

# Hawaii Macadamia Nuts

## Final Season Estimates



### Hawaii Department of Agriculture

Cooperating with the USDA, National Agricultural Statistics Service, Pacific Regional Office-Hawaii

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### SMALLER CROP, HIGHER PRICES ESTIMATED FOR 2013-2014 SEASON

Hawaii 2013-2014 macadamia nut utilized production is estimated at 41.0 million pounds (net, wet-in-shell basis), down 7 percent from the previous season according to USDA, NASS, PRO, HFO. Ongoing dry weather and pest problems affected crop progress and output.

For the 2013-2014 season, both total crop acreage and harvested acreage were up 1,000 acres from 2012-2013 to 18,000 acres and 16,000 acres, respectively. Yields averaged 2,560 pounds per acre (net, wet-in-shell basis) this season, 370 pounds lighter than last season. Average moisture content for the 2013-2014 overall crop

was 20.3 percent compared with 19.4 percent from the previous crop year.

Farm value for the 2013-2014 crop is estimated at \$35.7 million (net, wet-in-shell basis), up 1 percent from last season. The average farm price was up 7.0 cents per pound from the previous season to 87.0 cents this season and marking the sixth consecutive year of increase. The last time prices were this high was in 1989-1990 at 89.0 cents per pound (net, wet-in-shell basis). See Table 3 on page 3 for the macadamia nut historical data series.

**TABLE 1. MACADAMIA NUTS: NUMBER OF FARMS, ACREAGE, YIELD, PRODUCTION, MOISTURE, PRICE, AND VALUE, STATE OF HAWAII, 2009-2013 CROP YEARS**

| Crop year <sup>1</sup> | Farms         | Acreage                 |                         | Yield per acre <sup>2</sup> | Utilized Production <sup>3</sup> |                              | Average moisture          |                           | Farm prices <sup>3</sup> |                        | Farm value <sup>6</sup> |
|------------------------|---------------|-------------------------|-------------------------|-----------------------------|----------------------------------|------------------------------|---------------------------|---------------------------|--------------------------|------------------------|-------------------------|
|                        |               | In crop                 | Harvested               |                             | Gross                            | Net <sup>4</sup>             | Entire crop               | Purchases only            | Gross <sup>5</sup>       | Net                    |                         |
|                        | <i>Number</i> | <i>-----Acres -----</i> | <i>-----Acres -----</i> | <i>--pounds --</i>          | <i>----1,000 pounds ----</i>     | <i>----1,000 pounds ----</i> | <i>-----Percent -----</i> | <i>-----Percent -----</i> | <i>Cents per pound</i>   | <i>Cents per pound</i> | <i>1,000 dollars</i>    |
| 2009-10                | 570           | 17,000                  | 15,000                  | 2,800                       | 50,000                           | 42,000                       | 20.1                      | 20.8                      | 58.8                     | 70.0                   | 29,400                  |
| 2010-11                | 570           | 17,000                  | 15,000                  | 2,670                       | 47,000                           | 40,000                       | 20.3                      | 20.6                      | 63.8                     | 75.0                   | 30,000                  |
| 2011-12                | 570           | 17,000                  | 15,000                  | 3,270                       | 58,000                           | 49,000                       | 19.5                      | 20.1                      | 65.9                     | 78.0                   | 38,220                  |
| 2012-13                | 570           | 17,000                  | 15,000                  | 2,930                       | 52,000                           | 44,000                       | 19.4                      | 20.2                      | 67.7                     | 80.0                   | 35,200                  |
| 2013-14                | 620           | 18,000                  | 16,000                  | 2,560                       | 49,000                           | 41,000                       | 20.3                      | 20.7                      | 72.8                     | 87.0                   | 35,670                  |

<sup>1</sup> Season begins July 1<sup>st</sup> and ends June 30<sup>th</sup> of the following year. <sup>2</sup> Net production divided by acreage harvested. <sup>3</sup> Wet in-shell basis. <sup>4</sup> Gross pounds less total spoilage. <sup>5</sup> Farm value divided by gross production. <sup>6</sup> Net production multiplied by net farm price.

