....	183.7	167.1	161.2	148.5	154.6
Farm Service Agency .....	87.4	86.1	83.5	82.2	77.6
Commercial banks .....	190.6	196.6	192.6	210.8	220.6
Life insurance companies .....	8.9	8.7	8.4	11.0	10.9
Individuals and others .....	190.3	195.3	204.7	216.1	224.5
<b>EQUITY</b>					
Equity .....	4,925.6	5,384.5	5,706.6	6,277.4	7,205.8
<b>RATIOS</b>					
..... Percent .....					
Debt/Equity .....	13.4	12.1	11.4	10.7	9.6
Debt/Assets .....	11.8	10.8	10.2	9.6	8.7

<sup>1/</sup> Source: Economic Research Service/USDA.

<sup>2/</sup> Data are for farms with sales of \$1,000 or more annually.

<sup>3/</sup> Excludes horses, mules, and broilers.

<sup>4/</sup> Includes only farm share value for trucks and autos.

<sup>5/</sup> All non-CCC crops held on farms plus the value above loan rate for crops held under CCC.

<sup>6/</sup> Excludes debt for non-farm purposes.



# Field Crops

Precipitation during the October 1, 1995 through September 30, 1996 water year was 76 percent of normal for the state. Divisions ranged from 61 to 97 percent of normal.

## **PRINCIPAL CROPS:**

Utah farmers planted 1.14 million acres to principal crops in 1996, up 4 percent from 1995. Harvested acres were 1.07 million acres, up 3 percent from 1995. Total value of principal crops was \$266.8 million compared with \$276.3 million in 1995.

## **HAY:**

Alfalfa hay harvested, at 545,000 acres, was unchanged from 1995. Yield averaged 4.0 tons per acre, down from 4.3 tons in 1995. Total production of 2.2 million tons was down 7 percent from 1995.

Other hay harvested, at 160,000 acres, compared with 150,000 acres harvested in 1995. The average yield of 2.1 tons per acre produced 336,000 tons, up 12 percent from 1995.

The 1996 all hay crop was valued at \$165.4 million which was down \$4.2 million from 1995. The price per ton, at \$69.00, was up \$3.00 from the previous year.

## **SMALL GRAINS:**

Planted acreage for all wheat was 205,000 acres, up 18 percent from 1995; barley planted, at 110,000 acres, was up 10,000 acres; and oats, at 45,000 acres, were down 5,000 acres.

Winter wheat harvested acreage, at 160,000 acres, was up 14 percent from 1995, and the yield, at 38 bushels per acre, was down from the record high 50 bushel per acre in 1995. Total production, at 6.1 million bushels, was down 920,000 bushels from 1995. Value of production declined 19 percent to

\$27.1 million.

Spring wheat harvested acreage, at 28,000 acres, was up 8 percent from 1995. The average yield, at 60 bushels per acre, was 15 bushels below the previous year, and production, at 1.7 million bushels, was down 14 percent from the previous year. Value of production, at \$7.4 million, was down 19 percent from 1995.

Barley acreage harvested, at 100,000 acres, was 8 percent above 1995. Production, at 8.2 million bushels, was down 2 percent. The average yield of 82 bushels per acre was eight bushels below the previous year. The 1996 barley crop was valued at \$23.8 million, down \$2.0 million from 1995.

Oat production, at 648,000 bushels, was 3 percent above the previous year. Growers harvested 9,000 acres for grain, the same as last year. The value of production, at \$1.4 million, was up 8 percent from the previous year.

## **CORN:**

Corn acreage planted for all purposes, at 65,000 acres, was down 4 percent from 1995.

Acreage harvested for grain, at 21,000 acres, was up 5 percent from 1995. The average yield for grain, at 130 bushels, was up 30 bushels from the previous year. Grain production totaled 2.7 million bushels, up 37 percent from 1995. The crop was valued at \$10.4 million, up 34 percent from the previous year.

Corn for silage production totaled 882,000 tons compared with 940,000 tons in 1995. A total of 42,000 acres were harvested. The value of the crop was \$24.7 million compared with \$23.5 million in 1995.

**Corn Planted and Harvested for Silage and Grain: Acreage, Yield,  
Production, and Value, Utah, 1989-96**

Year	Planted for All Purposes	Acres Harvested	Yield Per Acre	Production	Marketing Year Average Price	Value of Production
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**SILAGE**

	..... 1,000 Acres .....	Tons	1,000 Tons	Dollars per Ton <sup>1/</sup>	1,000 Dollars
1989	65	44	19.0	24.00	20,064
1990	65	45	20.5	26.00	23,998
1991	68	44	21.0	22.00	20,328
1992	68	42	19.0	24.00	19,152
1993	68	44	20.0	24.00	21,120
1994	67	43	22.0	26.00	24,596
1995	68	47	20.0	25.00	23,500
1996	65	42	21.0	28.00	24,696

**GRAIN**

	..... 1,000 Acres .....	Bushels	1,000 Bushels	Dollars per Bushel	1,000 Dollars
1989	65	20	132.0	2.80	7,392
1990	65	19	140.0	2.79	7,421
1991	68	21	140.0	2.92	8,585
1992	68	24	135.0	2.74	8,878
1993	68	22	130.0	3.12	8,923
1994	67	22	130.0	2.92	8,351
1995	68	20	100.0	3.88	7,760
1996	65	21	130.0	3.80	10,374

<sup>1/</sup> Price or value per ton in silo or pit.



## Small Grains: Acreage, Yield, Production, and Value, Utah, 1989-96

Year	Acres		Yield per Acre	Production	Marketing Year Average Price	Value of Production
	Planted <sup>1/</sup>	Harvested				
	..... 1,000 Acres .....		Bushels	1,000 Bushels	Dollars per Bushel	1,000 Dollars
<b>WINTER WHEAT <sup>1/</sup></b>						
1989	165	155	32.0	4,960	3.75	18,600
1990	155	150	40.0	6,000	2.83	16,980
1991	140	130	36.0	4,680	3.45	16,146
1992	145	135	40.0	5,400	3.27	17,658
1993	160	155	39.0	6,045	3.40	20,553
1994	170	150	40.0	6,000	3.66	21,960
1995	145	140	50.0	7,000	4.75	33,250
1996	175	160	38.0	6,080	4.45	27,056
<b>SPRING WHEAT</b>						
1989	25	22	45.0	990	3.70	3,663
1990	30	26	45.0	1,170	2.92	3,416
1991	25	23	49.0	1,127	3.20	3,606
1992	25	22	48.0	1,056	3.30	3,485
1993	27	25	49.0	1,225	3.30	4,043
1994	24	22	46.0	1,012	3.60	3,643
1995	28	26	75.0	1,950	4.70	9,165
1996	30	28	60.0	1,680	4.40	7,392
<b>ALL WHEAT</b>						
1989	190	177	33.6	5,950	3.74	22,263
1990	185	176	40.7	7,170	2.83	20,396
1991	165	153	38.0	5,807	3.40	19,752
1992	170	157	41.1	6,456	3.28	21,143
1993	187	180	40.4	7,270	3.40	24,596
1994	194	172	40.8	7,012	3.65	25,603
1995	173	166	53.9	8,950	4.74	42,415
1996	205	188	41.3	7,760	4.45	34,448
<b>BARLEY</b>						
1989	134	114	79.0	9,006	2.23	20,083
1990	115	105	81.0	8,505	2.37	20,157
1991	105	95	83.0	7,885	2.25	17,741
1992	125	115	78.0	8,970	2.23	20,003
1993	115	110	85.0	9,350	2.22	20,757
1994	115	107	75.0	8,025	2.32	18,618
1995	100	93	90.0	8,370	3.08	25,780
1996	110	100	82.0	8,200	2.90	23,780
<b>OATS</b>						
1989	36	17	74.0	1,258	1.70	2,139
1990	40	12	68.0	816	1.68	1,371
1991	50	8	77.0	616	1.60	986
1992	45	15	70.0	1,050	1.63	1,712
1993	50	13	78.0	1,014	1.69	1,714
1994	40	8	75.0	600	1.65	990
1995	50	9	70.0	630	2.05	1,292
1996	45	9	72.0	648	2.15	1,393

<sup>1/</sup> Planted in preceding fall.

### Field Crops: Acreage, Yield, Production, and Value, Utah, 1989-96

Year	Acres		Yield per Acre	Production	Marketing Year Average Price	Value of Production
	Planted	Harvested				

#### DRY BEANS <sup>1/</sup>

	..... 1,000 Acres .....	Pounds	1,000 Cwt	Dollars per Cwt	1,000 Dollars	
1989	5.6	5.0	300	15	31.70	476
1990	5.5	4.0	330	13	19.00	247
1991	6.0	5.5	480	26	14.00	364
1992	6.0	5.7	700	40	19.90	796
1993	6.4	6.1	390	24	28.00	672
1994	6.5	6.3	380	24	18.00	432
1995	7.3	7.0	460	32	19.00	608
1996	5.0	0.6	1,600	10	25.00	250

#### POTATOES

	..... 1,000 Acres .....	Cwt	1,000 Cwt	Dollars per Cwt	1,000 Dollars	
1989	6.3	6.1	245	1,495	6.60	9,867
1990	6.3	6.2	265	1,643	6.00	9,858
1991	6.1	6.0	270	1,620	5.25	8,505
1992	6.1	6.0	275	1,650	5.40	8,910
1993	6.3	6.2	265	1,643	5.70	9,365
1994	6.1	6.0	265	1,590	5.80	9,222
1995	5.2	5.1	240	1,224	5.10	6,242
1996	4.3	4.2	280	1,176	4.45	5,233

<sup>1/</sup> Excludes beans grown for garden seed.

#### Potatoes: Production, Farm Use, Sales, and Value, Utah, 1989-96

Year	Production	Total Used for Seed <sup>1/</sup>	Farm Disposition			Price per Cwt	Value of Sales
			Used on Farms Where Grown		Sold		
			For Seed, Feed, & Household Use	Shrinkage, & Loss			
			..... 1,000 Cwt .....		Dollars	1,000 Dollars	
1989	1,495	156	51	136	1,308	6.60	8,633
1990	1,643	153	53	158	1,432	6.00	8,592
1991	1,620	146	18	200	1,402	5.25	7,361
1992	1,650	153	20	105	1,525	5.40	8,235
1993	1,643	165	23	168	1,452	5.70	8,276
1994	1,590	130	5	185	1,400	5.80	8,120
1995	1,224	103	2	125	1,097	5.10	5,595
1996 <sup>2/</sup>	1,176	<sup>3/</sup>	<sup>3/</sup>	<sup>3/</sup>	<sup>3/</sup>	4.45	<sup>3/</sup>

<sup>1/</sup> Includes seed purchased and seed used on farms where grown. <sup>2/</sup> Preliminary. <sup>3/</sup> Available September 22, 1997.

### Hay: Acreage, Yield, Production, and Value, Utah, 1989-96

Year	Acres Harvested	Yield per Acre	Production	Marketing Year Average Price	Value of Production
	1,000 Acres	Tons	1,000 Tons	Dollars per Ton	1,000 Dollars
<b>ALFALFA &amp; ALFALFA MIXTURE</b>					
1989	470	3.70	1,739	85.00	147,815
1990	485	3.80	1,843	83.00	152,969
1991	490	4.00	1,960	57.00	111,720
1992	490	4.00	1,960	62.00	121,520
1993	500	4.40	2,200	65.50	144,100
1994	525	4.20	2,205	80.00	176,400
1995	545	4.30	2,344	66.00	154,704
1996	545	4.00	2,180	69.00	150,420
<b>ALL OTHER HAY <sup>1/</sup></b>					
1989	130	1.90	247	72.50	17,908
1990	140	2.00	280	72.50	20,300
1991	150	2.10	315	47.00	14,805
1992	140	2.00	280	43.00	12,040
1993	150	2.20	330	50.50	16,665
1994	160	2.00	320	64.00	20,480
1995	150	2.00	300	49.50	14,850
1996	160	2.10	336	44.50	14,952
<b>ALL HAY</b>					
1989	600	3.31	1,986	82.50	165,723
1990	625	3.40	2,123	79.50	173,269
1991	640	3.55	2,275	56.00	126,525
1992	630	3.56	2,240	61.00	133,560
1993	650	3.89	2,530	65.00	160,765
1994	685	3.69	2,525	79.50	196,880
1995	695	3.80	2,644	66.00	169,554
1996	705	3.57	2,516	69.00	165,372

<sup>1/</sup> Includes clover, timothy, grain, other tame and wild hays.



**Grain Stocks: Wheat, Barley, Oats, and Corn - Stored Off Farm  
by Quarters; Utah, 1989-96 <sup>1/</sup>**

Year Beginning			Following Year	
Year	September 1	December 1	March 1	June 1

1,000 Bushels

**ALL WHEAT**

1989	4,807	4,926	5,736	4,102
1990	7,196	5,024	6,564	4,923
1991	6,170	6,435	6,504	3,429
1992	6,711	6,808	5,881	4,404
1993	4,765	5,908	6,542	4,369
1994	5,856	3,264	5,106	3,625
1995	5,165	5,807	5,143	3,684
1996	2,998	3,248	3,775	<sup>2/</sup>

**BARLEY**

1989	3,535	2,477	1,565	848
1990	2,698	1,194	1,734	706
1991	2,117	2,103	1,427	605
1992	2,872	2,538	1,694	973
1993	2,799	3,284	2,356	1,106
1994	3,172	1,757	1,063	512
1995	1,823	1,937	1,129	557
1996	1,915	1,499	1,295	<sup>2/</sup>

**OATS**

1989	NA	NA	177	97
1990	177	181	170	102
1991	114	179	193	174
1992	232	278	151	119
1993	88	143	191	72
1994	<sup>3/</sup>	<sup>3/</sup>	<sup>3/</sup>	52
1995	142	115	71	136
1996	76	<sup>3/</sup>	119	<sup>2/</sup>

Year Beginning		Following Year		
Year	December 1	March 1	June 1	September 1

1,000 Bushels

**CORN**

1989	3,066	1,517	561	169
1990	865	908	480	475
1991	826	775	432	384
1992	675	543	519	306
1993	581	646	519	255
1994	573	564	432	475
1995	543	609	377	476
1996	865	697	<sup>2/</sup>	

<sup>1/</sup> Includes stocks at mills, elevators, warehouses, terminals, and processors. <sup>2/</sup> Estimates available June 30, 1997. <sup>3/</sup> Not published to avoid disclosure of individual operations.

# Fruits

Utah's 1996 fruit production was higher than the previous year for apples, apricots, pears, peaches, sweet cherries, and tart cherries. Prices were lower for apples and peaches but higher for pears and sweet cherries.

Apple production during 1996, at 48 million pounds, was almost 2 1/2 times larger than the poor 1995 crop. Utilized production was 45 million pounds. Producers received an average price of 14.2 cents per pound, 4.6 cents less than the previous year. The 1996 total value of utilized production, at \$6.4 million, was 79 percent higher than the previous year.

After 1995's apricot crop failure which was caused by hard, spring frosts, the 1996 crop was 300 tons. Utilized production was 290 tons. The average price received by growers was \$879 per ton, up \$368 from two years ago. The 1996 total value of production was \$255,000.

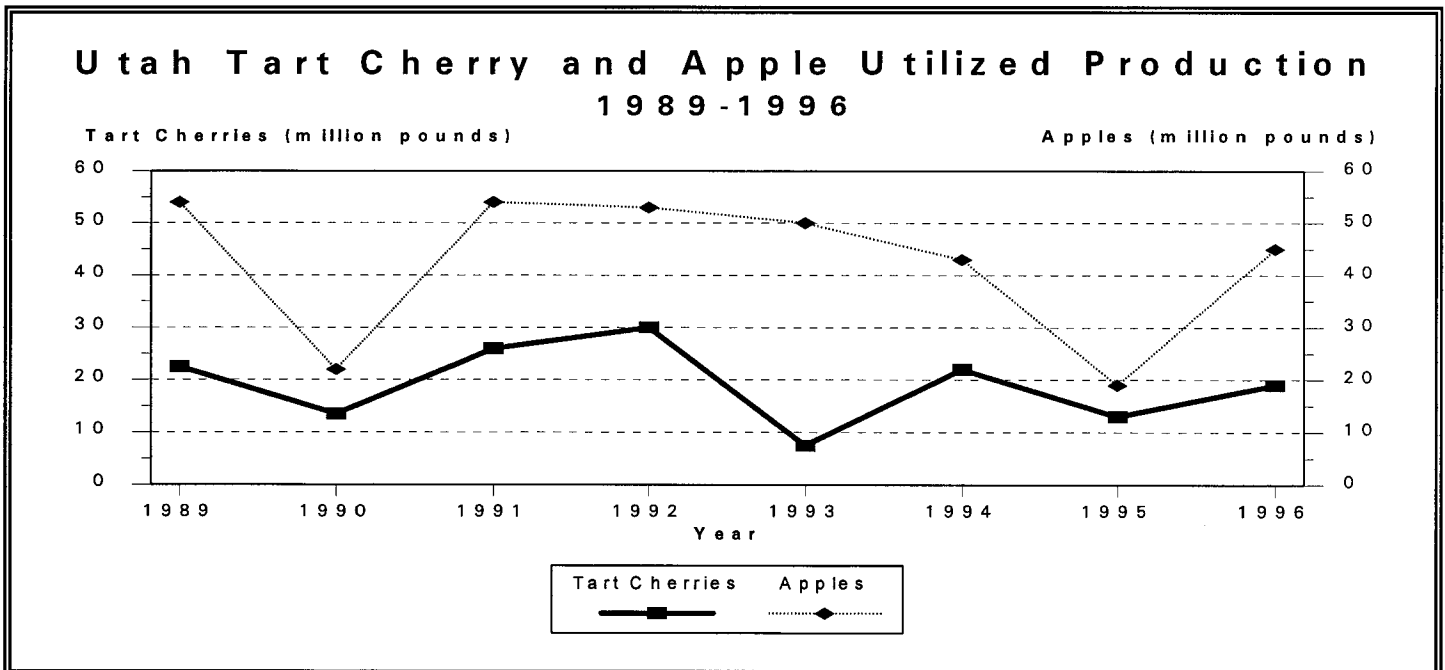
Peach production, at 7.0 million pounds, was up 11 percent from 1995. Utilized production, at 6.6

million pounds, was 6 percent above the previous year. Average price per pound was 24 cents bringing total value of the crop to \$1.6 million, fractionally higher than 1995.

Pear production in Utah, at 1,500 tons, was 36 percent higher than the year before. The average price received by growers was \$483 per ton, \$23 per ton more than 1995. Total value of the crop was \$580,000, up 26 percent from the year earlier.

Sweet Cherry producers harvested 2,300 tons, 300 tons more than 1995. Utilized production was 2,200 tons. Average price received by growers was \$1,130 per ton, up \$264 from the previous year. The total value of the crop was \$2.5 million, up 51 percent from 1995.

Tart Cherry production during 1996 was 25.0 million pounds, 14 percent higher than 1995. Utilized production was 19.0 million pounds. Tart cherry prices for the 1996 crop will not be published until July 3, 1997.



**Fruit: Acreage, Yield, Production, Use, and Value, Utah, 1989-96**

Year	Bearing Acreage	Yield per Acre	Production			Utilization		Average Price	Value of Utilized Production
			Total	Not Utilized	Utilized	Fresh	Processed		
	Acres	Pounds	Million Pounds					Cents per Lb	1,000 Dollars
<b>COMMERCIAL APPLES</b>									
1989	3,700	15,100	56.0	2.0	54.0	40.0	14.0	12.0	6,458
1990	3,500	6,860	24.0	2.0	22.0	18.0	4.0	18.8	4,132
1991	3,300	16,700	55.0	1.0	54.0	38.0	16.0	18.0	9,740
1992	3,100	18,100	56.0	3.0	53.0	38.0	15.0	12.9	6,830
1993	3,000	17,700	53.0	3.0	50.0	39.0	11.0	12.1	6,043
1994	3,000	16,000	48.0	5.0	43.0	32.0	11.0	12.1	5,192
1995	3,000	6,670	20.0	1.0	19.0	13.0	6.0	18.8	3,580
1996	2,800	17,100	48.0	3.0	45.0	1/	1/	14.2	6,407
<b>TART CHERRIES</b>									
1989	--	--	24.0	1.5	22.5	0.1	22.4	12.1	2,716
1990	--	--	15.5	2.0	13.5	0.1	13.4	14.1	1,906
1991	--	--	26.0	--	26.0	0.1	25.9	44.6	11,583
1992	--	--	33.0	3.0	30.0	0.3	29.7	14.0	4,200
1993	--	--	15.0	7.5	7.5	0.1	7.4	12.8	960
1994	--	--	26.5	4.5	22.0	--	22.0	10.3	2,266
1995	--	--	22.0	9.0	13.0	--	13.0	4.8	624
1996	--	--	25.0	6.0	19.0	--	19.0	1/	1/
<b>PEACHES</b>									
1989	1,700	6,470	11.0	0.5	10.5	10.5	--	21.5	2,258
1990	1,600	7,500	12.0	0.5	11.5	11.5	--	24.0	2,760
1991	1,400	1,790	2.5	--	2.5	2.5	--	34.0	850
1992	1,200	6,080	7.3	1.1	6.2	2/	2/	22.0	1,364
1993	1,000	6,000	6.0	0.2	5.8	5.8	--	24.0	1,392
1994	1,000	7,400	7.4	0.8	6.6	6.6	--	23.0	1,518
1995	1,000	6,300	6.3	0.1	6.2	6.2	--	25.0	1,550
1996	1,000	7,000	7.0	0.4	6.6	6.6	--	24.0	1,584

1/ Estimates available July 3, 1997. 2/ Not published to avoid disclosure of individual operations.

**Fruit: Acreage, Yield, Production, Use, and Value, Utah, 1989-96**

Year	Bearing Acreage	Yield per Acre	Production			Utilization		Average Price	Value of Utilized Production
			Total	Not Utilized	Utilized	Fresh	Processed		
	Acres		Tons					Dollars per Ton	1,000 Dollars
<b>APRICOTS <sup>1/</sup></b>									
1989	--	--	400	50	350	350	--	470.00	165
1990	--	--	250	10	240	240	--	460.00	110
1991	--	--	100	10	90	90	--	820.00	74
1992	--	--	600	100	500	500	--	620.00	310
1993	--	--	250	10	240	240	--	525.00	126
1994	--	--	400	20	380	380	--	511.00	194
1995 <sup>2/</sup>									
1996	--	--	300	10	290	290	--	879.00	255
<b>SWEET CHERRIES</b>									
1989	750	2.27	1,700	100	1,600	1,200	400	800.00	1,280
1990	720	1.94	1,400	50	1,350	500	850	645.00	871
1991	690	1.16	800	--	800	460	340	875.00	700
1992	660	4.24	2,800	50	2,750	650	2,100	621.00	1,709
1993	630	1.98	1,250	50	1,200	650	550	958.00	1,149
1994	630	3.65	2,300	50	2,250	1,400	850	902.00	2,030
1995	630	3.17	2,000	100	1,900	1,200	700	866.00	1,646
1996	630	3.65	2,300	100	2,200	1,300	900	1,130.00	2,490
<b>PEARS</b>									
1989	310	5.16	1,600	--	1,600	1,600	--	340.00	544
1990	290	6.21	1,800	--	1,800	1,800	--	380.00	684
1991	260	6.15	1,600	--	1,600	1,600	--	440.00	704
1992	220	5.45	1,200	--	1,200	1,200	--	400.00	480
1993	190	7.89	1,500	100	1,400	1,400	--	400.00	560
1994	190	6.32	1,200	200	1,000	1,000	--	360.00	360
1995	190	5.79	1,100	100	1,000	1,000	--	460.00	460
1996	190	7.89	1,500	300	1,200	1,200	--	483.00	580

<sup>1/</sup> Small quantities processed are included in "fresh" to avoid disclosure of individual operations. <sup>2/</sup> No significant commercial production in 1995 due to frost damage.

# Onions

Utah onion growers produced 987,000 cwt of onions in 1996. This was 2 percent above the previous year's estimate. Growers planted 2,200 acres, down 100 acres from 1995. They harvested 2,100 acres during the year, a decrease of 100 acres from 1995.

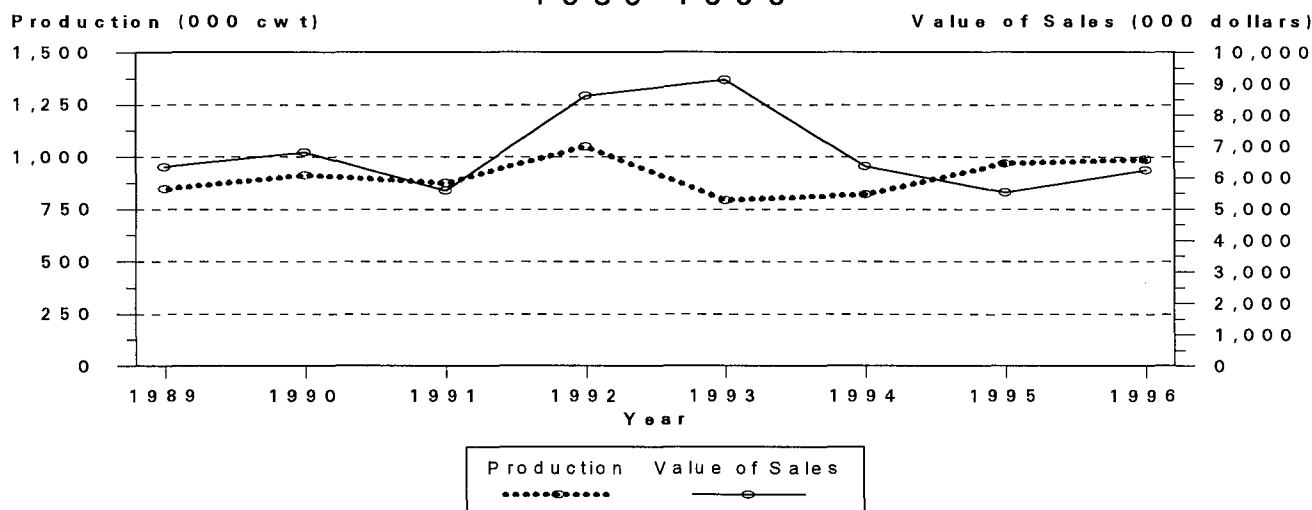
The yield per acre was 470 cwt, 30 cwt above the previous year. Farmers received an average of \$8.00 per cwt for their onions. Total value of the crop was \$6.2 million, up 13 percent from 1995.

**Onions: Summer Storage (Fresh Market), Acreage, Yield, Production, and Value, Utah, 1989-96**

Year	Acreage		Yield per Acre	Production	Quantity Not Sold <sup>1/</sup>	Sales	Value of Sales	
	Planted	Harvested					Per Cwt	Total
	..... Acres .....		Cwt	.....	1,000 Cwt	.....	Dollars	1,000 Dollars
1989	2,000	1,900	445	846	85	761	8.33	6,339
1990	2,000	1,900	480	912	100	812	8.40	6,821
1991	2,000	1,900	460	874	157	717	7.80	5,593
1992	2,100	2,000	525	1,050	158	892	9.65	8,608
1993	2,100	1,800	440	792	277	515	17.70	9,116
1994	2,200	2,000	410	820	120	700	9.09	6,363
1995	2,300	2,200	440	968	106	862	6.40	5,517
1996 <sup>2/</sup>	2,200	2,100	470	987	207	780	8.00	6,240

<sup>1/</sup> Includes shrinkage, waste, and cullage. <sup>2/</sup> Preliminary estimates. Estimates subject to revision in the Vegetable Report July 10, 1997.

**Utah Onion Production and Value  
1989-1996**



# Floriculture

**UTAH:** In 1996 there were 93 growers of floriculture with wholesale values of \$10,000 or more in sales in Utah. They had 4.3 million square feet of covered growing area. The total wholesale value of all reported crops for growers with more

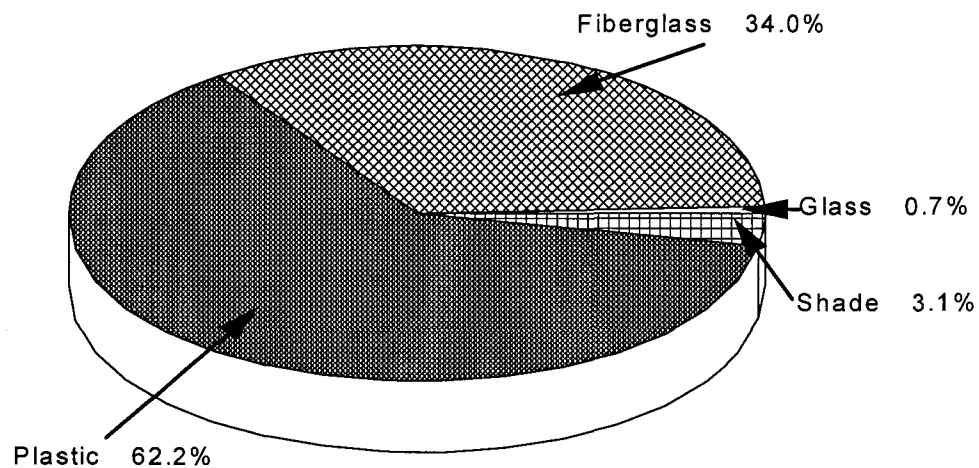
than \$100,000 in sales was \$23.0 million. Of the \$23.0 million, the value of sales for cut flowers was \$1.0 million, potted flowering plants \$7.3 million, foliage for indoor or patio use \$2.4 million, and total bedding/garden plants \$12.2 million.

**Floriculture Crops: Wholesale Value of Sales, Utah, Selected Types, 1992-96 <sup>1/</sup>**

Year	Total Cut Flowers	Total Potted Flowering Plants	Total Foliage for Indoor or Patio Use	Total Bedding/Garden Plants	Total Wholesale Value of Reported Crops
1,000 Dollars					
1992	3,641	4,689	1,206	8,547	18,083
1993	3,479	4,963	2,661	9,666	20,769
1994	3,036	7,468	1,707	10,049	22,260
1995	2,811	8,581	2,033	12,780	26,205
1996	1,045	7,326	2,386	12,199	22,993

<sup>1/</sup> Based only on reported numbers from growers with \$100,000 or more in sales of floriculture crops.

## 1996 Utah Nursery Growing Area by Type of Cover



**Potted Flowers: Quantity Sold Wholesale, Utah, Selected Types, 1992-97 <sup>1/</sup>**

Year	Easter Lilies	Poinsettias	New Guinea Impatiens <sup>2/</sup>	Other Flowering and Foliar Bed Plants	Hardy Garden Chrysanthemums
1,000 Pots					
1992	<sup>3/</sup>	447		<sup>3/</sup>	110
1993	102	701		<sup>3/</sup>	246
1994	191	843	18	877	296
1995	169	709	52	676	170
1996	175	467	47	626	242
1997 <sup>4/</sup>	230	796	26	633	284

See footnotes at bottom of page

**Bedding Plants: Quantity Sold Wholesale, Utah, Selected Types, 1992-97 <sup>1/</sup>**

Year	Geraniums	Impatiens <sup>2/</sup>	Petunias <sup>2/</sup>	Other Flowering and Foliar Type Bedding Plants <sup>5/</sup>	Vegetable Bedding Plants
1,000 Flats					
1992	<sup>3/</sup>			749	124
1993	19			764	102
1994	77	54	120	559	98
1995	46	76	151	676	130
1996	62	80	163	626	124
1997 <sup>4/</sup>	82	79	198	633	123

See footnotes at bottom of page

**Hanging Baskets: Quantity Sold Wholesale, Utah, Selected Types, 1994-97 <sup>1/ 2/</sup>**

Year	Geraniums	Impatiens	Other Flowering
1,000 Baskets			
1994	18	11	50
1995	17	10	40
1996	14	8	49
1997 <sup>4/</sup>	13	8	73

See footnotes at bottom of page

<sup>1/</sup> Based only on reported numbers from growers with \$100,000 or more in sales of floriculture crops. <sup>2/</sup> Estimates began in 1994. <sup>3/</sup> Not published to avoid disclosure of individual operations. <sup>4/</sup> Intentions for 1997. <sup>5/</sup> Other flowering and foliage type bedding plants. Excludes Geraniums, Impatiens, New Guinea Impatiens, Petunias, and Vegetable type bedding plants.



# Cattle and Calves

Utah cattlemen had a total of 930,000 cattle and calves on farms and ranches January 1, 1997, an increase of 20,000 head over January 1, 1996. Beef cows, at 355,000 head, were up 5,000 head from 1996. Milk cows, at 90,000 head, were up 5,000 head (beef cow and milk cow numbers were revised for January 1, 1996). Beef cow replacement heifers weighing 500 pounds or more were estimated at 70,000 head, 2,000 more than the January 1, 1996 number. Milk cow replacements totaled 45,000 head compared with 43,000 head in 1996. Other heifers, at 73,000 head, increased 9,000 head from the previous year's level. Steers 500 pounds and over totaled 138,000 head, 3,000 head fewer than the previous year. Bulls, at 24,000 head, were up 2,000 head from the 1996 level. Calves weighing less than 500 pounds were estimated at 135,000 head, 2,000 head fewer than the January 1, 1996 level.

Utah's 1996 calf crop totaled 395,000 head, up 3 percent from the 1995 level of 385,000.

Cattle and calves on full feed for slaughter totaled 50,000 head January 1, 1997, down 10,000 from 1996.

Value per head of all cattle and calves averaged \$530.00 January 1, 1997 compared with \$510.00 per

head on January 1, 1996. Total inventory was valued at \$492.9 million, up 6 percent from 1996.

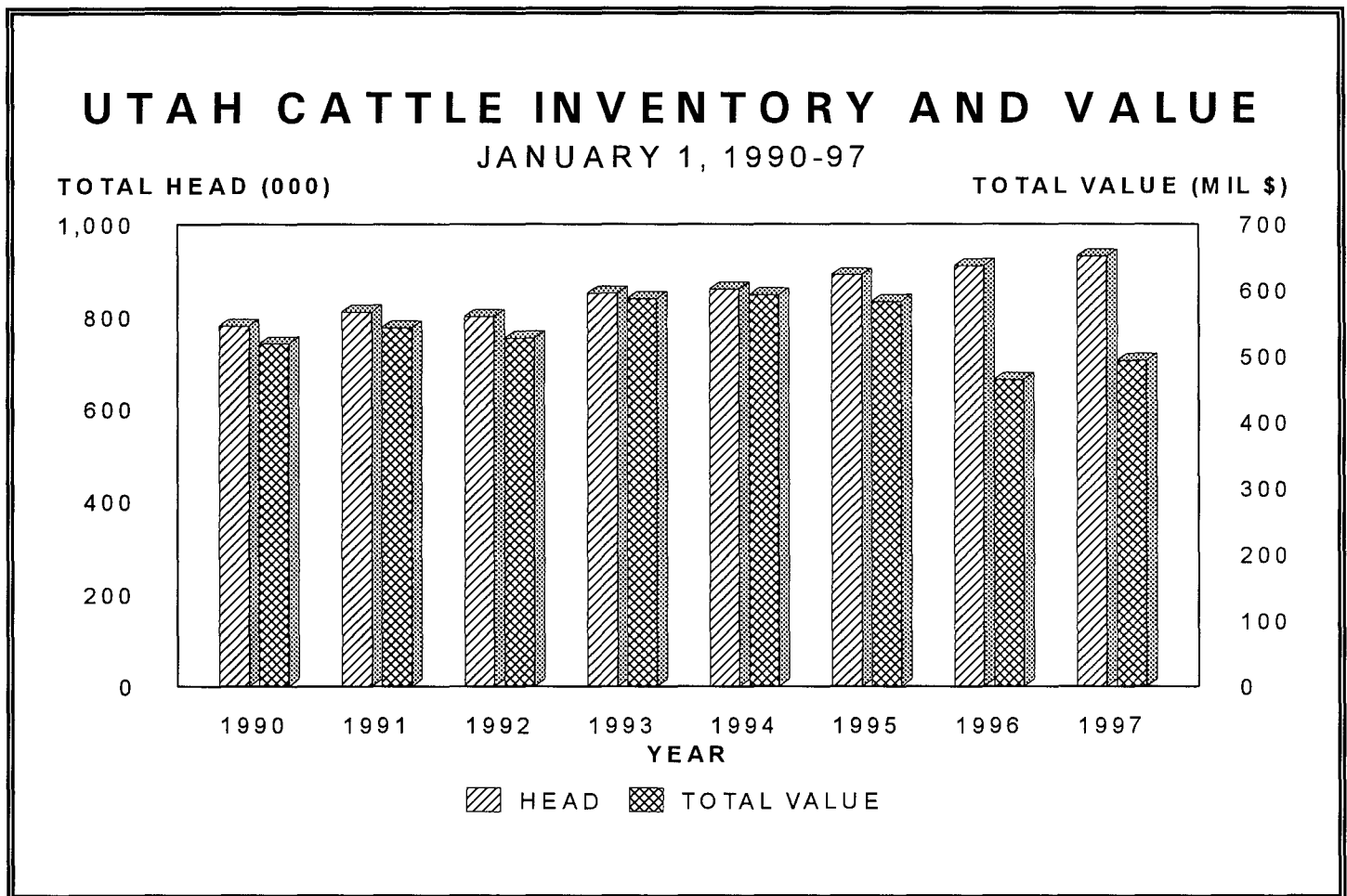
Utah operations with cattle and calves in 1996 totaled 7,800, an increase of 100 farms from the previous year. The breakdown by size group was as follows: 4,300 operations with 1 to 49 head; 1,100 with 50 to 99 head; 2,000 with 100 to 499 head; 280 with 500 to 999 head; and 120 with 1,000 head or more. Operations with more than 500 head accounted for 40 percent of the Utah cattle inventory and those with 100 to 499 head accounted for 44 percent. Operations with less than 100 head accounted for only 16 percent of the cattle inventory.

