

Alberta 2011 Greenfeed and Silage Production Survey Results

Purpose of Survey

Greenfeed and silage production statistics for Alberta are not available from Statistics Canada or any other source, although producers in the province harvest significant acreage of annual crops for greenfeed and silage every year. To fill this data gap and to meet client needs, the Statistics and Data Development Branch of Alberta Agriculture and Rural Development (ARD) initiated a greenfeed and silage production survey in 2002. Since then, the survey has been conducted annually, to develop selected statistics for the forage industry.

As in previous years, the 2011 survey was conducted in partnership with Agricultural Fieldmen and Agriculture Financial Services Corporation. The survey collected data on greenfeed and silage acreage, yields and production at the municipality level. The information was then used, along with input from ARD specialists, to develop provincial estimates. Just to note, the yield and production estimates in this report are on a wet weight basis.

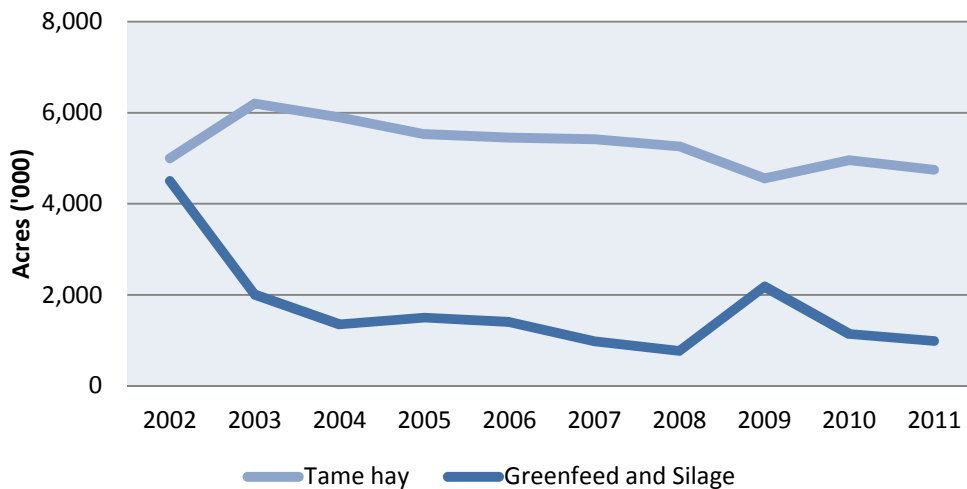
Alberta 2011 Greenfeed and Silage Production

Growing conditions during the 2011 crop season in Alberta were mainly favourable, despite the cool temperatures and excessive moisture in some areas of the province in early season. Provincial average yields and production for most crops were higher than in 2010. Based on the Statistics Canada report entitled “November Estimates of Production of Principal Field Crops, Canada, 2011”, total production of tame hay in the province was 9.3 million tonnes, up one per cent from 2010 (Figure 1). The increase in tame hay production reduced the need for greenfeed and silage.

In 2011, Alberta producers seeded an estimated total of 17.9 million acres to spring wheat, durum, barley, oats, mixed grains, triticale, canola and dry peas (see Table 1). Of the total seeded area, 94 per cent was harvested as grains and oilseeds and six per cent as greenfeed and silage. The percentage of crop area harvested for grains and oilseeds was higher than in 2010, as the area harvested for greenfeed and silage declined.

Total area harvested for greenfeed and silage in 2011 was estimated close to one million acres, down 14 per cent from 2010 (Figure 1). Total area harvested for greenfeed declined 28 per cent from 2010, to 412,000 acres, while silage acreage increased by one per cent to 575,000 acres.

Figure 1. Total Harvested Tame Hay and Sum of Greenfeed and Silage Area (2002 - 2011)



Source: Alberta Agriculture and Rural Development

The mainly favorable crop growing conditions in 2011 contributed to higher yields for greenfeed. Yields for silage were relatively smaller to previous year. The estimated provincial average yield for greenfeed was 3.16 tonnes per acre. This was five per cent higher than in 2010. The provincial average yield for greenfeed barley was 3.13 tonnes per acre (three per cent up from 2010), and 3.15 tonnes per acre for greenfeed oats (five per cent increase from 2010). For silage, the provincial average yield was estimated at 6.71 tonnes per acre, down three per cent from 2010. The lower yield in silage was largely attributed to a decline in triticale and barley yields, compared to 2010. Triticale was down 24 per cent to 5.78 tonnes per acre and barley decreased five per cent to 6.40 tonnes per acre. The yield for oats increased five per cent to 7.28 tonnes per acre.