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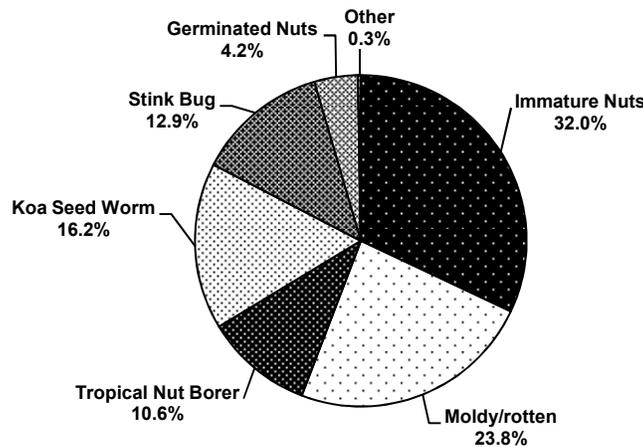
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**2013-2014 CROP LOSS ASSESSMENT:  
IMMATURE NUTS ACCOUNT FOR NEARLY 1/3 OF THE CROP LOSS**

Growers delivered an estimated 49.0 million pounds of macadamia nuts, wet-in-shell, to processors during the 2013-2014 season. About 16 percent of the harvest was culled, resulting in 41.0 million pounds net, wet-in-shell. The equivalent gross weight of losses, after adjusting for what would be the expected weight before the damage, was 12.6 million pounds.

Immature nuts, moldy/rotten nuts, and Koa Seed Worm were the top 3 causes of crop losses. The remaining causes of losses were attributed to Stink Bug, Tropical Nut Borer, germinated nuts, and other causes. Macadamia nut losses shown in this report include only those culled by processors and do not include losses that occurred at the farm before delivery. Crop loss for 2012-2013 was not calculated due to sequestration.

**Macadamia Nuts: Loss By Cause  
State of Hawaii, 2013-2014 Season**



**TABLE 2. MACADAMIA NUTS: LOSS BY CAUSE, STATE OF HAWAII, 2012-2013 AND 2013-2014**

| Type of loss               | Estimated loss <sup>1</sup> |               | Percent of losses   |              | Percent of delivered crop |             |
|----------------------------|-----------------------------|---------------|---------------------|--------------|---------------------------|-------------|
|                            | 2012-13                     | 2013-14       | 2012-13             | 2013-14      | 2012-13                   | 2013-14     |
|                            | ----- 1,000 pounds -----    |               | ----- Percent ----- |              |                           |             |
| Immature nuts <sup>2</sup> | N/A                         | 4,020         | N/A                 | 32.0         | N/A                       | 8.2         |
| Moldy/rotten               | N/A                         | 2,985         | N/A                 | 23.8         | N/A                       | 6.1         |
| Koa seed worm              | N/A                         | 2,040         | N/A                 | 16.2         | N/A                       | 4.2         |
| Stink bug                  | N/A                         | 1,620         | N/A                 | 12.9         | N/A                       | 3.3         |
| Tropical nut borer         | N/A                         | 1,325         | N/A                 | 10.6         | N/A                       | 2.7         |
| Germinated nuts            | N/A                         | 530           | N/A                 | 4.2          | N/A                       | 1.1         |
| Other causes               | N/A                         | 35            | N/A                 | .3           | N/A                       | .1          |
| <b>Total</b>               | <b>N/A</b>                  | <b>12,555</b> | <b>N/A</b>          | <b>100.0</b> | <b>N/A</b>                | <b>25.7</b> |

\* = less than .1 percent.

<sup>1</sup> Includes only losses for nuts completely rejected for processing. Does not include nuts with some damage but still utilized. Adjustments were made to reported weights to account for damage that would lower kernel weights and have the effect of underestimating the actual amount of loss. The adjustment factors were provided by Dr. H. C. Bittenbender and Dr. Vince Jones, CTAHR, University of Hawaii and were applied to both crop years. Excludes losses in the field or culled before delivery.

<sup>2</sup> Includes naturally occurring premature drop.

N/A Not available. 2012-2013 crop losses are not available due to sequestration.

