

Recent Trends in Alfalfa Movement and Prices  
in California and Competing Regions

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The alfalfa price and supply-demand situation continues to be one of the more interesting phenomena in California agriculture. Despite relatively high prices, production continues to be relatively stable and supplies remain relatively tight. It lends some concern to the producer's viewpoint, because most are asking "How much longer can it last?" The alfalfa price situation continues to be largely functionally related to several key variables. These are: (1) available supplies and stocks, (2) anticipated production of alfalfa and alternative feedstuffs, (3) number of forage consuming animal units, (4) available supplies from alternative regions, and (5) general economic health of respective forage consuming sectors, and much of the speculation here is the continuing saga of "too many dairy cows and too much milk," and the continuing political tug-of-war between the administration and dairy lobbyists involving methods of "painlessly" reducing the surplus.

**The 1983-84 Alfalfa Supply**

Alfalfa and other forage supplies are made up of May 1 carryover, 1983 production, and inshipments from other regions. We noted last year at the Symposium that January 1 stocks would be very low, and we anticipated May 1 stocks being very low as well. Also indicated was the fact that large increases in 1984 alfalfa acreage were not anticipated for several reasons. Each of these important factors will be reviewed in turn.

**May 1 Stocks**

Alfalfa carryover, as measured by May 1 stocks, has continued to diminish the past several years. Stocks have declined from slightly over 1 million tons in 1978 to only 337 thousand tons this year. And this despite the fact production has remained at relatively high levels during the same period (Table 1.)

**1983-84 Production**

California alfalfa production is currently estimated to be about 8.5 percent less than last year's 6.4 million tons, and this is partially a result of a 1 percent decline in acreage coupled with a 7.5 percent decline in average yields (Table 2.) Supplies of other forages increased about 8.2 percent, so that total production is estimated to amount to 7.2 million tons, a decrease of about 5.7 percent from last year.

The most significant aspect of the analysis relates to harnessing production data to available stocks data so that total 1983-84 supplies may be estimated.

**1983-84 Supplies**

A very cursory evaluation of the data leads to the conclusion that 1984 supplies are going to be relatively small by historic standards. The May 1 stocks figure coupled with the 1984 production data results in a total 1984 supply of 7.6 million tons, down 7 percent from last year (Table 2.) Stocks on January 1 this year could be the lowest in many years, perhaps one-half of the 1978 total and possibly 38 percent less than last year.

**Feedgrains Supplies Have Been Reduced As Well**

Feedgrains stocks are down sharply from last year as well. The big story this year is the PIK-drought "double whammy" which is likely to cause a drastic reduction in the estimated 1984 ending stocks of feedgrains. The November USDA estimate of 1983 production now pegs the 1983 corn crop at 4.12 million bushels, down more than 50 percent from last year. As a result, USDA now estimates 1984 ending corn stocks at about 450 million bushels, down nearly 88 percent from last year. Each of the summer crop reports have been successively lower, and one can expect the seasonal lows in grain prices have been reached. Stocks of wheat are about equal to last years, therefore some wheat will be substituted for corn in grain intensive feeding rations, but the overall direction for grain prices is likely to be upward

during the first half of the marketing year. Due to the way in which the 1984 grain program is structured and the incentives involved, much less participation in the 1984 program is expected. Thus, we can expect very large increases in 1984 grain production levels unless another drought occurs.

#### Competing Regions' Alfalfa Production Down Slightly From Last Year

Production in nine other alfalfa producing western states is estimated to be down from last year as well. Production in these nine states amounted to about 16.5 million tons, down about 5.7 percent from last year, but total forage production is expected to be about the same as last years, amounting to about 22.8 million tons (Tables 3. and 4.).

#### May 1 Stocks Down Slightly in Western States

Usage has continued at relatively high levels throughout the west in 1983. The total May 1 stocks were estimated to amount to 3.4 million tons, down 1.8 percent from 1982 at the same time (Table 5.)

All of the previous data seem to point to the same story--stable production, declining inventories, and continued high prices.

