



North Dakota

FARM REPORTER

Issue: 16-11

August 19, 2011

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CROP PRODUCTION

Survey respondents who reported acreage as not yet planted in Minnesota, Montana, North Dakota, and South Dakota during the survey conducted in preparation for the *Acreage* report, released June 30, 2011 were re-contacted in July to determine how many

of those acres were planted or still intended to be planted. Acreage estimates in this report reflect this updated information.

North Dakota Spring wheat planted acreage is estimated at 5.90 million acres. The forecasted yield is 40.0 bushels per harvested acre. Durum wheat planted area is estimated 800,000 acres. The forecasted yield is 32.0 bushels per acre. Soybean planted area is estimated at 4.15 million acres. Average yield is expected to be 30.0 bushels per harvested acre. Barley planted acreage is estimated at 460,000. The average yield is forecast at 59.0 bushels per acre. Canola acreage is down 30 percent from last year to 890,000 planted acres. It is estimated that 880,000 acres will be harvested, also down considerably from 2010.

Crop Area Planted and Harvested – North Dakota and United States: 2010 and Forecasted August 1, 2011

(Data are the latest estimates available. Blank data cells indicate estimation period has not yet begun.)

Crop	North Dakota				United States			
	Area planted		Area harvested		Area planted		Area harvested	
	2010	2011	2010	2011	2010	2011	2010	2011
	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)
Wheat, all	8,530	7,040	8,400	6,780	53,603	55,183	47,637	45,924
Spring	6,400	5,900	6,300	5,700	13,698	12,677	13,359	12,270
Durum	1,800	800	1,780	770	2,570	1,398	2,529	1,347
Winter	330	340	320	310	37,335	41,108	31,749	32,307
Barley	720	460	670	420	2,872	2,725	2,465	2,390
Oats	280	210	105	75	3,138	2,587	1,263	934
Sunflower, all	885.0	690.0	862.0	665.0	1,951.5	1,756.0	1,873.8	1,670.5
Oil	700.0	600.0	685.0	580.0	1,463.0	1,450.0	1,422.5	1,387.0
Non-oil	185.0	90.0	177.0	85.0	488.5	306.0	451.3	283.5
Canola	1,280.0	890.0	1,270.0	880.0	1,448.8	1,092.8	1,431.0	1,071.4
Soybeans	4,100	4,150	4,070	4,100	77,404	74,958	76,616	73,823
Flaxseed	390	200	388	196	421	229	418	224
Safflower	16.0	5.0	15.5	4.5	175.0	137.5	167.7	131.5
Corn for grain ¹	2,050	2,300	1,880	2,100	88,192	92,282	81,446	84,388
Corn for silage	(NA)	(NA)	150		(NA)	(NA)	5,567	
Dry edible beans, all	800.0	420.0	770.0	380.0	1,911.4	1,265.2	1,842.7	1,190.2
Pinto	530.0	227.0	509.0		842.7	403.5	809.7	
Navy	132.0	80.0	128.0		279.5	194.0	271.7	
Black	101.0	88.0	98.0		284.0	212.5	278.3	
Chickpeas, all (Garbanzo) ...	16.0	7.4	15.2		146.0	133.0	144.1	
Large	14.0	(D)	13.3		120.9	108.5	119.6	
Small	2.0	(D)	1.9		25.1	24.5	24.5	
Pink	12.5	8.0	11.9		33.0	21.0	32.2	
Great northern	5.6	7.0	5.3		78.5	73.6	69.9	
Small red	1.2	1.8	1.1		22.9	38.0	22.8	
Dark red kidney	0.9	0.4	0.8		48.5	51.1	45.7	
Other	0.8	0.4	0.7		176.3	138.5	168.3	
Dry edible peas	430.0	130.0	400.0	125.0	756.0	416.0	711.4	398.8
Lentils	265.0	100.0	255.0	96.0	658.0	470.0	634.0	455.0
Fall potatoes, all	84.0	83.0	80.0	79.0	893.7	948.6	881.3	936.1
Irrigated ^{2,3}	28.0		27.6		(NA)	(NA)	(NA)	(NA)
Types, reds ³	18.5	21.5	17.2		(NA)	(NA)	(NA)	(NA)
Whites ³	29.5	19.0	27.6		(NA)	(NA)	(NA)	(NA)
Yellows ³	1.5	1.0	1.4		(NA)	(NA)	(NA)	(NA)
Russets ³	34.5	41.5	33.8		(NA)	(NA)	(NA)	(NA)
Sugarbeets	217.0	240.0	214.0	231.0	1,171.4	1,249.6	1,155.7	1,216.6
Hay, all	(NA)	(NA)	2,550	2,500	(NA)	(NA)	59,862	57,605
Alfalfa	(NA)	(NA)	1,560	1,500	(NA)	(NA)	19,956	19,329
All other	(NA)	(NA)	990	1,000	(NA)	(NA)	39,906	38,276

(NA) Not Available. ¹ Area planted for all purposes. ² Included in all potatoes. ³ Published at state level only.