Beef production during 1996 totaled 381.6 million pounds, up 3 percent from the previous year. Marketings during the year totaled 441.8 million pounds, up 5 percent from 1995.

Cash receipts for 1996 totaled \$244.2 million, down 7 percent from the previous year. Price of cattle averaged \$55.00 per hundredweight (cwt), down \$6.40 from 1995. The 1996 average slaughter cow price at \$32.00 per cwt compares with \$37.50 in 1995. The 1996 steer and heifer price at \$57.00 per cwt was \$6.10 below 1995. The average price for calves less than 500 pounds during 1996 was \$58.00 per cwt, down \$13.10 from 1995.

**Cattle: Farms, Inventory, and Value, Utah, January 1, 1990-97**

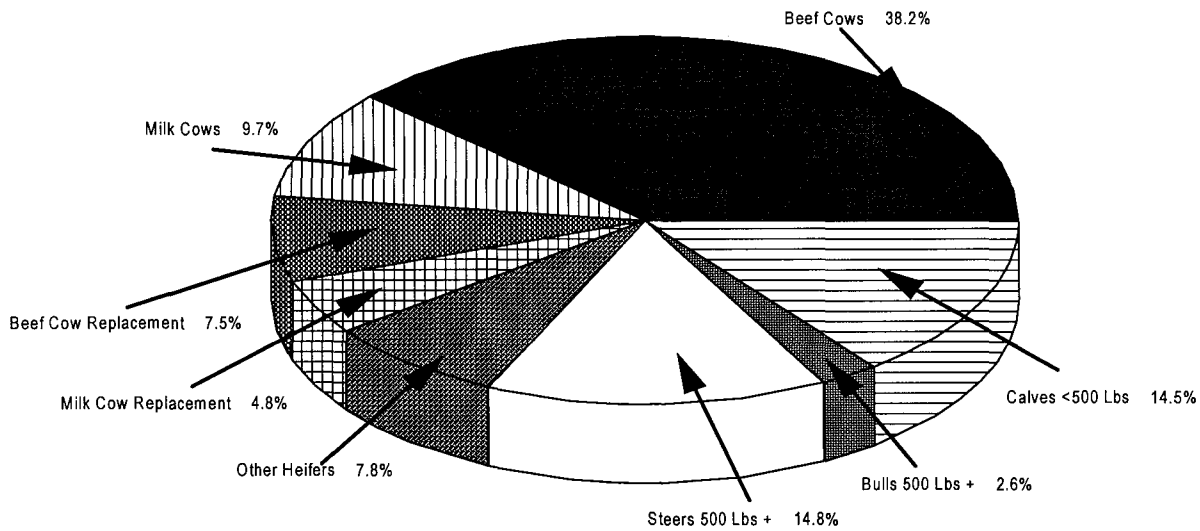
Year	Farms		All Cattle and Calves on Farms January 1			
	With Cattle	With Milk Cows	On Feed For Market	Total Number	Value	
					Per Head	Total
	..... Number .....		1,000 Head	1,000 Head	Dollars	1,000 Dollars
1990	7,800	1,500	41	780	665.00	518,700
1991	7,600	1,500	52	810	670.00	542,700
1992	7,800	1,500	50	800	660.00	528,000
1993	7,800	1,400	58	850	690.00	586,500
1994	7,700	1,200	45	860	690.00	593,400
1995	7,700	1,000	60	890	655.00	582,950
1996	7,800	900	60	910	510.00	464,100
1997	--	--	50	930	530.00	492,900



**Cattle: Inventory by Classes and Weight, Utah, January 1, 1990-97**

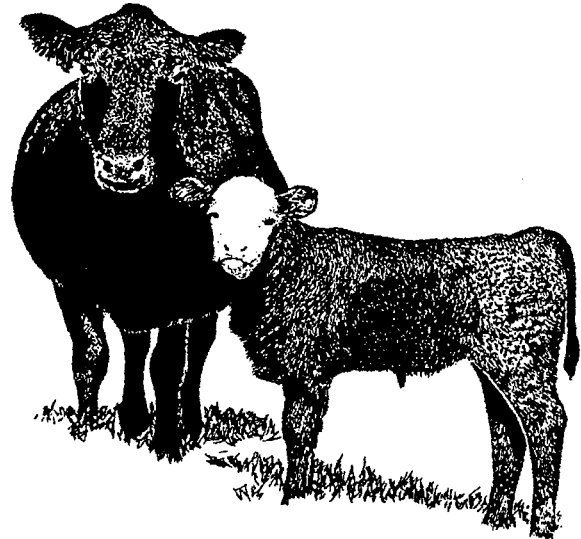
Year	All Cattle and Calves	All Cows & Heifers that have Calved			Heifers 500 Pounds & Over				Steers 500 Lbs & Over	Bulls 500 Lbs & Over	Steers, Heifers & Bulls Under 500 Lbs
		Total	Beef Cows	Milk Cows	Total	Beef Cow Replacements	Milk Cow Replacements	Other			
1,000 Head											
1990	780	405	325	80	145	57	48	40	88	20	122
1991	810	400	320	80	146	58	52	36	110	19	135
1992	800	400	324	76	145	58	48	39	107	20	128
1993	850	425	345	80	156	62	50	44	112	21	136
1994	860	425	345	80	163	70	45	48	115	21	136
1995	890	430	345	85	175	70	46	59	130	21	134
1996	910	435	350	85	175	68	43	64	141	22	137
1997	930	445	355	90	188	70	45	73	138	24	135

**Utah Cattle Inventory by Class  
January 1, 1997**



### Calf Crop: Utah, 1989-96

Year	Cows That Have Calved January 1	Calf Crop	
		Total	Percent of Cows Calved January 1 1/
..... 1,000 Head ...		Percent	
1989	410	360	88
1990	405	350	86
1991	400	330	83
1992	400	370	93
1993	425	355	84
1994	425	380	89
1995	430	385	90
1996	435	395	91



1/ Not strictly a calving rate. Figure represents calf crop expressed as percentage of number of cows that have calved on hand January 1 beginning of year.

### Cattle and Calves: Inventory, Supply, and Disposition, Utah, 1989-96

Year	Inventory Beginning of Year	Calf Crop	Inshipments	Marketings 1/		Farm Slaughter Cattle & Calves 2/	Deaths		Inventory End of Year
				Cattle	Calves		Cattle	Calves	
..... 1,000 Head									
1989	800	360	85	311	110	4	10	30	780
1990	780	350	89	291	75	5	12	26	810
1991	810	330	86	310	72	5	11	28	800
1992	800	370	90	296	68	4	12	30	850
1993	850	355	85	297	86	2	15	30	860
1994	860	380	99	314	87	4	14	30	890
1995	890	385	102	332	91	4	14	26	910
1996	910	395	120	349	96	4	15	31	930

1/ Includes custom slaughter for use on farms where produced, State outshipments, but excludes interfarm sales within the State. 2/ Excludes custom slaughter at commercial establishments.

### Cattle and Calves: Production, Marketings and Income, Utah, 1989-96

Year	Production 1/	Marketings 2/	Average Price per 100 Lbs		Value of Production	Cash Receipts 3/	Value of Home Consumption	Gross Income
			Cattle	Calves				
..... 1,000 Pounds ...	..... Dollars ...		..... Dollars		..... 1,000 Dollars			
1989	335,220	404,810	67.00	89.40	234,027	281,325	5,574	286,899
1990	330,355	366,020	73.80	93.90	250,963	276,303	7,675	283,978
1991	327,505	387,020	71.30	95.80	240,100	283,178	7,415	290,593
1992	352,920	367,960	71.60	90.40	258,497	268,701	7,446	276,147
1993	350,060	377,550	78.10	98.00	280,008	301,883	5,686	307,569
1994	362,310	397,200	69.00	88.00	256,263	280,845	6,458	287,304
1995	370,160	419,900	61.40	71.10	230,543	261,438	5,747	267,185
1996	381,600	441,840	55.00	58.00	211,039	244,193	5,148	249,341

1/ Adjustments made for changes in inventory and for inshipments. 2/ Excludes custom slaughter for use on farms where produced and interfarm sales within the State. 3/ Receipts from marketings and sale of farm slaughter.

# Dairy

Milk production in Utah reached 1.55 billion pounds in 1996, an increase of 5 percent from 1995 and a new record high. Production per cow, at 17,000 pounds, increased 261 pounds from the previous year and marked the eleventh straight year of record high milk per cow. The 1996 milkfat per cow was 617 pounds, 13 pounds higher than the 1995 average.

There were an estimated 900 farms with one or more milk cows during 1996, one hundred fewer than 1995. The breakdown of dairy farms by herd size was as follows: 300 farms with 1 to 29 head, 70 with 30 to 49 head, 190 with 50 to 99 head, 210 with 100 to 199 head, and 130 with 200 or more cows. The largest percent of the Utah milk cow inventory fell in the 200 cows or more herd size which accounted for 49 percent. The herd size with the second largest percent of inventory was the 100 to 199 size group with 31 percent. The 1 to 29 head category only accounted for 1.3 percent.

Cash receipts from milk marketings during the year totaled \$219 million, an increase of 21 percent compared to 1995. The price per hundredweight of all milk was \$14.44 compared to \$12.57 received the previous year.

Utah's 1996 total cheese production excluding cottage cheese was 84.7 million pounds, 5 percent above the previous year. American cheese, at 36.7 million pounds, decreased 6 percent from the 1995 level. Cheddar cheese accounted for 66 percent of the total American cheese produced. Production of Swiss cheese totaled 35.6 million pounds, a 23 percent increase from 1995. Swiss cheese accounted for 42 percent of the total cheese produced. Other types of cheese accounted for the remainder of the cheese produced. Hard ice cream production, at 11.3 million gallons, was 6 percent below 1995. There were 23 dairy plants in Utah that produced one or more dairy products in 1996.

## Utah Annual Milk Per Cow

1989-96

Pounds

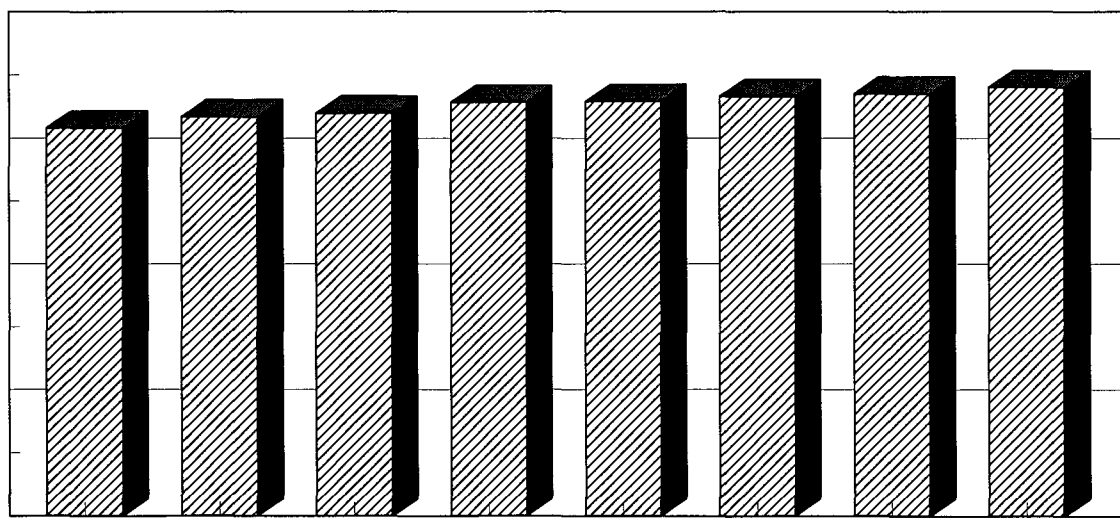
20,000

15,000

10,000

5,000

0



Year

## Dairy: Milk Cows and Milk Production, by Quarter, Utah, 1989-96

Year	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Annual Total <sup>1/</sup>
<b>MILK COWS</b> <sup>2/ 3/</sup>					
1,000 Head					
1989	74	76	77	75	76
1990	80	81	80	80	80
1991	79	80	80	78	79
1992	81	83	83	82	82
1993	81	83	81	80	81
1994	80	86	88	88	86
1995	87	88	88	88	88
1996	90	92	92	90	91
<b>MILK PER COW</b> <sup>4/ 5/</sup>					
Pounds					
1989	3,703	3,947	3,948	3,893	15,395
1990	3,750	4,025	4,038	3,975	15,838
1991	3,772	4,063	4,088	4,000	15,975
1992	3,914	4,157	4,145	4,134	16,402
1993	3,963	4,181	4,173	4,075	16,444
1994	4,088	4,279	4,284	4,080	16,640
1995	4,057	4,295	4,307	4,125	16,739
1996	3,978	4,315	4,359	4,344	17,000
<b>MILK PRODUCED</b> <sup>4/ 6/</sup>					
Million Pounds					
1989	274	300	304	292	1,170
1990	300	326	323	318	1,267
1991	298	325	327	312	1,262
1992	317	345	344	339	1,345
1993	321	347	338	326	1,332
1994	327	368	377	359	1,431
1995	353	378	379	363	1,473
1996	358	397	401	391	1,547

<sup>1/</sup> Milk cows is average number during year, milk per cow and milk produced is total for year. <sup>2/</sup> Includes dry cows, excludes heifers not yet freshened <sup>3/</sup> Average for quarter. <sup>4/</sup> Excludes milk sucked by calves. <sup>5/</sup> Quarterly milk production divided by quarterly average of milk cows. <sup>6/</sup> Total produced for quarter.

### Dairy: Farms, Milk Production and Milkfat, Utah, 1989-96

Year	Farms with Milk Cows	Number of Milk Cows on Farms <sup>1/</sup>	Production of Milk & Milkfat				
			Per Cow		Total		
			Milk	Milkfat	Milk	Milkfat	Percentage Milkfat
	Number	1,000 Head	..... Pounds .....	..... Million Pounds ...		Percent	
1989	1,500	76	15,395	556	1,170	42.2	3.61
1990	1,500	80	15,838	569	1,267	45.5	3.59
1991	1,500	79	15,975	575	1,262	45.4	3.60
1992	1,500	82	16,402	592	1,345	48.6	3.61
1993	1,400	81	16,444	592	1,332	48.0	3.60
1994	1,200	86	16,640	601	1,431	51.7	3.61
1995	*1,000	88	16,739	604	1,473	53.2	3.61
1996	900	91	17,000	617	1,547	56.2	3.63

<sup>1/</sup> Average number on farms during year, excluding heifers not yet freshened. \*Revised.

### Milk Disposition: Milk Used and Marketed by Farmers, Utah, 1989-96

Year	Milk Used on Farms Where Produced			Milk Marketed by Producers		
	Fed to Calves	Consumed as Fluid Milk and Cream	Total	Sold to Plants and Dealers	Sold Directly to Consumers	Total
	Million Pounds					
1989	17	3	20	1,111	39	1,150
1990	22	3	25	1,200	42	1,242
1991	21	3	24	1,183	55	1,238
1992	22	3	25	1,266	54	1,320
1993	22	3	25	1,259	48	1,307
1994	20	3	23	1,356	52	1,408
1995	24	2	26	1,403	44	1,447
1996	24	3	27	1,472	48	1,520

### Milk & Cream Sold: Quantity, Price & Cash Receipts, Utah, 1989-96

Year	Milk Sold to Plants & Dealers				Milk Sold Directly to Consumers <sup>2/</sup>		
	Quantity	Percent Fluid Grade <sup>1/</sup>	Price per 100 Lb	Cash Receipts	Quantity	Price per Quart	Cash Receipts
	Million Pounds	Percent	Dollars	1,000 Dollars	1,000 Quarts	Cents	1,000 Dollars
1989	1,111	82	12.60	139,986	18,140	46.0	8,344
1990	1,200	82	12.90	154,800	19,535	51.0	9,963
1991	1,183	85	11.50	136,045	25,581	49.0	12,535
1992	1,266	85	12.30	155,718	25,116	55.0	13,814
1993	1,259	88	12.10	152,339	22,326	57.0	12,726
1994	1,356	90	12.40	168,144	24,186	57.0	13,786
1995	1,403	90	12.10	169,763	20,465	59.0	12,074
1996	1,472	91	14.00	206,080	22,326	60.0	13,395

<sup>1/</sup> Percentage of milk sold to plants and dealers eligible for fluid use. <sup>2/</sup> Also includes milk produced by institutional herds.



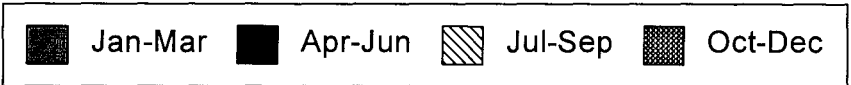
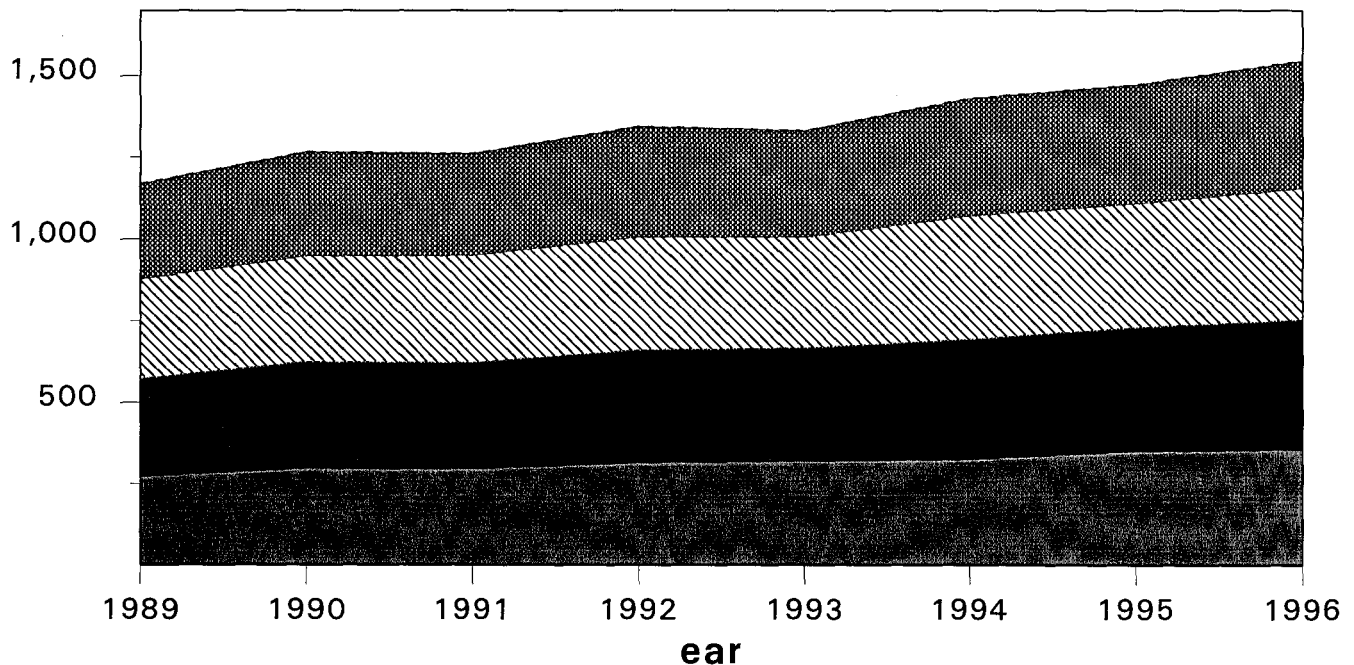
## Milk & Cream: Marketings, Used on Farm, Income, and Value, Utah, 1989-96

Year	Combined Marketings of Milk & Cream				Used for Milk, Cream, Butter on Farms Where Produced		Gross Producer Income from Milk <sup>1/</sup>	Farm Value of Milk Produced <sup>2/</sup>
	Milk Utilized	Average Returns		Cash Receipts from Marketings	Milk Utilized	Value		
		Per 100 Pounds Milk	Per Pound Milkfat					
	Million Pounds	..... Dollars .....		1,000 Dollars	Million Pounds	..... 1,000 Dollars .....		
1989	1,150	12.90	3.57	148,330	3	387	148,717	150,910
1990	1,242	13.27	3.70	164,763	3	398	165,161	168,079
1991	1,238	12.00	3.33	148,580	3	360	148,940	151,460
1992	1,320	12.84	3.56	169,532	3	385	169,917	172,743
1993	1,307	12.63	3.51	165,065	3	379	165,443	168,222
1994	1,408	12.92	3.58	181,930	3	388	182,318	184,902
1995	1,447	12.57	3.48	181,837	2	251	182,089	185,105
1996	1,520	14.44	3.98	219,475	3	433	219,909	223,374

<sup>1/</sup> Cash receipts from marketings of milk and cream, plus value of milk used for home consumption. <sup>2/</sup> Includes value of milk fed to calves.

## Milk Produced by Quarter 1989-96

Millio Pou d



### Cheese: Production, Utah, 1989-96

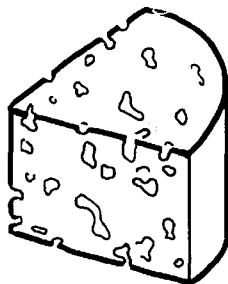
Year	Cheese					
	American			Swiss <sup>1/</sup>	Total Other Cheese <sup>2/</sup>	Total <sup>3/</sup>
	Cheddar	Other	Total			
1,000 Pounds						
1989	22,842	14,874	37,716	23,320	4,006	65,042
1990	26,814	13,953	40,767	24,598	4,839	70,204
1991	28,900	14,167	43,067	24,473	4,034	71,574
1992	38,447	14,281	52,728	24,227	10,500	87,455
1993	24,539	9,858	34,397	27,134	16,822	78,353
1994	32,093	10,429	42,522	26,501	17,144	86,167
1995	28,756	10,174	38,930	29,032	12,931	80,893
1996	24,029	12,625	36,654	35,645	12,403	84,702

<sup>1/</sup> Data for years with less than 3 plants published by permission of the firms involved. <sup>2/</sup> Includes cheese other than American and Swiss. <sup>3/</sup> Excludes cottage cheese.

### Frozen Products and Dry Whey: Production, Utah, 1989-96

Year	Hard Ice Cream	Sherbet	Dry Whey		
			Human Food	Animal Feed	Total
..... 1,000 Gallons .....			..... 1,000 Pounds .....		
1989	7,969	525	<sup>2/</sup>	<sup>2/</sup>	<sup>2/</sup>
1990	7,728	559	<sup>2/</sup>	<sup>2/</sup>	<sup>2/</sup>
1991	7,130	456	<sup>2/</sup>	<sup>2/</sup>	<sup>2/</sup>
1992	9,243	598	22,087	2,683	24,770
1993	9,370	479	25,283	1,459	26,742
1994	10,055	490	26,038	1,589	27,627
1995	12,035	638	24,948	2,333	27,281
1996	11,323	751	17,310	1,939	19,249

<sup>1/</sup> Not published to avoid disclosure of individual operations.



# Sheep and Wool

Utah sheep and lamb inventory on January 1, 1997 totaled 375,000 head, a decline of 20,000 head from the previous year. Inventory of breeding sheep and lambs at the beginning of 1997 was 339,000 head, down 5 percent from 1996. Ewes one year old and older totaled 290,000 head, down 15,000 head from a year earlier. Rams over one year of age totaled 9,000 head, down 1,000 from January 1, 1996. Replacement lambs, at 40,000 head, equaled the 1996 inventory. Market sheep and lambs for slaughter totaled 36,000 head. The 1996 lamb crop was estimated at 325,000 head, 15,000 head below the previous year.

Sheep and lamb operations totaled 1,700 in 1996, two hundred fewer than 1995. January 1, 1997 sheep and lamb inventory had an average value per head of \$110.00, up \$10.00 from the 1996 level. Utah's sheep inventory value totaled \$41.3 million, up 4 percent from the previous year.

Cash receipts during 1996 totaled \$21.6 million, 4 percent lower than the 1995 level. Marketings of sheep and lambs totaled 29.3 million pounds, down

13 percent from the previous year. Sheep price during 1996 averaged \$23.90 per hundredweight (cwt), \$2.90 above the 1995 average. Lambs averaged \$85.90 per cwt during 1996 which was \$8.90 above the previous year.

Wool production totaled 3.1 million pounds during 1996, down 12 percent from the 1995 production level. Average fleece weight, at 9.2 pounds, was down 4 percent from the revised 1995 level.

NOTE: Sheep and lamb classifications for the inventory estimates were changed starting January 1, 1995. "Breeding sheep and lambs" replaced the old "stock sheep and lambs" estimates. Replacement lambs include both ewe and ram lambs. "Market sheep and lambs" has replaced the old "sheep and lambs on feed" estimates. Market lamb estimates are by weight group. Both "breeding sheep and lambs" and "market sheep and lambs" include new crop lambs. New crop lambs are lambs born after September 30 the previous year on hand January 1. Previous to 1995, January estimates excluded the new crop lambs.

**Sheep: Farms, Inventory, and Value, Utah, January 1, 1990-97**

Year	Farms With Sheep	Sheep on Farms January 1				
		Number <sup>1/</sup>	Value		Stock Sheep Number <sup>2/</sup>	Sheep & Lambs on Feed <sup>3/</sup>
			Per Head	Total		
	Number	1,000 Head	Dollars	1,000 Dollars	..... 1,000 Head .....	
1990	2,100	509	94.00	47,846	485	24
1991	2,200	508	64.00	32,512	480	28
1992	2,300	488	65.00	31,720	460	28
1993	2,100	490	81.00	39,690	450	40
1994	2,000	442	77.00	34,034	410	30
1995	1,900	445	84.00	37,380	360	85
1996	1,700	395	100.00	39,500	355	40
1997	<sup>4/</sup>	375	110.00	41,250	339	36

<sup>1/</sup> All sheep beginning January 1, 1995 includes new crop lambs. Previous published data did not. New crop lambs are lambs born after September 30 the previous year on hand January 1. <sup>2/</sup> Breeding sheep and lambs beginning January 1, 1995. <sup>3/</sup> Market sheep and lambs beginning January 1, 1995. <sup>4/</sup> Estimate published with January 1, 1998 sheep inventory.

**Stock Sheep: Inventory by Class, January 1, and Lamb Crop, Utah, 1989-94 <sup>1/</sup>**

Year	Stock Sheep on Farms January 1					Lamb Crop <sup>2/</sup>	
	Total	Lambs		Sheep One Year & Over		Number	As Percent of Ewes One year and Older <sup>3/</sup>
		Ram & Wether	Ewe	Ram & Wether	Ewe		
..... 1,000 Head .....							Percent
1989	480	4	57	12	405	430	106
1990	485	7	58	13	407	430	106
1991	480	7	58	12	403	400	99
1992	460	7	53	12	388	400	103
1993	450	7	53	12	378	350	93
1994	410	8	49	13	340	360	106

<sup>1/</sup> Beginning January 1, 1995 sheep inventory estimates were changed to breeding sheep and lambs and market sheep and lambs. <sup>2/</sup> Lamb crop defined as lambs marked, docked or branded. <sup>3/</sup> Not strictly a lambing rate. Percent represents lambs saved expressed as a percent of ewes one year old and older on hand at beginning of year. See table below for estimates.

**Breeding Sheep and Lambs and Lamb Crop: Inventory by Class, January 1, Utah, 1995-97**

Year	Breeding Sheep and Lambs				Lamb Crop <sup>1/</sup>		
	Total	Sheep 1 yr old and older		Replacement Lambs	Number	As Percent of Ewes One Year and Older <sup>2/</sup>	
		Ewes	Rams				
..... 1,000 Head .....							Percent
1995	360	310	11	39	340	110	
1996	355	305	10	40	325	107	
1997	339	290	9	40	<sup>3/</sup>	<sup>3/</sup>	

<sup>1/</sup> Lamb crop defined as lambs marked, docked or branded. <sup>2/</sup> Not strictly a lambing rate. Percent represents lamb crop expressed as a percent of ewes one year old and older on hand at beginning of year. <sup>3/</sup> Estimates published with January 1, 1998 sheep inventory.

**Market Sheep and Lambs: Inventory by Weight Group, January 1, Utah, 1995-97**

Year	Market Lambs					Market Sheep	Total Market Sheep and Lambs
	Under 65 Lbs	65-84 Lbs	85-104 Lbs	Over 105 Lbs	Total		
..... 1,000 Head .....							
1995	1	2	40	27	70	15	85
1996	1	3	11	18	33	7	40
1997	1	3	15	11	30	6	36

### Sheep & Lambs: Inventory Numbers, Lamb Crop & Disposition, Utah, 1989-96

Year	Inventory Beginning of Year	Lambs Saved	Inshipments	Marketings <sup>1/</sup>		Farm Slaughter <sup>2/</sup>	Deaths		Inventory End of Year <sup>3/</sup>
				Sheep	Lambs		Sheep	Lambs	
1,000 Head									
1989	503	430	11	40	331	4	25	35	509
1990	509	430	11	50	328	5	25	34	508
1991	508	400	11	62	305	5	26	33	488
1992	488	400	11	42	297	5	26	39	490
1993	490	350	8	69	277	5	25	32	440
1994	442	360	9	68	242	6	18	32	445
1995	445	340	10	38	312	6	16	28	395
1996	395	325	10	38	264	5	20	28	375

<sup>1/</sup> Includes custom slaughter for use on farms where produced, State outshipments, but excludes interfarm sales within the State. <sup>2/</sup> Excludes custom slaughter for farmers at commercial establishments. <sup>3/</sup> Starting in 1994, beginning and end of year inventories includes new crop lambs.

### Sheep & Lambs: Production, Marketings & Income, Utah, 1989-96

Year	Production <sup>1/</sup>	Marketings <sup>2/</sup>	Price per 100 Pounds		Value of Production	Cash Receipts <sup>3/</sup>	Value of Home Consumption	Gross Income
			Sheep	Lambs				
. . . . 1,000 Pounds . . . . . Dollars . . . . . 1,000 Dollars . . . . .								
1989	35,674	35,728	19.20	60.50	19,200	19,137	261	19,398
1990	35,800	36,670	18.70	48.50	15,575	15,550	393	15,943
1991	33,165	36,330	20.40	43.20	12,970	13,574	389	13,963
1992	32,300	32,610	24.30	51.80	15,307	15,159	466	15,625
1993	28,744	35,270	21.50	60.40	15,226	17,219	326	17,545
1994	30,253	31,710	23.60	64.10	17,013	16,195	644	16,839
1995	27,669	33,510	21.00	77.00	19,398	22,611	764	23,375
1996	26,315	29,280	23.90	85.90	20,740	21,618	647	22,265

<sup>1/</sup> Adjustments made for changes in inventory and for inshipments. <sup>2/</sup> Excludes custom slaughter for use on farms where produced and interfarm sales within the State. <sup>3/</sup> Receipt from marketings and sale of farm slaughter.

### Wool: Production and Value, Utah, 1989-96

Year	Sheep & Lambs Shorn <sup>1/</sup>	Weight per Fleece	Shorn Wool Production	Average Price per Pound <sup>2/</sup>	Value <sup>3/</sup>
1989	452	10.2	4,598	1.30	5,977
1990	464	10.2	4,723	0.72	3,401
1991	456	10.4	4,741	0.51	2,418
1992	440	9.9	4,377	0.78	3,414
1993	405	9.7	3,930	0.57	2,240
1994	384	10.0	3,843	0.70	2,690
1995	*364	*9.6	3,500	1.01	3,535
1996	336	9.2	3,090	0.65	2,009

<sup>1/</sup> Includes shearing at commercial feeding yards. <sup>2/</sup> Monthly price weighted by monthly sales of wool. <sup>3/</sup> Production multiplied by annual average price. \*Revised

# Sheep and Lamb Losses by Cause

Utah farmers and ranchers lost 73,500 sheep and lambs to all causes in 1996. Lambs lost before docking totaled 25,500, lambs lost after docking totaled 28,000, and sheep one year old and older lost totaled 20,000. The largest single cause of death in lambs before docking was from coyotes taking 6,500. This accounted for 25.5 percent of all lambs lost before docking. Coyotes also accounted for the largest number of lambs lost after docking at 13,100, a 46.8 percent loss. Sheep one year old and older losses to coyotes, at 4,300, was the single largest cause, accounting for 21.5 percent. Total losses to

coyotes equaled 23,900 which was 32.5 percent of all losses to sheep and lambs in the state. Other loss totals are shown.

Cooperation: Data were collected in conjunction with the National Agricultural Statistics Service January 1 Sheep Report. Utah Department of Agriculture provided funding for the "Loss by Cause" portion of the survey. Much appreciation goes out to all the sheep producers who cooperated in the effort to compile these statistics.

## Sheep & Lamb: Loss by Cause, 1995-96

Cause of Loss	Lamb before Docking Loss		Lamb after Docking Loss		Sheep 1 yr & older Loss		Total Sheep & Lamb Loss	
	Number of head		Number of head		Number of head		Number of head	
	1995	1996	1995	1996	1995	1996	1995	1996
<b>PREDATOR</b>								
Dog	500	300	400	600	700	600	1,600	1,500
Coyote	5,000	6,500	13,700	13,100	4,700	4,300	23,400	23,900
Eagle	1,000	1,300	300	200	0	0	1,300	1,500
Bear	400	100	1,500	1,500	800	1,300	2,700	2,900
Mtn. Lion	2,100	1,300	4,300	5,200	2,600	2,000	9,000	8,500
Bobcat	600	500	200	100	0	0	800	600
Fox	200	400	100	100	0	100	300	600
Other animals	400	200	0	0	300	100	700	300
<b>Total Predator</b>	<b>10,200</b>	<b>10,600</b>	<b>20,500</b>	<b>20,800</b>	<b>9,100</b>	<b>8,400</b>	<b>39,800</b>	<b>39,800</b>
<b>NON-PREDATOR</b>								
Weather conditions	4,300	2,700	900	600	500	1,000	5,700	4,300
Diseases	1,500	3,600	1,800	1,300	1,100	1,000	4,400	5,900
Poison	100	500	400	600	600	1,500	1,100	2,600
Lambing complications	5,100	4,600	0	0	1,800	1,500	6,900	6,100
Old age	0	0	0	0	2,900	2,500	2,900	2,500
Thefts	0	100	200	200	100	700	300	1,000
On back	100	0	0	100	400	400	500	500
Other causes	900	300	500	400	300	400	1,700	1,100
<b>Total Non-predator</b>	<b>12,000</b>	<b>11,800</b>	<b>3,800</b>	<b>3,200</b>	<b>7,700</b>	<b>9,000</b>	<b>23,500</b>	<b>24,000</b>
<b>UNKNOWN CAUSES</b>								
<b>Total Unknown Causes</b>	<b>1,600</b>	<b>3,100</b>	<b>3,200</b>	<b>4,000</b>	<b>1,800</b>	<b>2,600</b>	<b>6,600</b>	<b>9,700</b>
<b>TOTAL LOSS</b>								
<b>Total Loss</b>	<b>23,800</b>	<b>25,500</b>	<b>27,500</b>	<b>28,000</b>	<b>18,600</b>	<b>20,000</b>	<b>69,900</b>	<b>73,500</b>

# Hogs and Pigs

The Utah hog and pig inventory on December 1, 1996 was 163,000 head, 163 percent above the December 1, 1995 level. The total pig crop for the year was 250,000 head, 205 percent above the previous year. A total of 28,000 sows farrowed during 1996, up 177 percent from 1995. The number of farms with hogs or pigs totaled 600, a decrease of 14 percent from the previous year.

The December 1 average value per head of Utah's

hogs and pigs was \$99.00, up \$23.00 from the 1995 level. The total inventory value was \$16.1 million, up 242 percent from a year earlier.

Cash receipts during the December 1, 1995 through November 30, 1996 period totaled \$18.0 million, up 220 percent from 1995. Marketings during 1996 were at 33.4 million pounds, 101 percent above the previous year. Hog prices averaged \$54.00 per cwt, up \$20.20 from the 1995 average price.