#### Forage Consuming Animal Numbers Remain High

Forage consuming animal unit numbers, particularly dairy cows, have remained relatively high during the past several years, and this despite the fact forage and cereals costs have been at historically relatively high levels. Dairy animal numbers show signs of receding slightly, and whether or not the dairy lobby's "compromise" plan passes, we can expect dairy animal numbers to begin a relatively slow and long decline throughout the West. There are simply too many economic pressures on the industry to expect otherwise. However, the relatively high production for Class I usage in California should cause the rate of decline in dairy cow numbers to be somewhat lower than other major western milk producing states.

#### Trends in Prices and Alfalfa Movement

With the reopening of inspection stations, we can begin again to get a better "fix" on alfalfa hay inshipped from the contiguous Southwestern states into California. According to available data, the major alfalfa exporting state with California as a destination has been Nevada. This past year, more than 242 thousand tons were inshipped from Nevada producing sources. However, based on three months data and historical tendencies, we might expect 180-200 thousand tons inshipped annually from Arizona, which would result in that state's exports approaching those of Nevada's. This past year, alfalfa inshipments from out-of-state destinations amounted to nearly 400 thousand tons, and we could expect inshipments to continue at those levels in the short term.

#### Trends in Prices

Transportation costs continue to play a major role in differentiating California hay market prices. During this past year, prices at Petaluma averaged about \$120 per ton as opposed to about \$82 per ton to growers in the Imperial Valley, and \$112 per ton to growers in the Tulare region (Number 1 Leafy). Look for those same sorts of relationships to prevail this year as well since they reflect probable continuing supply-demand-transportation interdependencies.

Based on all of the preceding information, expect another good to excellent marketing year for the better quality alfalfa. If another winter like the last transpires, even greater differentials between excellent to good quality alfalfa and those of lesser quality will prevail. Stocks are simply too short to expect otherwise.

Table 1.  
California Hay Crop Acreage and Yield: 1978-83

| Year | Alfalfa Acres<br>-Acres- | Alfalfa Yield<br>-Tons- | Other Hay<br>-Acres- | Other Hay<br>Yield<br>-Tons- | Total Crop<br>-Acres- | Average Yield<br>-Tons- |
|------|--------------------------|-------------------------|----------------------|------------------------------|-----------------------|-------------------------|
| 1978 | 1090000                  | 5.45                    | 520000               | 1.95                         | 1610000               | 4.31                    |
| 1979 | 1050000                  | 6.00                    | 510000               | 1.95                         | 1560000               | 4.67                    |
| 1980 | 1030000                  | 5.40                    | 520000               | 2.20                         | 1550000               | 4.99                    |
| 1981 | 1050000                  | 6.30                    | 515000               | 2.40                         | 1565000               | 5.01                    |
| 1982 | 960000                   | 6.70                    | 510000               | 2.40                         | 1470000               | 5.20                    |
| 1983 | 950000                   | 6.20                    | 530000               | 2.50                         | 1480000               | 4.87                    |

Table 2.  
California Hay Crop Production and Inventories: 1978-83

| Year | Carryover<br>May 1<br>-Tons- | Alfalfa<br>Prod.<br>-Tons- | Other<br>Hay Prod.<br>-Tons- | Total<br>Crop Prod.<br>-Tons- | Total<br>Supply<br>-Tons- | Stocks Jan 1<br>Next Year<br>-Tons- |
|------|------------------------------|----------------------------|------------------------------|-------------------------------|---------------------------|-------------------------------------|
| 1978 | 1082000                      | 5940500                    | 1014000                      | 6954500                       | 8036500                   | 2226000                             |
| 1979 | 765000                       | 6300000                    | 994500                       | 7294500                       | 8059500                   | 2043000                             |
| 1980 | 620000                       | 6592000                    | 1144000                      | 7736000                       | 8356000                   | 2708000                             |
| 1981 | 542000                       | 6615000                    | 1236000                      | 7851000                       | 8393000                   | 2669000                             |
| 1982 | 471000                       | 6432000                    | 1224000                      | 7656000                       | 8127000                   | 1608000                             |
| 1983 | 337000                       | 5890000                    | 1325000                      | 7215000                       | 7552000                   | 1000000                             |