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CROP PRODUCTION (Continued)

Corn planted for all purposes is estimated at 2.30 million acres, unchanged from the June estimate. Average yield is forecast at 125 bushels per harvested acre. Oil sunflower planted area is estimated at 600,000 acres. An estimated 580,000 acres are expected to be harvested. Non-oil sunflower planted acreage is estimated at 90,000. Harvested area is forecast at 85,000 acres.

3.06 billion bushels, down 8 percent from last year. Based on August 1 conditions, yields are expected to average 41.4 bushels per acre, down 2.1 bushels from last year. Barley production for 2011 is forecast at 168 million bushels, down 3 percent from the July forecast and 7 percent from 2010. Based on conditions as of August 1, the average yield is forecast at 70.4 bushels per acre, up 0.8 bushel from July but 2.7 bushels below last year's record high.

United States

Spring wheat production is forecast at 522 million bushels, down 5 percent from last month and down 15 percent from last year. The yield is forecast at 42.5 bushels per acre, up 0.8 bushel from last month but down 3.6 bushels from 2010. Durum wheat production is forecast at 57.1 million bushels, down 10 percent from July and down 47 percent from 2010. The yield is forecast at 42.4 bushels per acre, up 3.7 bushels from last month but unchanged from last year. Soybean production is forecast at

Corn production is forecast at 12.9 billion bushels, up 4 percent from 2010. If realized, this will be the third largest production total on record for the United States. Based on conditions as of August 1, yields are expected to average 153.0 bushels per acre, up 0.2 bushel from 2010, and the fourth highest yield on record. Dry edible bean production is forecast at 20.5 million cwt for 2011, down 36 percent from last year. The average yield is forecast at 1,718 pounds per acre, a decrease of 8 pounds from 2010.

Crop Yield and Production – North Dakota and United States: 2010 and Forecasted August 1, 2011

(Data are the latest estimates available. Blank data cells indicate estimation period has not yet begun.)

Crop	North Dakota					United States				
	2010	Yield		Production		2010	Yield		Production	
		2011		2010	2011		2011		2010	2011
July 1	Aug 1	July 1	Aug 1			July 1	Aug 1			
Wheat, all	43.0	37.5	39.6	(1,000)	(1,000)	46.4	44.6	45.2	(1,000)	(1,000)
Spring	44.0	38.0	40.0	361,550	268,600	46.1	41.7	42.5	2,208,391	2,076,534
Durum	37.5	30.0	33.0	277,200	228,000	42.4	38.7	42.4	615,975	521,975
Winter	55.0	50.0	49.0	66,750	25,410	46.8	46.2	46.3	107,180	57,130
Winter	55.0	50.0	49.0	17,600	15,190	46.8	46.2	46.3	1,485,236	1,497,429
Barley	65.0	55.0	59.0	43,550	24,780	73.1	69.6	70.4	180,268	168,218
Oats	61.0	55.0	61.0	6,405	4,575	64.3	60.5	61.6	81,190	57,489
Sunflower, all	1,456	(X)		1,254,980		1,460	(X)		2,735,570	
Oil	1,460	(X)		1,000,100		1,458	(X)		2,074,500	
Non-oil	1,440	(X)		254,880		1,465	(X)		661,070	
Canola	1,720	(X)		2,184,400		1,713	(X)		2,450,947	
Soybeans	34.0	(X)	30.0	138,380	123,000	43.5	(X)	41.4	3,329,341	3,055,882
Flaxseed	22.0	(X)		8,536		21.7	(X)		9,056	
Safflower	850	(X)		13,175		1,320	(X)		221,335	
Corn for grain	132	(X)	125	248,160	262,500	152.8	(X)	153.0	12,446,865	12,914,085
Corn for silage	14.0	(X)		2,100		19.3	(X)		107,314	
Dry edible beans, all ¹	1,490	(X)	1,450	11,473	5,510	1,726	(X)	1,718	31,801	20,451
Pinto ¹	1,480	(X)		7,534		1,706	(X)		13,814	
Navy ¹	1,530	(X)		1,958		1,754	(X)		4,766	
Black ¹	1,480	(X)		1,450		1,675	(X)		4,661	
Chickpeas, all (Garbanzo) ¹	1,640	(X)		250		1,346	(X)		1,939	
Large ¹	1,630	(X)		217		1,333	(X)		1,594	
Small ¹	1,740	(X)		33		1,408	(X)		345	
Pink ¹	1,330	(X)		158		1,820	(X)		586	
Great northern ¹	1,530	(X)		81		2,007	(X)		1,403	
Small red ¹	1,550	(X)		17		2,096	(X)		478	
Dark red kidney ¹	1,880	(X)		15		1,823	(X)		833	
Other ¹	1,430	(X)		10		1,973	(X)		3,321	
Dry edible peas ¹	2,030	(X)		8,120		1,999	(X)		14,221	
Lentils ¹	1,540	(X)		3,927		1,365	(X)		8,657	
Fall potatoes, all	275	(X)		22,000		409	(X)		360,727	
Irrigated ^{2,3}	405	(X)		11,170		(NA)	(NA)	(NA)	(NA)	(NA)
Types, reds ³	190	(X)		3,270		(NA)	(NA)	(NA)	(NA)	(NA)
Whites ³	215	(X)		5,935		(NA)	(NA)	(NA)	(NA)	(NA)
Yellows ³	211	(X)		295		(NA)	(NA)	(NA)	(NA)	(NA)
Russets ³	370	(X)		12,500		(NA)	(NA)	(NA)	(NA)	(NA)
Sugarbeets	26.5	(X)	23.0	5,671	5,313	27.6	(X)	25.0	31,901	30,393
Hay, all	2.09	(X)	2.16	5,321	5,400	2.43	(X)	2.29	145,556	131,998
Alfalfa	2.30	(X)	2.40	3,588	3,600	3.40	(X)	3.36	67,903	64,996
All other	1.75	(X)	1.80	1,733	1,800	1.95	(X)	1.75	77,653	67,002