## Hogs and Pigs: Farms and Inventory and Value, Utah, 1989-96

Year	Farms with Hogs	Hogs and Pigs on Farms December 1		
		Number	Value	
			Per Head	Total
	Number	1,000 Head	Dollars	1,000 Dollars
1989	900	27	76.50	2,066
1990	900	33	93.00	3,069
1991	900	38	77.00	2,926
1992	900	44	80.00	3,520
1993	800	40	82.00	3,280
1994	800	44	58.00	2,552
1995	700	62	76.00	4,712
1996	600	163	99.00	16,137

## Hogs: Inventory by Class and Weight Group, Utah, December 1, 1989-96

Year	Total	Breeding	Market	Market Hogs & Pigs by Weight Group			
				Under 60 Lbs	60-119 Lbs	120-179 Lbs	180 Lbs & Over
1,000 Head							
1989	27	4	23	8	6	5	4
1990	33	5	28	10	7	5	6
1991	38	5	33	11	8	7	7
1992	44	6	38	14	9	9	6
1993	40	5	35	12	9	8	6
1994	44	14	30	11	8	6	5
1995	62	19	43	13	11	11	8
1996	163	40	123	48	32	30	13



### Hogs and Pigs: Inventory, Supply, and Disposition, Utah, 1989-96 <sup>1/</sup>

Year	Inventory Beginning of Year	Annual Pig Crop	Inshipments	Marketings <sup>2/</sup>	Farm Slaughter <sup>3/</sup>	Deaths	Inventory End of Year
1,000 Head							
1989	33	38.3	2	42.3	1.4	2.6	27
1990	27	52	4	45	1	4	33
1991	33	57	3	49	1	5	38
1992	38	61	6	56	1	4	44
1993	44	59	5	63	1	4	40
1994	40	58	13	61	1	5	44
1995	44	82	15	74	1	4	62
1996	62	250	4	140	1	12	163

<sup>1/</sup> Hogs and pigs inventory is as of Dec. 1. <sup>2/</sup> Includes custom slaughter for use on farm where produced, State out-shipments, but excludes interfarm sales within the State. <sup>3/</sup> Excludes custom slaughter for farmers at commercial establishments.

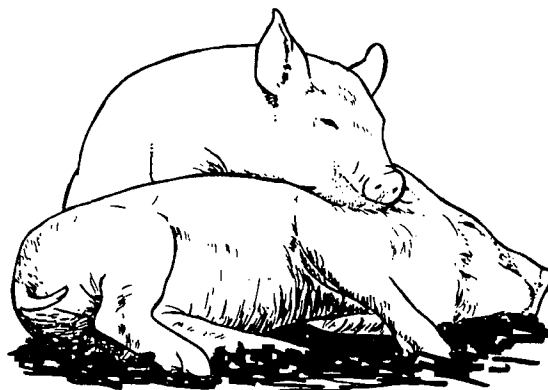
### Hogs and Pigs: Production and Income, Utah, 1989-96

Year	Production <sup>1/</sup>	Marketings <sup>2/</sup>	Price per 100 Lbs	Value of Production	Cash Receipts <sup>3/</sup>	Value of Home Consumption	Gross Income
.....	1,000 Pounds	....	Dollars	.....	1,000 Dollars	.....	.....
1989	9,746	9,984	38.80	3,773	3,874	196	4,070
1990	11,706	10,601	48.20	5,619	5,110	212	5,322
1991	12,494	11,520	42.80	5,332	4,931	205	5,136
1992	13,949	13,200	33.60	4,663	4,435	161	4,596
1993	14,590	14,880	38.00	5,508	5,654	182	5,836
1994	16,065	14,400	33.00	5,103	4,752	158	4,910
1995	19,405	16,570	33.80	6,347	5,629	162	5,791
1996	45,625	33,360	54.00	24,596	18,014	259	18,273

<sup>1/</sup> Adjustments made for inshipments and changes in inventories. <sup>2/</sup> Excludes interfarm sales within the State and custom slaughter for use on farms where produced. <sup>3/</sup> Includes receipts from marketings and from sales of farm slaughtered meat.

### Pig Crop: Sows Farrowing and Pigs Saved, Utah, 1989-96

Year	Sows Farrowing	Pigs per Litter	Pigs Saved
.....	1,000 Head	Head	... 1,000 Head
1989	5.1	7.50	38.3
1990	7.0	7.45	52.0
1991	7.8	7.30	57.0
1992	8.3	7.35	61.0
1993	8.1	7.30	59.0
1994	8.0	7.25	58.0
1995	10.1	8.10	82.0
1996	28.0	8.95	250.0



# Chickens and Eggs

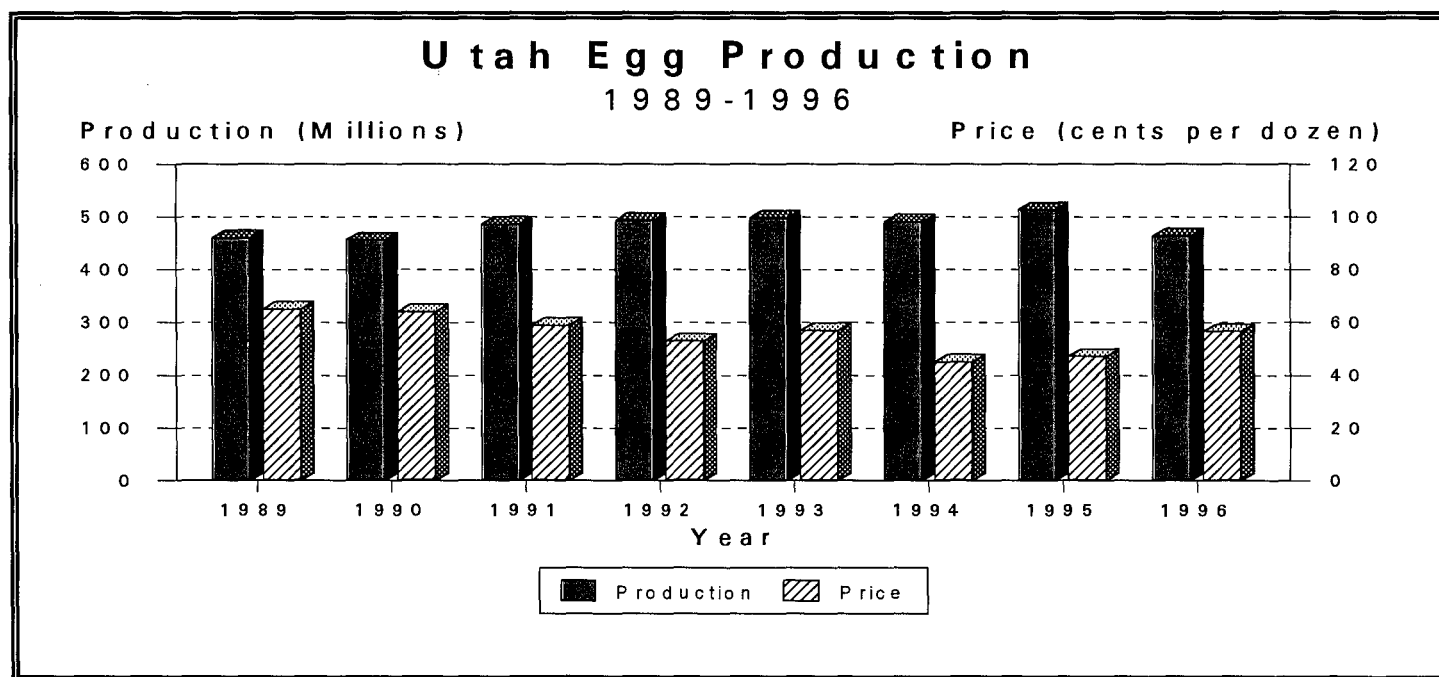
The value of eggs produced in Utah during 1996 totaled \$21.9 million, 9 percent above the 1995 level. Total production, at 464 million eggs, was down 10 percent from 1995. The average price of eggs was 56.6 cents per dozen, 9.5 cents above 1995. The average number of layers during the year was 1.75 million, 10 percent below the 1995 level.

Eggs produced per layer was 266 compared with 263 for 1995. Pounds of chicken sold (primarily cull laying hens) at 4.1 million decreased 22 percent from 1995. The average price per pound of chickens sold was 3.0 cents compared with 2.6 cents in 1995. The value of chickens sold in 1995 was \$122,000, down 10 percent from 1995.

**Layers and Eggs: Number, Production and Value of Production, Utah, 1989-96 <sup>1/</sup>**

Year	Average Number of Layers	Eggs per Layer	Total Egg Production	Price per Dozen	Value of Production
	1,000 Head	Number	Millions	Cents	1,000 Dollars
1989	1,849	249	460	65.0	24,917
1990	1,817	251	456	64.0	24,320
1991	1,876	259	486	59.0	23,895
1992	1,964	251	493	53.0	21,774
1993	2,001	249	498	57.0	23,655
1994	1,885	260	491	45.1	18,453
1995	1,950	263	513	47.1	20,135
1996	1,746	266	464	56.6	21,885

<sup>1/</sup> Estimates cover the 12 month period, December 1 previous year, through November 30.



**Chicken Inventory: Number and Value, Utah, December 1, 1989-96 <sup>1/</sup>**

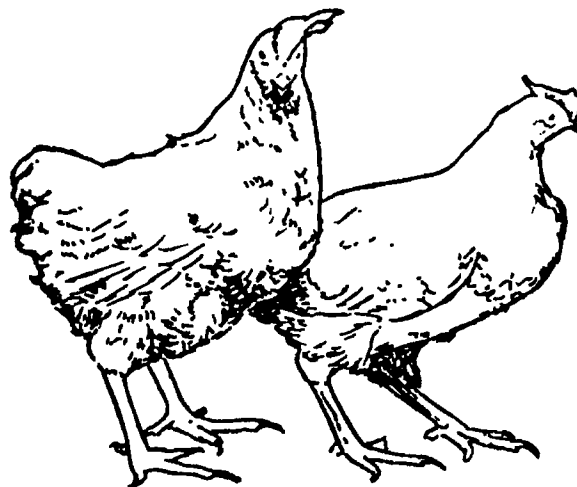
Year	Hens and Pullets of Laying Age	Pullets 3 Months and Over Not Laying	Pullets Under 3 Months	Other Chickens	Total Chickens		
					Number	Value	
						Average	Total
..... 1,000 Head .....					Dollars	1,000 Dollars	
1989	1,779	158	193	3	2,133	1.60	3,413
1990	1,858	273	208	1	2,340	1.90	4,446
1991	1,954	155	183	1	2,293	1.60	3,669
1992	1,958	147	220	1	2,326	1.70	3,954
1993	1,880	187	267	1	2,335	1.40	3,269
1994	2,000	195	179	1	2,375	1.50	3,563
1995	1,710	150	179	1	2,040	1.30	2,652
1996	1,734	141	168	1	2,044	1.50	3,066

<sup>1/</sup> Excludes commercial broilers.

**Chickens: Lost, Sold, and Value of Sales, Utah, 1989-96 <sup>1/</sup>**

Year	Number Lost <sup>2/</sup>	Number Sold	Pounds Sold	Price per Pound	Value of Sales
.....1,000 Head .....		1,000 Pounds		Cents	1,000 Dollars
1989	170	930	3,720	7.0	260
1990	160	1,190	4,760	2.1	100
1991	195	1,095	4,380	2.0	88
1992	153	1,200	4,800	2.0	96
1993	168	1,210	4,840	3.0	145
1994	265	1,625	6,500	3.0	195
1995	372	1,298	5,192	2.6	135
1996	327	1,014	4,056	3.0	122

<sup>1/</sup> Estimates exclude broilers and cover the 12 month period December 1 previous year through November 30. <sup>2/</sup> Includes death and other losses during the 12 month period.



# Bees and Honey

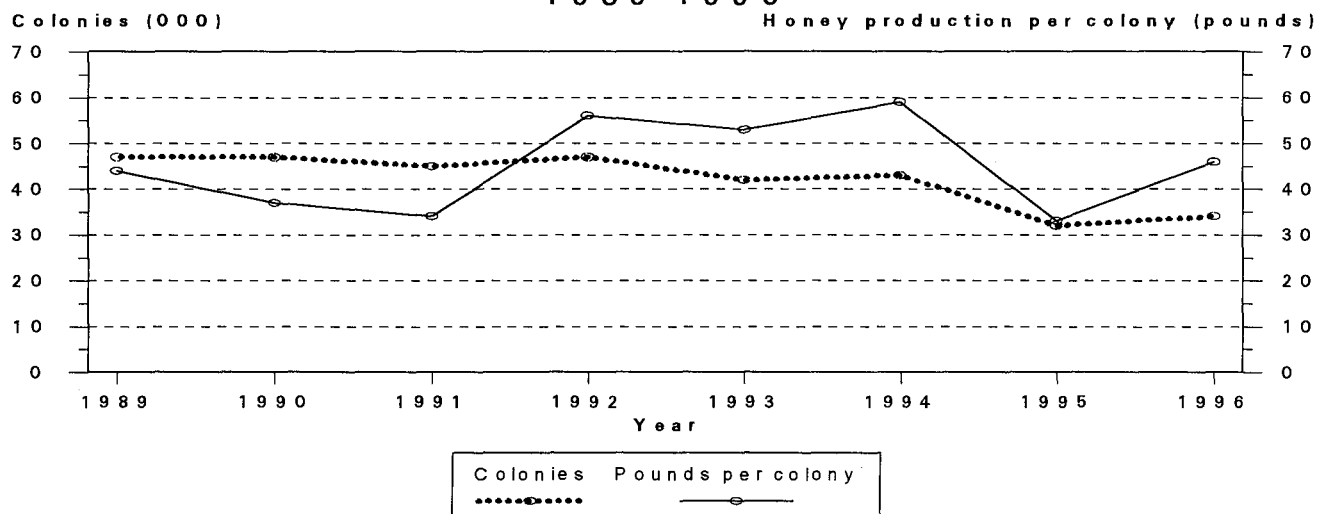
Honey production in Utah totaled 1.6 million pounds during 1996, up 48 percent from the 1995 level. The number of colonies at 34,000 was up 6 percent from the previous year. Production per colony at 46 pounds was 13 pounds above the low production of 1995. The price received per pound of honey averaged 85 cents, up 20 cents from 1995. The total

value of the honey produced in 1996 was \$1.3 million, an increase of 94 percent from 1995. Several Utah apiaries kept their bees in other States during part of the year. Honey produced in other States was counted in that states production and not included in the Utah production.

**Honey: Colonies of Bees, Production, & Value, Utah, 1989-96**

Year	Colonies of Bees	Honey			
		Production		Value	
		Per Colony	Total	Per Pound	Total
	1,000	Pounds	1,000 Pounds	Cents	1,000 Dollars
1989	47	44	2,068	54	1,117
1990	47	37	1,739	56	974
1991	45	34	1,530	55	842
1992	47	56	2,632	58	1,527
1993	42	53	2,226	55	1,224
1994	43	59	2,537	53	1,345
1995	32	33	1,056	65	686
1996	34	46	1,564	85	1,329

**Utah Bee Colonies and Honey Production per Colony 1989-1996**



# Mink

Mink pelt production in Utah during 1995 totaled 570,000 pelts, 8 percent above 1994. The number of females bred to produce kits in 1996 was 167,000, up 3 percent from the previous year. Utah ranked second in the nation in mink pelt production in 1995. Standard was the most common type of pelt produced, accounting for 47 percent of all pelts

taken. Mahogany and Demi-Buff accounted for 29 and 12 percent respectively. In 1995 there were 130 mink farms in Utah, same level as 1994. Leading mink producing counties were Utah and Morgan producing over 67 percent of all pelts taken. Other leading counties were Cache, Summit, and Salt Lake.

**Mink: Number of Ranches, Pelts Produced, Females Bred, Average Price & Value, Utah and United States, 1989-96**

Year	Utah			United States				
	Ranches Producing Pelts	Pelts Produced	Females Bred	Ranches Producing Pelts	Pelts Produced	Females Bred	Average Pelt Price	Value of Pelts
	Number	..... 1,000	.....	Number	..... 1,000	.....	Dollars	Million Dollars
1989	175	780.0	225.0	940	4,604	1,202	20.40	93.9
1990	165	680.0	189.0	771	3,366	922	25.50	85.8
1991	160	670.0	180.0	683	3,268	874	21.90	71.6
1992	150	651.0	175.0	571	2,900	782	23.80	69.0
1993	140	600.0	170.0	498	2,527	707	34.10	86.2
1994	130	530.0	165.0	458	2,525	713	33.00	82.6
1995	130	570.0	162.0	446	2,692	710	53.10	142.9
1996	1/	1/	167.0	1/	1/	678	1/	1/

1/ Data available July 22, 1997.

**Mink: Pelts Produced in 1995 and Females Bred for 1996, Utah and United States**

Type	Pelts Produced 1995		Females Bred To Produce Kits 1996	
	Utah	U.S.	Utah	U.S.
	Thousand			
Standard	267.0	1,218.0	86.4	335.0
Ranch Wild	13.0	265.0	3.3	43.7
Demi-Buff 1/	68.0	159.0	14.0	27.9
Pastel	4.0	34.5	0.7	9.4
Pale Brown		0.5	0.1	0.3
Sapphire	16.0	65.9	6.2	25.9
Gunmetal	22.0	284.4	8.2	91.6
Mahogany	168.0	569.0	45.9	120.2
Pearl	11.0	33.1	2.0	7.1
Lavender Hope		5.9		2.6
Pink		9.9		0.8
Violet Type	1.0	13.1	0.2	4.2
White		32.7		7.4
Miscellaneous		0.7		2.2
<b>TOTAL</b>	<b>570.0</b>	<b>2,691.7</b>	<b>167.0</b>	<b>678.3</b>

1/ This color class includes Demi-Buff, Dark Brown, Violet, Pastel, Standard, Pearl crosses, and others.

# Trout

Trout sales from September 1, 1995 to August 31, 1996 totaled 2.50 million dollars, down 31 percent from the previous year. The number of operations with trout, at 18, remained the same from September

1, 1995 to September 1, 1996. Trout losses totaled 336,000 head in 1996, up 30 percent from 1995. Predators accounted for 75 percent of the losses.

**Trout: Number of Operations, Total Sales, and Foodsize Sales, Utah, 1989-96**

Year	Number of Operations Sep 1	Total Value of Sales <sup>1/</sup> Sep1-Aug 31	Foodsize Trout Sales <sup>2/</sup>			
			Number Sold	Pounds Sold	Value of Sales	Average Value per Pound
		1,000 Dollars	..... Thousands .....		1,000 Dollars	Dollars
1989	10	4,731	4,101	3,332	4,617	1.39
1990	8	3,512	3,391	2,643	3,478	1.32
1991	7	1,959	<sup>3/</sup>	<sup>3/</sup>	<sup>3/</sup>	<sup>3/</sup>
1992	<sup>3/</sup>	<sup>3/</sup>	<sup>3/</sup>	<sup>3/</sup>	<sup>3/</sup>	<sup>3/</sup>
1993	9	2,980	1,680	1,869	2,739	1.47
1994	12	2,348	1,248	1,261	2,118	1.68
1995	18	3,596	1,586	1,792	3,230	1.80
1996	18	2,489	1,144	1,205	2,077	1.72

<sup>1/</sup> Total value of sales for 1989 does not include value of fingerling sales. <sup>2/</sup> Food size fish are defined as over 12 inches in length. <sup>3/</sup> Data not published to avoid disclosure of individual operations.

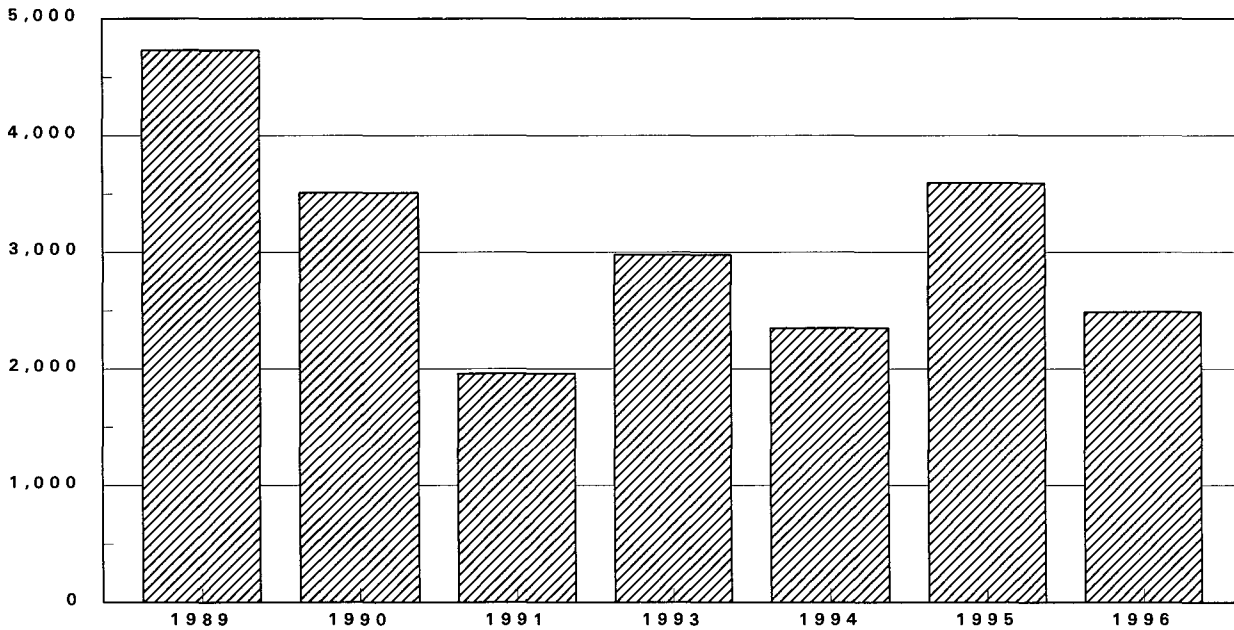
**Trout: Stocker Sales and Fingerling Sales , Utah, 1993-96 <sup>1/</sup>**

Year	Stocker Size Trout Sales <sup>2/</sup>				Fingerling Size Trout Sales <sup>3/</sup>			
	Number Sold	Pounds Sold	Value of Sales	Average Value per Pound	Number Sold	Pounds Sold	Value of Sales	Average Value per Pound
		1,000 Dollars	Dollars			1,000 Dollars	Dollars	
1993	176	132	225	1.70	24	1	5	5.00
1994	233	135	227	1.68	20	1	3	3.00
1995	285	179	346	1.93	70	4	20	5.00
1996	336	231	402	1.74	31	2	10	5.00

<sup>1/</sup> Years prior to 1993 not available. <sup>2/</sup> Stockers are 6-12 inches long. <sup>3/</sup> Fingerlings are 1-6 inches long.

## Total Value of Utah Trout Sales 1989-91, 93-96

Thousand Dollars



### Trout: Loss by Cause, Utah, Sep 1-Aug 31; 1993-96

Year	Total		Disease			Theft			Chemicals		
	Number Lost	Pounds Lost	Number Lost	Pounds Lost	% of Total	Number Lost	Pounds Lost	% of Total	Number Lost	Pounds Lost	% of Total
	..... 1,000		..... Percent			..... 1,000			..... 1,000		
1993	216	137	38	21	18	6	7	3	0	0	0
1994	384	119	56	17	15	20	35	5	0	0	0
1995	258	131	0	0	0	16	16	6	67	30	26
1996	336	143	20	1	6	12	11	3	0	0	0

### Trout: Loss by Cause, Utah, Sep 1-Aug 31; 1993-96

Year	Drought			Flood			Predators			Other		
	Number Lost	Pounds Lost	% of Total	Number Lost	Pounds Lost	% of Total	Number Lost	Pounds Lost	% of Total	Number Lost	Pounds Lost	% of Total
	..... 1,000			..... 1,000			..... 1,000			..... 1,000		
1993	63	33	29	15	9	7	84	59	39	10	8	5
1994	0	0	0	1	1	0	306	64	80	1	2	0
1995	9	6	3	5	2	2	109	31	42	52	46	20
1996	0	0	0	0	0	0	251	109	75	53	22	16



# Farm Labor

The Utah Agricultural Statistics Service conducts quarterly agricultural labor surveys in January, April, July, and October. Data concerning hired labor, hours worked, and wage rates for the week (Sunday through Saturday) containing the 12th of the month are collected. Estimates are published four times a year, usually by mid-month following the survey month. Utah is combined with Colorado and Nevada to form the Mountain II region.

The number of hired farm workers in the Mountain II region during the July 1996 through April 1997 quarterly survey periods peaked in October 1996 at 23,000 workers, followed closely by April 1997 with 22,000 workers and July 1996 with 21,000. A low of 13,000 workers was reported in January

1997. July 1996 was the busiest quarter with the hired workers averaging 47.8 hours for the week with October 1996 at 45.0 hours for the week and April 1997 at 40.4 hours for the week close behind. Again, January 1997 was the low with the hired labor working 38.9 hours for the week.

The average wage rates were generally higher during the January survey period where the average rate for all hired workers was \$7.37 per hour. Field workers received their highest wage rates in January 1997 at \$6.75 per hour and their lowest at \$5.88 in July 1997. Livestock workers received their highest wages in October 1996 at \$6.95 per hour and their lowest in April 1997 at \$5.93 per hour.

**Hired Farm Labor: Mountain II Region,  
July 1996, October 1996, January 1997, and April 1997 <sup>1/</sup> <sup>2/</sup>**

	July 7-13, 1996	October 6-12, 1996	January 12-18, 1997	April 6-12, 1997
	1,000			
Hired Workers	21	23	13	22
Expected to be employed				
150 days or more	14	18	12	16
149 days or less	7	5	1	6
	Dollars per Hour			
Wage Rates for All Hired Workers <sup>2/</sup>	6.27	6.98	7.37	6.94
Type of Worker				
Field	5.88	6.11	6.75	6.57
Livestock	6.05	6.95	6.64	5.93
Field & Livestock combined	5.92	6.34	6.67	6.37
	Hours per Week			
Hours Worked by Hired Workers	47.8	45.0	38.9	40.4

<sup>1/</sup> Mountain II Region includes Colorado, Nevada, and Utah. <sup>2/</sup> Excludes Agricultural Service Workers.

# Agricultural Prices

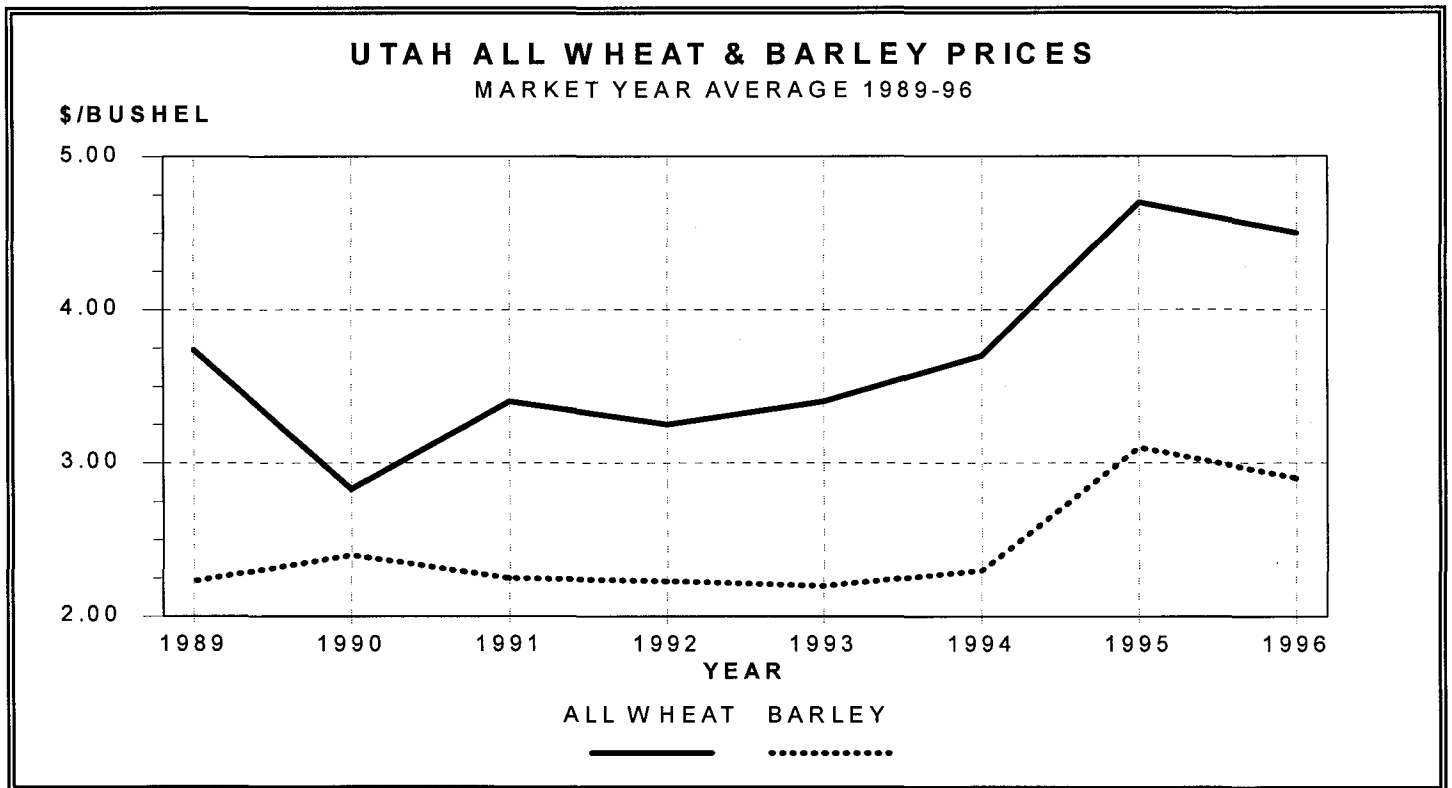
The National Agricultural Statistics Service (NASS), also known as the Utah Agricultural Statistics Service at the state level, estimates the prices that farmers and ranchers receive for their commodities and the prices that they pay for production goods and services. These prices and associated price indexes are an important barometer of agricultural markets, the economic well-being of farmers, and changes in production costs. NASS also issues monthly parity prices. Price and parity data are important parts of formulas used to determine support prices and government payments to farmers.

Most prices after 1979 are based on actual sales by producers of a commodity during the entire month. Preliminary sales prices are obtained from the current month, based on sales around the 15th of the month. This "mid-month" price is revised the following month when sales data for the entire

month become available. Livestock prices prior to 1980, and crop prices prior to 1977, are mid-month prices. Yearly average prices for each commodity are weighted based on the volume of sales of each commodity during a given month.

Sheep market year average price for 1996 was higher than the 1995 levels, and lamb 1996 market year average price was higher than 1995. Milk prices were mostly above the previous years prices. The market year average alfalfa hay price for 1996 was higher than the 1995 price.

Prices for many of Utah agricultural commodities are published only on marketing year (12 month period varies by commodity) basis. These market year prices can be found in individual commodity tables within this publication.



**Average Prices Received: by Farmers, Utah, 1989-96**

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mktg Year Avg 1/
<b>BARLEY (Dollars per Bushel)</b>													
1989	2.70	2.72	2.76	2.59	2.55	2.57	2.20	2.12	2.11	2.18	2.29	2.36	2.23
1990	2.30	2.35	2.38	2.40	2.46	2.45	2.28	2.29	2.33	2.49	2.47	2.35	2.40
1991	2.46	2.54	2.47	2.46	2.50	2.50	2.14	2.11	2.16	2.19	2.33	2.35	2.25
1992	2.40	2.39	2.39	2.42	2.49	2.48	2.23	2.18	2.19	2.24	2.21	2.26	2.23
		3.26											
1993	2.26	2.25	2.32	2.27	2.26	2.30	2.20	2.11	2.10	2.09	2.23	2.35	2.22
1994	2.43	2.40	2.47	2.38	2.35	2.40	2.32	2.17	2.22	2.22	2.22	2.35	2.32
1995	2.34	2.37	2.41	2.39	2.54	2.76	2.65	2.60	2.74	2.92	3.21	3.22	*3.08
1996	3.26	3.32	3.49	3.37	3.84	3.73	3.25	2.98	3.08	3.05	2.96	2.60	2/ 2.90
<b>ALFALFA &amp; ALFALFA HAY MIXTURES, BALED (Dollars per Ton)</b>													
1989	84.00	86.00	87.00	85.00	83.00	79.00	87.00	86.00	85.00	85.00	85.00	85.00	85.00
1990	85.00	85.00	86.00	86.00	85.00	86.00	86.00	85.00	80.00	85.00	86.00	84.00	83.00
1991	84.00	74.00	69.00	69.00	66.00	64.00	61.00	59.00	59.00	55.00	52.00	53.00	57.00
1992	55.00	53.00	54.00	54.00	55.00	61.00	64.00	64.00	62.00	61.00	61.00	61.00	62.00
1993	60.00	61.00	66.00	67.00	70.00	71.00	62.00	63.00	62.00	63.00	65.00	68.00	65.50
1994	70.00	65.00	67.00	67.00	67.00	77.00	77.00	78.00	81.00	76.00	83.00	87.00	80.00
1995	83.00	85.00	83.00	80.00	75.00	75.00	74.00	69.00	67.00	61.00	63.00	63.00	66.00
1996	61.00	59.00	60.00	57.00	59.00	57.00	73.00	74.00	68.00	67.00	73.00	78.00	2/ 69.00
<b>ALL HAY, BALED (Dollars per Ton)</b>													
1989	81.00	83.00	85.00	83.00	82.00	76.00	84.00	83.00	83.00	83.00	83.00	83.00	82.50
1990	83.00	83.00	83.00	83.00	84.00	84.00	84.00	83.00	79.00	83.00	83.00	82.00	81.50
1991	82.00	72.00	67.00	67.00	65.00	63.00	60.00	58.00	58.00	54.00	51.00	52.00	56.00
1992	54.00	52.00	53.00	53.00	54.00	60.00	62.00	62.00	60.00	60.00	60.00	60.00	61.00
1993	59.00	60.00	65.00	65.00	70.00	71.00	62.00	62.00	62.00	63.00	65.00	67.00	65.00
1994	69.00	64.00	66.00	67.00	67.00	77.00	77.00	77.00	80.00	76.00	82.00	86.00	79.50
1995	82.00	84.00	83.00	80.00	75.00	75.00	74.00	68.00	67.00	61.00	63.00	62.00	*66.00
1996	60.00	58.00	59.00	57.00	59.00	57.00	73.00	74.00	68.00	67.00	73.00	77.00	2/ 69.00
<b>SHEEP (Dollars per Cwt)</b>													
1989	30.20	35.00	27.40	17.80	13.50	15.40	16.30	19.90	15.90	15.70	20.30	27.80	19.20
1990	27.10	22.00	19.40	16.50	13.50	15.40	22.40	22.40	18.30	17.50	16.30	19.90	18.70
1991	21.70	19.30	21.40	22.80	16.90	17.30	22.60	20.50	22.80	19.30	21.60	23.10	20.40
1992	27.80	29.80	32.60	31.30	20.20	19.20	23.60	27.10	21.60	19.60	18.60	26.20	24.30
1993	25.60	25.00	22.00	19.00	20.00	21.00	23.00	23.00	21.00	18.00	21.50	24.50	21.50
1994	24.00	28.00	26.00	23.00	20.00	26.00	26.00	24.00	24.00	19.00	25.00	29.00	23.60
1995	23.00	28.00	24.00	22.00	19.00	21.00	24.00	22.00	21.00	17.00	19.00	22.00	21.00
1996	28.00	26.00	28.00	22.00	19.00	20.00	26.00	24.00	25.00	22.00	26.00	29.00	23.90
<b>LAMBS (Dollars per Cwt)</b>													
1989	62.00	60.20	64.70	59.60	64.30	65.50	63.00	62.80	62.70	57.40	53.30	55.00	60.50
1990	53.00	52.70	55.90	51.30	46.60	47.30	48.80	46.00	49.40	47.40	41.20	44.20	48.50
1991	41.20	39.80	40.90	42.30	45.10	45.50	48.00	45.60	42.40	42.70	40.30	43.80	43.20
1992	49.70	49.60	56.60	60.30	50.80	54.40	53.30	44.90	51.00	54.00	49.40	53.70	51.80
1993	59.60	66.00	63.00	56.00	55.00	50.00	50.00	59.00	62.00	59.00	60.50	60.00	60.40
1994	55.00	59.00	56.00	56.00	52.00	59.00	66.00	66.00	65.00	64.00	66.00	67.00	64.10
1995	65.00	73.00	75.00	75.00	80.00	83.00	81.00	83.00	80.00	71.00	73.00	73.00	77.00
1996	75.00	83.00	84.00	93.00	91.00	104.00	90.00	86.00	88.00	82.00	83.00	89.00	85.90

1/ Marketing year, barley, July 1 to June 30; hay, May 1 to April 30; sheep and lamb, January 1 to Dec 31. 2/ Preliminary, final market year average will be published two months after the end of the marketing year. \*Revised.