Table 3.  
Nine Western States Forage Production, 1982

| State       | Alfalfa Acres<br>1982<br>-1000 Ac.- | Yield/Ac.<br>1982<br>-Tons- | Alfalfa<br>Prod.<br>-1000 Tons- | Other Hay<br>1982<br>-1000 Ac.- | Yield/Ac.<br>1982<br>-Tons- | Total Prod.<br>1982<br>-1000 Tons- |
|-------------|-------------------------------------|-----------------------------|---------------------------------|---------------------------------|-----------------------------|------------------------------------|
| Arizona     | 160                                 | 7.30                        | 1168.00                         | 25                              | 2.90                        | 1241                               |
| Idaho       | 1020                                | 3.70                        | 3774.00                         | 320                             | 2.10                        | 4436                               |
| Montana     | 1300                                | 2.60                        | 3380.00                         | 1150                            | 1.50                        | 5105                               |
| Nevada      | 215                                 | 3.50                        | 753.00                          | 280                             | 1.35                        | 378                                |
| New Mexico  | 260                                 | 5.00                        | 1300.00                         | 60                              | 1.40                        | 1384                               |
| Oregon      | 420                                 | 4.20                        | 1764.00                         | 650                             | 1.85                        | 2967                               |
| Utah        | 470                                 | 4.00                        | 1880.00                         | 125                             | 1.90                        | 2118                               |
| Washington  | 490                                 | 4.30                        | 2107.00                         | 340                             | 2.30                        | 2889                               |
| Wyoming     | 530                                 | 2.50                        | 1325.00                         | 620                             | 1.35                        | 2162                               |
| ** TOTAL ** |                                     |                             | 17451.00                        | 3570                            |                             | 22680                              |

Table 4.  
Nine Western States Forage Production, 1983

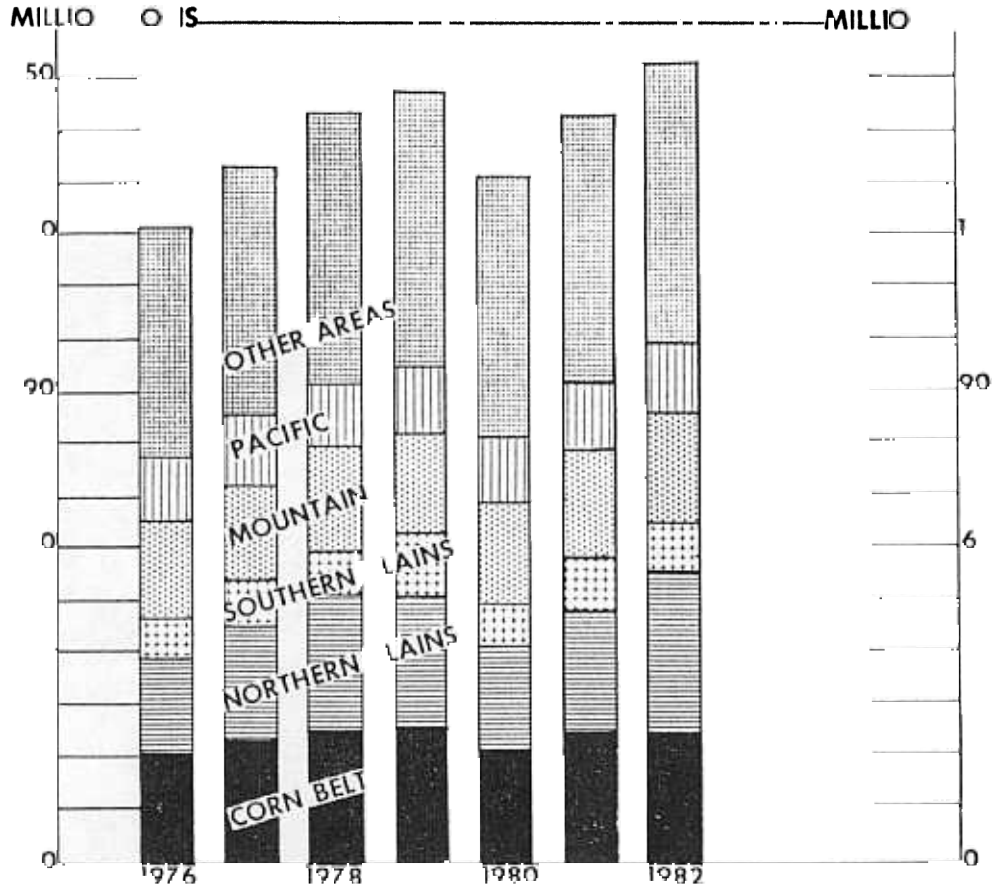
| State       | Alfalfa Acres<br>1983<br>-1000 Ac.- | Yield/Ac.<br>1983<br>-Tons- | Alfalfa<br>Prod.<br>-1000 Tons- | Other Hay<br>1983<br>-1000 Ac.- | Yield/Ac.<br>1983<br>-Tons- | Total Prod.<br>1983<br>-1000 Tons- |
|-------------|-------------------------------------|-----------------------------|---------------------------------|---------------------------------|-----------------------------|------------------------------------|
| Arizona     | 145                                 | 7.70                        | 1117.00                         | 25                              | 3.10                        | 1295                               |
| Idaho       | 980                                 | 3.90                        | 3822.00                         | 340                             | 2.10                        | 4536                               |
| Montana     | 1120                                | 2.40                        | 2688.00                         | 1250                            | 1.60                        | 4688                               |
| Nevada      | 220                                 | 3.50                        | 770.00                          | 300                             | 1.35                        | 405                                |
| New Mexico  | 270                                 | 4.80                        | 1296.00                         | 70                              | 1.40                        | 1394                               |
| Oregon      | 440                                 | 4.20                        | 1848.00                         | 690                             | 2.05                        | 3263                               |
| Utah        | 455                                 | 3.80                        | 1729.00                         | 120                             | 1.90                        | 1957                               |
| Washington  | 450                                 | 4.20                        | 1890.00                         | 380                             | 2.50                        | 2840                               |
| Wyoming     | 530                                 | 2.70                        | 1341.00                         | 650                             | 1.60                        | 2471                               |
| ** TOTAL ** |                                     |                             | 16501.00                        | 3825                            |                             | 22849                              |