**TABLE 3. MACADAMIA NUTS: ACREAGE, YIELD, PRODUCTION, PRICE, AND VALUE, STATE OF HAWAII, 1946-2013**

| Crop year <sup>1</sup> | Acreage           |           | Yield per acre <sup>2</sup> | Production <sup>3</sup>  |                  | Farm Price <sup>3</sup>   |      | Farm value <sup>6</sup> |
|------------------------|-------------------|-----------|-----------------------------|--------------------------|------------------|---------------------------|------|-------------------------|
|                        | In crop           | Harvested |                             | Gross                    | Net <sup>4</sup> | Gross <sup>5</sup>        | Net  |                         |
|                        | ----- Acres ----- |           | ---- pounds ----            | ----- 1,000 pounds ----- |                  | ---- Cents per pound ---- |      | 1,000 dollars           |
| 1946-47                | 950               | 860       | 730                         | NA                       | 630              | NA                        | 15.2 | 96                      |
| 1947-48                | 1,340             | 860       | 790                         | NA                       | 680              | NA                        | 16.9 | 115                     |
| 1948-49                | 1,530             | 860       | 810                         | NA                       | 700              | NA                        | 17.0 | 119                     |
| 1949-50                | 1,710             | 860       | 790                         | NA                       | 680              | NA                        | 16.9 | 115                     |
| 1950-51                | 2,150             | 860       | 880                         | NA                       | 755              | NA                        | 17.0 | 128                     |
| 1951-52                | 2,300             | 840       | 1,010                       | NA                       | 850              | NA                        | 16.9 | 144                     |
| 1952-53                | 2,770             | 840       | 1,150                       | NA                       | 965              | NA                        | 17.1 | 165                     |
| 1953-54                | 2,900             | 830       | 1,170                       | NA                       | 970              | NA                        | 17.0 | 165                     |
| 1954-55                | 3,030             | 1,080     | 860                         | NA                       | 930              | NA                        | 17.1 | 159                     |
| 1955-56                | 3,030             | 1,300     | 690                         | NA                       | 903              | NA                        | 17.9 | 162                     |
| 1956-57                | 3,200             | 1,470     | 700                         | NA                       | 1,027            | NA                        | 18.4 | 189                     |
| 1957-58                | 3,120             | 1,680     | 790                         | NA                       | 1,329            | NA                        | 18.7 | 248                     |
| 1958-59                | 3,290             | 1,750     | 1,050                       | NA                       | 1,832            | NA                        | 18.5 | 339                     |
| 1959-60                | 3,840             | 2,220     | 950                         | NA                       | 2,102            | NA                        | 18.2 | 382                     |
| 1960-61                | 3,820             | 2,300     | 1,120                       | NA                       | 2,569            | NA                        | 18.4 | 472                     |
| 1961-62                | 3,880             | 2,430     | 1,540                       | NA                       | 3,751            | NA                        | 18.5 | 693                     |
| 1962-63                | 4,100             | 2,460     | 2,110                       | NA                       | 5,182            | NA                        | 18.4 | 954                     |
| 1963-64                | 4,110             | 2,390     | 2,510                       | NA                       | 6,003            | NA                        | 17.7 | 1,061                   |
| 1964-65                | 4,510             | 2,520     | 3,030                       | NA                       | 7,639            | NA                        | 15.6 | 1,192                   |
| 1965-66                | 5,410             | 2,780     | 3,070                       | NA                       | 8,522            | NA                        | 19.4 | 1,651                   |
| 1966-67                | 6,700             | 2,950     | 2,950                       | NA                       | 8,715            | NA                        | 21.0 | 1,830                   |
| 1967-68                | 7,980             | 3,340     | 2,390                       | NA                       | 7,966            | NA                        | 24.6 | 1,960                   |