(NA) Not Available. (X) Not applicable. ¹ Yield in pounds. ² Included in all potatoes. ³ Published at state level only.

Grassland to Cropland Conversion in the Northern Plains

Native grasslands in the Northern Plains, particularly those located in the Prairie Pothole Region (PPR), are used as breeding habitat by migratory birds. The PPR includes parts of Iowa, Minnesota, North Dakota, South Dakota, and Montana. Grasslands in the PPR account for about 50 percent of North American duck production. There is growing concern that the conversion of grassland to crop production is damaging this habitat. Once lost, native grasslands are difficult to re-establish.

Environmental organizations and others have argued that some Federal farm programs are encouraging grassland to cropland conversion. While many farm commodity programs are now decoupled from farmers' crop production decisions, several USDA programs continue to depend on current production, including crop insurance, marketing loans, and disaster assistance. Farmers can expand their eligibility to receive benefits from these programs by converting grassland to cropland.

To address these concerns, the Food, Conservation, and Energy Act of 2008 included the Sodsaver provision. If implemented, Sodsaver would deny crop insurance for the first 5 years of production on native sod (native grassland) converted to crop production. Sodsaver is limited to the Prairie Pothole States (Iowa, Minnesota, Montana, North Dakota, and South Dakota) and would be implemented on a State-by-State basis but only at the request of that State's governor. As of June 2011, none of the governors has requested Sodsaver implementation. The manager's statement accompanying the 2008 Farm Act also directed USDA to conduct a study of the role of farm programs in grassland to cropland conversion.

We focus on three questions: (1) How fast are grasslands being converted to cropland in the United States, especially in the Northern Plains? (2) Can a policy like Sodsaver, if implemented, significantly slow grassland to cropland conversion? (3) More broadly, what has been the role of crop insurance and other farm programs in grassland to cropland conversion?

While concern about grassland conversion is often focused on "native" grassland, available data do not identify grasslands as "native" or "non-native." Native grasslands are most likely to be categorized as part of rangeland. This study considers a wide range of grassland categories including rangeland, pasture, hay, and Conservation Reserve Program (CRP) lands with grass cover.

What Were the Study Findings?