Table 5.  
Hay Stocks Jan. 1 and May 1, Nine Western States: 1981-83

| State       | Jan. 1<br>1981 | Jan. 1<br>1982 | Jan. 1<br>1983<br>-1000 Tons- | May 1<br>1981 | May 1<br>1982 | May 1<br>1983 |
|-------------|----------------|----------------|-------------------------------|---------------|---------------|---------------|
| Arizona     | 365            | 207            | 137                           | 25            | 109           | 19            |
| Idaho       | 3120           | 3073           | 2712                          | 835           | 757           | 489           |
| Montana     | 4045           | 4327           | 4595                          | 917           | 865           | 1429          |
| Nevada      | 657            | 628            | 679                           | 164           | 105           | 113           |
| New Mexico  | 343            | 615            | 581                           | 114           | 126           | 152           |
| Oregon      | 2382           | 2165           | 1958                          | 745           | 289           | 267           |
| Utah        | 1338           | 1530           | 1313                          | 453           | 328           | 233           |
| Washington  | 1733           | 1652           | 1473                          | 578           | 508           | 289           |
| Wyoming     | 1369           | 1788           | 1730                          | 592           | 341           | 368           |
| ** TOTAL ** |                | 15985          | 15178                         | 4423          | 3428          | 3359          |

\*These data are all derived from Crop and Livestock Reporting Service and Federal State Market News Service official Reports, except for January 1, 1984 Stocks, which are author's estimate. Special thanks to Paul Lehigh, Federal State Market News Service. Without his diligence and attention, this report would not have been possible.

# HAY PRODUCTION 1976-1982



TOCK MARKETING INFORMATION

## CALIFORNIA ALFALFA PRICES SELECTED MARKETS

ALFALFA HAY PRICES -- DELIVERED BASIS (Cont'd)  
Monthly Averages of Weekly Quotations  
(comparable U.S. grades, dollars per ton)