| 1968-69                | 8,520             | 3,680     | 2,840                       | NA                       | 10,436           | NA                        | 22.8 | 2,379                   |
| 1969-70                | 8,690             | 4,030     | 2,490                       | NA                       | 10,049           | NA                        | 24.6 | 2,472                   |
| 1970-71                | 8,735             | 4,115     | 3,210                       | NA                       | 13,216           | NA                        | 21.7 | 2,868                   |
| 1971-72                | 9,170             | 4,900     | 2,950                       | NA                       | 14,448           | NA                        | 24.7 | 3,569                   |
| 1972-73                | 9,250             | 5,000     | 2,620                       | NA                       | 13,110           | NA                        | 23.3 | 3,055                   |
| 1973-74                | 10,450            | 5,080     | 2,390                       | NA                       | 12,124           | NA                        | 25.5 | 3,092                   |
| 1974-75                | 9,890             | 5,760     | 2,840                       | NA                       | 16,370           | NA                        | 32.0 | 5,238                   |
| 1975-76                | 10,400            | 6,080     | 3,000                       | NA                       | 18,210           | NA                        | 31.6 | 5,754                   |
| 1976-77                | 10,250            | 6,300     | 3,010                       | NA                       | 18,990           | NA                        | 36.9 | 7,007                   |
| 1977-78                | 9,895             | 6,300     | 3,120                       | NA                       | 19,680           | NA                        | 40.8 | 8,030                   |
| 1978-79                | 10,200            | 9,200     | 2,280                       | NA                       | 20,980           | NA                        | 53.8 | 11,287                  |
| 1979-80                | 11,400            | 9,600     | 2,780                       | NA                       | 26,660           | NA                        | 62.9 | 16,769                  |
| 1980-81                | 13,300            | 10,000    | 3,340                       | NA                       | 33,390           | NA                        | 72.4 | 24,174                  |
| 1981-82                | 14,000            | 10,000    | 3,340                       | NA                       | 33,360           | NA                        | 79.3 | 26,454                  |
| 1982-83                | 15,600            | 10,200    | 3,600                       | NA                       | 36,720           | NA                        | 73.9 | 27,136                  |
| 1983-84                | 16,400            | 10,600    | 3,440                       | 38,500                   | 36,420           | 62.2                      | 65.7 | 23,928                  |
| 1984-85                | 17,500            | 12,000    | 3,140                       | 40,500                   | 37,700           | 64.4                      | 69.2 | 26,088                  |
| 1985-86                | 20,900            | 13,500    | 3,110                       | 44,700                   | 42,000           | 68.1                      | 72.5 | 30,450                  |
| 1986-87                | 21,200            | 14,400    | 3,060                       | 46,600                   | 44,000           | 75.5                      | 80.0 | 35,200                  |
| 1987-88                | 21,500            | 15,600    | 2,740                       | 45,600                   | 42,700           | 78.7                      | 84.0 | 35,868                  |
| 1988-89                | 21,900            | 16,600    | 2,740                       | 49,000                   | 45,500           | 83.6                      | 90.0 | 40,950                  |
| 1989-90                | 22,300            | 18,200    | 2,770                       | 54,000                   | 50,500           | 83.2                      | 89.0 | 44,945                  |
| 1990-91                | 22,600            | 18,400    | 2,720                       | 54,300                   | 50,000           | 75.5                      | 82.0 | 41,000                  |
| 1991-92                | 22,500            | 18,200    | 2,720                       | 53,900                   | 49,500           | 64.3                      | 70.0 | 34,650                  |
| 1992-93                | 20,500            | 17,500    | 2,740                       | 53,000                   | 48,000           | 61.6                      | 68.0 | 32,640                  |
| 1993-94                | 20,100            | 18,500    | 2,620                       | 53,000                   | 48,500           | 62.2                      | 68.0 | 32,980                  |
| 1994-95                | 20,200            | 18,500    | 2,840                       | 58,000                   | 52,500           | 62.5                      | 69.0 | 36,225                  |