During 1997-2007, grassland-cropland conversion varied by grassland type and region. Compared with other regions, producers in the Northern Plains were more likely to convert grassland to cropland or retain land in crops rather than returning it to grass. In the Northern Plains, about 1 percent of 1997 rangeland had been converted to crop production by 2007 (roughly 770,000 acres), while only 100,000 acres were converted from cropland to rangeland. The Northern Plains accounted for 57 percent of rangeland to cropland conversion between 1997 and 2007. In the United States, there was a net shift between 1997 and 2007 of roughly 10 million acres from cultivated cropland (about 3 percent of 1997 cropland) to hay or pasture. In the Northern Plains, the net shift of cropland to hay and pasture was effectively zero. The gross shift of roughly 3.5 million acres moving from cropland to hay or pasture was exactly offset by acreage moving from hay or pasture to cultivated crops. Through the

CRP, however, producers in the Northern Plains moved some land from cultivated crops to grass. Between 1997 and 2007 they enrolled 3.6 million acres of cropland in the CRP, while 1.9 million acres were returned to crop production and 1.7 million acres previously in the CRP became hay, pasture, or range.

The Sodsaver provision of the 2008 Farm Act, if implemented, is likely to have only a modest effect on land use at the grassland-cropland margin. In seven North and South Dakota counties where evidence suggests that grassland to cropland conversion has been relatively high, Sodsaver would reduce expected crop revenue by up to 5 percent, reduce expected net return by up to 14 percent, and increase the variability of crop production (in terms of annual standard deviation of crop revenue) by up to 13 percent. Land use change depends on how responsive land allocation is to changes in crop revenue, net return, and variability. Using elasticities estimated for this study, we find that crop insurance could have been responsible for shifting up to 0.9 percent of rangeland to cropland in the seven counties we considered. This is an estimate of net change in equilibrium acreage and is not directly comparable to gross rangeland conversion. These counties are located in an area where an annual average rate of rangeland to cropland conversion of 0.6 percent of grassland acreage was observed between 1985 and 2003—indicating total conversion of about 6 percent over a period of 10 years. In comparison, the 0.9-percent change in estimated equilibrium acreage that would result from the withdrawal of crop insurance would be modest and indicates that crop insurance is only one of a number of factors (e.g., market conditions, technology, and other programs) that are driving land use choices.

In a study area that includes 77 North Dakota and South Dakota counties, we use an econometric model to estimate that crop insurance, marketing loans, and disaster payments increased land in cultivated crops by 686,000 acres (the average effect between 1998 and 2007)—roughly 2.9 percent of cultivated cropland acreage. (This is an estimate of the net change in equilibrium acreage. The estimated effect varies over time with economic and policy conditions. The 2.9-percent change is the average estimated effect between 1998 and 2007.) The largest overall effect was from disaster assistance (1.2 percent rise in cultivated cropland; 292,000 acres), followed by crop insurance (1 percent; 235,000 acres) and marketing loan benefits (0.7 percent; 161,000 acres). We estimate that roughly 60 percent of the increase in crop acreage came from hay or pasture (403,000 acres) while the remaining acreage came from range (181,000 acres) and CRP (102,000 acres). The estimated rangeland reduction of 181,000 acres was 1.1 percent of rangeland acreage in the 77 counties considered in this study. In the absence of these programs, farmers could adjust to larger grassland acreages by reducing the rate of grassland to cropland conversion, increasing cropland to grassland conversion, or both. The study period, 1998-2007, largely predates the recent rise in commodity prices, beginning with increased corn prices in 2007. Higher crop prices may be encouraging farmers to expand cropland acreage, prompting them to convert grassland to cropland or retain land in crop production that might have otherwise been returned to grass.

For a copy of the complete report, use the following link: <http://www.ers.usda.gov/Publications/ERR120/ERR120.pdf>

Source: *Amber Waves*, USDA-ERS, June 2011

AGRICULTURAL LAND VALUES & CASH RENTS

North Dakota

The 2011 North Dakota average farm real estate was valued at \$980 per acre. This is an increase of 15.3 percent from 2010. Annual farm real estate value has continually increased for the past 12 years. The average value of cropland was \$1,040 per acre, up 19.5 percent from 2010. The value of pasture land, at \$410 per acre, is an increase of 10.8 percent from 2010.

Average cash rent for cropland in North Dakota was \$51.50 per acre in 2011. This is up 10.8 percent from 2010 and 13.2 percent from 2009. Cash rent for pasture in 2011 averaged \$13.50, up from \$13.00 in 2010.

These data are based on surveys conducted earlier this year by the USDA's National Agricultural Statistics Service. Additional information on State and National land values and cash rents can be found in the full report here:

<http://usda.mannlib.cornell.edu/usda/current/AgriLandVa/AgriLandVa-08-04-2011.pdf>



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