### PETALUMA

|                | Jan.   | Feb.   | Mar.   | Apr.   | May    | Jun.   | Jul.   | Aug.   | Sep.   | Oct.   | Nov.   | Dec.   | Average |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| <u>1 9 7 8</u> |        |        |        |        |        |        |        |        |        |        |        |        |         |
| US 1           | -      | 79.25  | 77.25  | 77.00  | 77.60  | 79.88  | 78.30  | 77.50  | 77.50  | 77.50  | 80.50  | 82.16  | 78.58   |
| US 2 LFY       | 79.50  | 77.75  | 75.45  | 75.00  | 75.00  | 75.00  | 73.90  | 72.50  | 72.50  | 72.50  | 74.38  | 75.83  | 74.92   |
| US 2           | -      | 75.00  | 73.45  | 73.00  | 73.00  | 73.00  | 70.70  | 67.50  | 67.50  | 67.50  | 69.38  | 70.83  | 70.97   |
| <u>1 9 7 9</u> |        |        |        |        |        |        |        |        |        |        |        |        |         |
| US 1           | 86.00  | 87.50  | 89.00  | 98.20  | 104.00 | 104.00 | 103.80 | 103.00 | 103.00 | 111.00 | 115.12 | 117.50 | 101.88  |
| US 2 LFY       | 80.60  | 82.88  | 85.00  | 96.15  | 102.56 | 102.50 | 101.60 | 98.50  | 98.00  | 101.20 | 105.50 | 110.00 | 97.04   |
| US 2           | 76.50  | 78.00  | 79.45  | -      | 97.50  | 97.50  | 95.80  | 93.00  | 93.00  | 95.40  | 97.75  | 100.00 | 91.24   |
| <u>1 9 8 0</u> |        |        |        |        |        |        |        |        |        |        |        |        |         |
| US 1           | 120.00 | 127.50 | 128.20 | 130.00 | 131.25 | 132.50 | 132.62 | 128.75 | 127.50 | 127.50 | 127.50 | 133.10 | 128.87  |
| US 2 LFY       | 118.12 | 125.00 | 125.50 | 129.38 | 126.25 | 127.50 | 127.50 | 119.38 | 117.50 | 121.25 | 122.50 | 127.50 | 123.95  |
| US 2           | -      | -      | -      | -      | 115.00 | 115.00 | 115.00 | 108.75 | 107.50 | 107.50 | 107.50 | 112.50 | 111.09  |
| <u>1 9 8 1</u> |        |        |        |        |        |        |        |        |        |        |        |        |         |
| US 1           | 133.00 | 132.67 | -      | -      | -      | 111.67 | 104.38 | 102.00 | 103.38 | 106.75 | 107.50 | 107.50 | 112.09  |
| US 2 LFY       | 127.50 | 127.50 | 116.62 | 114.25 | 113.00 | 107.80 | 97.50  | 95.00  | 96.25  | 97.50  | 99.50  | 105.00 | 108.12  |
| US 2           | 112.50 | 112.50 | -      | -      | -      | 94.17  | 88.75  | 85.00  | 85.00  | 85.00  | 85.00  | -      | 93.49   |
| <u>1 9 8 2</u> |        |        |        |        |        |        |        |        |        |        |        |        |         |
| US 1           | 107.50 | 110.00 | 112.00 | 118.33 | 125.00 | 123.00 | 122.50 | 122.50 | -      | 125.17 | 131.00 | 132.50 | 120.86  |
| US 2 LFY       | 105.00 | 107.50 | 108.30 | 112.50 | 117.50 | 117.30 | 115.25 | 114.00 | 114.00 | 119.88 | 124.50 | 127.50 | 115.27  |
| US 2           | -      | -      | -      | -      | 110.00 | 109.00 | 102.50 | 100.00 | 100.00 | 110.00 | 112.50 | -      | 106.29  |

TABLE 2.

ALFALFA HAY PRICES -- NET TO GROWERS  
Monthly Averages of Weekly Quotations  
(comparable U.S. grades, dollars per ton)