See footnotes at end of table

Continued

**TABLE 3. MACADAMIA NUTS: ACREAGE YIELD, PRODUCTION, PRICE, AND VALUE, STATE OF HAWAII -- CONTINUED**

| Crop year <sup>1</sup> | Acreage           |           | Yield per acre <sup>2</sup> | Production <sup>3</sup>  |                  | Farm Price <sup>3</sup>   |      | Farm Value <sup>6</sup> |
|------------------------|-------------------|-----------|-----------------------------|--------------------------|------------------|---------------------------|------|-------------------------|
|                        | In crop           | Harvested |                             | Gross                    | Net <sup>4</sup> | Gross <sup>5</sup>        | Net  |                         |
|                        | ----- Acres ----- |           | ---- pounds ----            | ----- 1,000 pounds ----- |                  | ---- Cents per pound ---- |      | 1,000 dollars           |
| 1995-96                | 20,300            | 19,300    | 2,640                       | 57,000                   | 51,000           | 66.2                      | 74.0 | 37,740                  |
| 1996-97                | 20,200            | 19,200    | 2,940                       | 63,000                   | 56,500           | 70.0                      | 78.0 | 44,070                  |
| 1997-98                | 20,200            | 19,200    | 3,020                       | 65,000                   | 58,000           | 66.9                      | 75.0 | 43,500                  |
| 1998-99                | 20,200            | 19,200    | 2,990                       | 66,000                   | 57,500           | 57.0                      | 65.0 | 37,375                  |
| 1999-00                | 19,900            | 18,900    | 2,990                       | 64,000                   | 56,500           | 59.1                      | 67.0 | 37,855                  |
| 2000-01                | 18,400            | 17,700    | 2,820                       | 56,000                   | 50,000           | 52.7                      | 59.0 | 29,500                  |
| 2001-02                | 18,000            | 17,800    | 3,150                       | 62,000                   | 56,000           | 53.3                      | 59.0 | 33,040                  |
| 2002-03                | 18,000            | 17,800    | 2,980                       | 60,000                   | 53,000           | 50.4                      | 57.0 | 30,210                  |
| 2003-04                | 18,000            | 17,800    | 2,980                       | 60,000                   | 53,000           | 53.9                      | 61.0 | 32,330                  |
| 2004-05                | 18,000            | 17,800    | 3,170                       | 63,000                   | 56,500           | 65.5                      | 73.0 | 41,245                  |
| 2005-06                | 18,300            | 18,000    | 3,000                       | 62,000                   | 54,000           | 70.5                      | 81.0 | 43,740                  |
| 2006-07                | 17,000            | 15,000    | 3,870                       | 65,000                   | 58,000           | 59.8                      | 67.0 | 38,860                  |
| 2007-08                | 17,000            | 15,000    | 2,730                       | 48,000                   | 41,000           | 51.3                      | 60.0 | 24,600                  |
| 2008-09                | 17,000            | 15,000    | 3,330                       | 60,000                   | 50,000           | 55.8                      | 67.0 | 33,500                  |
| 2009-10                | 17,000            | 15,000    | 2,800                       | 50,000                   | 42,000           | 58.8                      | 70.0 | 29,400                  |
| 2010-11                | 17,000            | 15,000    | 2,670                       | 47,000                   | 40,000           | 63.8                      | 75.0 | 30,000                  |
| 2011-12                | 17,000            | 15,000    | 3,270                       | 58,000                   | 49,000           | 65.9                      | 78.0 | 38,220                  |
| 2012-13                | 17,000            | 15,000    | 2,930                       | 52,000                   | 44,000           | 67.7                      | 80.0 | 35,200                  |
| 2013-14                | 18,000            | 16,000    | 2,560                       | 49,000                   | 41,000           | 72.8                      | 87.0 | 35,670                  |

<sup>1</sup> Season begins July 1<sup>st</sup> and ends June 30<sup>th</sup> of the following year.

<sup>2</sup> Net production divided by acreage harvested.

<sup>3</sup> Wet in-shell basis.

<sup>4</sup> Gross pounds less total spoilage.

<sup>5</sup> Farm value divided by gross production.

<sup>6</sup> Net production multiplied by net farm price.

**U.S. TREE NUT REPORT**

Tree nuts: Utilized tree nut production for crop year 2013 is 2.66 million tons (in-shell basis), 1 percent above the previous year. Almond utilized production, at 1.73 million tons is up 5 percent from 2012. Walnut utilized production in 2013, at 492,000 tons, is down 1 percent from the previous year. Pistachio utilized production, at 235,000 tons is 15 percent less than 2012. Pecan utilized production in 2013 is estimated at 133,165 tons, a 12 percent decrease from 2012. The hazelnut crop, at 45,000 tons, is 27 percent above the previous year. Macadamia nut production is 20,500 tons, down 7 percent from 2012.

Value of United States utilized nut production in 2013 is 9.21 billion dollars, up 11 percent from the 2012 value. The 2013 utilized almond crop is valued at 5.77 billion dollars, 20 percent more than the previous year. Pistachio utilized crop value for 2013, at 1.03 billion dollars, is down 28 percent from previous year. The value of the 2013 utilized pecan crop decreased 3 percent to 460 million dollars. Hazelnut utilized crop value, at 121 million dollars, is 86 percent above last year. The 2013 utilized macadamia nut crop is valued at 35.7 million dollars, down 1 percent from 2012.

For the complete report see:

<http://usda.mannlib.cornell.edu/usda/current/NoncFruiNu/NoncFruiNu-07-17-2014.txt>