**Average Prices Received: by Farmers, Utah, 1989-96**

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mktg Year Avg
<b>MILK, ALL (Dollars per Cwt) <sup>1/</sup></b>													
1989	12.70	12.40	11.80	11.40	11.30	11.40	11.60	12.30	13.20	13.70	14.50	15.00	12.60
1990	14.90	13.80	13.10	12.60	12.70	13.00	13.20	13.50	13.40	12.00	11.80	10.90	12.90
1991	11.00	10.80	10.60	10.40	10.50	10.60	11.10	11.60	12.20	12.70	13.10	13.00	11.50
1992	12.60	12.10	11.70	11.70	11.80	12.30	12.50	12.60	12.90	12.60	12.40	11.90	12.30
1993	11.70	11.50	11.30	11.80	12.10	12.30	12.10	11.80	12.10	12.50	13.20	13.10	12.10
1994	13.20	13.00	13.00	13.10	12.20	12.00	11.50	11.80	12.30	12.50	12.60	12.20	12.40
1995	12.00	12.00	12.00	11.70	11.70	11.50	11.50	11.70	12.00	12.80	13.30	13.30	12.10
1996	13.30	13.30	13.10	13.30	13.70	13.60	14.40	14.90	15.60	15.20	14.00	13.00	14.00
<b>MILK, ELIGIBLE FOR FLUID MARKET (Dollars per Cwt) <sup>1/ 2/</sup></b>													
1989	12.90	12.70	12.10	11.60	11.50	11.60	11.80	12.50	13.30	13.90	14.70	15.20	12.80
1990	15.30	14.40	13.50	12.80	12.90	13.20	13.40	13.80	13.70	12.50	12.10	11.10	13.20
1991	11.20	11.00	10.70	10.50	10.60	10.70	11.20	11.70	12.30	12.80	13.20	13.20	11.60
1992	12.90	12.30	11.90	11.80	12.00	12.40	12.60	12.90	13.10	12.80	12.50	12.10	12.40
1993	11.80	11.60	11.40	11.90	12.20	12.40	12.20	11.90	12.20	12.60	13.30	13.10	12.20
1994	13.20	13.10	13.10	13.20	12.40	12.20	11.60	12.00	12.30	12.60	12.60	12.20	12.50
1995	12.00	12.00	12.10	11.80	11.80	11.60	11.60	11.80	12.10	12.90	13.30	13.30	12.20
1996	13.40	13.30	13.20	13.40	13.80	13.70	14.50	15.00	15.70	15.30	14.00	13.20	14.10
<b>MILK, MANUFACTURING GRADE (Dollars per Cwt) <sup>1/</sup></b>													
1989	11.70	11.00	10.60	10.40	10.30	10.60	11.00	11.70	12.60	13.10	13.70	14.00	11.70
1990	13.20	11.50	11.60	11.50	11.80	12.10	12.20	12.30	12.10	10.30	10.30	10.00	11.60
1991	10.00	9.75	9.70	9.55	9.75	9.85	10.60	11.10	11.60	12.10	12.40	11.90	10.70
1992	11.00	10.60	10.60	10.90	11.20	11.70	11.70	11.50	11.70	11.60	11.60	11.10	11.30
1993	11.00	10.80	10.90	11.70	11.90	11.70	11.00	10.90	11.60	12.00	12.80	12.70	11.50
1994	12.30	12.30	12.30	12.20	11.20	10.30	10.50	10.80	11.80	12.10	12.20	11.90	11.70
1995	11.80	11.70	11.50	11.00	10.80	10.80	10.80	11.20	11.70	12.40	13.20	13.10	11.60
1996	12.90	12.90	12.50	12.90	13.00	13.10	13.60	14.30	15.20	14.70	13.20	11.80	13.30

<sup>1/</sup> Average for the month. <sup>2/</sup> Includes surplus diverted to manufacturing.

**Average Prices Received: by Farmers, Milk Cows, Utah, 1989-96**

Year	Jan	Apr	Jul	Oct	Marketing Year Average
Dollars per Head					
1989	970	1,040	1,060	1,060	1,030
1990	1,070	1,140	1,190	1,250	1,160
1991	1,040	1,090	1,100	1,070	1,080
1992	1,070	1,190	1,200	1,140	1,150
1993	1,100	1,130	1,180	1,180	1,150
1994	1,100	1,170	1,220	1,170	1,170
1995	1,100	1,130	1,130	1,070	1,110
1996	1,000	1,040	1,080	1,170	1,070

# County Estimates

County estimates are an integral part of agricultural statistics. These estimates provide data to compare acres, production, and yield in different counties within the State of Utah. Crop county estimates play a major role in Federal Farm Program payments and crop insurance settlements, thus, directly effecting many farmers and ranchers. A cooperative agreement between the Utah State Department of Agriculture and the Utah Agricultural Statistics Service, USDA provides funding in support of county estimates contained in this publication.

Box Elder was the "Number one" county in total grain production (wheat, barley, oats, and corn) followed by Cache, Millard, Utah, and Davis Counties. Box Elder was also "number one" in acres of grain planted followed by Cache, Utah, San Juan, and Millard Counties.

Box Elder County was the State's largest producer of winter wheat producing 46 percent of the State total. Cache County ranked second followed by Utah, Salt Lake, and Millard Counties.

Spring wheat production was also dominated by Box Elder County followed by Cache, Utah, Millard, and Weber Counties.

Barley production was led by Cache County followed by Box Elder, Millard, Utah, and Sanpete Counties. The top five counties' production accounted for 70 percent of the State total.

Box Elder was the "Number one" producer of oats

in the State followed by Millard, Cache, Sevier, and Duchesne Counties.

Corn for grain production was led by Box Elder followed by Utah, Millard, Davis, and Weber Counties. Utah led in production of corn silage followed by Sevier, Cache, and Box Elder Counties.

Alfalfa hay production was led by Millard County followed by Box Elder, Cache, Iron, and Utah Counties. Rich was the leading county in other hay production followed by Duchesne, Utah, Sanpete, and Box Elder.

Box Elder County had the largest inventory of cattle and calves as of January 1, 1997 followed by Cache, Duchesne, Utah, Millard, and Sevier. Cache County continued as the major county for milk cows with nearly twice the number as Box Elder which ranked in second place. Millard, Utah, and Sanpete were also major dairy counties.

Sanpete was once again the "Number one" sheep county. Other major sheep producing counties were Utah, Iron, Box Elder, and Summit. The top five counties accounted for 58 percent of the total.

Preliminary indications of 1995 total cash receipts show Cache County as the "Number one" county. Box Elder is second, followed by Utah, Sanpete, and Millard. Cache was the leading county for livestock cash receipts followed by Sanpete. Crops cash receipts were topped by Box Elder County and followed by Utah County.

## County Estimates: by County, Selected Items and Years, Utah

Item	Unit	State	County					
			Beaver	Box Elder	Cache	Carbon	Daggett	Davis
<b>1996 PRODUCTION</b>								
All Wheat	Bu	7,760,000	1/	3,134,000	1,353,000	1/		316,000
All Barley	Bu	8,200,000	71,000	1,288,000	1,763,000	1/		169,000
Corn for Grain	Bu	2,730,000		915,000	60,000	30,000		295,000
Corn for Silage	Tons	882,000	32,000	117,000	126,000	4,000		22,000
Oats	Bu	648,000	12,000	70,000	52,000	22,000	1/	1/
All Hay	Tons	2,516,000	126,500	227,300	220,500	20,100	15,000	42,100
Alfalfa & Alfalfa Mix Hay	Tons	2,180,000	116,500	208,000	201,300	18,400	8,100	32,300
<b>JAN. 1, 1997 INVENTORY</b>								
All Cattle & Calves	Head	930,000	48,000	105,000	81,000	9,000	4,000	16,000
Beef Cows	Head	355,000	14,000	26,500	11,000	5,000	3,500	6,500
Milk Cows	Head	90,000	3,500	11,200	21,500	2/	2/	1,700
Breeding Sheep & Lambs	Head	339,000	1,000	33,000	3,000	4,500	500	13,000
<b>CASH RECEIPTS, 1995</b>								
Livestock & Livestock Products	Mill \$	591.3	16.4	52.7	78.5	4.2	0.9	12.7
Crops	Mill \$	220.7	4.6	35.7	20.0	0.8	0.4	22.0
Total	Mill \$	812.0	21.0	88.4	98.5	5.0	1.3	34.7
<b>1992 CENSUS OF AGRICULTURE</b>								
Number of Farms	Num	13,520	215	1,085	1,189	182	29	582
Land in Farms	Acres	9,624,463	192,288	1,449,976	267,924	291,860	21,958	50,357
Harvested Cropland 3/	Acres	1,043,347	27,149	171,708	120,044	5,592	3,544	18,573
Irrigated Land 4/	Acres	1,142,514	33,519	120,583	87,475	7,895	6,891	20,965

Item	Unit	County						
		Duchesne	Emery	Garfield	Grand	Iron	Juab	Kane
<b>1996 PRODUCTION</b>								
All Wheat	Bu	30,000	1/	1/	1/	24,000	262,000	1/
All Barley	Bu	329,000	1/			204,000	172,000	
Corn for Grain	Bu	125,000	28,000			12,000	10,000	
Corn for Silage	Tons	29,000	20,000			17,000	5,000	
Oats	Bu	44,000	28,000	6,000	1/	28,000	1/	6,000
All Hay	Tons	162,200	52,400	38,000	7,900	186,500	57,600	11,500
Alfalfa & Alfalfa Mix Hay	Tons	121,100	45,600	31,900	7,400	177,300	54,500	10,500
<b>JAN. 1, 1997 INVENTORY</b>								
All Cattle & Calves	Head	67,000	34,000	20,000	3,000	20,000	10,000	11,000
Beef Cows	Head	35,000	14,000	13,000	1,000	9,000	5,000	5,500
Milk Cows	Head	3,400	1,000	600	2/	1,500	500	2/
Breeding Sheep & Lambs	Head	9,000	5,500	2,000	500	34,000	4,000	1,500
<b>CASH RECEIPTS, 1995</b>								
Livestock & Livestock Products	Mill \$	28.7	11.2	7.2	1.3	11.8	5.1	3.9
Crops	Mill \$	6.8	2.2	1.4	0.6	11.4	4.4	0.5
Total	Mill \$	35.5	13.4	8.6	1.9	23.2	9.5	4.4
<b>1992 CENSUS OF AGRICULTURE</b>								
Number of Farms	Num	733	420	249	88	365	203	136
Land in Farms	Acres	399,011	240,535	137,530	63,116	434,183	332,686	209,819
Harvested Cropland 3/	Acres	57,788	18,787	16,819	2,355	48,916	25,270	3,337
Irrigated Land 4/	Acres	117,280	31,669	29,231	3,096	51,857	20,097	4,999

1/ Less than 500 acres harvested. 2/ Less than 500 head. 3/ Includes land from which crops were harvested or hay was cut, and land in orchards. 4/ Includes all land watered by any artificial or controlled means, such as sprinklers, furrows or ditches, and spreader dikes.

## County Estimates: by County, Selected Items and Years, Utah (continued)

Item	Unit	County							
		Millard	Morgan	Piute	Rich	Salt Lake	San Juan	Sanpete	Sevier
<b>1996 PRODUCTION</b>									
All Wheat	Bu	458,000	51,000		66,000	363,000	172,000	110,000	58,000
All Barley	Bu	1,191,000	192,000	1/	55,000	123,000		504,000	423,000
Corn for Grain	Bu	356,000				94,000			90,000
Corn for Silage	Tons	46,000	1/	1/		13,000	5,000	32,000	133,000
Oats	Bu	67,000	1/	8,000	15,000	9,000	12,000	40,000	44,000
All Hay	Tons	311,700	28,700	32,500	96,400	50,900	12,500	153,000	107,200
Alfalfa & Alfalfa Mix Hay	Tons	300,800	23,600	27,800	27,800	47,600	10,900	132,400	99,100
<b>JAN. 1, 1997 INVENTORY</b>									
All Cattle & Calves	Head	58,000	10,000	9,000	50,000	18,000	20,000	51,000	58,000
Beef Cows	Head	22,500	4,500	2,500	36,500	6,500	10,500	13,500	14,500
Milk Cows	Head	7,500	1,300	2,000	2/	2,000	2/	7,000	4,500
Breeding Sheep & Lambs	Head	3,000	6,500	3,000	8,000	18,500	3,500	59,000	11,000
<b>CASH RECEIPTS, 1995</b>									
Livestock & Lvst Products	Mill \$	33.2	9.3	7.7	17.3	31.2	7.8	72.4	29.7
Crops	Mill \$	23.8	1.5	1.2	3.8	11.9	4.9	6.9	5.4
Total	Mill \$	57.0	10.8	8.9	21.1	43.1	12.7	79.3	35.1
<b>1992 CENSUS OF AGRICULTURE</b>									
Number of Farms	Num	612	258	109	143	686	206	696	406
Land in Farms	Acres	484,156	234,576	58,522	493,073	107,663	324,921	447,463	158,189
Harvested Cropland 3/	Acres	86,933	9,474	10,923	45,631	26,308	48,031	49,073	31,129
Irrigated Land 4/	Acres	88,841	7,960	13,789	56,389	16,299	5,491	99,061	43,919

Item	Unit	County							
		Summit	Tooele	Uintah	Utah	Wasatch	Washington	Wayne	Weber
<b>1996 PRODUCTION</b>									
All Wheat	Bu	1/	161,000	48,000	832,000	1/	7,000	1/	284,000
All Barley	Bu	1/	162,000	62,000	995,000	87,000	72,000	123,000	169,000
Corn for Grain	Bu			78,000	472,000			1/	157,000
Corn for Silage	Tons	1/	1/	23,000	148,000	1/	1/		89,000
Oats	Bu	7,000	6,000	34,000	1/	12,000	6,000	23,000	17,000
All Hay	Tons	38,700	46,100	118,200	159,500	30,000	54,300	39,700	69,000
Alfalfa & Alfalfa Mix Hay	Tons	20,500	41,200	105,400	137,200	25,600	49,200	34,800	63,200
<b>JAN. 1, 1997 INVENTORY</b>									
All Cattle & Calves	Head	16,000	22,000	47,000	61,000	10,000	18,000	20,000	34,000
Beef Cows	Head	9,500	13,000	20,500	22,500	2,000	8,500	11,500	7,500
Milk Cows	Head	1,500	2/	1,600	7,500	2,000	2/	1,000	6,000
Breeding Sheep & Lambs	Head	25,000	7,000	14,500	44,000	12,000	500	7,000	5,000
<b>CASH RECEIPTS, 1995</b>									
Livestock & Lvst Products	Mill \$	12.6	8.1	17.7	60.0	8.6	6.8	9.5	24.8
Crops	Mill \$	1.3	3.6	5.3	26.1	1.6	4.0	1.8	6.8
Total	Mill \$	13.9	11.7	23.0	86.1	10.2	10.8	11.3	31.6
<b>1992 CENSUS OF AGRICULTURE</b>									
Number of Farms	Num	419	300	716	1,696	274	389	189	945
Land in Farms	Acres	373,582	437,238	1,294,703	450,315	139,347	167,374	105,576	256,522
Harvested Cropland 3/	Acres	17,217	13,882	42,273	83,047	10,130	8,515	13,039	27,860
Irrigated Land 4/	Acres	29,417	16,479	70,011	83,601	15,000	11,987	16,955	31,758

1/ Less than 500 acres harvested. 2/ Less than 500 head. 3/ Includes land from which crops were harvested or hay was cut, and land in orchards. 4/ Includes all land watered by any artificial or controlled means, such as sprinklers, furrows or ditches, and spreader dikes.

**County Estimates: All Wheat, All Cropping Practices, Utah, 1996**

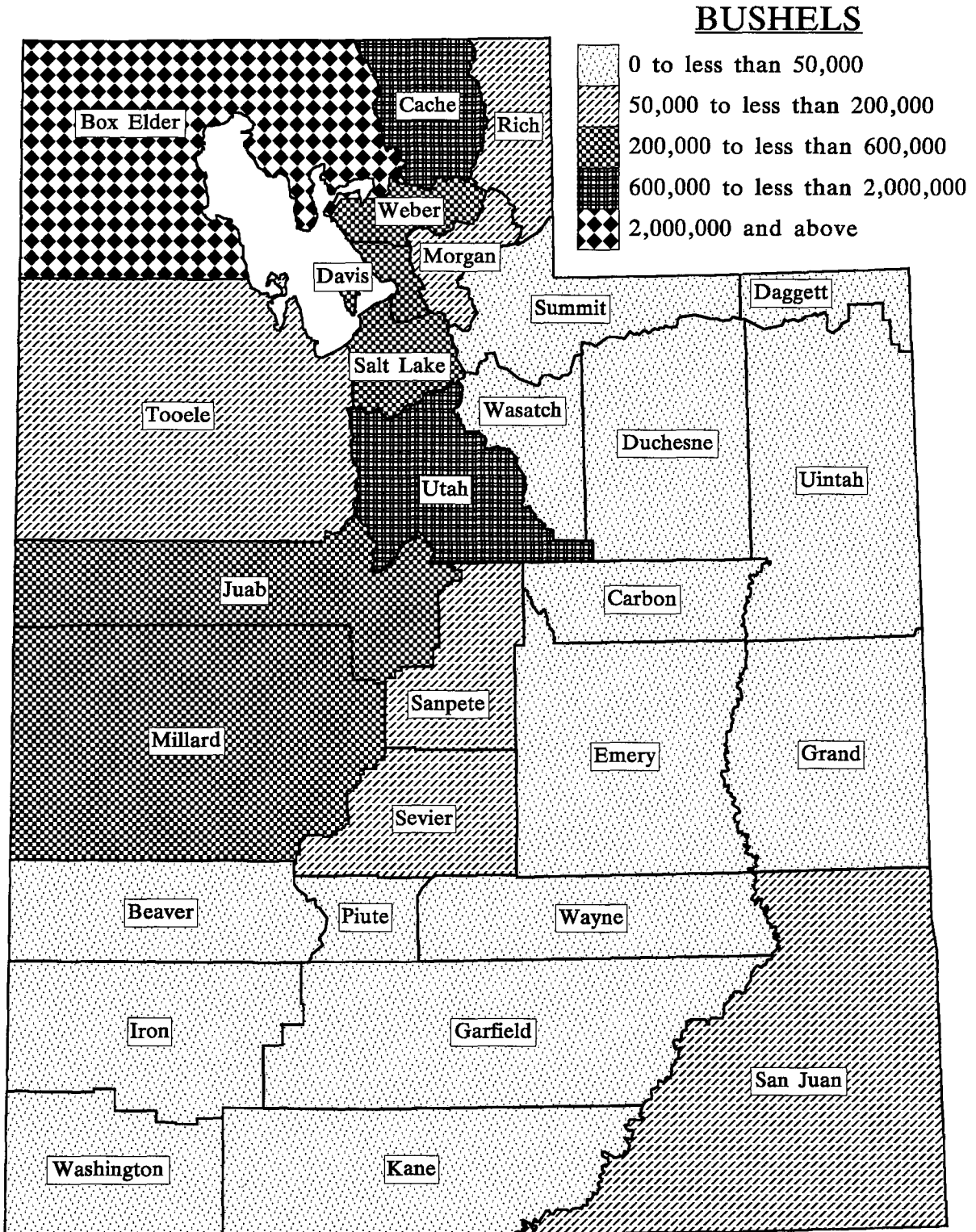
District and County	Acres		Harvested Yield	Production
	Planted	Harvested		
	Acres		Bushels	
<b>NORTHERN</b>				
Box Elder . . . . .	76,800	75,600	41	3,134,000
Cache . . . . .	28,500	27,700	49	1,353,000
Davis . . . . .	4,100	3,900	81	316,000
Morgan . . . . .	1,000	800	64	51,000
Rich . . . . .	1,600	1,400	47	66,000
Salt Lake . . . . .	13,100	11,100	33	363,000
Tooele . . . . .	4,200	3,700	44	161,000
Weber . . . . .	4,200	4,000	71	284,000
Total . . . . .	133,500	128,200	45	5,728,000
<b>CENTRAL</b>				
Juab . . . . .	6,600	5,700	46	262,000
Millard . . . . .	8,100	6,900	66	458,000
Sanpete . . . . .	1,600	1,500	73	110,000
Sevier . . . . .	900	800	73	58,000
Utah . . . . .	21,800	20,800	40	832,000
Total . . . . .	39,000	35,700	48	1,720,000
<b>EASTERN</b>				
Carbon . . . . .	*	*	*	*
Daggett . . . . .				
Duchesne . . . . .	900	600	50	30,000
Emery . . . . .	*	*	*	*
Grand . . . . .	*	*	*	*
San Juan . . . . .	26,500	20,600	8	172,000
Summit . . . . .	*	*	*	*
Uintah . . . . .	1,600	1,200	40	48,000
Wasatch . . . . .	*	*	*	*
Other . . . . .	1,000	800	33	26,000
Total . . . . .	30,000	23,200	12	276,000
<b>SOUTHERN</b>				
Beaver . . . . .	*	*	*	*
Garfield . . . . .	*	*	*	*
Iron . . . . .	900	600	40	24,000
Kane . . . . .	*	*	*	*
Piute . . . . .				
Washington . . . . .	600	200	35	7,000
Wayne . . . . .	*	*	*	*
Other . . . . .	1,000	100	50	5,000
Total . . . . .	2,500	900	40	36,000
<b>STATE . . . . .</b>	<b>205,000</b>	<b>188,000</b>	<b>41</b>	<b>7,760,000</b>

\*Less than 500 planted acres, combined with other counties.



# UTAH ALL WHEAT PRODUCTION

## By Counties, 1996



### County Estimates: All Wheat, by Cropping Practice, Utah, 1996

District and County	Irrigated				Non-Irrigated			
	Acres		Harv- ested Yield	Production	Acres		Harv- ested Yield	Production
	Planted	Harvested			Planted	Harvested		
	..... Acres .....		..... Bushels .....		..... Acres .....		..... Bushels .....	
<b>NORTHERN</b>								
Box Elder . .	22,800	22,300	77	1,708,000	54,000	53,300	27	1,426,000
Cache . . . .	9,300	9,100	75	682,000	19,200	18,600	36	671,000
Davis . . . .	3,300	3,300	89	294,000	800	600	37	22,000
Morgan . . .	600	500	76	38,000	400	300	43	13,000
Rich . . . . .	500	500	78	39,000	1,100	900	30	27,000
Salt Lake . .	1,600	1,600	80	128,000	11,500	9,500	25	235,000
Tooele . . .	1,500	1,500	69	103,000	2,700	2,200	26	58,000
Weber . . . .	2,900	2,900	83	240,000	1,300	1,100	40	44,000
Total . . . .	42,500	41,700	78	3,232,000	91,000	86,500	29	2,496,000
<b>CENTRAL</b>								
Juab . . . . .	2,200	2,200	67	147,000	4,400	3,500	33	115,000
Millard . . .	4,300	4,200	83	349,000	3,800	2,700	40	109,000
Sanpete . . .	1,400	1,300	80	104,000	200	200	30	6,000
Sevier . . . .	700	700	79	55,000	200	100	30	3,000
Utah . . . . .	5,400	5,100	77	393,000	16,400	15,700	28	439,000
Total . . . .	14,000	13,500	78	1,048,000	25,000	22,200	30	672,000
<b>EASTERN</b>								
Carbon . . . .	*	*	*	*	*	*	*	*
Daggett . . .								
Duchesne . .	700	600	50	30,000	200	*	*	*
Emery . . . .	*	*	*	*	*	*	*	*
Grand . . . .					*	*	*	*
San Juan . .	2,800	2,200	17	38,000	23,700	18,400	7	134,000
Summit . . .	*	*	*	*	*	*	*	*
Uintah . . . .	900	800	46	37,000	700	400	28	11,000
Wasatch . . .	*	*	*	*	*	*	*	*
Other . . . .	700	500	46	23,000	300	300	10	3,000
Total . . . .	5,100	4,100	31	128,000	24,900	19,100	8	148,000
<b>SOUTHERN</b>								
Beaver . . . .	*	*	*	*	*	*	*	*
Garfield . . .	*	*	*	*	*	*	*	*
Iron . . . . .	500	500	44	22,000	400	100	20	2,000
Kane . . . . .	*	*	*	*	*	*	*	*
Piute . . . . .								
Washington	300	100	50	5,000	300	100	20	2,000
Wayne . . . .	*	*	*	*	*	*	*	*
Other . . . .	600	100	50	5,000	400	*	*	*
Total . . . .	1,400	700	46	32,000	1,100	200	20	4,000
<b>STATE . . .</b>	<b>63,000</b>	<b>60,000</b>	<b>74</b>	<b>4,440,000</b>	<b>142,000</b>	<b>128,000</b>	<b>26</b>	<b>3,320,000</b>

\* Less than 500 acres planted for all cropping practices, combined with other counties.

**County Estimates: Winter Wheat, All Cropping Practices, Utah, 1996**

District and County	Acres		Harvested Yield	Production
	Planted	Harvested		
	Acres		Bushels	
<b>NORTHERN</b>				
Box Elder	70,100	69,200	41	2,809,000
Cache	24,000	23,200	47	1,080,000
Davis	3,000	2,800	79	222,000
Morgan	400	200	85	17,000
Rich	1,200	1,000	44	44,000
Salt Lake	12,000	10,000	31	314,000
Tooele	3,200	2,700	38	103,000
Weber	2,600	2,500	68	169,000
Total	116,500	111,600	43	4,758,000
<b>CENTRAL</b>				
Juab	5,000	4,200	42	177,000
Millard	5,500	4,400	61	270,000
Sanpete	600	500	60	30,000
Sevier	400	300	67	20,000
Utah	17,500	16,600	36	593,000
Total	29,000	26,000	42	1,090,000
<b>EASTERN</b>				
Carbon	*	*	*	*
Daggett				
Duchesne	300	200	55	11,000
Emery	*	*	*	*
Grand	*	*	*	*
San Juan	26,200	20,500	8	171,000
Summit	*	*	*	*
Uintah	900	700	33	23,000
Wasatch	*	*	*	*
Other	600	600	27	16,000
Total	28,000	22,000	10	221,000
<b>SOUTHERN</b>				
Beaver				
Garfield	*	*	*	*
Iron	500	300	30	9,000
Kane	*	*	*	*
Piute				
Washington	400	100	20	2,000
Wayne	*	*	*	*
Other	600	*	*	*
Total	1,500	400	28	11,000
<b>STATE</b>	<b>175,000</b>	<b>160,000</b>	<b>38</b>	<b>6,080,000</b>

\* Less than 500 planted acres of all wheat, combined with other counties.

## County Estimates: Spring Wheat, All Cropping Practices, Utah, 1996

District and County	Acres		Harvested Yield	Production
	Planted	Harvested		
	Acres		Bushels	
<b>NORTHERN</b>				
Box Elder . . . . .	6,700	6,400	51	325,000
Cache . . . . .	4,500	4,500	61	273,000
Davis . . . . .	1,100	1,100	85	94,000
Morgan . . . . .	600	600	57	34,000
Rich . . . . .	400	400	55	22,000
Salt Lake . . . . .	1,100	1,100	45	49,000
Tooele . . . . .	1,000	1,000	58	58,000
Weber . . . . .	1,600	1,500	77	115,000
Total . . . . .	17,000	16,600	58	970,000
<b>CENTRAL</b>				
Juab . . . . .	1,600	1,500	57	85,000
Millard . . . . .	2,600	2,500	75	188,000
Sanpete . . . . .	1,000	1,000	80	80,000
Sevier . . . . .	500	500	76	38,000
Utah . . . . .	4,300	4,200	57	239,000
Total . . . . .	10,000	9,700	65	630,000
<b>EASTERN</b>				
Carbon . . . . .	*	*	*	*
Daggett . . . . .				
Duchesne . . . . .	600	400	48	19,000
Emery . . . . .	*	*	*	*
Grand . . . . .				
San Juan . . . . .	300	100	10	1,000
Summit . . . . .				
Uintah . . . . .	700	500	50	25,000
Wasatch . . . . .	*	*	*	*
Other . . . . .	400	200	50	10,000
Total . . . . .	2,000	1,200	46	55,000
<b>SOUTHERN</b>				
Beaver . . . . .	*	*	*	*
Garfield . . . . .	*	*	*	*
Iron . . . . .	400	300	50	15,000
Kane . . . . .				
Piute . . . . .				
Washington . . . . .	200	100	50	5,000
Wayne . . . . .	*	*	*	*
Other . . . . .	400	100	50	5,000
Total . . . . .	1,000	500	50	25,000
<b>STATE . . . . .</b>	<b>30,000</b>	<b>28,000</b>	<b>60</b>	<b>1,680,000</b>

\*Less than 500 planted acres of all wheat, combined with other counties.

**County Estimates: Corn, All Cropping Practices, Utah, 1996 <sup>1/</sup>**

District and County	Acres Planted All Purposes	Corn for Grain			Corn for Silage		
		Acres Harvested	Harvested Yield	Production	Acres Harvested	Harvested Yield	Production
	..... Acres	.....	..... Bushels	.....	Acres	..... Tons	.....
<b>NORTHERN</b>							
Box Elder ..	11,000	6,400	143	915,000	4,600	25	117,000
Cache .....	7,000	400	150	60,000	6,500	19	126,000
Davis .....	3,000	2,100	140	295,000	900	24	22,000
Morgan .....	*				*	*	*
Rich .....							
Salt Lake ...	1,500	600	157	94,000	600	22	13,000
Tooele .....	*				*	*	*
Weber .....	5,000	1,000	157	157,000	3,900	23	89,000
Other .....	500	*	*	*	500	22	11,000
<b>Total .....</b>	<b>28,000</b>	<b>10,500</b>	<b>145</b>	<b>1,521,000</b>	<b>17,000</b>	<b>22</b>	<b>378,000</b>
<b>CENTRAL</b>							
Juab .....	500	100	100	10,000	300	17	5,000
Millard .....	5,500	3,000	119	356,000	2,300	20	46,000
Sanpete ...	2,000				1,900	17	32,000
Sevier .....	7,500	900	100	90,000	6,600	20	133,000
Utah .....	10,500	3,700	128	472,000	6,700	22	148,000
<b>Total .....</b>	<b>26,000</b>	<b>7,700</b>	<b>121</b>	<b>928,000</b>	<b>17,800</b>	<b>20</b>	<b>364,000</b>
<b>EASTERN</b>							
Carbon .....	500	300	100	30,000	200	20	4,000
Daggett ...							
Duchesne ..	3,000	1,400	89	125,000	1,600	18	29,000
Emery .....	1,500	200	140	28,000	1,200	17	20,000
Grand .....							
San Juan ...	1,000				300	17	5,000
Summit .....	*				*	*	*
Uintah .....	1,800	700	111	78,000	1,000	23	23,000
Wasatch ...	*				*	*	*
Other .....	200				200	20	4,000
<b>Total .....</b>	<b>8,000</b>	<b>2,600</b>	<b>100</b>	<b>261,000</b>	<b>4,500</b>	<b>19</b>	<b>85,000</b>
<b>SOUTHERN</b>							
Beaver .....	1,500				1,500	21	32,000
Garfield .....							
Iron .....	1,000	100	120	12,000	900	19	17,000
Kane .....							
Piute .....	*				*	*	*
Washington	*				*	*	*
Wayne .....	*	*	*	*			
Other .....	500	100	80	8,000	300	20	6,000
<b>Total .....</b>	<b>3,000</b>	<b>200</b>	<b>100</b>	<b>20,000</b>	<b>2,700</b>	<b>20</b>	<b>55,000</b>
<b>STATE .....</b>	<b>65,000</b>	<b>21,000</b>	<b>130</b>	<b>2,730,000</b>	<b>42,000</b>	<b>21</b>	<b>882,000</b>

\* Less than 500 acres planted for all purposes, combined with other counties.

<sup>1/</sup> Acres harvested for grain and silage may not add to acres planted for all purposes due to abandonment.

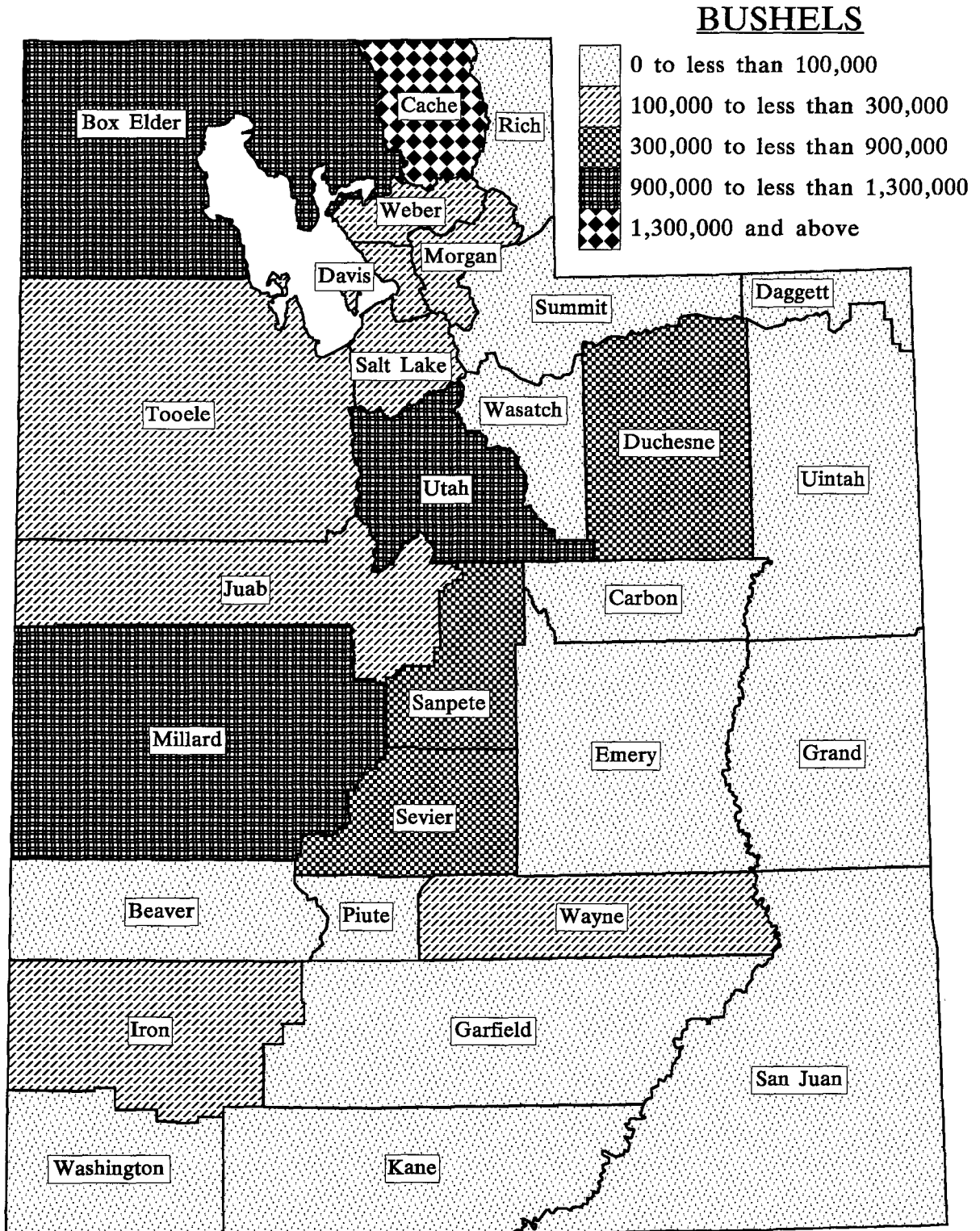
**County Estimates: All Barley, All Cropping Practices, Utah, 1996**

District and County	Acres		Harvested Yield	Production
	Planted	Harvested		
	Acres		Bushels	
<b>NORTHERN</b>				
Box Elder	16,000	14,800	87	1,288,000
Cache	24,500	23,500	75	1,763,000
Davis	2,000	1,900	89	169,000
Morgan	3,000	2,600	74	192,000
Rich	1,000	800	69	55,000
Salt Lake	1,500	1,400	88	123,000
Tooele	2,500	2,100	77	162,000
Weber	2,000	1,900	89	169,000
Total	52,500	49,000	80	3,921,000
<b>CENTRAL</b>				
Juab	2,500	2,000	86	172,000
Millard	14,000	13,000	92	1,191,000
Sanpete	6,500	5,600	90	504,000
Sevier	5,500	5,100	83	423,000
Utah	12,500	11,800	84	995,000
Total	41,000	37,500	88	3,285,000
<b>EASTERN</b>				
Carbon	*	*	*	*
Daggett				
Duchesne	5,000	4,600	72	329,000
Emery	*	*	*	*
Grand				
San Juan	*			
Summit	*	*	*	*
Uintah	1,000	900	69	62,000
Wasatch	1,500	1,300	67	87,000
Other	1,000	700	50	35,000
Total	8,500	7,500	68	513,000
<b>SOUTHERN</b>				
Beaver	1,000	800	89	71,000
Garfield	*			
Iron	3,000	2,500	82	204,000
Kane	*			
Piute	*	*	*	*
Washington	1,500	1,000	72	72,000
Wayne	2,000	1,500	82	123,000
Other	500	200	55	11,000
Total	8,000	6,000	80	481,000
STATE	110,000	100,000	82	8,200,000

\*Less than 500 planted acres combined with other counties.