### IMPERIAL VALLEY

|                | Jan.   | Feb.   | Mar.   | Apr.   | May   | Jun.  | Jul.  | Aug.  | Sep.  | Oct.  | Nov.  | Dec.   | Average |
|----------------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|--------|---------|
| <u>1 9 7 8</u> |        |        |        |        |       |       |       |       |       |       |       |        |         |
| US 1           | 57.50  | -      | -      | 64.25  | 66.90 | 63.38 | -     | -     | -     | 59.00 | 63.13 | 69.17  | 63.33   |
| US 2 LFY       | 51.00  | -      | -      | 60.12  | 61.20 | 59.12 | 54.25 | 48.60 | 51.50 | 54.78 | 57.88 | 65.00  | 56.34   |
| US 2 GRN       | 51.00  | -      | -      | 60.12  | 61.20 | 59.12 | 54.25 | 48.60 | 51.50 | 54.78 | 57.88 | 65.00  | 56.34   |
| <u>1 9 7 9</u> |        |        |        |        |       |       |       |       |       |       |       |        |         |
| US 1           | 74.75  | -      | 87.00  | 90.88  | 93.38 | 89.25 | 78.00 | 76.50 | 79.50 | 89.00 | 96.25 | 101.17 | 86.88   |
| US 2 LFY       | 67.50  | -      | 82.17  | 85.50  | 88.25 | 84.62 | 73.60 | 72.50 | 74.88 | 84.00 | 91.25 | 93.33  | 81.60   |
| US 2 GRN       | -      | -      | 82.17  | 85.50  | 88.25 | 83.75 | 73.60 | 72.50 | 74.88 | 84.00 | 91.25 | 93.33  | 82.92   |
| <u>1 9 8 0</u> |        |        |        |        |       |       |       |       |       |       |       |        |         |
| US 1           | -      | -      | 110.50 | 100.00 | 95.62 | 85.80 | 78.75 | 78.00 | 84.75 | 90.50 | 94.38 | 97.50  | 91.58   |
| US 2 LFY       | -      | -      | 106.25 | 92.38  | 88.50 | 82.00 | 74.50 | 73.25 | 81.00 | 86.50 | 90.00 | 93.75  | 86.81   |
| US 2 GRN       | -      | -      | 106.25 | 92.38  | 88.50 | 78.90 | 70.75 | 69.00 | 77.70 | 82.25 | 86.25 | 90.00  | 84.20   |
| <u>1 9 8 1</u> |        |        |        |        |       |       |       |       |       |       |       |        |         |
| US 1           | 102.50 | 102.50 | -      | 89.00  | 81.62 | 73.40 | 69.33 | -     | -     | 76.67 | 82.50 | 82.50  | 84.45   |
| US 2 LFY       | 97.50  | 97.50  | -      | 85.12  | 77.88 | 70.70 | 66.25 | 62.75 | 65.00 | 70.00 | 75.00 | 75.00  | 76.61   |
| US 2 GRN       | 92.50  | -      | -      | 85.12  | 73.88 | 68.20 | 62.50 | 62.75 | 63.00 | 64.00 | 66.50 | 67.50  | 70.60   |
| <u>1 9 8 2</u> |        |        |        |        |       |       |       |       |       |       |       |        |         |
| US 1           | 82.50  | 83.38  | 87.38  | 88.12  | 90.50 | 78.60 | 69.50 | 69.00 | -     | 80.00 | 90.50 | -      | 81.95   |
| US 2 LFY       | 75.00  | 75.00  | -      | 83.25  | 83.62 | 75.50 | 66.25 | 65.10 | -     | 70.12 | 81.50 | 82.50  | 75.78   |
| US 2 GRN       | 67.50  | 66.88  | -      | -      | 77.50 | 74.17 | -     | 65.10 | -     | 70.12 | 81.50 | 82.50  | 73.16   |