# UTAH BARLEY PRODUCTION

## By Counties, 1996



**County Estimates: All Barley, by Cropping Practice, Utah, 1996**

District and County	Irrigated				Non-Irrigated			
	Acres		Harvested Yield	Production	Acres		Harvested Yield	Production
	Planted	Harvested			Planted	Harvested		
	..... Acres .....	..... Bushels .....			..... Acres .....	..... Bushels .....		
<b>NORTHERN</b>								
Box Elder ..	13,700	12,800	95	1,220,000	2,300	2,000	34	68,000
Cache .....	19,100	18,500	84	1,560,000	5,400	5,000	41	203,000
Davis .....	1,800	1,700	95	162,000	200	200	35	7,000
Morgan .....	2,200	1,900	89	170,000	800	700	31	22,000
Rich .....	1,000	800	69	55,000				
Salt Lake ...	1,300	1,200	97	116,000	200	200	35	7,000
Tooele .....	2,000	1,800	84	152,000	500	300	33	10,000
Weber .....	1,900	1,800	92	166,000	100	100	30	3,000
<b>Total .....</b>	<b>43,000</b>	<b>40,500</b>	<b>89</b>	<b>3,601,000</b>	<b>9,500</b>	<b>8,500</b>	<b>38</b>	<b>320,000</b>
<b>CENTRAL</b>								
Juab .....	2,300	1,900	89	169,000	200	100	30	3,000
Millard .....	13,200	12,500	94	1,170,000	800	500	42	21,000
Sanpete ...	6,300	5,500	91	500,000	200	100	40	4,000
Sevier .....	5,300	5,000	84	420,000	200	100	30	3,000
Utah .....	11,900	11,400	86	978,000	600	400	43	17,000
<b>Total .....</b>	<b>39,000</b>	<b>36,300</b>	<b>89</b>	<b>3,237,000</b>	<b>2,000</b>	<b>1,200</b>	<b>40</b>	<b>48,000</b>
<b>EASTERN</b>								
Carbon .....	*	*	*	*				
Daggett .....								
Duchesne ..	4,800	4,600	72	329,000	200			
Emery .....	*	*	*	*				
Grand .....								
San Juan ..					*			
Summit .....	*	*	*	*	*	*	*	*
Uintah .....	500	500	98	49,000	500	400	33	13,000
Wasatch ...	1,500	1,300	67	87,000				
Other .....	700	600	57	34,000	300	100	10	1,000
<b>Total .....</b>	<b>7,500</b>	<b>7,000</b>	<b>71</b>	<b>499,000</b>	<b>1,000</b>	<b>500</b>	<b>28</b>	<b>14,000</b>
<b>SOUTHERN</b>								
Beaver .....	1,000	800	89	71,000				
Garfield .....					*			
Iron .....	3,000	2,500	82	204,000				
Kane .....					*			
Piute .....	*	*	*	*	*	*	*	*
Washington .	1,300	800	81	65,000	200	200	35	7,000
Wayne .....	2,000	1,500	82	123,000				
Other .....	200	100	90	9,000	300	100	20	2,000
<b>Total .....</b>	<b>7,500</b>	<b>5,700</b>	<b>83</b>	<b>472,000</b>	<b>500</b>	<b>300</b>	<b>30</b>	<b>9,000</b>
<b>STATE .....</b>	<b>97,000</b>	<b>89,500</b>	<b>87</b>	<b>7,809,000</b>	<b>13,000</b>	<b>10,500</b>	<b>37</b>	<b>391,000</b>

\*Less than 500 acres planted for all cropping practices combined with other counties.



### County Estimates: Oats, All Cropping Practices, Utah, 1996

District and County	Acres		Harvested Yield	Production
	Planted	Harvested		
	..... Acres .....		..... Bushels .....	
<b>NORTHERN</b>				
Box Elder .....	2,000	800	88	70,000
Cache .....	1,700	600	87	52,000
Davis .....	*	*	*	*
Morgan .....	*	*	*	*
Rich .....	1,100	200	75	15,000
Salt Lake .....	600	100	90	9,000
Tooele .....	1,100	100	60	6,000
Weber .....	1,000	200	85	17,000
Other .....	1,000	400	78	31,000
<b>Total .....</b>	<b>8,500</b>	<b>2,400</b>	<b>83</b>	<b>200,000</b>
<b>CENTRAL</b>				
Juab .....	*	*	*	*
Millard .....	3,800	800	84	67,000
Sanpete .....	2,600	500	80	40,000
Sevier .....	3,000	600	73	44,000
Utah .....	*	*	*	*
Other .....	2,100	700	70	49,000
<b>Total .....</b>	<b>11,500</b>	<b>2,600</b>	<b>77</b>	<b>200,000</b>
<b>EASTERN</b>				
Carbon .....	900	300	73	22,000
Daggett .....	*	*	*	*
Duchesne .....	2,900	600	73	44,000
Emery .....	2,500	400	70	28,000
Grand .....	*	*	*	*
San Juan .....	1,800	500	24	12,000
Summit .....	900	100	70	7,000
Uintah .....	1,900	600	57	34,000
Wasatch .....	800	200	60	12,000
Other .....	300	0	0	0
<b>Total .....</b>	<b>12,000</b>	<b>2,700</b>	<b>59</b>	<b>159,000</b>
<b>SOUTHERN</b>				
Beaver .....	2,400	200	60	12,000
Garfield .....	2,000	100	60	6,000
Iron .....	4,000	400	70	28,000
Kane .....	1,000	100	60	6,000
Piute .....	800	100	80	8,000
Washington .....	600	100	60	6,000
Wayne .....	2,200	300	77	23,000
<b>Total .....</b>	<b>13,000</b>	<b>1,300</b>	<b>68</b>	<b>89,000</b>
<b>STATE .....</b>	<b>45,000</b>	<b>9,000</b>	<b>72</b>	<b>648,000</b>

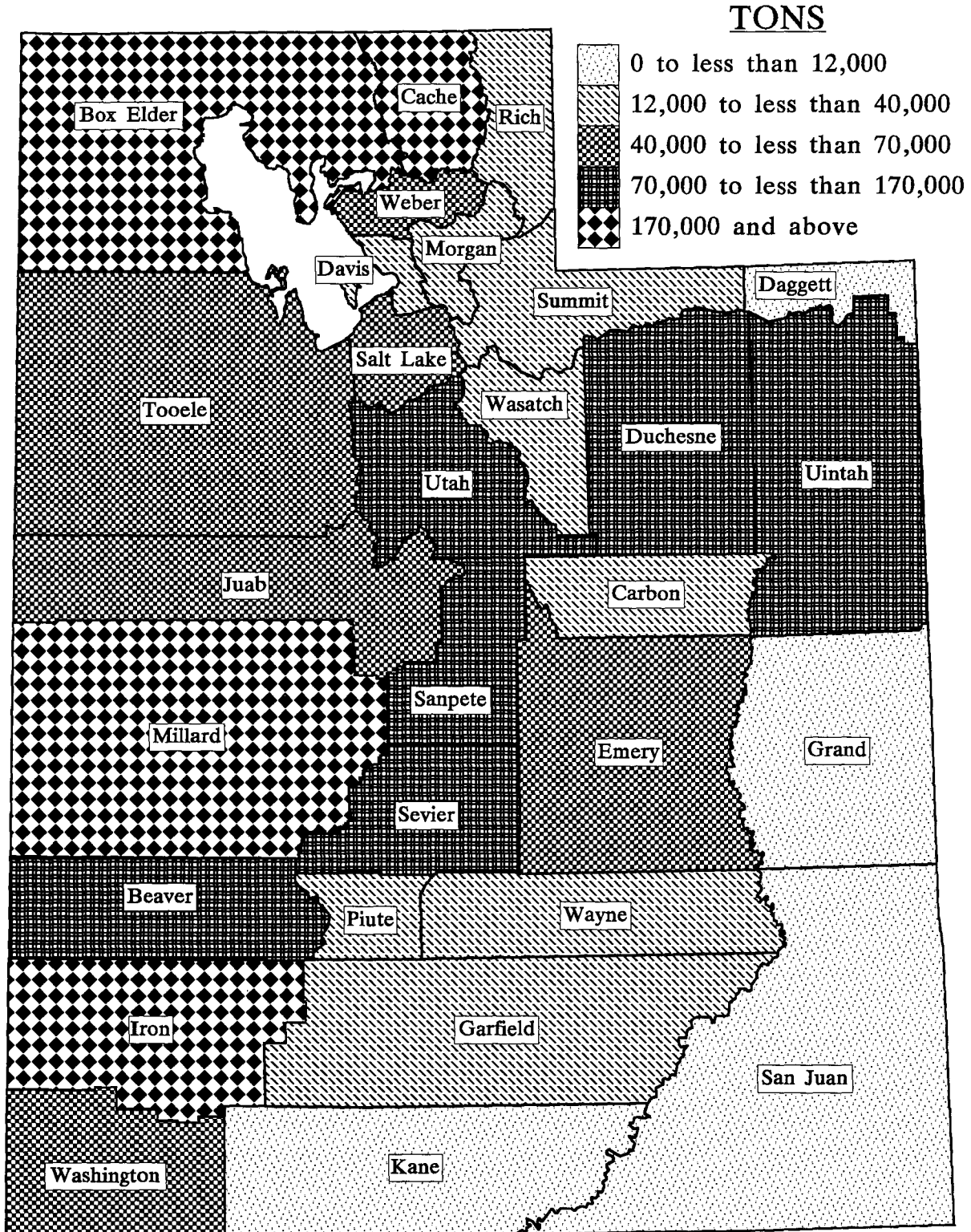
\*Less than 500 planted acres, combined with other counties.

## County Estimates: Alfalfa & Alfalfa Mixtures for Hay, All Cropping Practices, Utah, 1996

District and County	Acres Harvested	Harvested Yield	Production
	Acres	.....Tons.....	
<b>NORTHERN</b>			
Box Elder . . . . .	51,100	4.1	208,000
Cache . . . . .	54,800	3.7	201,300
Davis . . . . .	8,300	3.9	32,300
Morgan . . . . .	6,700	3.5	23,600
Rich . . . . .	11,400	2.4	27,800
Salt Lake . . . . .	12,300	3.9	47,600
Tooele . . . . .	11,300	3.6	41,200
Weber . . . . .	14,100	4.5	63,200
Total . . . . .	170,000	3.8	645,000
<b>CENTRAL</b>			
Juab . . . . .	15,200	3.6	54,500
Millard . . . . .	67,600	4.4	300,800
Sanpete . . . . .	31,700	4.2	132,400
Sevier . . . . .	22,000	4.5	99,100
Utah . . . . .	30,500	4.5	137,200
Total . . . . .	167,000	4.3	724,000
<b>EASTERN</b>			
Carbon . . . . .	5,600	3.3	18,400
Daggett . . . . .	2,700	3.0	8,100
Duchesne . . . . .	34,600	3.5	121,100
Emery . . . . .	14,700	3.1	45,600
Grand . . . . .	1,500	4.9	7,400
San Juan . . . . .	4,600	2.4	10,900
Summit . . . . .	7,800	2.6	20,500
Uintah . . . . .	27,500	3.8	105,400
Wasatch . . . . .	7,000	3.7	25,600
Total . . . . .	106,000	3.4	363,000
<b>SOUTHERN</b>			
Beaver . . . . .	25,900	4.5	116,500
Garfield . . . . .	9,800	3.3	31,900
Iron . . . . .	36,100	4.9	177,300
Kane . . . . .	3,500	3.0	10,500
Piute . . . . .	7,200	3.9	27,800
Washington . . . . .	9,900	5.0	49,200
Wayne . . . . .	9,600	3.6	34,800
Total . . . . .	102,000	4.4	448,000
<b>STATE . . . . .</b>	<b>545,000</b>	<b>4.0</b>	<b>2,180,000</b>

# UTAH ALFALFA HAY PRODUCTION

## By Counties, 1996



**County Estimates: Other Hay, All Cropping Practices, Utah, 1996**

District and County	Acres Harvested	Harvested Yield	Production
	Acres	Tons	
<b>NORTHERN</b>			
Box Elder . . . . .	9,100	2.1	19,300
Cache . . . . .	8,500	2.3	19,200
Davis . . . . .	4,200	2.3	9,800
Morgan . . . . .	1,900	2.7	5,100
Rich . . . . .	42,300	1.6	68,600
Salt Lake . . . . .	1,600	2.1	3,300
Tooele . . . . .	2,800	1.8	4,900
Weber . . . . .	2,600	2.2	5,800
Total . . . . .	73,000	1.9	136,000
<b>CENTRAL</b>			
Juab . . . . .	1,800	1.7	3,100
Millard . . . . .	5,200	2.1	10,900
Sanpete . . . . .	9,900	2.1	20,600
Sevier . . . . .	3,400	2.4	8,100
Utah . . . . .	10,700	2.1	22,300
Total . . . . .	31,000	2.1	65,000
<b>EASTERN</b>			
Carbon . . . . .	800	2.1	1,700
Daggett . . . . .	2,700	2.6	6,900
Duchesne . . . . .	16,200	2.5	41,100
Emery . . . . .	3,100	2.2	6,800
Grand . . . . .	200	2.5	500
San Juan . . . . .	800	2.0	1,600
Summit . . . . .	7,100	2.6	18,200
Uintah . . . . .	5,300	2.4	12,800
Wasatch . . . . .	1,800	2.4	4,400
Total . . . . .	38,000	2.5	94,000
<b>SOUTHERN</b>			
Beaver . . . . .	3,500	2.9	10,000
Garfield . . . . .	2,900	2.1	6,100
Iron . . . . .	4,300	2.1	9,200
Kane . . . . .	500	2.0	1,000
Piute . . . . .	2,100	2.2	4,700
Washington . . . . .	2,400	2.1	5,100
Wayne . . . . .	2,300	2.1	4,900
Total . . . . .	18,000	2.3	41,000
STATE . . . . .	160,000	2.1	336,000

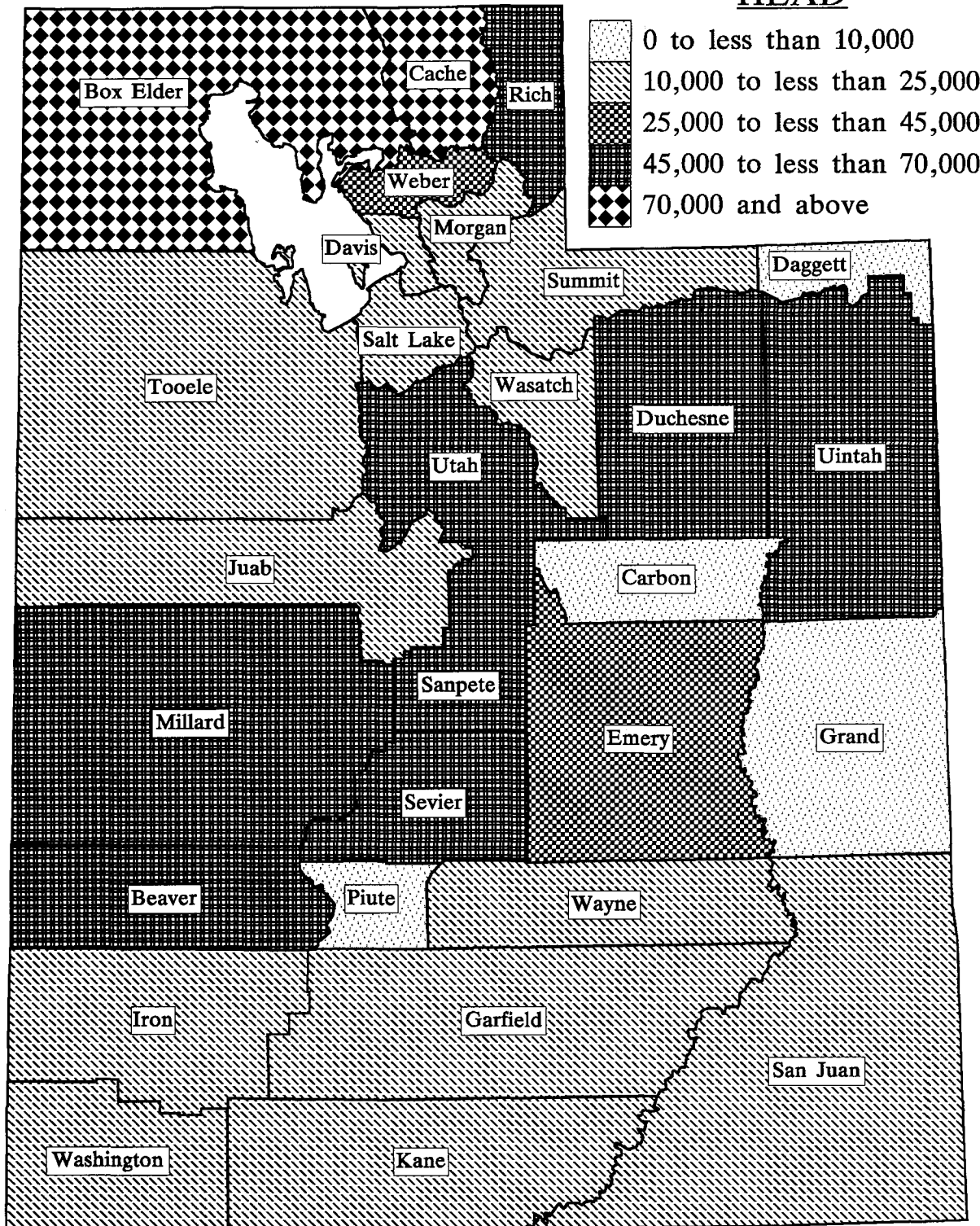
**County Estimates: All Hay, All Cropping Practices, Utah, 1996**

District and County	Acres Harvested	Harvested Yield	Production
	Acres	Tons	
<b>NORTHERN</b>			
Box Elder . . . . .	60,200	3.8	227,300
Cache . . . . .	63,300	3.5	220,500
Davis . . . . .	12,500	3.4	42,100
Morgan . . . . .	8,600	3.3	28,700
Rich . . . . .	53,700	1.8	96,400
Salt Lake . . . . .	13,900	3.7	50,900
Tooele . . . . .	14,100	3.3	46,100
Weber . . . . .	16,700	4.1	69,000
Total . . . . .	243,000	3.2	781,000
<b>CENTRAL</b>			
Juab . . . . .	17,000	3.4	57,600
Millard . . . . .	72,800	4.3	311,700
Sanpete . . . . .	41,600	3.7	153,000
Sevier . . . . .	25,400	4.2	107,200
Utah . . . . .	41,200	3.9	159,500
Total . . . . .	198,000	4.0	789,000
<b>EASTERN</b>			
Carbon . . . . .	6,400	3.1	20,100
Daggett . . . . .	5,400	2.8	15,000
Duchesne . . . . .	50,800	3.2	162,200
Emery . . . . .	17,800	2.9	52,400
Grand . . . . .	1,700	4.6	7,900
San Juan . . . . .	5,400	2.3	12,500
Summit . . . . .	14,900	2.6	38,700
Uintah . . . . .	32,800	3.6	118,200
Wasatch . . . . .	8,800	3.4	30,000
Total . . . . .	144,000	3.2	457,000
<b>SOUTHERN</b>			
Beaver . . . . .	29,400	4.3	126,500
Garfield . . . . .	12,700	3.0	38,000
Iron . . . . .	40,400	4.6	186,500
Kane . . . . .	4,000	2.9	11,500
Piute . . . . .	9,300	3.5	32,500
Washington . . . . .	12,300	4.4	54,300
Wayne . . . . .	11,900	3.3	39,700
Total . . . . .	120,000	4.1	489,000
STATE . . . . .	705,000	3.6	2,516,000

# UTAH ALL CATTLE INVENTORY

By Counties, January 1, 1997

## HEAD



**County Estimates: Cattle, Utah, January 1, 1996-97**

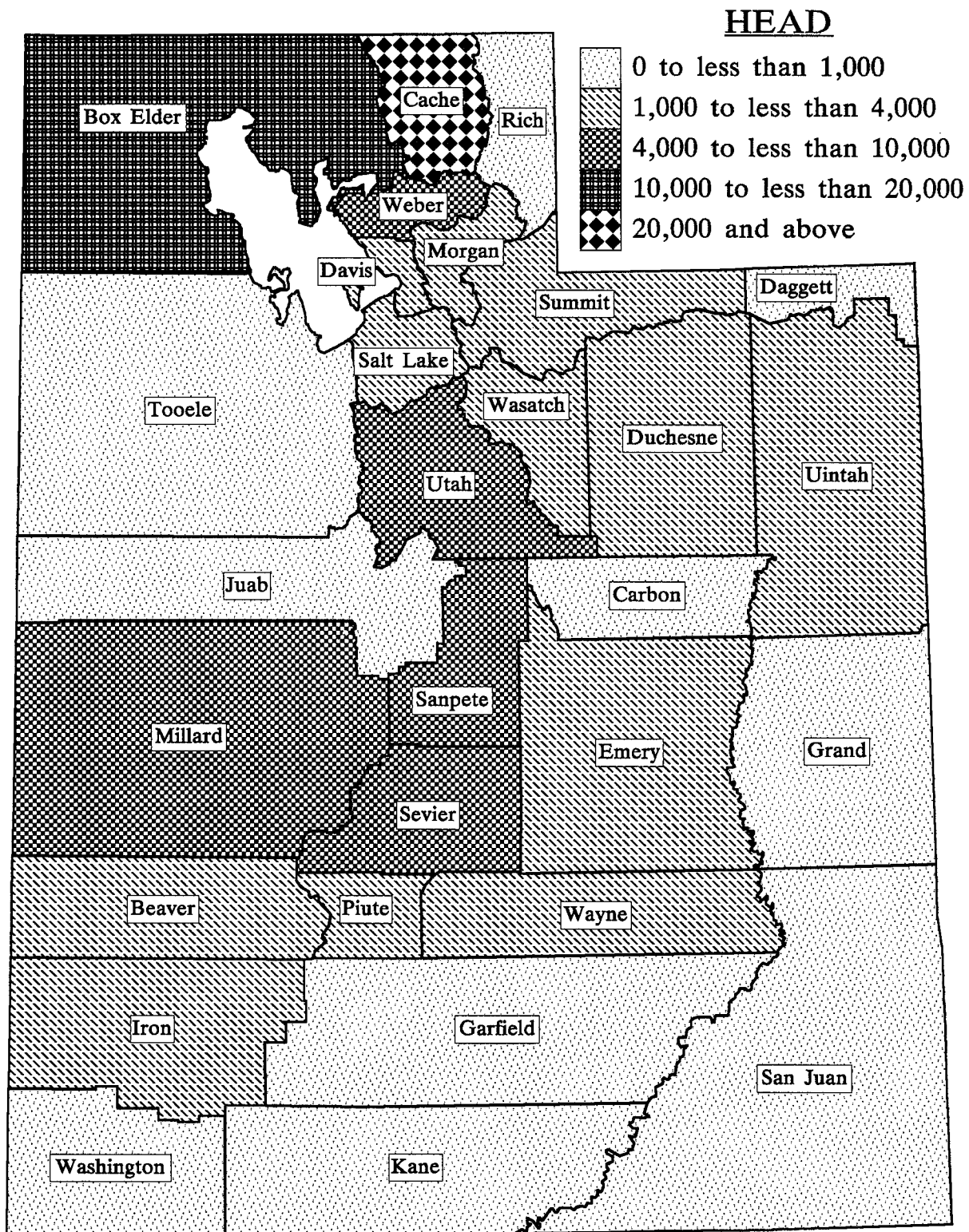
County	All Cattle		All Cows		Beef Cows		Milk Cows	
	1996	1997	1996	1997	1996	1997	1996	1997
<b>NORTHERN</b>								
Box Elder . . .	96,000	105,000	<u>1</u> 36,800	37,700	26,800	26,500	<u>1</u> 10,000	11,200
Cache . . . . .	76,000	81,000	<u>1</u> 29,400	32,500	8,400	11,000	<u>1</u> 21,000	21,500
Davis . . . . .	16,000	16,000	7,800	8,200	6,100	6,500	1,700	1,700
Morgan . . . .	10,000	10,000	6,100	5,800	4,900	4,500	1,200	1,300
Rich . . . . .	56,000	50,000	*37,200	*36,500	37,200	36,500	<u>2</u>	<u>2</u>
Salt Lake . . .	18,000	18,000	9,700	8,500	7,600	6,500	2,100	2,000
Tooele . . . .	21,000	22,000	*12,600	*13,000	12,600	13,000	<u>2</u>	<u>2</u>
Weber . . . . .	30,000	34,000	12,000	13,500	6,400	7,500	5,600	6,000
<b>CENTRAL</b>								
Juab . . . . .	12,000	10,000	6,300	5,500	5,800	5,000	500	500
Millard . . . .	58,000	58,000	<u>1</u> 29,700	30,000	22,600	22,500	<u>1</u> 7,100	7,500
Sanpete . . . .	47,000	51,000	20,300	20,500	13,400	13,500	6,900	7,000
Sevier . . . . .	60,000	58,000	17,400	19,000	13,400	14,500	4,000	4,500
Utah . . . . .	55,000	61,000	29,800	30,000	21,800	22,500	8,000	7,500
<b>EASTERN</b>								
Carbon . . . . .	11,000	9,000	<u>1</u> *7,700	*5,000	<u>1</u> 7,700	5,000	<u>2</u>	<u>2</u>
Daggett . . . .	3,000	4,000	*2,100	*3,500	2,100	3,500	<u>2</u>	<u>2</u>
Duchesne . . .	65,000	67,000	<u>1</u> 32,300	38,400	<u>1</u> 28,500	35,000	3,800	3,400
Emery . . . . .	31,000	34,000	16,000	15,000	15,400	14,000	600	1,000
Grand . . . . .	3,000	3,000	*1,000	*1,000	1,000	1,000	<u>2</u>	<u>2</u>
San Juan . . .	22,000	20,000	<u>1</u> *11,500	*10,500	<u>1</u> 11,500	10,500	<u>2</u>	<u>2</u>
Summit . . . .	19,000	16,000	<u>1</u> 8,800	11,000	<u>1</u> 7,500	9,500	1,300	1,500
Uintah . . . . .	49,000	47,000	<u>1</u> 19,300	22,100	<u>1</u> 18,500	20,500	800	1,600
Wasatch . . . .	11,000	10,000	4,800	4,000	2,800	2,000	2,000	2,000
<b>SOUTHERN</b>								
Beaver . . . . .	36,000	48,000	16,100	17,500	13,400	14,000	2,700	3,500
Garfield . . . .	21,000	20,000	*12,100	13,600	12,100	13,000	<u>2</u>	600
Iron . . . . .	21,000	20,000	12,500	10,500	11,400	9,000	1,100	1,500
Kane . . . . .	11,000	11,000	*5,800	*5,500	5,800	5,500	<u>2</u>	<u>2</u>
Piute . . . . .	12,000	9,000	6,700	4,500	4,900	2,500	1,800	2,000
Washington . .	18,000	18,000	*9,800	*8,500	9,800	8,500	<u>2</u>	<u>2</u>
Wayne . . . . .	22,000	20,000	<u>1</u> 11,600	12,500	10,600	11,500	<u>1</u> 1,000	1,000
Counties with less than 500 head . . . . .			1,800	1,200			1,800	1,200
<b>STATE . . . . .</b>	<b>910,000</b>	<b>930,000</b>	<b>435,000</b>	<b>445,000</b>	<b><u>1</u>350,000</b>	<b>355,000</b>	<b><u>1</u>85,000</b>	<b>90,000</b>

1/ Revised. 2/ Included in total of counties with less than 500 milk cows.

\* Milk cows excluded from county all cows total, but included in all cows for counties with less than 500 milk cows.

# UTAH MILK COW INVENTORY

By Counties, January 1, 1997





**County Estimates: Utah Mink Pelts Produced 1994-95  
Females Bred to Produce Kits 1995-96**

County	Pelts Produced		Females Bred to Produce Kits	
	1994	1995	1995	1996
..... Number .....				
<b>NORTHERN</b>				
Cache .....	64,000	66,000	17,300	17,600
Morgan .....	94,000	101,000	32,600	33,300
Salt Lake .....	36,000	39,000	11,300	11,600
Other .....	9,000	15,000	2,800	4,900
Total .....	203,000	221,000	64,000	67,400
<b>CENTRAL</b>				
Utah .....	244,000	283,000	71,400	76,200
Other .....	5,000	12,000	2,000	3,600
Total .....	249,000	295,000	73,400	79,800
<b>EASTERN</b>				
Summit .....	76,000	52,000	23,500	19,300
Other .....	2,000	2,000	1,100	500
Total .....	78,000	54,000	24,600	19,800
<b>STATE</b> .....	<b>530,000</b>	<b>570,000</b>	<b>162,000</b>	<b>167,000</b>

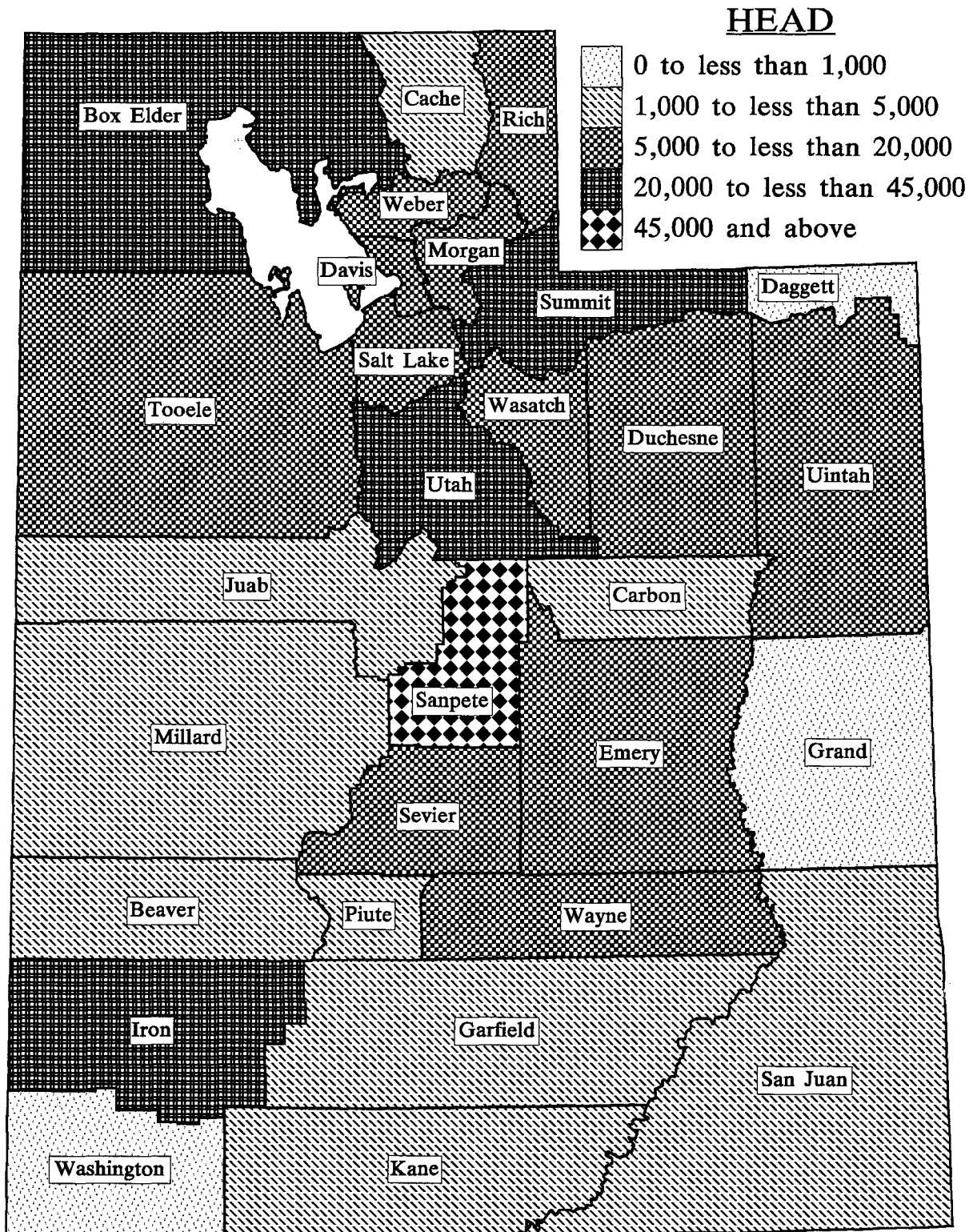
**County Estimates: Breeding Sheep and Lambs, Utah, January 1, 1996-97**

District and County	1996	1997
<b>NORTHERN</b>		
Box Elder . . . . .	31,600	33,000
Cache . . . . .	3,300	3,000
Davis . . . . .	13,200	13,000
Morgan . . . . .	7,000	6,500
Rich . . . . .	8,200	8,000
Salt Lake . . . . .	19,000	18,500
Tooele . . . . .	7,500	7,000
Weber . . . . .	5,200	5,000
Total . . . . .	95,000	94,000
<b>CENTRAL</b>		
Juab . . . . .	4,400	4,000
Millard . . . . .	4,000	3,000
Sanpete . . . . .	61,200	59,000
Sevier . . . . .	12,300	11,000
Utah . . . . .	49,100	44,000
Total . . . . .	131,000	121,000
<b>EASTERN</b>		
Carbon . . . . .	4,000	4,500
Daggett . . . . .	500	500
Duchesne . . . . .	9,300	9,000
Emery . . . . .	6,600	5,500
Grand . . . . .	500	500
San Juan . . . . .	2,500	3,500
Summit . . . . .	27,000	25,000
Uintah . . . . .	15,400	14,500
Wasatch . . . . .	11,200	12,000
Total . . . . .	77,000	75,000
<b>SOUTHERN</b>		
Beaver . . . . .	*	1,000
Garfield . . . . .	1,900	2,000
Iron . . . . .	35,400	34,000
Kane . . . . .	1,900	1,500
Piute . . . . .	4,100	3,000
Washington . . . . .	*	500
Wayne . . . . .	7,800	7,000
Other Counties . . . . .	900	
Total . . . . .	52,000	49,000
<b>STATE</b> . . . . .	<b>355,000</b>	<b>339,000</b>

\* Counties with less than 500 head combined into "Other Counties."

# UTAH BREEDING SHEEP INVENTORY

By Counties, January 1, 1997



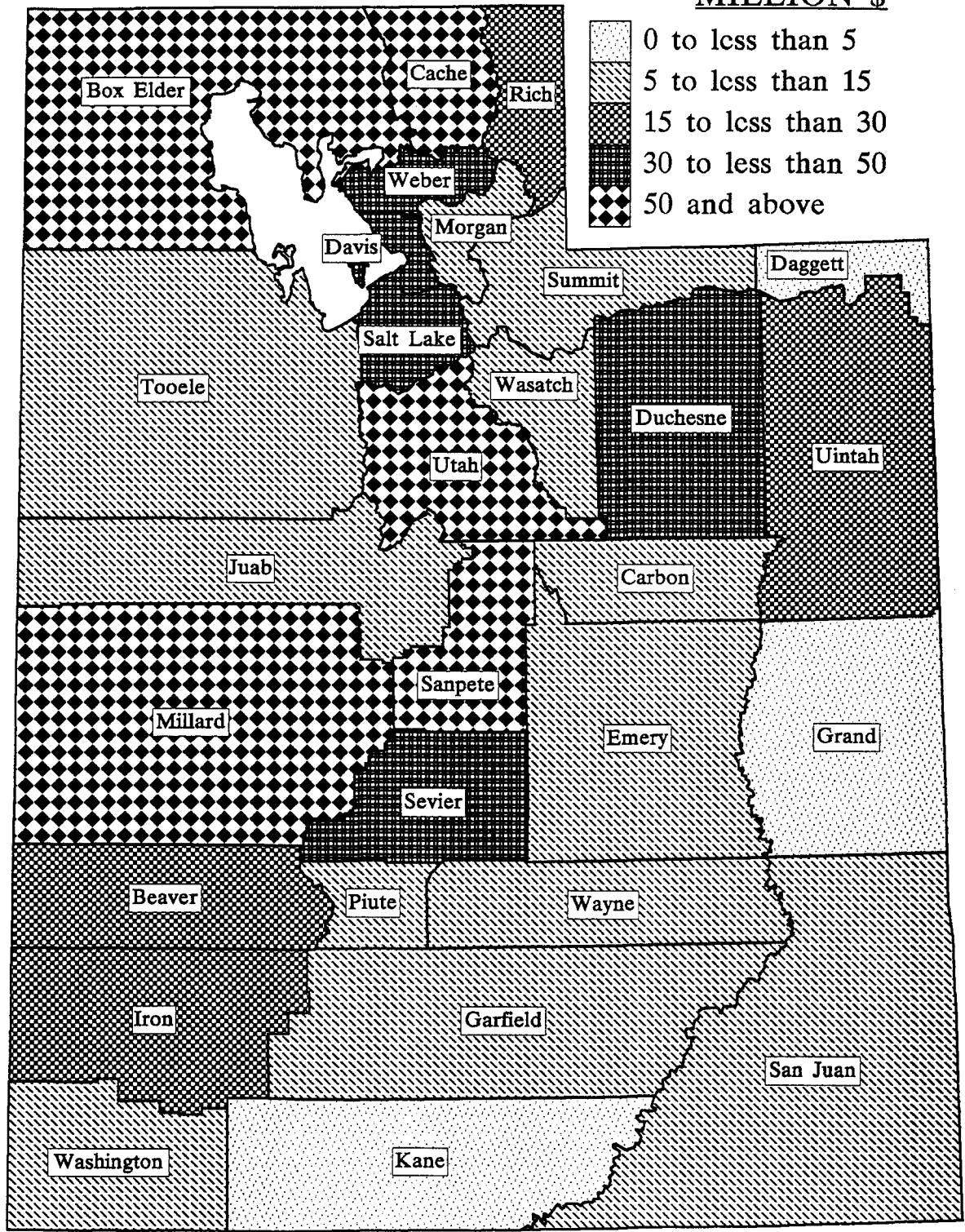
**County Estimates: Cash Receipts from Farming, by County - 1994 Revised, 1995 Preliminary**

County	Livestock and Livestock Products		Crops		Total	
	1994	1995	1994	1995	1994	1995
Million Dollars						
<b>NORTHERN</b>						
Box Elder . . . . .	49.5	52.7	37.1	35.7	86.6	88.4
Cache . . . . .	83.4	78.5	18.3	20.0	101.7	98.5
Davis . . . . .	12.5	12.7	25.6	22.0	38.1	34.7
Morgan . . . . .	10.5	9.3	1.5	1.5	12.0	10.8
Rich . . . . .	16.4	17.3	4.3	3.8	20.7	21.1
Salt Lake . . . . .	32.4	31.2	12.7	11.9	45.1	43.1
Tooele . . . . .	7.5	8.1	3.5	3.6	11.0	11.7
Weber . . . . .	29.9	24.8	7.9	6.8	37.8	31.6
Total . . . . .	242.1	234.6	110.8	105.3	353.0	339.9
<b>CENTRAL</b>						
Juab . . . . .	5.4	5.1	4.0	4.4	9.4	9.5
Millard . . . . .	24.7	33.2	23.6	23.8	48.3	57.0
Sanpete . . . . .	70.1	72.4	7.1	6.9	77.2	79.3
Sevier . . . . .	30.5	29.7	5.3	5.4	35.8	35.1
Utah . . . . .	61.4	60.0	28.8	26.1	90.2	86.1
Total . . . . .	192.1	200.4	68.8	66.6	260.9	267.0
<b>EASTERN</b>						
Carbon . . . . .	3.9	4.2	0.8	0.8	4.7	5.0
Daggett . . . . .	1.0	0.9	0.5	0.4	1.5	1.3
Duchesne . . . . .	27.0	28.7	6.9	6.8	33.9	35.5
Emery . . . . .	10.4	11.2	2.4	2.2	12.8	13.4
Grand . . . . .	1.6	1.3	0.7	0.6	2.3	1.9
San Juan . . . . .	9.5	7.8	3.8	4.9	13.3	12.7
Summit . . . . .	15.1	12.6	1.5	1.3	16.6	13.9
Uintah . . . . .	21.3	17.7	4.7	5.3	26.0	23.0
Wasatch . . . . .	9.0	8.6	1.6	1.6	10.6	10.2
Total . . . . .	98.8	93.0	23.0	22.9	121.7	116.9
<b>SOUTHERN</b>						
Beaver . . . . .	18.4	16.4	4.7	4.6	23.1	21.0
Garfield . . . . .	6.5	7.2	1.5	1.4	8.0	8.6
Iron . . . . .	11.5	11.8	12.8	11.4	24.3	23.2
Kane . . . . .	4.3	3.9	0.6	0.5	4.9	4.4
Piute . . . . .	7.7	7.7	1.3	1.2	9.0	8.9
Washington . . . . .	7.7	6.8	4.7	4.0	12.4	10.8
Wayne . . . . .	8.0	9.5	1.7	1.8	9.7	11.3
Total . . . . .	64.1	63.3	27.3	24.9	91.4	88.2
<b>STATE . . . . .</b>	<b>597.1</b>	<b>591.3</b>	<b>229.8</b>	<b>220.7</b>	<b>827.0</b>	<b>812.0</b>

# UTAH CASH RECEIPTS FROM FARMING

By Counties, 1995

MILLION \$



**1992 Census of Agriculture: Farms, Land in Farms, and Selected Items, by County, Utah <sup>1/</sup>**

County	Number of Farms	Land in Farms	Average Size of Farms	Total Cropland	Harvested Cropland	Irrigated Land	Estimated Market Value of Land & Buildings	
							Average per Farm	Average per Acre
Number		Acres					Dollars	
<b>NORTHERN</b>								
Box Elder . .	1,085	1,449,976	1,336	363,843	171,708	120,583	464,879	360
Cache . . . .	1,189	267,924	225	175,063	120,044	87,475	263,915	1,162
Davis . . . . .	582	50,357	87	27,242	18,573	20,965	322,845	4,009
Morgan . . .	258	234,576	909	17,012	9,474	7,960	414,725	473
Rich . . . . .	143	493,073	3,448	78,618	45,631	56,389	861,753	255
Salt Lake . .	686	107,663	157	(D)	26,308	16,299	328,402	2,158
Tooele . . . .	300	437,238	1,457	37,063	13,882	16,479	360,822	244
Weber . . . . .	945	256,522	271	50,283	27,860	31,758	231,593	832
<b>CENTRAL</b>								
Juab . . . . .	203	332,686	1,639	71,294	25,270	20,097	632,776	376
Millard . . . .	612	484,156	791	181,377	86,933	88,841	451,119	604
Sanpete . . . .	696	447,463	643	107,147	49,073	99,061	327,858	482
Sevier . . . . .	406	158,189	390	50,994	31,129	43,919	222,098	541
Utah . . . . .	1,696	450,315	266	151,347	83,047	83,601	260,092	1,018
<b>EASTERN</b>								
Carbon . . . . .	182	291,860	1,604	18,537	5,592	7,895	457,355	290
Daggett . . . .	29	21,958	757	(D)	3,544	6,891	419,810	554
Duchesne . . .	733	399,011	544	124,081	57,788	117,280	275,612	481
Emery . . . . .	420	240,535	573	55,447	18,787	31,669	209,940	377
Grand . . . . .	88	63,116	717	5,293	2,355	3,096	384,654	536
San Juan . . .	206	324,921	1,577	133,713	48,031	5,491	453,919	285
Summit . . . .	419	373,582	892	36,967	17,217	29,417	507,088	641
Uintah . . . . .	716	1,294,703	1,808	(D)	42,273	70,011	288,422	161
Wasatch . . . .	274	139,347	509	17,547	10,130	15,000	648,324	1,013
<b>SOUTHERN</b>								
Beaver . . . . .	215	192,288	894	39,958	27,149	33,519	290,607	327
Garfield . . . .	249	137,530	552	41,286	16,819	29,231	441,225	791
Iron . . . . .	365	434,183	1,190	75,427	48,916	51,857	481,928	385
Kane . . . . .	136	209,819	1,543	12,296	3,337	4,999	563,983	364
Piute . . . . .	109	58,522	537	20,968	10,923	13,789	322,525	602
Washington . .	389	167,374	430	36,612	8,515	11,987	333,929	770
Wayne . . . . .	189	105,576	559	(D)	13,039	16,955	280,672	530
<b>STATE</b>	<b>13,520</b>	<b>9,624,463</b>	<b>712</b>	<b>2,093,779</b>	<b>1,043,347</b>	<b>1,142,514</b>	<b>347,982</b>	<b>491</b>

(D) - Withheld to avoid disclosing data for individual farms.

<sup>1/</sup> Source: 1992 Census of Agriculture, U.S. Department of Commerce, Bureau of the Census.

**1992 Census of Agriculture: Number of Farms by Value of Sales, by County, Utah <sup>1/</sup>**

County	Under \$2,500	\$2,500 to \$4,999	\$5,000 to \$9,999	\$10,000 to \$24,999	\$25,000 to \$49,999	\$50,000 to \$99,999	\$100,000 Plus
..... Number of Farms .....							
<b>NORTHERN</b>							
Box Elder .....	232	114	124	202	118	118	177
Cache .....	287	126	172	174	112	104	214
Davis .....	232	91	76	84	23	25	51
Morgan .....	93	40	24	36	10	18	37
Rich .....	12	11	15	19	21	29	36
Salt Lake .....	314	112	72	90	40	14	44
Tooele .....	110	35	45	51	28	17	14
Weber .....	398	153	113	121	52	38	70
<b>CENTRAL</b>							
Juab .....	48	22	31	38	35	7	22
Millard .....	92	44	80	128	94	74	100
Sanpete .....	155	67	78	132	77	59	128
Sevier .....	75	51	56	93	49	31	51
Utah .....	634	243	238	224	104	85	168
<b>EASTERN</b>							
Carbon .....	81	28	24	24	9	10	6
Daggett .....	5	2	4	6	2	7	3
Duchesne .....	152	98	113	151	89	82	48
Emery .....	131	66	70	70	45	21	17
Grand .....	35	11	7	13	9	7	6
San Juan .....	54	14	39	31	17	20	31
Summit .....	102	65	64	74	48	19	47
Uintah .....	234	127	103	107	59	47	39
Wasatch .....	110	40	41	30	19	13	21
<b>SOUTHERN</b>							
Beaver .....	46	17	23	36	25	17	51
Garfield .....	54	25	40	63	34	26	17
Iron .....	81	48	45	53	38	37	53
Kane .....	32	18	26	32	13	9	6
Piute .....	11	8	18	21	20	14	17
Washington .....	145	53	70	60	28	22	11
Wayne .....	24	22	34	54	23	17	15
<b>STATE TOTAL</b>	<b>3,979</b>	<b>1,751</b>	<b>1,845</b>	<b>2,217</b>	<b>1,241</b>	<b>987</b>	<b>1,500</b>

<sup>1/</sup> Source: 1992 Census of Agriculture, U.S. Department of Commerce, Bureau of the Census.

**1992 Census of Agriculture: Number of Farms by Total Land in Farms, by County, Utah <sup>1/</sup>**

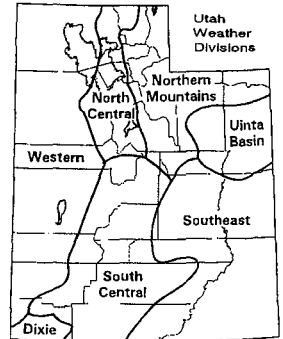
County	1 - 9 Acres	10 - 49 Acres	50 - 179 Acres	180 - 499 Acres	500 - 999 Acres	1,000 Plus Acres
..... Number of Farms .....						
<b>NORTHERN</b>						
Box Elder . . . . .	184	221	253	158	88	181
Cache . . . . .	159	342	332	239	75	42
Davis . . . . .	192	221	116	42	7	4
Morgan . . . . .	57	86	45	31	12	27
Rich . . . . .	6	15	17	25	23	57
Salt Lake . . . . .	310	236	96	24	4	16
Tooele . . . . .	51	70	58	35	33	53
Weber . . . . .	238	401	201	71	21	13
<b>CENTRAL</b>						
Juab . . . . .	10	19	53	38	30	53
Millard . . . . .	41	82	154	153	74	108
Sanpete . . . . .	55	138	210	153	63	77
Sevier . . . . .	39	108	133	87	18	21
Utah . . . . .	475	644	333	134	46	64
<b>EASTERN</b>						
Carbon . . . . .	30	48	41	17	11	35
Daggett . . . . .	2	2	6	8	1	10
Duchesne . . . . .	37	144	223	183	81	65
Emery . . . . .	23	92	116	107	36	46
Grand . . . . .	26	26	14	10	4	8
San Juan . . . . .	10	24	26	29	30	87
Summit . . . . .	47	121	98	58	30	65
Uintah . . . . .	72	227	179	106	62	70
Wasatch . . . . .	35	113	66	33	11	16
<b>SOUTHERN</b>						
Beaver . . . . .	19	48	55	46	19	28
Garfield . . . . .	6	53	62	69	29	30
Iron . . . . .	32	82	71	66	34	80
Kane . . . . .	9	18	18	23	24	44
Piute . . . . .	3	11	35	30	21	9
Washington . . . . .	80	96	94	44	33	42
Wayne . . . . .	14	47	71	38	7	12
<b>STATE TOTAL</b>	<b>2,262</b>	<b>3,735</b>	<b>3,176</b>	<b>2,057</b>	<b>927</b>	<b>1,363</b>

<sup>1/</sup> Source: 1992 Census of Agriculture, U.S. Department of Commerce, Bureau of the Census.



# Weather

Kent Campbell, Utah Climate Center  
 Utah State University, Logan, Utah 84322-4825  
 Phone 801-797-2190  
 Web Page: <http://climate.usu.edu>



## WEATHER DATA

In the precipitation table below, monthly precipitation distribution, as percent of normal, is given for each of the seven climate divisions. The temperature table is similar but

is for temperature departures. The portion of the State that lies within each climate division can be determined by referring to the map at the right.

## PRECIPITATION SUMMARY

The year ended with precipitation totals near normal in all divisions. The state received near normal to above normal precipitation over the first five months which was followed by below normal precipitation through the summer months. A near normal to well above normal

precipitation in the fall gave the new water year a healthy start. November was the wettest month with all divisions over 100 percent of normal. August was notably dry with all divisions well below normal.

**Precipitation, Percent of Normal, by Climate Division, 1996**

Division	Month											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Western . . . .	106	132	137	59	156	5	134	15	89	85	166	211
Dixie . . . . .	41	193	53	25	63	30	114	10	100	156	170	135
N. Central . . .	183	110	129	90	129	10	87	8	76	122	128	195
S. Central . . .	96	156	92	52	92	21	70	25	83	139	157	89
N. Mountains	231	125	101	118	98	65	66	27	115	111	135	213
Uintah Basin .	193	137	89	54	141	109	108	19	110	89	154	80
Southeast . . .	79	98	76	50	122	121	56	52	186	120	174	65

## TEMPERATURE SUMMARY

Throughout most of the year, temperatures were slightly above normal. January, February, and December were all notably warmer than normal. September and October

were the only months with cooler than normal temperatures, but these were only slightly cooler than normal.

**Mean Temperature, Departure from Normal, by Climate Division, 1996**

Division	Month											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Western . . . .	5.1	1.9	1.9	0.4	0.5	2.0	1.9	0.9	-1.0	-1.0	1.9	6.0
Dixie . . . . .	2.9	5.2	3.2	4.0	3.3	3.7	3.0	4.0	-0.5	-1.1	0.7	1.0
N. Central . . .	5.9	0.0	2.7	0.1	0.5	3.4	1.5	0.9	-1.4	0.5	2.6	5.8
S. Central . . .	4.5	4.1	2.8	1.1	3.0	3.4	2.3	1.4	-1.1	-1.8	1.1	3.2
N. Mountains	3.7	2.8	1.9	-0.6	1.7	3.1	2.1	2.0	-0.7	-0.7	1.9	3.0
Uintah Basin .	7.4	5.6	3.9	0.8	1.5	1.9	1.9	1.1	-0.7	-1.5	1.6	6.0
Southeast . . .	5.7	5.8	2.5	1.4	4.6	3.4	3.4	3.3	-1.2	-1.0	0.8	3.4

## Mean Monthly Temperature (°F), Utah, 1996

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
<b>WESTERN</b>													
Callao	31.8	30.8	43.1	50.1	57.3	69.5	75.5	71.9	60.7	51.1	40.1	33.7	51.3
Delta	30.8	33.8	42.7	48.1	58.7	70.7	76.6	73.0	61.5	49.3	39.5	33.0	51.5
Enterprise Beryl Jct	31.7	37.6	40.2	46.0	58.0	65.4	73.5	69.7	59.5	45.6	38.1	31.9	49.8
Eskdale	33.7	35.4	43.4	51.0	59.3	70.3	76.5	73.8	62.5	50.9	40.8	36.3	52.8
Modena	32.0	37.7	42.2	48.7	58.5	68.0	75.5	72.7	61.2	49.1	40.0	33.7	51.6
Rosette	26.9	28.5	37.7	43.5	50.9	63.0	72.3	70.1	57.2	47.9	36.9	26.5	46.8
<b>Average</b>	<b>31.2</b>	<b>34.0</b>	<b>41.6</b>	<b>47.9</b>	<b>57.1</b>	<b>67.8</b>	<b>75.0</b>	<b>71.9</b>	<b>60.4</b>	<b>49.0</b>	<b>39.2</b>	<b>32.5</b>	<b>50.6</b>
<b>DIXIE</b>													
St George	44.7	52.7	57.3	66.0	75.2	84.2	90.4	88.3	76.5	64.3	51.5	43.8	66.2
Zion National Park	41.7	49.2	51.6	59.9	68.5	79.9	85.2	84.6	71.7	60.1	49.8	40.0	61.9
<b>Average</b>	<b>43.2</b>	<b>51.0</b>	<b>54.5</b>	<b>63.0</b>	<b>71.9</b>	<b>82.1</b>	<b>87.8</b>	<b>86.5</b>	<b>74.1</b>	<b>62.2</b>	<b>50.7</b>	<b>41.9</b>	<b>64.1</b>
<b>NORTH CENTRAL</b>													
Corinne	31.5	30.3	42.1	47.4	56.8	68.5	73.4	71.3	58.8	50.5	40.2	32.0	50.2
Farmington USU Fld Stn	33.4	34.1	45.6	50.3	58.5	72.4	77.4	75.2	62.1	53.1	42.4	36.4	53.4
Logan Utah State Univ	30.0	29.0	40.2	46.9	55.4	68.3	74.7	72.9	59.8	49.9	39.9	31.5	49.9
Ogden Pioneer PH	33.2	33.3	45.0	51.0	59.2	72.4	77.6	75.4	64.0	53.9	42.5	35.3	53.6
Pleasant Grove	33.7	34.8	44.5	49.7	59.4	70.6	75.9	73.7	61.0	52.3	41.5	35.0	52.7
Provo BYU	34.6	35.9	46.0	51.8	62.0	73.0	78.4	75.2	63.9	53.3	43.0	36.0	54.4
Salt Lake City Airport	33.0	30.8	45.3	50.6	59.9	73.3	80.5	78.0	64.7	53.9	43.4	37.1	54.2
Tooele	33.6	34.3	44.2	50.5	58.2	72.0	78.7	75.6	63.4	52.9	42.3	35.7	53.5
Tremonton	30.1	28.8	41.9	47.8	56.5	68.9	75.2	73.6	60.2	49.3	40.0	30.9	50.3
Trenton	26.3	23.2	36.0	43.2	52.3	63.8	68.9	66.3	56.0	46.8	36.7	28.8	45.7
<b>Average</b>	<b>31.9</b>	<b>31.5</b>	<b>43.1</b>	<b>48.9</b>	<b>57.8</b>	<b>70.3</b>	<b>76.1</b>	<b>73.7</b>	<b>61.4</b>	<b>51.6</b>	<b>41.2</b>	<b>33.9</b>	<b>51.8</b>
<b>SOUTH CENTRAL</b>													
Bryce Canyon Natl Pk Hq	24.6	29.9	32.7	39.0	50.7	59.9	65.9	62.6	51.3	40.4	31.7	25.2	42.8
Cedar City FAA Airport	34.0	39.7	42.8	49.1	60.3	71.3	77.1	74.6	62.7	49.6	40.8	34.5	53.0
Escalante	33.6	39.4	44.2	51.3	62.7	70.6	76.9	73.0	62.1	50.8	40.3	34.2	53.3
Fillmore	33.6	36.4	43.4	49.2	58.8	70.0	76.2	73.5	63.0	50.8	40.6	34.3	52.5
Kanab	35.2	42.7	46.1	53.6	62.2	71.0	76.9	74.5	64.2	53.1	44.4	37.7	55.1
Koosharem	28.8	35.2	37.0	42.2	52.8	61.6	68.4	64.2	54.2	43.2	35.5	27.9	45.9
Levan	31.8	34.4	42.4	46.5	57.1	69.2	74.9	72.4	60.7	50.5	40.1	32.2	51.0
Manti	31.0	34.6	40.5	45.1	56.1	66.6	72.2	69.8	58.6	47.9	38.4	30.3	49.3
Nephi	32.5	34.7	42.5	48.2	58.1	70.1	75.6	73.0	61.8	49.9	40.6	33.5	51.7
Panguitch	28.2	33.4	38.2	44.4	56.2	64.0	70.1	65.9	55.7	43.7	35.5	27.7	46.9
Richfield Radio KSVC	32.5	37.5	42.3	47.0	58.1	66.6	73.0	70.0	59.1	48.4	39.8	31.7	50.5
<b>Average</b>	<b>31.4</b>	<b>36.2</b>	<b>41.1</b>	<b>46.9</b>	<b>57.6</b>	<b>67.4</b>	<b>73.4</b>	<b>70.3</b>	<b>59.4</b>	<b>48.0</b>	<b>38.9</b>	<b>31.7</b>	<b>50.2</b>
<b>NORTHERN MOUNTAINS</b>													
Heber	29.0	25.9	36.5	45.2	54.9	64.8	70.6	68.5	58.1	46.5	37.8	28.4	47.2
Olmstead Powerhouse	33.6	35.0	44.0	49.3	59.5	71.3	77.4	75.5	63.5	52.7	42.5	34.2	53.2
Scofield-Skyline Mine	22.7	26.6	29.2	34.2	45.7	55.7	62.7	60.5	49.1	38.8	28.1	21.7	39.6
Silver Lake Brighton	19.8	23.7	26.0	32.0	40.9	54.0	59.5	58.9	46.6	38.1	28.0	20.6	37.3
Woodruff	18.3	22.8	31.1	38.4	48.0	58.7	63.3	60.6	50.1	40.4	31.4	21.6	40.4
<b>Average</b>	<b>24.7</b>	<b>26.8</b>	<b>33.4</b>	<b>39.8</b>	<b>49.8</b>	<b>60.9</b>	<b>66.7</b>	<b>64.8</b>	<b>53.5</b>	<b>43.3</b>	<b>33.6</b>	<b>25.3</b>	<b>43.6</b>
<b>UINTAH BASIN</b>													
Duchesne	24.6	28.2	41.0	47.8	57.3	65.8	72.6	69.7	58.6	46.7	35.1	27.2	47.9
Fort Duchesne	21.7	29.1	40.0	48.4	57.9	68.7	76.0	72.5	61.1	47.6	36.3	25.0	48.7
Jensen	22.1	28.1	40.0	47.6	58.3	67.3	74.1	70.2	58.8	46.3	35.5	26.0	47.9
Vernal Airport	23.8	30.3	39.6	46.6	57.3	66.3	72.6	69.9	58.4	45.9	34.7	26.2	47.6
<b>Average</b>	<b>23.1</b>	<b>28.9</b>	<b>40.2</b>	<b>47.6</b>	<b>57.7</b>	<b>67.0</b>	<b>73.8</b>	<b>70.6</b>	<b>59.2</b>	<b>46.6</b>	<b>35.4</b>	<b>26.1</b>	<b>48.0</b>
<b>SOUTHEAST</b>													
Arches Natl Park Hq	34.5	42.7	49.0	56.0	69.4	78.3	84.5	82.9	68.3	55.5	44.1	35.1	58.4
Blanding	32.4	40.5	44.4	52.1	64.6	73.1	79.3	76.4	62.7	52.1	41.3	32.7	54.3
Ferron	28.1	36.4	41.6	48.5	59.8	69.6	76.1	72.8	59.9	48.8	37.1	27.7	50.5
Green River Aviation	29.9	40.2	46.5	55.0	67.7	75.8	82.3	79.8	66.5	52.9	42.4	33.2	56.0
Hanksville	32.2	39.6	46.0	54.2	67.6	76.1	82.7	80.8	65.5	53.2	40.1	32.8	55.9
Moab	34.6	42.5	48.1	55.8	68.5	76.8	83.5	80.4	67.1	54.5	43.0	36.0	57.6
<b>Average</b>	<b>32.0</b>	<b>40.3</b>	<b>45.9</b>	<b>53.6</b>	<b>66.3</b>	<b>75.0</b>	<b>81.4</b>	<b>78.9</b>	<b>65.0</b>	<b>52.8</b>	<b>41.3</b>	<b>32.9</b>	<b>55.5</b>

Source: Utah Climate Center, Utah State University, Logan, Utah 84322-4825

## Normal Mean Monthly Temperature (°F), Utah, 1961-90

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
<b>WESTERN</b>													
Callao	26.2	32.5	40.7	48.2	57.1	65.7	73.4	71.3	61.6	49.8	37.9	27.4	49.3
Delta	24.3	32.2	40.2	48.0	57.5	67.3	75.1	72.8	62.5	50.9	37.6	26.4	49.6
Enterprise Beryl Jct	26.3	32.3	38.6	45.7	54.3	63.0	70.2	68.5	59.4	48.7	36.9	27.7	47.6
Eskdale	27.8	33.6	41.7	48.7	57.8	67.5	75.0	72.5	62.5	50.5	38.5	28.1	50.4
Modena	27.8	33.4	39.4	46.7	55.3	65.1	72.0	70.2	61.2	50.5	38.3	29.0	49.1
Rosette	24.2	28.7	37.4	47.8	57.4	66.3	73.0	70.8	61.1	49.3	34.6	20.4	47.6
<b>Average</b>	<b>26.1</b>	<b>32.1</b>	<b>39.7</b>	<b>47.5</b>	<b>56.6</b>	<b>65.8</b>	<b>73.1</b>	<b>71.0</b>	<b>61.4</b>	<b>50.0</b>	<b>37.3</b>	<b>26.5</b>	<b>48.9</b>
<b>DIXIE</b>													
St. George	40.3	46.5	52.8	60.5	70.0	79.3	85.6	83.4	75.0	63.3	50.1	40.6	62.3
Zion Nat'l Park	40.2	45.0	49.7	57.5	67.1	77.5	83.9	81.5	74.2	63.3	49.8	41.1	60.9
<b>Average</b>	<b>40.3</b>	<b>45.8</b>	<b>51.3</b>	<b>59.0</b>	<b>68.6</b>	<b>78.4</b>	<b>84.8</b>	<b>82.5</b>	<b>74.6</b>	<b>63.3</b>	<b>50.0</b>	<b>40.9</b>	<b>61.6</b>
<b>NORTH CENTRAL</b>													
Corinne	24.0	30.4	39.0	47.4	56.9	65.9	73.7	71.8	61.4	50.0	37.0	26.8	48.7
Farmington USU Fld Strn	28.6	33.7	41.7	49.5	58.3	67.8	76.0	73.8	64.2	51.8	39.8	29.3	51.2
Logan Utah State Univ	23.4	28.5	37.0	46.2	55.5	64.4	72.9	71.4	61.2	50.0	36.9	25.7	47.8
Ogden Pioneer PH	27.7	33.4	41.1	49.6	58.9	68.6	76.9	74.7	64.4	52.9	39.8	29.6	51.5
Pleasant Grove	28.1	33.8	41.3	48.9	57.8	66.7	74.4	72.3	63.1	52.1	40.1	30.1	50.7
Prove BYU	27.9	32.6	43.5	52.1	59.6	69.7	76.3	74.9	65.1	52.7	41.0	30.7	52.2
Salt Lake City Airport	27.9	34.1	41.8	49.6	58.8	69.0	77.8	75.5	64.9	52.9	40.6	29.7	51.9
Tooele	28.5	33.7	40.5	48.6	57.9	67.6	75.8	73.5	63.4	51.6	39.2	29.6	50.8
Tremonton	23.5	28.8	40.2	49.4	56.7	66.7	74.2	73.0	62.8	50.3	37.2	25.8	49.1
Trenton	20.0	26.2	37.5	46.3	52.9	62.1	68.4	66.8	57.9	47.1	34.2	23.8	45.3
<b>Average</b>	<b>26.0</b>	<b>31.5</b>	<b>40.4</b>	<b>48.8</b>	<b>57.3</b>	<b>66.9</b>	<b>74.6</b>	<b>72.8</b>	<b>62.8</b>	<b>51.1</b>	<b>38.6</b>	<b>28.1</b>	<b>49.9</b>
<b>SOUTH CENTRAL</b>													
Bryce Canyon Natl Pk Hq	22.6	25.3	30.6	38.2	47.0	56.4	62.8	60.6	53.0	43.2	31.6	23.8	41.3
Cedar City FAA Airport	29.5	34.6	40.1	47.5	56.5	66.7	74.1	72.0	63.0	51.7	39.7	30.7	50.5
Escalante	27.6	34.0	40.4	48.0	56.8	66.1	72.3	69.7	61.5	51.1	39.2	29.6	49.7
Fillmore	27.9	34.2	41.1	48.8	57.7	67.4	75.4	73.3	64.2	52.3	39.6	29.2	50.9
Kanab	35.2	39.9	44.5	51.2	60.1	69.4	75.6	73.4	66.2	56.4	44.7	36.4	54.4
Koosharem	23.6	27.8	33.5	40.6	49.5	58.6	65.7	63.4	55.9	45.2	33.7	25.2	43.6
Levan	25.3	31.4	38.8	46.8	55.7	65.4	73.2	71.2	62.2	50.8	38.3	27.3	48.9
Manti	25.4	30.7	37.9	45.9	54.4	63.6	70.7	68.6	59.9	49.6	37.3	27.2	47.6
Nephi	27.5	33.0	40.1	48.1	57.2	67.0	75.2	73.1	63.5	51.9	39.5	29.3	50.5
Panguitch	24.0	29.0	35.0	42.3	50.6	59.2	65.7	63.6	56.1	46.2	34.8	25.6	44.3
Richfield Radio KSVC	27.0	32.7	39.6	46.9	55.2	64.0	71.0	68.9	60.4	49.7	37.9	28.7	48.5
<b>Average</b>	<b>26.9</b>	<b>32.1</b>	<b>38.3</b>	<b>45.8</b>	<b>54.6</b>	<b>64.0</b>	<b>71.1</b>	<b>68.9</b>	<b>60.5</b>	<b>49.8</b>	<b>37.8</b>	<b>28.5</b>	<b>48.2</b>
<b>NORTHERN MOUNTAINS</b>													
Heber	21.2	26.3	34.8	43.5	51.9	60.1	67.4	65.7	57.1	47.0	34.9	24.0	44.5
Olmstead Powerhouse	28.0	32.9	41.5	50.6	57.5	68.8	75.1	73.4	64.3	53.2	39.9	30.4	51.3
Scofield-Skyline Mine	20.5	20.8	27.8	37.1	42.8	54.1	59.7	58.2	49.4	39.8	28.2	19.9	38.2
Silver Lake Brighton	19.6	21.1	25.0	32.2	40.7	50.1	58.2	56.3	48.4	38.6	27.0	19.9	36.4
Woodruff	15.5	19.0	28.6	38.8	47.5	55.9	62.8	60.6	51.7	41.4	28.6	17.3	39.0
<b>Average</b>	<b>21.0</b>	<b>24.0</b>	<b>31.5</b>	<b>40.4</b>	<b>48.1</b>	<b>57.8</b>	<b>64.6</b>	<b>62.8</b>	<b>54.2</b>	<b>44.0</b>	<b>31.7</b>	<b>22.3</b>	<b>41.9</b>
<b>UINTAH BASIN</b>													
Duchesne	18.4	25.4	36.6	46.8	56.0	64.7	71.2	69.4	59.6	48.1	34.2	21.1	46.0
Fort Duchesne	14.4	21.6	35.7	46.3	56.0	65.0	72.1	69.5	59.4	47.8	33.6	19.7	45.1
Jensen	14.9	22.8	36.4	47.0	56.7	65.2	72.0	69.3	59.8	48.0	33.7	19.4	45.4
Myton	15.2	23.5	36.4	47.1	56.1	65.5	72.3	69.9	60.6	48.3	33.6	20.1	45.7
<b>Average</b>	<b>15.7</b>	<b>23.3</b>	<b>36.3</b>	<b>46.8</b>	<b>56.2</b>	<b>65.1</b>	<b>71.9</b>	<b>69.5</b>	<b>59.9</b>	<b>48.1</b>	<b>33.8</b>	<b>20.1</b>	<b>45.6</b>
<b>SOUTHEAST</b>													
Arches Natl Park Hq	29.6	37.5	48.1	56.8	66.0	76.9	82.8	80.6	70.9	56.8	44.1	33.2	56.9
Blanding	27.3	33.7	39.6	47.4	57.1	67.2	73.2	70.9	62.8	51.7	39.1	29.8	50.0
Ferron	22.8	29.4	37.6	46.5	56.2	65.6	72.4	69.9	61.2	50.1	36.8	25.7	47.8
Green River Aviation	22.8	33.2	42.9	52.4	61.9	71.6	78.6	75.6	65.3	52.9	39.1	27.1	51.9
Hanksville	25.2	34.4	43.9	53.2	63.0	73.0	79.6	76.8	66.7	53.7	39.3	27.9	53.1
Moab	30.0	38.6	48.1	56.9	66.2	75.3	81.6	79.7	70.1	57.6	44.4	33.2	56.8
<b>Average</b>	<b>26.3</b>	<b>34.5</b>	<b>43.4</b>	<b>52.2</b>	<b>61.7</b>	<b>71.6</b>	<b>78.0</b>	<b>75.6</b>	<b>66.2</b>	<b>53.8</b>	<b>40.5</b>	<b>29.5</b>	<b>52.8</b>