TRUCK MOVEMENT OF ALFALFA INTO CALIFORNIA:  
1979 - 1982

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|              |               |               |               |               |               |               |               |               |               |               |               |               |                |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|
| COLORADO     | -             | -             | 21            | 25            | -             | -             | -             | 21            | -             | 20            | -             | -             | 87             |
| IDAHO        | 1,073         | 1,213         | 909           | 1,486         | 946           | 592           | 1,046         | 1,061         | 772           | 1,073         | 1,309         | 1,523         | 13,003         |
| MONTANA      | 93            | 23            | 174           | 167           | 101           | 46            | 251           | -             | 49            | 44            | 68            | 300           | 1,316          |
| NEBRASKA     | 26            | -             | -             | -             | -             | -             | -             | -             | -             | -             | -             | -             | 26             |
| NEVADA       | 38,576        | 29,567        | 34,369        | 16,107        | 6,326         | 6,108         | 11,262        | 13,156        | 13,117        | 18,806        | 23,591        | 25,193        | 236,178        |
| NEW MEXICO   | -             | -             | -             | 24            | -             | -             | -             | -             | -             | -             | -             | -             | 24             |
| N. DAKOTA    | -             | -             | -             | -             | 26            | 25            | 24            | -             | -             | -             | 25            | -             | 100            |
| OKLAHOMA     | 21            | -             | -             | -             | -             | -             | -             | -             | -             | -             | -             | -             | 21             |
| OREGON       | 1,551         | 2,085         | 2,918         | 1,154         | 17            | 682           | 2,026         | 1,328         | 897           | 1,867         | 1,701         | 3,014         | 19,240         |
| UTAH         | 7,673         | 4,910         | 5,999         | 5,605         | 4,188         | 4,271         | 7,042         | 11,071        | 9,307         | 12,486        | 15,888        | 19,489        | 107,929        |
| WASHINGTON   | -             | 25            | 16            | 67            | 10            | 76            | -             | 2             | -             | 2             | 28            | -             | 226            |
| WYOMING      | -             | -             | -             | -             | -             | -             | -             | -             | -             | -             | 18            | -             | 18             |
| <b>TOTAL</b> | <b>49,013</b> | <b>37,823</b> | <b>44,406</b> | <b>24,635</b> | <b>11,614</b> | <b>11,800</b> | <b>21,651</b> | <b>26,639</b> | <b>24,142</b> | <b>34,298</b> | <b>42,628</b> | <b>49,519</b> | <b>378,168</b> |

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|              |               |               |               |               |              |               |               |               |               |               |               |               |                |
|--------------|---------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|
| COLORADO     | -             | 32            | 45            | 13            | 22           | -             | 119           | 168           | 35            | 45            | 22            | 17            | 518            |
| IDAHO        | 1,752         | 2,286         | 2,709         | 1,728         | 205          | 256           | 856           | 586           | 656           | 584           | 1,015         | 679           | 13,312         |
| MINNESOTA    | -             | -             | -             | -             | -            | -             | -             | 17            | -             | -             | -             | -             | 17             |
| MONTANA      | 39            | 75            | 28            | 25            | 24           | 44            | 49            | 114           | 45            | 48            | 27            | 28            | 546            |
| NEBRASKA     | -             | -             | -             | 7             | -            | -             | 9             | -             | -             | -             | -             | -             | 16             |
| NEVADA       | 26,080        | 22,389        | 19,625        | 6,888         | 1,678        | 5,435         | 13,481        | 11,748        | 12,341        | 16,597        | 19,568        | 22,748        | 178,578        |
| NEW MEXICO   | -             | -             | -             | -             | 14           | 26            | -             | 5             | -             | -             | 19            | -             | 64             |
| N. DAKOTA    | -             | -             | -             | 77            | -            | -             | 23            | 28            | -             | -             | -             | -             | 128            |
| OKLAHOMA     | -             | -             | -             | 10            | -            | -             | -             | -             | -             | -             | -             | -             | 10             |
| OREGON       | 2,494         | 1,050         | 878           | 193           | 74           | 180           | 2,185         | 2,206         | 728           | 1,291         | 1,677         | 1,759         | 14,715         |
| S. DAKOTA    | -             | -             | -             | -             | -            | -             | -             | 4             | -             | -             | -             | -             | 4              |
| UTAH         | 15,736        | 13,060        | 12,351        | 5,830         | 2,684        | 5,998         | 9,099         | 10,830        | 12,311        | 17,739        | 18,224        | 20,272        | 144,134        |
| WASHINGTON   | -             | 11            | -             | 14            | -            | -             | -             | 48            | -             | 20            | -             | -             | 93             |
| WYOMING      | -             | -             | 20            | -             | -            | -             | -             | -             | -             | -             | -             | 20            | 40             |
| <b>TOTAL</b> | <b>46,101</b> | <b>38,903</b> | <b>35,656</b> | <b>14,785</b> | <b>4,701</b> | <b>11,939</b> | <b>25,821</b> | <b>25,754</b> | <b>26,116</b> | <b>36,324</b> | <b>40,552</b> | <b>45,523</b> | <b>352,175</b> |