Source: Utah Climate Center, Utah State University, Logan, Utah 84322-4825

## Total Precipitation (Inches), Utah, 1996

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
<b>WESTERN</b>													
Callao .....	0.44	0.41	0.94	0.43	1.44	0.02	0.89	0.24	0.68	0.14	0.31	0.64	6.58
Delta .....	0.35	0.81	1.46	0.65	0.91	0.00	0.42	0.02	0.82	1.05	1.42	0.20	8.11
Enterprise Beryl Jct .....	0.32	0.99	1.02	0.27	1.34	0.00	2.07	0.08	0.76	0.84	1.20	0.90	9.79
Eskdale .....	0.10	0.71	1.54	0.17	1.03	0.00	1.21	0.05	0.59	0.44	0.90	0.24	6.98
Modena .....	0.33	0.78	0.59	0.42	1.10	0.00	1.21	0.04	0.73	0.69	1.35	0.88	8.12
Rosette .....	1.90	1.21	1.10	0.75	2.18	0.15	1.24	0.37	0.70	0.90	1.30	3.98	15.78
<b>Average</b> .....	<b>0.57</b>	<b>0.82</b>	<b>1.11</b>	<b>0.45</b>	<b>1.33</b>	<b>0.03</b>	<b>1.17</b>	<b>0.13</b>	<b>0.71</b>	<b>0.68</b>	<b>1.08</b>	<b>1.14</b>	<b>9.22</b>
<b>DIXIE</b>													
St George .....	0.41	0.74	0.47	0.11	0.32	0.00	0.60	0.06	0.87	0.77	1.60	0.53	6.48
Zion National Park .....	0.67	3.96	1.18	0.30	0.46	0.20	1.52	0.20	0.66	1.47	2.31	2.17	15.10
<b>Average</b> .....	<b>0.54</b>	<b>2.35</b>	<b>0.83</b>	<b>0.21</b>	<b>0.39</b>	<b>0.10</b>	<b>1.06</b>	<b>0.13</b>	<b>0.77</b>	<b>1.12</b>	<b>1.96</b>	<b>1.35</b>	<b>10.81</b>
<b>NORTH CENTRAL</b>													
Corinne .....	2.04	1.50	2.00	1.65	3.09	0.04	1.48	0.02	1.59	1.84	1.38	3.46	20.09
Farmington USU Fld Stn .....	3.49	2.01	4.32	3.03	2.31	0.10	0.64	0.00	1.73	2.71	2.43	3.63	26.40
Logan Utah State Univ .....	1.82	1.57	2.43	1.95	4.05	0.10	1.27	0.05	0.45	3.02	1.79	3.57	22.07
Ogden Pioneer PH .....	3.91	1.84	2.78	2.32	3.60	0.01	1.10	0.01	1.61	2.76	2.43	3.44	25.81
Pleasant Grove .....	3.16	1.41	1.69	1.81	1.15	0.15	0.42	0.16	1.46	1.89	2.43	1.96	17.69
Provo BYU .....	3.06	2.59	2.59	1.91	1.71	0.55	0.55	0.07	1.70	2.36	2.55	2.14	21.78
Salt Lake City Airport .....	3.09	1.54	2.71	2.20	1.32	0.09	0.41	0.02	1.03	1.45	1.72	1.73	17.31
Tooele .....	2.84	2.12	3.72	1.47	2.51	0.02	0.70	0.18	0.96	2.03	3.25	1.64	21.44
Tremonton .....	1.70	1.30	1.43	1.41	3.73	0.00	0.77	0.00	1.14	1.44	1.90	4.52	19.34
Trenton .....	1.82	2.05	3.07	1.27	4.70	0.11	0.83	0.29	0.62	1.93	2.19	6.19	25.07
<b>Average</b> .....	<b>2.69</b>	<b>1.79</b>	<b>2.67</b>	<b>1.90</b>	<b>2.82</b>	<b>0.12</b>	<b>0.82</b>	<b>0.08</b>	<b>1.23</b>	<b>2.14</b>	<b>2.21</b>	<b>3.23</b>	<b>21.70</b>
<b>SOUTH CENTRAL</b>													
Bryce Canyon Natl Pk Hq .....	0.16	1.86	0.63	0.22	0.39	0.23	1.03	0.22	1.35	2.24	1.25	0.91	10.49
Cedar City FAA Airport .....	1.04	0.39	0.79	0.63	1.25	0.00	1.21	0.07	0.95	2.01	1.43	0.74	10.51
Escalante .....	0.10	0.55	0.48	0.02	0.30	0.19	0.09	0.56	1.09	1.20	0.67	0.24	5.49
Fillmore .....	1.10	1.77	2.25	1.30	1.43	0.00	0.76	0.00	0.63	1.49	2.98	0.86	14.57
Kanab .....	1.59	4.54	1.01	0.43	0.45	0.30	1.38	0.27	0.91	1.94	1.86	1.82	16.50
Koosharem .....	0.90	0.56	1.18	0.25	0.97	0.10	0.24	0.53	1.07	0.50	0.76	0.31	7.37
Levan .....	1.30	2.31	2.66	1.02	1.13	0.39	0.62	0.10	0.90	2.23	2.65	1.07	16.38
Manti .....	1.48	1.27	1.03	0.76	2.02	0.17	0.21	0.09	0.83	1.18	2.59	1.27	12.90
Nephi .....	1.09	2.07	2.34	1.15	1.19	0.02	0.50	0.16	1.12	1.94	2.20	1.16	14.94
Panguitch .....	0.52	0.65	0.65	0.08	0.29	0.02	1.69	1.37	0.90	0.96	0.70	0.77	8.60
Richfield Radio KSVC .....	0.67	0.63	0.54	0.31	1.03	0.00	0.18	0.22	0.94	0.43	1.19	0.46	6.60
<b>Average</b> .....	<b>0.90</b>	<b>1.51</b>	<b>1.23</b>	<b>0.56</b>	<b>0.95</b>	<b>0.13</b>	<b>0.72</b>	<b>0.33</b>	<b>0.97</b>	<b>1.47</b>	<b>1.66</b>	<b>0.87</b>	<b>11.30</b>
<b>NORTHERN MOUNTAINS</b>													
Heber .....	4.49	2.53	2.06	1.72	1.51	0.94	0.89	0.07	2.13	1.72	2.59	4.00	24.65
Olmstead Powerhouse .....	3.98	1.20	1.11	1.83	1.58	0.39	0.39	0.12	2.29	2.44	2.82	2.61	20.76
Scofield-Skyline Mine .....	5.87	4.67	3.61	2.21	1.62	0.51	0.74	0.44	2.00	2.47	3.99	4.34	32.47
Silver Lake Brighton .....	9.79	5.82	5.46	5.33	3.21	1.21	1.26	0.61	3.35	3.02	6.03	10.72	55.81
Woodruff .....	0.96	0.61	0.55	0.54	1.05	0.53	0.61	0.44	0.32	1.18	1.10	1.02	8.91
<b>Average</b> .....	<b>5.02</b>	<b>2.97</b>	<b>2.56</b>	<b>2.33</b>	<b>1.79</b>	<b>0.72</b>	<b>0.78</b>	<b>0.34</b>	<b>2.02</b>	<b>2.17</b>	<b>3.31</b>	<b>4.54</b>	<b>28.55</b>
<b>UINTAH BASIN</b>													
Duchesne .....	1.17	0.83	0.93	0.25	1.53	1.08	0.44	0.07	1.08	0.65	0.98	0.53	9.54
Fort Duchesne .....	0.37	0.42	0.14	0.42	0.59	0.33	0.41	0.04	0.48	0.61	0.46	0.36	4.63
Jensen .....	0.89	0.60	0.43	0.37	0.98	0.96	0.71	0.43	1.25	0.98	0.79	0.36	8.75
Vernal Airport .....	0.71	0.51	0.48	0.43	1.28	0.67	1.53	0.02	1.02	1.01	0.74	0.52	8.92
<b>Average</b> .....	<b>0.79</b>	<b>0.59</b>	<b>0.50</b>	<b>0.37</b>	<b>1.10</b>	<b>0.76</b>	<b>0.77</b>	<b>0.14</b>	<b>0.96</b>	<b>0.81</b>	<b>0.74</b>	<b>0.44</b>	<b>7.97</b>
<b>SOUTHEAST</b>													
Arches Natl Park Hq .....	0.36	0.58	0.61	0.54	0.75	0.14	0.23	0.15	1.42	2.08	1.19	0.11	8.16
Blanding .....	0.85	0.43	0.30	0.25	0.58	0.55	0.32	2.08	2.84	2.10	2.17	0.95	13.42
Ferron .....	0.43	0.30	1.15	0.08	1.06	0.89	0.55	0.22	1.82	0.63	1.24	0.53	8.90
Green River Aviation .....	0.50	0.43	0.32	0.36	1.13	1.03	1.55	0.02	0.98	0.81	0.74	0.28	8.15
Hanksville .....	0.38	0.14	0.24	0.05	0.43	0.21	0.08	0.11	1.32	0.25	0.40	0.11	3.72
Moab .....	0.33	0.82	0.81	0.71	0.72	0.24	0.19	0.46	1.12	1.55	1.17	0.35	8.47
<b>Average</b> .....	<b>0.48</b>	<b>0.45</b>	<b>0.57</b>	<b>0.33</b>	<b>0.78</b>	<b>0.51</b>	<b>0.49</b>	<b>0.51</b>	<b>1.58</b>	<b>1.24</b>	<b>1.15</b>	<b>0.39</b>	<b>8.48</b>

Source: Utah Climate Center, Utah State University, Logan, Utah 84322-4825

## Normal Precipitation (Inches), Utah, 1961-90

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
<b>WESTERN</b>													
Callao .....	0.29	0.33	0.41	0.47	0.81	0.73	0.53	0.66	0.60	0.66	0.34	0.28	6.11
Delta .....	0.50	0.56	0.85	0.79	0.90	0.47	0.53	0.57	0.81	0.81	0.71	0.62	8.12
Enterprise Beryl Jct ..	0.68	0.83	1.10	0.90	0.66	0.46	1.18	1.18	0.94	0.81	0.86	0.62	10.22
Eskdale .....	0.24	0.33	0.66	0.59	0.60	0.59	0.56	0.55	0.73	0.64	0.40	0.31	6.20
Modena .....	0.66	0.86	0.94	0.88	0.66	0.39	1.39	1.29	1.02	0.95	0.70	0.58	10.32
Rosette .....	0.84	0.82	0.87	0.90	1.45	1.29	1.03	1.06	0.70	0.94	0.87	0.80	11.57
<b>Average .....</b>	<b>0.54</b>	<b>0.62</b>	<b>0.81</b>	<b>0.76</b>	<b>0.85</b>	<b>0.66</b>	<b>0.87</b>	<b>0.89</b>	<b>0.80</b>	<b>0.80</b>	<b>0.65</b>	<b>0.54</b>	<b>8.76</b>
<b>DIXIE</b>													
St. George .....	1.07	0.84	1.11	0.51	0.39	0.17	0.60	0.76	0.54	0.52	0.84	0.71	8.06
Zion Nat'l Park .....	1.59	1.60	2.05	1.15	0.84	0.48	1.25	1.79	1.00	0.92	1.46	1.28	15.42
<b>Average .....</b>	<b>1.33</b>	<b>1.22</b>	<b>1.58</b>	<b>0.83</b>	<b>0.62</b>	<b>0.33</b>	<b>0.93</b>	<b>1.28</b>	<b>0.77</b>	<b>0.72</b>	<b>1.15</b>	<b>1.00</b>	<b>11.74</b>
<b>NORTH CENTRAL</b>													
Corinne .....	1.42	1.56	1.54	1.79	1.91	1.34	0.77	0.89	1.63	1.64	1.59	1.55	17.63
Farmington USU Fld Stn	1.88	1.89	2.44	2.76	2.71	1.48	0.83	0.99	1.65	2.01	1.96	2.00	22.60
Logan USU .....	1.38	1.65	2.02	2.15	2.04	1.57	0.78	0.97	1.62	1.87	1.73	1.72	19.47
Ogden Pioneer PH ...	1.99	1.92	2.32	2.63	2.51	1.56	0.83	1.01	1.73	1.93	2.06	2.13	22.62
Pleasant Grove .....	1.58	1.55	1.81	1.89	1.65	0.97	0.78	0.83	1.27	1.67	1.51	1.59	17.10
Provo BYU .....	1.59	1.94	2.50	1.77	2.12	1.21	1.29	1.41	2.08	2.13	2.05	1.91	21.99
SLC Airport .....	1.11	1.24	1.91	2.12	1.80	0.93	0.81	0.86	1.28	1.44	1.29	1.40	16.20
Tooele .....	1.08	1.33	2.32	2.49	1.91	1.12	0.92	0.94	1.42	1.81	1.69	1.48	18.49
Tremonton .....	1.36	1.46	1.88	1.59	2.61	1.00	1.49	0.76	1.89	1.45	1.63	1.45	18.58
Trenton .....	1.34	1.64	1.97	1.89	2.63	1.11	0.94	0.98	1.63	1.56	1.68	1.41	18.78
<b>Average .....</b>	<b>1.47</b>	<b>1.62</b>	<b>2.07</b>	<b>2.11</b>	<b>2.19</b>	<b>1.23</b>	<b>0.94</b>	<b>0.96</b>	<b>1.62</b>	<b>1.75</b>	<b>1.72</b>	<b>1.66</b>	<b>19.35</b>
<b>SOUTH CENTRAL</b>													
Bryce Canyon NP HQ .	1.16	1.36	1.53	0.95	1.03	0.57	1.51	2.20	1.70	1.20	1.20	1.12	15.53
Cedar City FAA .....	0.69	0.89	1.36	1.10	0.84	0.43	1.09	1.47	0.98	0.95	1.00	0.70	11.50
Escalante .....	0.78	0.64	0.90	0.50	0.68	0.41	1.06	1.51	1.04	0.98	0.83	0.70	10.03
Fillmore .....	1.27	1.26	2.08	1.82	1.43	0.90	0.75	0.87	1.21	1.38	1.46	1.50	15.93
Kanab .....	1.50	1.32	1.60	0.92	0.72	0.32	1.01	1.49	0.94	0.98	1.27	1.24	13.31
Koosharem .....	0.54	0.51	0.73	0.61	0.82	0.60	1.12	1.46	1.05	0.76	0.57	0.61	9.38
Levan .....	1.23	1.24	1.65	1.52	1.45	0.87	0.82	0.97	1.38	1.36	1.29	1.39	15.17
Manti .....	0.98	1.02	1.53	1.41	1.28	0.81	0.82	0.98	1.40	1.29	1.14	1.06	13.72
Nephi .....	1.14	1.19	1.71	1.51	1.39	0.82	0.86	1.01	1.19	1.26	1.39	1.33	14.80
Panguitch .....	0.48	0.61	0.79	0.67	0.82	0.63	1.50	1.78	1.05	0.71	0.78	0.51	10.33
Richfield .....	0.56	0.58	0.73	0.75	0.84	0.58	0.79	0.70	0.93	0.84	0.68	0.59	8.57
<b>Average .....</b>	<b>0.94</b>	<b>0.97</b>	<b>1.33</b>	<b>1.07</b>	<b>1.03</b>	<b>0.63</b>	<b>1.03</b>	<b>1.31</b>	<b>1.17</b>	<b>1.06</b>	<b>1.06</b>	<b>0.98</b>	<b>12.58</b>
<b>NORTHERN MOUNTAINS</b>													
Heber .....	1.78	1.56	1.37	1.37	1.23	0.90	0.87	0.98	1.26	1.45	1.64	1.62	16.01
Olmstead PH .....	1.91	2.02	2.54	1.63	2.38	0.75	0.92	1.27	2.01	1.94	2.19	1.57	21.14
Scofield-Skyline Mine .	1.83	3.12	2.87	1.52	1.68	1.01	1.71	1.38	1.73	1.95	2.88	1.98	23.68
Silver Lake Brighton ..	4.92	4.76	5.31	4.42	2.96	1.84	1.69	1.95	2.58	3.49	4.87	4.90	43.68
Woodruff .....	0.43	0.45	0.57	0.92	0.89	1.05	0.72	0.69	1.16	0.93	0.65	0.58	9.04
<b>Average .....</b>	<b>2.17</b>	<b>2.38</b>	<b>2.53</b>	<b>1.97</b>	<b>1.83</b>	<b>1.11</b>	<b>1.18</b>	<b>1.25</b>	<b>1.75</b>	<b>1.95</b>	<b>2.45</b>	<b>2.13</b>	<b>22.71</b>
<b>UINTAH BASIN</b>													
Duchesne .....	0.43	0.50	0.64	0.84	0.91	0.90	0.97	1.00	1.17	0.94	0.52	0.73	9.55
Fort Duchesne .....	0.35	0.32	0.46	0.59	0.72	0.63	0.61	0.66	0.70	0.86	0.37	0.45	6.72
Jensen .....	0.46	0.52	0.61	0.72	0.77	0.64	0.66	0.59	0.91	1.02	0.59	0.63	8.13
Myton .....	0.39	0.36	0.51	0.61	0.73	0.64	0.59	0.66	0.70	0.82	0.42	0.37	6.80
<b>Average .....</b>	<b>0.41</b>	<b>0.43</b>	<b>0.56</b>	<b>0.69</b>	<b>0.78</b>	<b>0.70</b>	<b>0.71</b>	<b>0.73</b>	<b>0.87</b>	<b>0.91</b>	<b>0.48</b>	<b>0.55</b>	<b>7.80</b>
<b>SOUTHEAST</b>													
Arches NP HQ .....	0.47	0.32	0.91	0.83	0.65	0.37	1.01	1.09	0.73	1.31	0.79	0.49	8.97
Blanding .....	1.25	0.91	0.95	0.75	0.62	0.46	1.32	1.43	1.28	1.36	1.08	1.18	12.60
Ferron .....	0.62	0.55	0.66	0.49	0.72	0.49	1.03	1.09	0.87	0.79	0.53	0.56	8.40
Green River Aviation ..	0.40	0.32	0.59	0.50	0.61	0.41	0.57	0.74	0.71	0.87	0.41	0.39	6.52
Hanksville .....	0.38	0.22	0.51	0.42	0.49	0.30	0.53	0.73	0.74	0.68	0.38	0.31	5.69
Moab .....	0.56	0.43	0.85	0.98	0.72	0.48	0.83	0.86	0.75	1.16	0.74	0.65	9.00
<b>Average .....</b>	<b>0.61</b>	<b>0.46</b>	<b>0.75</b>	<b>0.66</b>	<b>0.64</b>	<b>0.42</b>	<b>0.88</b>	<b>0.99</b>	<b>0.85</b>	<b>1.03</b>	<b>0.66</b>	<b>0.60</b>	<b>8.53</b>

Source: Utah Climate Center, Utah State University, Logan, Utah 84322-4825

## Total Growing Degree Days Base 50, by Months, Utah, 1996

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
<b>WESTERN</b>													
Callao .....	17	23	126	239	353	553	681	615	424	259	85	21	3,396
Delta .....	22	58	139	219	387	567	680	624	439	260	79	24	3,498
Enterprise Beryl Jct .....	47	103	143	250	429	523	622	575	447	284	93	23	3,539
Eskdale .....	43	99	154	276	401	567	682	631	465	292	95	40	3,745
Modena .....	41	97	150	267	417	536	673	615	448	289	89	15	3,637
Rosette .....	0	13	45	108	209	442	663	613	346	223	48	0	2,710
<b>Average</b> .....	<b>28</b>	<b>66</b>	<b>126</b>	<b>227</b>	<b>366</b>	<b>531</b>	<b>667</b>	<b>612</b>	<b>428</b>	<b>268</b>	<b>82</b>	<b>21</b>	<b>3,422</b>
<b>DIXIE</b>													
St George .....	151	259	388	500	673	792	944	908	693	463	223	76	6,070
Zion National Park .....	105	182	281	404	558	706	843	822	611	419	204	63	5,198
<b>Average</b> .....	<b>128</b>	<b>221</b>	<b>335</b>	<b>452</b>	<b>616</b>	<b>749</b>	<b>894</b>	<b>865</b>	<b>652</b>	<b>441</b>	<b>214</b>	<b>70</b>	<b>5,637</b>
<b>NORTH CENTRAL</b>													
Corinne .....	0	2	84	161	308	548	671	624	358	235	64	4	3,059
Farmington USU Fid Stn ..	5	14	142	204	344	620	701	672	431	291	86	20	3,530
Logan Utah State Univ ...	0	2	57	126	263	550	706	659	362	220	41	5	2,991
Ogden Pioneer PH .....	2	7	114	194	339	643	778	724	453	277	62	12	3,605
Pleasant Grove .....	12	17	127	193	363	590	720	668	394	266	80	19	3,449
Provo BYU .....	21	26	164	246	426	604	720	671	456	283	86	20	3,723
Salt Lake City Airport ....	7	11	116	188	354	637	803	746	464	283	84	25	3,718
Tooele .....	11	18	98	194	332	623	784	718	447	277	78	27	3,607
Tremonton .....	0	0	71	153	292	559	706	669	392	225	56	3	3,126
Trenton .....	0	0	53	135	256	479	560	543	352	235	49	1	2,663
<b>Average</b> .....	<b>6</b>	<b>10</b>	<b>103</b>	<b>179</b>	<b>328</b>	<b>585</b>	<b>715</b>	<b>669</b>	<b>411</b>	<b>259</b>	<b>69</b>	<b>14</b>	<b>3,348</b>
<b>SOUTH CENTRAL</b>													
Bryce Canyon Natl Pk Hq	2	27	26	105	279	426	507	474	265	155	17	0	2,283
Cedar City FAA Airport ...	39	96	132	223	412	599	734	683	449	253	91	22	3,733
Escalante .....	35	96	152	279	487	572	690	623	438	264	70	11	3,717
Fillmore .....	24	53	113	208	385	586	734	677	453	257	64	20	3,574
Kanab .....	50	122	183	306	471	579	728	685	471	293	119	21	4,028
Koosharem .....	26	74	78	169	330	468	558	515	331	200	60	6	2,815
Levan .....	26	58	140	188	373	550	662	621	431	273	93	13	3,428
Manti .....	13	34	87	149	328	516	650	595	365	226	66	5	3,034
Nephi .....	31	59	144	221	384	570	681	630	426	242	73	15	3,476
Panguitch .....	18	58	110	218	413	527	578	545	386	246	68	1	3,168
Richfield Radio KSVC ....	31	77	133	224	396	525	634	595	404	270	92	20	3,401
<b>Average</b> .....	<b>27</b>	<b>69</b>	<b>118</b>	<b>208</b>	<b>387</b>	<b>538</b>	<b>651</b>	<b>604</b>	<b>402</b>	<b>244</b>	<b>74</b>	<b>12</b>	<b>3,334</b>
<b>NORTHERN MOUNTAINS</b>													
Heber .....	15	0	60	183	346	511	584	566	402	241	76	7	2,991
Olmstead Powerhouse ...	20	15	134	185	371	591	730	683	452	284	93	20	3,578
Scofield-Skyline Mine ....	1	1	3	31	151	328	438	412	195	118	17	0	1,695
Silver Lake Brighton .....	2	0	2	14	48	263	375	368	157	111	8	0	1,348
Woodruff .....	0	1	23	95	197	416	504	493	289	183	27	0	2,228
<b>Average</b> .....	<b>8</b>	<b>3</b>	<b>44</b>	<b>102</b>	<b>223</b>	<b>422</b>	<b>526</b>	<b>504</b>	<b>299</b>	<b>187</b>	<b>44</b>	<b>5</b>	<b>2,367</b>
<b>UINTAH BASIN</b>													
Duchesne .....	0	4	93	195	341	496	655	598	373	207	24	0	2,986
Fort Duchesne .....	0	9	97	227	409	540	668	603	409	242	33	0	3,237
Jensen .....	2	13	127	240	407	526	618	575	400	241	41	0	3,190
Vernal Airport .....	3	10	89	200	366	507	620	577	365	208	25	0	2,970
<b>Average</b> .....	<b>1</b>	<b>9</b>	<b>102</b>	<b>216</b>	<b>381</b>	<b>517</b>	<b>640</b>	<b>588</b>	<b>387</b>	<b>225</b>	<b>31</b>	<b>0</b>	<b>3,097</b>
<b>SOUTHEAST</b>													
Arches Natl Park Hq .....	22	111	202	329	571	722	850	815	533	324	116	29	4,624
Blanding .....	19	96	154	274	493	632	782	735	429	242	55	5	3,916
Ferron .....	5	62	97	206	396	576	735	660	386	236	34	2	3,395
Green River Aviation .....	22	120	204	342	560	560	759	713	509	304	105	22	4,220
Hanksville .....	32	118	224	335	550	627	767	764	487	304	94	27	4,329
Moab .....	30	131	234	360	564	642	774	720	523	336	126	35	4,475
<b>Average</b> .....	<b>22</b>	<b>106</b>	<b>186</b>	<b>308</b>	<b>522</b>	<b>627</b>	<b>778</b>	<b>735</b>	<b>478</b>	<b>291</b>	<b>88</b>	<b>20</b>	<b>4,161</b>

Source: Utah Climate Center, Utah State University, Logan, Utah 84322-4825

## Normal Growing Degree Days Base 50, by Months, Utah, 1961-90

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
<b>WESTERN</b>													
Callao	13	35	107	204	346	469	643	593	422	248	72	14	3,167
Delta	6	34	107	213	371	514	662	633	452	280	80	11	3,361
Enterprise Beryl Jct	15	37	108	214	357	480	592	569	429	280	93	21	3,195
Eskdale	20	49	125	222	391	519	662	624	460	280	94	21	3,466
Modena	18	40	108	218	369	498	612	587	442	296	94	22	3,304
Rosette	0	15	69	180	377	579	815	747	474	202	30	04	3,492
<b>Average</b>	<b>12</b>	<b>35</b>	<b>104</b>	<b>209</b>	<b>368</b>	<b>510</b>	<b>664</b>	<b>625</b>	<b>446</b>	<b>264</b>	<b>77</b>	<b>15</b>	<b>3,331</b>
<b>DIXIE</b>													
St. George	79	157	272	403	568	697	838	812	628	456	220	80	5,208
Zion Nat'l Park	67	120	204	338	539	705	845	818	665	460	192	77	5,030
<b>Average</b>	<b>73</b>	<b>139</b>	<b>238</b>	<b>370</b>	<b>553</b>	<b>701</b>	<b>841</b>	<b>815</b>	<b>647</b>	<b>458</b>	<b>206</b>	<b>79</b>	<b>5,119</b>
<b>NORTH CENTRAL</b>													
Corinne	1	13	59	166	329	481	656	623	418	232	37	2	3,016
Farmington USU Fld Stn	4	22	82	195	360	524	707	669	461	247	60	5	3,338
Logan USU	1	6	38	128	281	450	672	636	390	196	33	2	2,831
Ogden Pioneer PH	3	18	72	180	356	542	744	703	461	250	57	5	3,391
Pleasant Grove	6	27	91	193	358	506	684	646	452	264	73	10	3,308
Provo BYU	6	30	105	237	382	559	706	680	478	267	80	12	3,542
SLC Airport	4	23	80	183	358	546	750	712	475	253	65	7	3,454
Tooele	6	18	67	168	337	528	743	694	441	222	50	7	3,281
Tremonton	0	9	54	183	307	507	695	667	430	212	37	3	3,103
Trenton	0	6	51	181	283	445	568	545	391	223	38	2	2,733
<b>Average</b>	<b>3</b>	<b>17</b>	<b>70</b>	<b>181</b>	<b>335</b>	<b>509</b>	<b>692</b>	<b>657</b>	<b>440</b>	<b>237</b>	<b>53</b>	<b>5</b>	<b>3,199</b>
<b>SOUTH CENTRAL</b>													
Bryce Can NP HQ	2	4	22	85	212	361	465	419	295	159	27	4	2,054
Cedar City FAA	15	39	91	186	343	513	674	639	453	272	89	23	3,336
Escalante	10	32	98	211	368	505	625	580	429	267	80	11	3,216
Fillmore	10	34	98	200	361	525	687	654	470	273	82	12	3,407
Kanab	41	81	149	258	416	550	685	657	505	352	149	54	3,897
Koosharem	6	15	47	126	268	412	525	494	370	219	61	12	2,556
Levan	3	21	83	184	336	487	648	616	444	269	77	7	3,175
Manti	4	15	67	162	306	458	612	571	394	235	62	7	2,893
Nephi	7	26	92	199	359	510	674	643	464	286	88	13	3,360
Panguitch	9	22	70	166	305	439	537	500	388	255	80	14	2,785
Richfield	14	38	107	209	353	484	607	578	444	289	95	21	3,238
<b>Average</b>	<b>11</b>	<b>30</b>	<b>84</b>	<b>181</b>	<b>330</b>	<b>477</b>	<b>613</b>	<b>577</b>	<b>423</b>	<b>262</b>	<b>81</b>	<b>16</b>	<b>3,083</b>
<b>NORTHERN MOUNTAINS</b>													
Heber	1	8	44	142	289	419	556	527	383	238	55	5	2,667
Olmstead PH	5	22	79	218	337	538	688	659	465	266	70	12	3,357
Scofield-Skyline Mine	0	0	6	46	112	286	375	347	202	88	10	0	1,474
Silver Lake Brighton	1	1	4	20	86	211	347	312	182	70	7	1	1,240
Woodruff	0	2	18	94	220	342	492	466	317	174	27	1	2,152
<b>Average</b>	<b>1</b>	<b>7</b>	<b>30</b>	<b>104</b>	<b>209</b>	<b>359</b>	<b>492</b>	<b>462</b>	<b>310</b>	<b>167</b>	<b>34</b>	<b>4</b>	<b>2,178</b>
<b>UINTAH BASIN</b>													
Duchesne	2	10	66	187	352	469	613	583	396	216	37	1	2,931
Fort Duchesne	1	7	61	183	341	470	589	557	400	223	41	1	2,875
Jensen	1	11	76	210	373	486	608	549	423	250	48	2	3,035
Myton	1	11	67	187	316	455	580	561	390	220	42	2	2,831
<b>Average</b>	<b>1</b>	<b>10</b>	<b>67</b>	<b>192</b>	<b>346</b>	<b>470</b>	<b>597</b>	<b>582</b>	<b>403</b>	<b>227</b>	<b>42</b>	<b>1</b>	<b>2,918</b>
<b>SOUTHEAST</b>													
Arches NP HQ	7	53	172	322	508	694	830	798	593	342	113	7	4,438
Blanding	4	21	76	184	351	520	662	619	431	247	61	6	3,181
Ferron	3	14	64	165	321	485	636	598	401	238	55	3	2,981
Green River Aviation	6	43	142	278	434	568	708	649	486	309	88	6	3,716
Hanksville	12	51	167	304	473	594	717	684	518	341	104	11	3,974
Moab	16	67	194	339	514	644	776	744	573	385	137	20	4,408
<b>Average</b>	<b>8</b>	<b>41</b>	<b>136</b>	<b>265</b>	<b>433</b>	<b>584</b>	<b>721</b>	<b>682</b>	<b>500</b>	<b>310</b>	<b>93</b>	<b>9</b>	<b>3,783</b>

Source: Utah Climate Center, Utah State University, Utah 84322-4825

## Total Growing Degree Days Base 40, by Months, Utah, 1996

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
<b>WESTERN</b>													
Callao . . . . .	89	97	267	392	527	712	852	769	576	416	212	102	5,011
Delta . . . . .	104	148	277	366	554	724	852	780	592	377	198	95	5,067
Enterprise Beryl Jct . . .	148	205	279	389	561	595	783	690	571	379	216	93	4,909
Eskdale . . . . .	152	200	299	431	574	723	852	789	621	416	218	145	5,420
Modena . . . . .	127	200	303	409	559	662	845	771	601	395	216	91	5,179
Rosette . . . . .	27	75	158	243	385	652	853	797	529	367	146	10	4,242
<b>Average . . . . .</b>	<b>108</b>	<b>154</b>	<b>264</b>	<b>372</b>	<b>527</b>	<b>678</b>	<b>840</b>	<b>766</b>	<b>582</b>	<b>392</b>	<b>201</b>	<b>89</b>	<b>4,973</b>
<b>DIXIE</b>													
St George . . . . .	307	419	543	677	856	955	1107	1073	867	637	388	233	8,062
Zion National Park . . . .	240	335	448	572	724	870	1014	988	785	583	374	196	7,129
<b>Average . . . . .</b>	<b>274</b>	<b>377</b>	<b>496</b>	<b>625</b>	<b>790</b>	<b>913</b>	<b>1061</b>	<b>1031</b>	<b>826</b>	<b>610</b>	<b>381</b>	<b>215</b>	<b>7,599</b>
<b>NORTH CENTRAL</b>													
Corinne . . . . .	43	69	206	313	516	737	851	807	545	403	178	43	4,711
Farmington USU Fld Stn	61	93	283	362	562	789	874	842	596	449	219	94	5,224
Logan Utah State Univ .	17	51	165	270	479	758	885	848	561	383	138	41	4,596
Ogden Pioneer PH . . . .	53	84	259	368	585	837	951	902	656	456	181	78	5,410
Pleasant Grove . . . . .	63	111	269	354	582	776	894	839	602	433	195	86	5,204
Provo BYU . . . . .	83	125	312	404	643	770	890	847	642	443	214	89	5,462
Salt Lake City Airport . .	64	75	260	366	599	826	973	922	662	450	214	104	5,515
Tooele . . . . .	68	104	248	373	552	815	957	897	641	449	204	107	5,415
Tremonton . . . . .	25	52	193	307	510	768	883	849	575	367	165	26	4,720
Trenton . . . . .	14	29	154	270	431	617	698	643	489	333	148	21	3,847
<b>Average . . . . .</b>	<b>49</b>	<b>79</b>	<b>235</b>	<b>339</b>	<b>546</b>	<b>769</b>	<b>886</b>	<b>840</b>	<b>597</b>	<b>417</b>	<b>186</b>	<b>69</b>	<b>5,012</b>
<b>SOUTH CENTRAL</b>													
Bryce Canyon Natl Pk Hq	41	97	119	235	434	581	726	646	425	267	82	10	3,663
Cedar City FAA Airport .	127	201	277	378	598	772	907	859	643	392	211	103	5,468
Escalante . . . . .	144	210	305	425	624	718	861	800	614	402	198	96	5,397
Fillmore . . . . .	90	154	259	369	566	755	906	845	647	425	177	93	5,286
Kanab . . . . .	154	243	340	457	624	734	901	857	668	447	261	132	5,818
Kooshaream . . . . .	92	168	200	307	484	600	703	644	483	316	163	44	4,204
Levan . . . . .	83	151	277	333	536	710	832	783	587	401	208	84	4,985
Manti . . . . .	67	120	210	293	505	703	828	779	552	354	166	56	4,633
Nephi . . . . .	90	154	280	373	543	729	852	788	610	387	193	83	5,082
Panguitch . . . . .	96	154	254	362	543	584	732	641	522	350	182	50	4,470
Richfield Radio KSVC . .	111	180	275	373	557	655	801	733	569	380	212	95	4,941
<b>Average . . . . .</b>	<b>100</b>	<b>167</b>	<b>254</b>	<b>355</b>	<b>547</b>	<b>686</b>	<b>823</b>	<b>761</b>	<b>575</b>	<b>375</b>	<b>187</b>	<b>77</b>	<b>4,907</b>
<b>NORTHERN MOUNTAINS</b>													
Heber . . . . .	66	34	176	329	503	615	728	673	536	333	184	43	4,220
Olmstead Powerhouse .	80	107	273	345	584	775	901	856	633	433	210	83	5,280
Scofield-Skyline Mine . .	22	40	51	111	301	498	669	615	349	209	69	4	2,938
Silver Lake Brighton . . .	21	33	31	81	174	452	610	585	297	201	51	7	2,543
Woodruff . . . . .	4	23	86	212	357	547	644	592	436	282	102	8	3,293
<b>Average . . . . .</b>	<b>39</b>	<b>47</b>	<b>123</b>	<b>216</b>	<b>384</b>	<b>577</b>	<b>710</b>	<b>664</b>	<b>450</b>	<b>292</b>	<b>123</b>	<b>29</b>	<b>3,654</b>
<b>UINTAH BASIN</b>													
Duchesne . . . . .	29	39	231	348	532	693	834	782	563	339	114	24	4,528
Fort Duchesne . . . . .	22	71	234	378	557	707	838	764	588	359	138	20	4,676
Jensen . . . . .	40	79	270	386	568	656	785	709	546	352	145	22	4,558
Vernal Airport . . . . .	37	73	221	347	539	675	794	726	537	325	108	18	4,400
<b>Average . . . . .</b>	<b>32</b>	<b>66</b>	<b>239</b>	<b>365</b>	<b>549</b>	<b>683</b>	<b>813</b>	<b>745</b>	<b>559</b>	<b>344</b>	<b>126</b>	<b>21</b>	<b>4,542</b>
<b>SOUTHEAST</b>													
Arches Natl Park Hq . . .	132	243	372	487	762	892	1021	986	714	488	257	120	6,474
Blanding . . . . .	91	207	307	434	676	809	952	908	633	440	178	62	5,697
Ferron . . . . .	63	154	233	365	587	771	910	833	574	369	144	24	5,027
Green River Aviation . . .	110	245	365	488	696	704	929	883	671	430	252	98	5,871
Hanksville . . . . .	139	247	382	486	697	786	937	932	661	444	227	111	6,049
Moab . . . . .	147	271	401	501	704	802	944	891	677	466	268	144	6,216
<b>Average . . . . .</b>	<b>114</b>	<b>228</b>	<b>343</b>	<b>460</b>	<b>687</b>	<b>794</b>	<b>949</b>	<b>906</b>	<b>655</b>	<b>440</b>	<b>221</b>	<b>93</b>	<b>5,890</b>

Source: Utah Climate Center, Utah State University, Logan, Utah 84322-4825



## Normal Growing Degree Days Base 40, by Months, Utah, 1961-90

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
<b>WESTERN</b>													
Callao	56	110	236	351	520	648	815	758	577	400	182	58	4,708
Delta	40	106	231	356	536	682	834	804	612	432	186	54	4,871
Enterprise Beryl Jct	71	117	234	356	498	600	737	724	567	428	207	88	4,625
Eskdale	83	139	264	373	550	679	831	788	610	436	213	86	5,051
Modena	78	125	234	358	511	632	770	750	583	439	209	91	4,779
Rosette	14	40	120	242	436	597	801	767	566	344	112	27	4,066
<b>Average</b>	<b>57</b>	<b>106</b>	<b>220</b>	<b>339</b>	<b>508</b>	<b>640</b>	<b>798</b>	<b>765</b>	<b>586</b>	<b>413</b>	<b>185</b>	<b>67</b>	<b>4,683</b>
<b>DIXIE</b>													
St. George	212	294	437	575	748	861	1,004	981	789	618	375	215	7,107
Zion National Park	192	258	378	528	734	875	1,016	991	842	672	367	205	7,058
<b>Average</b>	<b>202</b>	<b>276</b>	<b>407</b>	<b>551</b>	<b>741</b>	<b>868</b>	<b>1,010</b>	<b>986</b>	<b>816</b>	<b>645</b>	<b>371</b>	<b>210</b>	<b>7,082</b>
<b>NORTH CENTRAL</b>													
Corinne	15	60	167	314	517	670	832	802	593	389	126	25	4,510
Farmington USU Fld Stn	35	86	210	358	556	719	882	846	652	421	166	39	4,970
Logan Utah State Univ	16	38	122	269	487	672	865	836	605	368	111	24	4,414
Ogden Pioneer Ph	32	77	190	345	571	752	923	890	672	437	158	41	5,087
Pleasant Grove	40	95	215	348	544	694	863	828	637	431	180	54	4,927
Provo BYU	41	90	239	410	578	743	882	855	667	438	191	56	5,187
Salt Lake City Airport	34	87	203	345	563	747	927	895	675	437	172	41	5,123
Tooele	41	78	180	329	555	744	929	891	662	406	148	46	5,009
Tremonton	9	47	163	346	514	717	885	857	637	379	125	22	4,698
Trenton	10	41	153	322	442	595	724	696	532	371	119	25	4,031
<b>Average</b>	<b>27</b>	<b>70</b>	<b>184</b>	<b>338</b>	<b>533</b>	<b>705</b>	<b>871</b>	<b>840</b>	<b>633</b>	<b>408</b>	<b>149</b>	<b>37</b>	<b>4,796</b>
<b>SOUTH CENTRAL</b>													
Bryce Canyon Natl Pk Hq	29	41	93	203	362	519	655	617	457	302	103	38	3,418
Cedar City FAA Airport	75	120	211	334	524	687	853	828	640	435	203	94	5,002
Escalante	61	115	228	359	528	663	800	763	602	422	199	76	4,814
Fillmore	57	110	222	357	545	698	858	829	648	441	192	64	5,021
Kanab	138	195	292	410	587	719	859	837	689	520	287	160	5,693
Koosharem	48	71	138	252	417	540	670	646	513	360	155	64	3,875
Levan	37	82	197	326	505	657	822	792	613	420	181	50	4,683
Manti	35	69	174	304	480	640	799	766	580	390	162	47	4,445
Nephi	50	95	210	343	532	680	847	815	631	440	194	66	4,903
Panguitch	58	91	179	302	452	553	674	652	529	404	188	78	4,158
Richfield Radio K SVC	70	119	234	356	506	625	768	737	585	439	210	87	4,737
<b>Average</b>	<b>60</b>	<b>101</b>	<b>198</b>	<b>322</b>	<b>494</b>	<b>635</b>	<b>782</b>	<b>753</b>	<b>590</b>	<b>416</b>	<b>188</b>	<b>75</b>	<b>4,613</b>
<b>NORTHERN MOUNTAINS</b>													
Heber	21	46	134	276	443	558	702	671	527	385	145	36	3,943
Olmstead Powerhouse	34	80	200	379	531	723	867	843	658	444	170	55	4,982
Scofield-Skyline Mine	16	19	51	144	242	460	600	564	359	208	51	10	2,723
Silver Lake Brighton	15	18	35	93	208	370	568	520	336	183	44	15	2,404
Woodruff	8	19	73	200	371	491	638	603	460	310	86	16	3,285
<b>Average</b>	<b>19</b>	<b>36</b>	<b>98</b>	<b>220</b>	<b>359</b>	<b>520</b>	<b>675</b>	<b>640</b>	<b>468</b>	<b>306</b>	<b>99</b>	<b>26</b>	<b>3,467</b>
<b>UINTAH BASIN</b>													
Duchesne	19	49	170	333	515	646	794	767	566	370	123	21	4,374
Fort Duchesne	10	39	160	324	496	630	749	715	538	367	128	18	4,173
Jensen	13	48	188	355	524	637	773	693	558	398	141	24	4,351
Vernal Airport	12	50	168	320	463	617	745	731	541	361	128	21	4,155
<b>Average</b>	<b>14</b>	<b>46</b>	<b>171</b>	<b>333</b>	<b>500</b>	<b>632</b>	<b>765</b>	<b>726</b>	<b>551</b>	<b>374</b>	<b>130</b>	<b>21</b>	<b>4,263</b>
<b>SOUTHEAST</b>													
Arches Natl Park Hq	61	150	333	509	714	868	1,001	974	779	525	252	83	6,247
Blanding	39	92	192	331	535	703	844	814	638	417	170	56	4,831
Ferron	26	65	169	308	513	682	821	797	595	394	154	38	4,563
Green River Aviation	44	132	284	425	596	727	875	810	629	457	212	60	5,251
Hanksville	65	149	311	454	629	754	887	854	669	491	232	76	5,571
Moab	80	179	355	516	701	816	945	913	736	550	283	102	6,175
<b>Average</b>	<b>52</b>	<b>128</b>	<b>274</b>	<b>424</b>	<b>615</b>	<b>758</b>	<b>896</b>	<b>860</b>	<b>674</b>	<b>472</b>	<b>217</b>	<b>69</b>	<b>5,440</b>