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|              |        |        |               |               |               |               |               |               |               |               |               |               |                |
|--------------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|
| COLORADO     | -      | 26     | 19            | -             | -             | -             | 51            | -             | -             | -             | -             | -             | 96             |
| IDAHO        | 1,328  | 1,185  | 1,276         | 691           | 279           | 248           | 373           | 195           | 223           | 440           | 241           | 211           | 6,690          |
| MONTANA      | 49     | 49     | 47            | 72            | 69            | 69            | 90            | 23            | 106           | 54            | 117           | 54            | 799            |
| NEVADA       | 24,891 | 22,486 | 20,524        | 15,247        | 8,083         | 8,581         | 11,196        | 10,946        | 9,164         | 12,787        | 14,721        | 20,014        | 178,640        |
| NEW MEXICO   | -      | -      | -             | -             | -             | -             | 7             | -             | -             | -             | -             | -             | 7              |
| N. DAKOTA    | -      | -      | -             | -             | -             | -             | -             | 24            | -             | -             | -             | 25            | 49             |
| OREGON       | 1,446  | 1,748  | 1,938         | 2,007         | 1,199         | 641           | 1,943         | 2,317         | 1,246         | 2,281         | 1,998         | 1,874         | 20,638         |
| S. DAKOTA    | -      | -      | -             | -             | -             | -             | -             | -             | -             | 27            | -             | -             | 27             |
| TEXAS        | -      | -      | -             | -             | -             | -             | -             | -             | 12            | -             | -             | -             | 12             |
| UTAH         | 19,545 | 14,634 | 10,674        | 4,839         | 3,036         | 6,706         | 10,055        | 9,720         | 10,044        | 10,058        | 9,412         | 10,665        | 119,388        |
| WASHINGTON   | -      | 31     | 8             | -             | -             | -             | 71            | -             | -             | -             | 25            | -             | 135            |
| <b>TOTAL</b> |        |        | <b>34,486</b> | <b>22,856</b> | <b>12,666</b> | <b>16,245</b> | <b>23,786</b> | <b>23,225</b> | <b>20,795</b> | <b>25,647</b> | <b>26,514</b> | <b>32,843</b> | <b>326,481</b> |

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|              |               |               |               |               |               |               |               |               |               |               |               |               |                |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|
| ARIZONA      | n.a.          | n.a.          | n.a.          | n.a.          | n.a.          | n.a.          | n.a.          | n.a.          | n.a.          | 13,090        | 10,497        | 9,084         | 32,671         |
| COLORADO     | -             | 40            | -             | -             | 24            | 28            | 627           | 616           | 277           | 3             | -             | 25            | 1,640          |
| IDAHO        | 199           | 293           | 585           | 484           | 488           | 47            | 67            | 187           | 145           | 149           | 161           | 192           | 2,997          |
| MONTANA      | 48            | 102           | 94            | 93            | -             | 66            | -             | -             | 23            | -             | -             | -             | 426            |
| NEVADA       | 18,937        | 23,105        | 24,585        | 22,589        | 7,501         | 11,192        | 15,361        | 15,787        | 16,614        | 23,212        | 30,464        | 33,498        | 242,845        |
| N. DAKOTA    | -             | -             | -             | -             | -             | -             | -             | -             | -             | -             | -             | 23            | 23             |
| OREGON       | 1,633         | 1,833         | 1,015         | 617           | 203           | 344           | 2,554         | 4,267         | 2,570         | 2,070         | 2,762         | 2,140         | 22,008         |
| TEXAS        | -             | -             | -             | -             | -             | -             | -             | -             | -             | 52            | -             | -             | 94             |
| UTAH         | 11,111        | 12,293        | 10,057        | 5,948         | 3,025         | 4,599         | 13,515        | 7,331         | 6,098         | 4,452         | 7,525         | 9,217         | 95,171         |
| WASHINGTON   | -             | -             | -             | 48            | 46            | -             | 6             | 39            | 51            | 51            | 22            | -             | 263            |
| WYOMING      | 21            | -             | 18            | 22            | -             | 32            | 27            | -             | -             | -             | -             | -             | 120            |
| <b>TOTAL</b> | <b>31,949</b> | <b>37,666</b> | <b>36,354</b> | <b>29,801</b> | <b>11,287</b> | <b>16,308</b> | <b>32,157</b> | <b>28,227</b> | <b>25,778</b> | <b>43,079</b> | <b>51,431</b> | <b>54,221</b> | <b>398,258</b> |

Above shipments principally through Quarantine Inspection Stations at Mount Shasta, Truckee, Benton, and Yermo. Colby, Needles, Vidal, and