Source: Utah Climate Center, Utah State University, Utah 84322-4825

## Freeze Dates and Freeze-Free Period, Utah, 1996 and Averages

Station	1996			Averages		
	Last Spring Minimum of 32° or Below	First Fall Minimum of 32° or Below	Number of Days Between Dates	Last Spring Minimum of 32° or Below	First Fall Minimum of 32° or Below	Number of Days Between Dates
<b>WESTERN</b>						
Callao . . . . .	May 05	Sep 26	144	May 18	Sep 25	130
Delta . . . . .	Apr 30	Sep 19	142	May 15	Sep 29	137
Enterprise Beryl Jct . . . . .	May 11	Sep 17	129	Jun 07	Sep 13	98
Eskdale . . . . .	May 05	Sep 17	135	May 25	Sep 23	122
Modena . . . . .	May 25	Sep 17	115	May 31	Sep 22	115
Rosette . . . . .	May 19	Sep 17	121	May 22	Sep 21	122
<b>DIXIE</b>						
St George . . . . .	Mar 03	Oct 22	233	Apr 04	Oct 27	209
Zion National Park . . . . .	Apr 20	Oct 17	180	Apr 15	Nov 01	202
<b>NORTH CENTRAL</b>						
Corinne . . . . .	Apr 29	Oct 15	169	May 12	Sep 30	142
Farmington USU Fld Stn . . . . .	Apr 28	Oct 17	172	May 03	Oct 11	162
Logan Utah State Univ . . . . .	Apr 29	Oct 17	171	May 06	Oct 10	159
Ogden Pioneer PH . . . . .	Apr 28	Oct 17	172	May 02	Oct 12	164
Pleasant Grove . . . . .	Apr 29	Oct 17	171	May 09	Oct 10	155
Provo BYU . . . . .	Apr 29	Oct 17	171	Apr 25	Oct 15	175
Salt Lake City Airport . . . . .	Apr 28	Oct 16	171	Apr 27	Oct 16	175
Tooele . . . . .	Apr 28	Oct 17	172	May 05	Oct 14	164
Tremonton . . . . .	Apr 29	Oct 15	169	Apr 27	Oct 09	168
Trenton . . . . .	May 06	Sep 06	123	May 26	Sep 11	109
<b>SOUTH CENTRAL</b>						
Bryce Canyon Natl Pk Hq . . . . .	Jun 02	Sep 15	105	Jun 18	Sep 04	79
Cedar City FAA Airport . . . . .	Apr 29	Sep 17	141	May 18	Oct 01	137
Escalante . . . . .	Apr 29	Sep 17	141	May 16	Oct 03	141
Fillmore . . . . .	Apr 29	Oct 17	171	May 14	Oct 05	146
Kanab . . . . .	Apr 22	Oct 21	182	May 06	Oct 18	166
Koosharem . . . . .	Jun 03	Sep 15	104	Jun 17	Sep 06	81
Levan . . . . .	May 24	Sep 18	117	May 22	Sep 29	130
Manti . . . . .	Apr 29	Sep 19	143	May 21	Sep 27	130
Nephi . . . . .	May 05	Sep 18	136	May 15	Sep 30	138
Panguitch . . . . .	May 30	Sep 15	108	Jun 21	Sep 01	73
Richfield Radio KSVC . . . . .	May 05	Sep 17	135	May 25	Sep 20	118
<b>NORTHERN MOUNTAINS</b>						
Heber . . . . .	May 24	Sep 19	118	Jun 12	Sep 05	85
Olmstead Powerhouse . . . . .	Apr 29	Oct 17	171	May 02	Oct 15	168
Scofield-Skyline Mine . . . . .	Jun 28	Sep 15	79	Jun 24	Sep 07	75
Silver Lake Brighton . . . . .	Jun 29	Sep 15	78	Jun 29	Aug 23	56
Woodruff . . . . .	Jun 02	Aug 07	66	Jun 24	Aug 20	58
<b>UINTAH BASIN</b>						
Duchesne . . . . .	Apr 29	Sep 26	150	May 23	Sep 21	122
Fort Duchesne . . . . .	May 28	Sep 26	121	May 22	Sep 21	122
Jensen . . . . .	May 05	Sep 19	137	May 19	Sep 17	121
Vernal Airport . . . . .	May 05	Sep 19	137	May 26	Sep 21	118
<b>SOUTHEAST</b>						
Arches Natl Park Hq . . . . .	Apr 29	Oct 21	175	Apr 08	Oct 26	204
Blanding . . . . .	Apr 29	Oct 20	174	May 13	Oct 11	152
Ferron . . . . .	Apr 30	Sep 19	142	May 17	Oct 01	138
Green River Aviation . . . . .	Apr 29	Sep 28	152	May 02	Oct 04	157
Hanksville . . . . .	Apr 29	Sep 19	143	May 04	Oct 02	152
Moab . . . . .	Apr 29	Sep 28	152	Apr 17	Oct 17	186

Source: Utah Climate Center, Utah State University, Logan, Utah 84322-4825

# Enterprise Budgets

Prepared by the Economics Department, Utah State University

The following crop and livestock enterprise budgets were prepared by the Economics Department at Utah State University. Although not guaranteed, these budgets are provided to help farmers and ranchers identify potential alternatives to maximize the profitability of their operation. Actual costs and income will vary from farm to farm; therefore, a column has been provided to adapt the budgets to your farm or ranch. Some numbers may not calculate or total due to rounding.

Any questions or suggestions to these budgets should be referred to the appropriate contact person in the Economics Department at Utah State University, phone 801-797-2310 in Logan.

Budgets included in this years and prior years publications of Utah Agricultural Statistics may be found on the Internet at <http://ext.usu.edu/agecon/> web site location.

## Index of Enterprise Budgets by Subject and Year Most Recently Published in Utah Agricultural Statistics

<u>Enterprise Budget</u>	<u>Most Recent Report Year</u>	<u>Enterprise Budget</u>	<u>Most Recent Report Year</u>
Alfalfa hay establishment (Grand County) . . . . .	1994	Hycrest wheat grass seed . . . . .	1990
Alfalfa hay irrigated (East Millard County) . . . . .	1997	Lawn Turf . . . . .	1997
Alfalfa hay dryland . . . . .	1993	Machinery data . . . . .	1993
Alfalfa hay (large bales) . . . . .	1992	Mink (black mink) . . . . .	1991
Alfalfa hay (small bales) . . . . .	1992	Oat Hay . . . . .	1994
Apples (Utah County) . . . . .	1994	Onions . . . . .	1992
Barley (flood irrigated) . . . . .	1992	Ostrich . . . . .	1995
Barley (wheel-line irrigation) . . . . .	1993	Pasture, Irrigated . . . . .	1995
Beans		Pasture, Native Meadow . . . . .	1993
Dry edible (dryland) . . . . .	1993	Pasture Establishment . . . . .	1995
Beef Cattle		Peaches (Box Elder County) . . . . .	1994
Cow/calf . . . . .	1997	Pheasants . . . . .	1995
Cow/calf/yearling (Rich County) . . . . .	1996	Potatoes, Chipper (Box Elder County) . . . . .	1994
Cow/calf/yearling (Uintah Basin) . . . . .	1992	Pumpkin . . . . .	1997
Finish cattle . . . . .	1990	Raspberry . . . . .	1996
Canola, Spring irrigated . . . . .	1996	Safflower (dryland) . . . . .	1993
Cherries, Tart . . . . .	1995	Sheep, range . . . . .	1997
Corn for grain (Duchesne County) . . . . .	1994	Sheep, farm flock . . . . .	1992
Corn Silage . . . . .	1994	Swine, farrow to finish . . . . .	1992
Corn, Sweet . . . . .	1996	Swine, Hog Finishing . . . . .	1993
Dairy		Tomatoes . . . . .	1996
Holstein Heifer Replacement . . . . .	1993	Triticale . . . . .	1996
Milk Cows . . . . .	1997	Watermelons . . . . .	1996
Deer Hunt Pack Trip . . . . .	1996	Wheat, Winter (dryland, Box Elder County) . . . . .	1996
Elk . . . . .	1997	Wheat, Spring (irrigated) . . . . .	1994

## Elk Budget 1996

	Number	Value	Scenario I		Scenario II		Your Ranch
			Total	Per Mature Animal	Total	Per Mature Animal	
<b>Receipts:</b>							
..... Dollars .....							
Heifer Calves	6	4,000	24,000	273	24,000	273	_____
Yearling Bred Heifers	3	4,500	13,500	153	13,500	153	_____
Bred Cows	5	6,500	32,500	369	32,500	369	_____
Bull Calves	18	1,500	27,000	307	27,000	307	_____
Yearling Bulls	6	2,500	15,000	170	16,000	170	_____
Mature Bulls	5	4,500	22,500	256	22,500	256	_____
Velvet (lbs)	984	55	54,120	615	54,120	615	_____
<b>Total Receipts</b>			<b>188,620</b>	<b>2,143</b>	<b>188,620</b>	<b>2,143</b>	_____
<b>Expenses:</b>							
<i>Investment</i>							
Pasture improvement			872	10	872	10	_____
Fence			2,109	24	2,109	24	_____
Water equipment			570	6	570	6	_____
Truck			1,319	15	4,485	51	_____
Stock Trailer			488	6	976	11	_____
Tractor with loader			1,302	15	1,953	22	_____
Handling facilities			1,485	17	1,953	22	_____
Hydraulic squeeze			651	7	976	11	_____
Freezer			342	4	342	4	_____
Bred cows			29,538	336	29,538	336	_____
Bred yearlings			6,266	71	6,266	71	_____
Mature breeding bulls			2,278	26	2,278	26	_____
Mature velvet bulls			16,275	185	16,275	185	_____
<i>Operating Expenses:</i>							
Feed			14,856	169	14,856	169	_____
Property taxes			400	5	400	5	_____
Vet/Med			2,270	26	2,270	26	_____
Utilities			840	10	840	10	_____
Insurance			2,940	33	2,940	33	_____
Gas, Oil, Fuel			840	10	840	10	_____
Marketing			1,680	19	1,680	19	_____
Licenses			420	5	420	5	_____
Pasture Maintenance			8,560	97	8,560	97	_____
Miscellaneous			660	8	660	8	_____
Machinery/Equip Maintenance			8,705	99	11,464	130	_____
Fence/Handling Maintenance			805	9	1,295	15	_____
Interest (6 months @ 10.90%)			1,533	17	1,710	19	_____
Death Loss			5,280	60	5,280	60	_____
<b>Total Expenses</b>			<b>113,264</b>	<b>1,287</b>	<b>121,808</b>	<b>1,384</b>	_____
Returns over listed expenses			75,356	856	66,812	759	_____
Returns to Land, Labor, & Management			75,356		66,812		_____

## Elk Budget 1996 (continued)

### Elk Budget Assumptions:

Feed:	Price/Ton Dollars	Bred Cows ..... Tons of Feed Per Animal .....	Bulls	Bred Heifers	Total Feed Dollars
Hay	75	0.75	0.90	0.47	5,214
Oats or barley	128	0.30	0.38	0.19	3,675
Supplement	350	0.20	0.20	0.15	5,968

Herd Animals:	Number	Cost ..... Dollars .....	Salvage
Breeding cows	33	6,500	1,000
Bred heifers	11	4,500	1,000
Breeding bulls	4	5,000	1,500
Velvet bulls	40	4,000	1,500
Cows per bull	25		

### Replacement Rate:

Cows	10%
Bulls	33.33%
Death Loss	3%

	Scenario I ..... Dollars .....	Scenario II
Pasture improvement	5,358	5,358
Fence	12,959	12,959
Water Equipment	3,502	3,502
Truck	8,105	27,558
Stock trailer	3,000	5,997
Tractor with loader	8,000	12,000
Handling facilities	9,000	12,000
Hydraulic squeeze	4,000	5,997
Freezer	2,101	2,101
Bred cows	181,500	181,500
Bred yearlings	38,500	38,500
Mature breeding bulls	14,000	14,000
Mature Velvet bulls	100,000	100,000

This analysis assumes that the heifer calves and bred heifers can be sold for breeding purposes at the values shown. Any decline in the market for breeding cows will negatively impact the return to family labor and management.

\*Investment expenses calculated by subtracting salvage value, if any, from initial cost to arrive at values in Scenarios I and II, then amortizing these values @ 10% over 10 years.

Budget prepared by Donald L. Snyder

**Cow-Calf Budget**  
**Estimated Costs & Returns for 60-Head Herd (1996)**

Item	Number	Pounds	Price	Total	Per Cow	Your Ranch
..... Dollars .....						
<b>Receipts</b>						
Steer calves	26	450	0.70	8,190.00	136.50	
Heifer calves	18	425	0.65	4,972.50	82.88	
Yearling heifers	0	660	0.68	0.00	0.00	
Yearling steers	0	700	0.63	0.00	0.00	
Cull cows	5	900	0.38	1,710.00	28.50	
Cull bulls	1	1,350	0.42	567.00	9.45	
<b>Total Receipts</b>				<b>15,439.50</b>	<b>257.33</b>	
<b>Expenses</b>						
	<b>Qty</b>	<b>Units</b>	<b>Price</b>	<b>Total</b>		
..... Dollars .....						
<b>Feed</b>						
Federal grazing	350	AUMs	1.35	472.23	7.87	
Deeded Range	91	AUMs	12.50	1,132.50	18.88	
Hay produced	125	Tons	55.00	6,888.20	114.80	
Aftermath	93	AUMs	10.00	927.00	15.45	
Supplements	0	Tons	240.00	0.00	0.00	
Salt/mineral	2	Tons	45.00	84.24	1.40	
<b>Total Expenses</b>				<b>9,504.17</b>	<b>158.40</b>	
<b>Other</b>						
Vet & Medicine				96.00	1.60	
Trucking				175.20	2.92	
Commissions				124.20	2.07	
Supplies				48.00	0.80	
Fuel & lube				235.80	3.93	
Hired labor	0	Man	15,000.00	0.00	0.00	
Repairs				283.80	4.73	
Property taxes				120.00	2.00	
Insurance				235.80	3.93	
Replacement bulls	1	Head	1,500.00	1,500.00	25.00	
Utilities				63.00	1.05	
Miscellaneous				273.60	4.56	
Operating interest 6 months @ 10.90%				128.19	2.14	
<b>Total Other</b>				<b>2,818.80</b>	<b>46.98</b>	
<b>Total cash expenses</b>				<b>12,322.97</b>	<b>205.38</b>	
<b>Livestock related non-cash expenses (depreciation)</b>						
Fences & corrals				600.00	10.00	
Equipment				1,500.00	25.00	
Horses				150.00	2.50	
Buildings				500.00	8.33	
<b>Total non-cash expenses</b>				<b>2,750.00</b>	<b>45.83</b>	
<b>Total Expenses</b>				<b>15,072.97</b>	<b>251.22</b>	
<b>Net returns over cash costs</b>				<b>3,116.53</b>	<b>51.94</b>	
<b>Return to Land, Family Labor &amp; Management</b>				<b>366.53</b>	<b>6.11</b>	

**Assumptions:**

Number of cows in herd . . . . . 60	Cows per bull . . . . . 25
Percent calves weaned . . . . . 85%	Percent calves sold as yearlings . . . . . 0%
<b>Death Loss</b>	Month calves sold . . . . . October
Cows . . . . . 3%	# of months cows graze or are fed (Cows) (Yearlings)
Yearlings . . . . . 2%	Federal lands . . . . . 4.5    0
Bulls . . . . . 2%	Deeded . . . . . 1    5
<b>Replacement rate</b>	Aftermath . . . . . 1    1
Cows . . . . . 12%	Hay . . . . . 5.5    6
Bulls . . . . . 33.33%	Tons supplement per head . . . . . 0    0.2

Note: Feed produced valued at market prices. Lines with zeros left for those who need them for the "Your Ranch" column.  
 Budget prepared by E. Bruce Godfrey, Darwin Nielsen, Al Dustin, and Kim Chapman

**Dairy Budget**  
**Costs & Returns for Dairies associated with Bridgerland Applied Technolog Center (BATC)**  
**Cache Valley, 1996**

Item	Per Cwt of Milk	Per Cow	Total	Your Dairy
Dollars				
<b>Receipts:</b>				
Milk Sales	14.36	2,655.74	331,968	_____
Sale of calves	0.30	55.01	6,876	_____
Sale of cull cows	0.49	90.28	11,285	_____
Increase in inventory	0.34	62.15	7,769	_____
Other	0.08	15.38	1,922	_____
<b>Total Receipts</b>	<b>15.56</b>	<b>2,878.56</b>	<b>359,820</b>	_____
<b>Operating Expenses:</b>				
<b>Feed</b>				
Hay	1.98	366.91	45,864	_____
Corn Silage	0.32	59.14	7,392	_____
Pasture	0.09	16.43	2,054	_____
Concentrates	3.92	724.51	90,564	_____
<b>Total Feed</b>	<b>6.31</b>	<b>1,166.99</b>	<b>145,874</b>	_____
Trucking	0.03	6.19	774	_____
Bedding	0.03	5.64	705	_____
Supplies	0.37	67.95	8,494	_____
DHIA	0.06	11.94	1,492	_____
CCC	0.05	8.33	1,041	_____
Capitol rotation	0.08	15.13	1,891	_____
Marketing	0.06	10.73	1,341	_____
Milk Hauling	0.45	82.35	10,294	_____
Dairy commission	0.15	28.63	3,579	_____
Utilities	0.26	48.18	6,022	_____
Vet & Medicine	0.21	38.66	4,833	_____
Hoof trimming	0.04	7.61	951	_____
Breeding	0.09	17.18	2,148	_____
BST	0.11	20.23	2,529	_____
Rental/leasing	0.09	16.13	2,016	_____
Decrease in inventory	0.09	16.74	2,092	_____
Replacements	1.66	306.41	38,301	_____
<b>Total Operating Expenses</b>	<b>10.14</b>	<b>1,875.02</b>	<b>234,377</b>	_____
<b>Allocated Expenses:</b>				
Building maintenance	0.16	29.58	3,698	_____
Equipment maintenance	0.36	67.27	8,409	_____
Fuel & oil	0.15	28.15	3,519	_____
Insurance	0.16	28.73	3,591	_____
Hired Labor	0.92	170.03	21,254	_____
Consultants	0.03	5.28	660	_____
Miscellaneous	0.12	22.11	2,764	_____
Property taxes	0.05	10.06	1,258	_____
<b>Total Allocated Expenses</b>	<b>1.95</b>	<b>361.22</b>	<b>45,153</b>	_____
Interest	0.36	66.10	8,263	_____
Depreciation	0.55	101.02	12,627	_____
<b>Total Expenses</b>	<b>12.99</b>	<b>2,403.36</b>	<b>300,420</b>	_____
<b>Net returns above operating expenses</b>	<b>5.42</b>	<b>1,003.54</b>	<b>125,443</b>	_____
<b>Net returns above total expenses</b>	<b>2.57</b>	<b>475.20</b>	<b>59,400</b>	_____

**Parameters:**

Average number of cows in herd . . . . . 125  
Average production per cow (lbs) . . . . . 23,125  
Turnover rate . . . . . 27.29%

These data are for dairies associated with the Bridgerland Applied Technology Center (BATC) Farm Business Management program  
Budget prepared by E. Bruce Godfrey (USU), Clark Israelsen (BATC), and Kathryn Rawson (BATC)

**Range Sheep Budget**  
**Estimated Costs and Returns Based on a 2,500 Ewe Operation**  
**Located in Central Utah (1997)**

	Number	Weight	Unit	Price	Total	Per Ewe	Your Ranch
Dollars							
<b>Receipts:</b>							
<b>Sheep and Lambs</b>							
Lambs	2,000	90	Lbs	1.00	180,000	72.00	_____
Cull Ewes	200		Head	25.00	5,000	2.00	_____
Cull Rams	10		Head	20.00	197	0.08	_____
Wool	2,576	10	Lbs	0.78	20,091	8.04	_____
<b>Total Receipts</b>					<b>205,288</b>	<b>82.12</b>	_____
<b>Cash Costs</b>							
Federal & State	5,152		AUM	1.35	6,955	2.78	_____
Private grazing &	1,030		AUM	7.50	7,727	3.09	_____
Hay	75		Ton	74.00	5,550	2.22	_____
Salt/Minerals	70		Cwt	2.00	140	0.06	_____
Replacement Rams	25		Head	325.00	8,125	3.25	_____
Vet/Medicine	2,500		Head	0.48	1,200	0.48	_____
Trucking					8,000	3.20	_____
Shearing	2,576		Head	2.50	6,439	2.58	_____
Fuel/Oil					1,800	0.72	_____
Repairs					8,500	3.40	_____
Horse Use	4		Horse	200.00	800	0.32	_____
Hired Labor	2		Man	12,000.00	24,000	9.60	_____
Pickup	15,000		Mile	0.32	4,800	1.92	_____
Predator Control					4,000	1.60	_____
Insurance					1,296	0.52	_____
Property Tax					1,500	0.60	_____
Supplies					16,200	6.48	_____
Miscellaneous and					1,500	0.60	_____
Interest on operating loan of \$76,936 at 10.50% for 6 months					4,039	1.62	_____
<b>Total Cash Costs:</b>					<b>112,571</b>	<b>45.03</b>	_____
<b>Non-cash costs</b>					<b>15,000</b>	<b>6.00</b>	_____
<b>Total Cash and non-</b>					<b>127,571</b>	<b>51.03</b>	_____
<b>Return to land &amp; management</b>					<b>77,717</b>	<b>31.09</b>	_____

**Assumptions:**

Number of ewes	2,500	Slaughter lambs	100%
Ewes replaced	20%	Lambs weaned	100%
Rams replaced	33%	Months on BLM/State	5.5
Number of ewes per ram	33	Months on Forest Service	4.5
Ewe death loss	12%	Months on private land	2
Ram death loss	20%		

Budget prepared by E. Bruce Godfrey and Gary Anderson (Sanpete Co. Agent)



**Alfalfa Hay Budget**  
**Estimated Costs & Returns for Alfalfa Production (1997)**  
**Center Pivot Irrigation, Large Square Bales**  
**640 Acres of Crop - East Millard Co. - Per Acre Basis**

Item	Unit	Quantity	Price		Total	Your Farm
..... Dollars .....						
<b>Receipts:</b>						
Alfalfa Hay	Tons	6.0	85.00		510.00	_____
Residue	AUM	0.5	12.00		6.00	_____
<b>Total Receipts:</b>					<b>516.00</b>	_____
<b>Purchases:</b>						
Phosphate	Unit	126	0.27		34.02	_____
Metribuzin*	Gal	0.03	140.00		4.20	_____
Carbofuran*	Gal	0.03	73.50		2.21	_____
Twine	Bag	0.24	23.85		5.72	_____
Soil Test*					0.10	_____
<b>Total Purchases:</b>					<b>46.25</b>	_____
..... Dollars .....						
<b>Operations:</b>						
	Times	Ownership	Operating	Labor		
Fertilizer Application	1	0.25	0.43	0.50	1.18	_____
Herbicide Application*	1	1.12	0.57	0.30	1.99	_____
Insecticide Application*	1	1.12	0.57	0.30	1.99	_____
Swathing	3	18.03	3.92	1.34	33.81	_____
Turning	3	2.47	0.67	0.50	5.98	_____
Baling (big bales)	3	13.83	6.87	0.55	36.09	_____
Hauling	3	12.72	3.05	1.99	27.84	_____
Irrigation**	5	67.41	12.23	0.92	133.16	_____
Operating interest for 6 months @ 10.90%					9.34	_____
<b>Total Operating Costs:</b>					<b>251.38</b>	_____
<b>Establishment Costs/Acre</b>					<b>192.50</b>	_____
Amortized over 7 years @ 10.90%					40.72	_____
<b>Total Listed Costs</b>					<b>338.35</b>	_____
<b>Returns to Land and Management</b>					<b>177.65</b>	_____

**Breakeven Price Per Ton for Various Yields Per Acre**

Ton/Acre	4.00	4.50	5.00	5.50	6.00	6.50
	\$81.15	\$72.90	\$66.30	\$60.89	\$56.39	\$52.58

\* Represents 1/3 of cost. Spray for insects, weeds, and test soil every third year.

\*\*Irrigation costs calculated assuming a pivot watering 130 acres. An electric motor with a life of 10 years is used and costs are estimated for a 300 foot well that waters a total of 400 acres. Fixed costs for the well and sprinkling equipment calculated assuming a 30-year amortization schedule.

Budget prepared by Larry K. Bond and DeeVon Bailey

**Lawn Turf Budget**  
**Estimated Costs & Returns (1997)**  
**Cache County, Based on 40 Acres**

Item	Unit	Quantity	Price		Total	Your Farm
..... Dollars .....						
<b>Receipts /a:</b>						
Sod on farm	Sq Ft	4,704	0.14		658.58	_____
Sod delivered	Sq Ft	34,500	0.16		5,520.00	_____
<b>Total Receipts</b>					<b>6,178.56</b>	_____
<b>Costs:</b>						
<b>Purchases:</b>						
Seed	Lbs	100	3.00		300.00	_____
Nitrogen /b	Unit	500	0.35		175.00	_____
Phosphate /b	Unit	200	0.27		54.00	_____
Potash /b	Unit	80	0.14		11.20	_____
Roundup /b	Qt	1.5	40.29		60.44	_____
2-4D /b	Pt	15	2.40		36.00	_____
Isofenphas /b	Gallon	2	80.80		161.60	_____
Dithiopyr /b	Qt	3	37.80		113.40	_____
Soil test /b					15.00	_____
Advertising					37.50	_____
<b>Total Costs</b>					<b>964.14</b>	_____
<b>Operations:</b>						
	Times	Ownership	Operating	Labor		
Disking	2	10.52	2.32	0.75	16.66	_____
Plane and roll	7	58.11	2.20	0.75	78.76	_____
Seeding	1	18.86	1.90	3.00	23.76	_____
Cultipacking	2	11.24	2.04	0.75	16.82	_____
Irrigation /c	30	315.20	6.42	4.46	641.60	_____
Spraying /d	14	10.50	0.37	0.56	23.52	_____
Weeding and maintenance /d	10			26.73	267.30	_____
Mowing /d	30	83.05	0.45	5.69	267.25	_____
Sod cutting and loading	1	342.85	79.11	240.00	661.96	_____
Delivery and selling				222.75	222.75	_____
Trucking fee 250 miles @ \$2.00/mile					500.00	_____
Water Assessment /d				27.27	27.27	_____
Telephone				37.50	37.50	_____
Property taxes /d				75.00	75.00	_____
Insurance /d				62.50	62.50	_____
Operating interest for 22 months @ 10% /e					278.34	_____
<b>Total operating costs</b>					<b>3,200.99</b>	_____
<b>Total Listed Costs</b>					<b>4,165.13</b>	_____
<b>Total Return to Management and Land</b>					<b>2,013.43</b>	_____
<b>Return to Management and Land per year /f</b>					<b>1,006.72</b>	_____

**Assumptions:**

Acres of sod - 40

Annual miles on truck - 10,000

/a Wastage 10.00% equals 39,204 sq ft sold

/b Fertilizer on an active ingredient basis, applied through irrigation system over two seasons. Single treatment of Roundup. All other soil and chemical treatments over two seasons.

/c Irrigation costs are over two seasons (September of year 1 to June or July of year 3).

/d Other costs over two seasons.

/e Interest based on average operating expenses over two seasons.

/f Return to Management and Land divided by two since it takes two years per crop.

Budget prepared by DeeVon Bailey and Larry Bond with input from turf farmers.

**Pumpkin Production Budget**  
**Estimated Costs & Returns (1997)**  
**Per Acre Basis**

Item	Unit	Quantity	Price	Total	Your Farm
				Dollars	
<b>Yield/Receipts:</b>					
Farm Sales	Ton	7	150.00	1,050.00	_____
Other Sales	Ton	8	60.00	480.00	_____
<b>Total Receipts</b>				<b>1,530.00</b>	_____
<b>Purchases:</b>					
Nitrogen	Lbs	150	0.30	45.00	_____
Phosphate	Lbs	75	0.29	21.75	_____
Herbicide, Treflan	Lbs	0.50	6.90	3.45	_____
Herbicide, Roundup	Lbs	1.50	14.60	21.90	_____
Seed	Lbs	2	50.00	100.00	_____
Water Assessment	Year	1	40.00	40.00	_____
<b>Total Purchases:</b>				<b>232.10</b>	_____
<b>Machine Costs</b>					
<b>Operations:</b>	<b>Time</b>	<b>Fixed</b>	<b>Operating</b>	<b>Hired Labor</b>	
				Dollars	
Plow	1	17.19	9.99	3.66	30.84 _____
Disk & harrow	1	11.12	3.40	1.22	15.74 _____
Fertilizer application	1	5.75	1.11	0.37	7.23 _____
Herbicide application	2	2.34	0.86	0.49	5.04 _____
Harrow	1	1.99	1.30	0.73	4.02 _____
Plant	1	23.92	4.70	1.83	30.45 _____
Furrow and Cultivate	3	12.02	3.82	2.44	30.80 _____
Hand hoeing/weeding	1			25.00	25.00 _____
Irrigation	6	3.08	0.18	2.67	20.18 _____
Bins (600 lb) & pallets 30 @ \$10.00					300.00 _____
Picking, hauling 1 custom @ \$150.00					150.00 _____
Hauling to market 100 miles @ 27 cents/mile					27.00 _____
Marketing & Advertising				25.00	25.00 _____
Operating Interest @ 10.90%					49.24 _____
<b>Total Operating Cost</b>					<b>720.54</b> _____
<b>Total Listed Costs</b>					<b>952.64</b> _____
<b>Return to Family Labor, Management, and Land</b>					<b>577.36</b> _____
<b>Breakeven Price to Cover Total Listed Costs (/ton)</b>					<b>63.51</b> _____

**Assumptions:**

- Chemical rates/prices on an active ingredient basis
- Machine labor cost per hour, including benefits - \$7.50

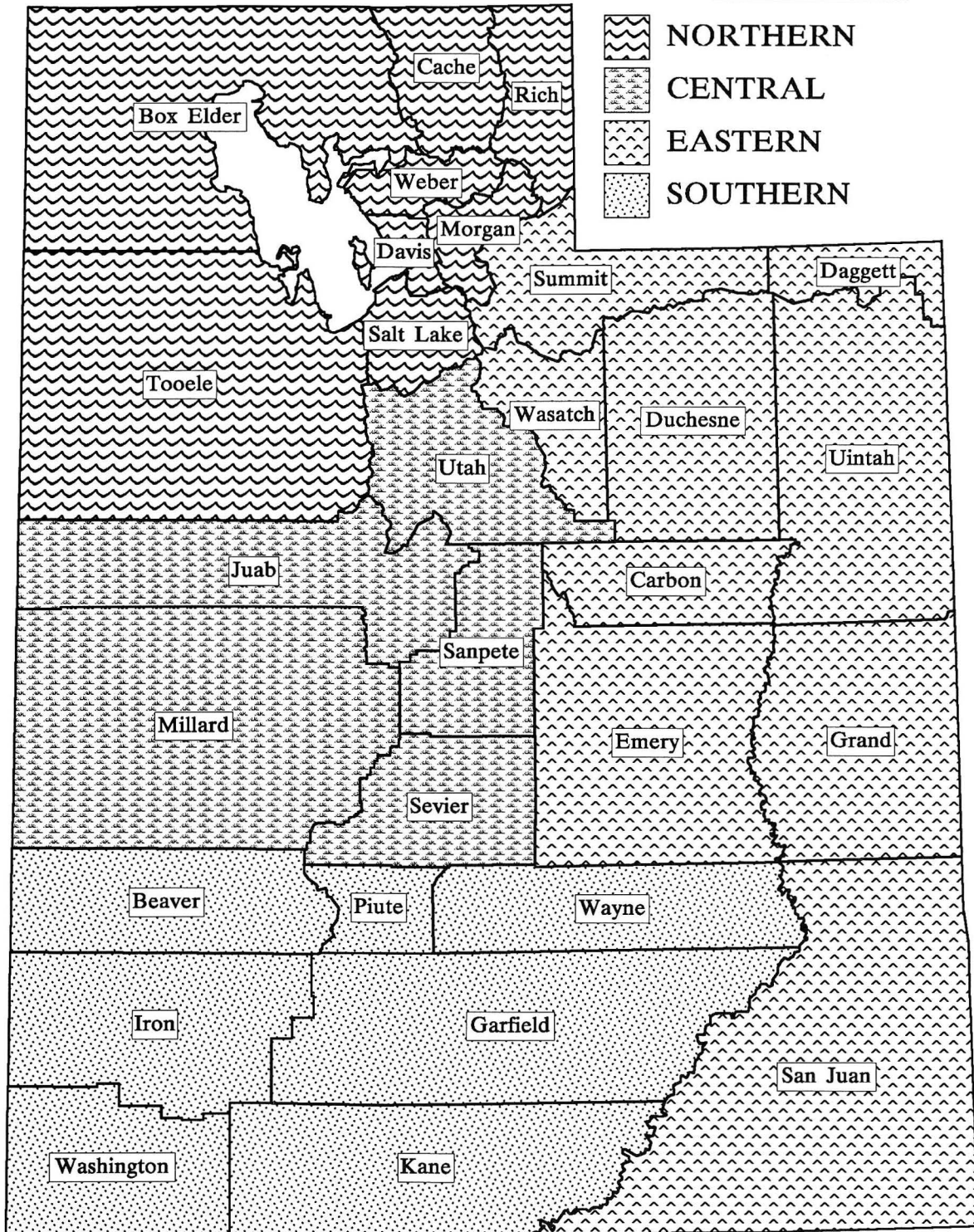
Budget can be used for winter squash by adding storage costs, if applicable, and making other modifications as needed.

Budget prepared by Shawn Olsen, Dan Drost, and Larry K. Bond

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# UTAH COUNTIES AND DISTRICTS

## DISTRICTS





UNITED STATES DEPARTMENT OF AGRICULTURE  
UTAH AGRICULTURAL STATISTICS SERVICE  
POST OFFICE BOX 25007  
SALT LAKE CITY, UTAH 84125-0007

BULK RATE  
POSTAGE & FEES PAID  
U S D A  
PERMIT NO. G-38

OFFICIAL BUSINESS

ADDRESS SERVICE REQUESTED