Despite higher yields, total greenfeed production declined 25 per cent from 2010, to 1.3 million tonnes. The lower production was the result of a marked decline in harvested area, which was down 28 per cent. The production for greenfeed barley was 469,000 tonnes, (21 per cent below 2010) and 661,000 tonnes for greenfeed oats (down 10 per cent from 2010). For silage total production was estimated at 3.9 million tonnes, down two per cent from 2010, as lower yields more than offset the harvested area. The production for barley silage was 2.5 million tonnes, three per cent lower than in 2010. Oats for silage production totaled to 838,000 tonnes, one per cent decrease from 2010.

In 2011, barley and oats were the major crops harvested for greenfeed and silage production, although significant acreage of mixed grains and some spring wheat and triticale were also taken off as forages. For greenfeed production, barley accounted for 36 per cent of the provincial total, while oats represented 51 per cent. Mixed grains and triticale accounted for 12 per cent and one per cent, respectively. The remaining less than one per cent was from spring wheat. In terms of silage production, 65 per cent of the provincial total came from barley, 22 per cent from oats, and 11 per cent from mixed grains. Triticale represented two per cent of total silage production in 2011.

Estimates of greenfeed and silage production in Alberta for previous years, dating back to 2002, are also shown in Table 1.

For further information on the survey results, please contact:

Lukas Matejovsky, Crop Statistician
Alberta Agriculture and Rural Development
Economics and Competitiveness Division
Statistics and Data Development Branch
Telephone: 780-422-2887
Fax: 780-427-5220
Email: lukas.matejovsky@gov.ab.ca

Table 1: Alberta Greenfeed and Silage Production

| | Total Seeded Area | Harvested Greenfeed Area | Harvested Silage Area | Average Greenfeed Yield | Average Silage Yield | Total Greenfeed Production | Total Silage Production |
|-------------------|-------------------|--------------------------|-----------------------|-------------------------|----------------------|----------------------------|-------------------------|
| | ('000 acres) | | | (tonnes/acre) | | ('000 tonnes) | |
| 2011 Spring Wheat | 6,040 | 2 | 0 | 2.09 | 0.00 | 4 | 0 |
| Durum | 540 | 0 | 0 | - | - | 0 | 0 |
| Barley | 3,500 | 150 | 390 | 3.13 | 6.40 | 469 | 2,498 |
| Oats | 800 | 210 | 115 | 3.15 | 7.28 | 661 | 838 |
| Mixed Grains | 120 | 45 | 55 | 3.38 | 7.91 | 152 | 435 |
| Triticale | 35 | 5 | 15 | 2.91 | 5.78 | 15 | 87 |
| Other Crops* | 6,895 | 0 | 0 | - | - | 0 | 0 |
| Total | 17,930 | 412 | 575 | 3.16 | 6.71 | 1,302 | 3,857 |
| 2010 Spring Wheat | 6,000 | 50 | 5 | 2.51 | 6.27 | 126 | 31 |
| Durum | 360 | 0 | 0 | - | - | 0 | 0 |
| Barley | 3,750 | 195 | 380 | 3.04 | 6.74 | 593 | 2,561 |
| Oats | 950 | 245 | 120 | 2.99 | 6.94 | 733 | 833 |
| Mixed Grains | 180 | 80 | 55 | 3.38 | 7.91 | 271 | 435 |
| Triticale | 40 | 5 | 10 | 2.96 | 7.56 | 15 | 76 |
| Other Crops* | 6,370 | 0 | 0 | - | - | 0 | 0 |
| Total | 17,650 | 575 | 570 | 3.02 | 6.91 | 1,737 | 3,936 |
| 2009 Spring Wheat | 5,875 | 205 | 75 | 1.05 | 3.06 | 216 | 229 |
| Durum | 930 | 20 | - | 0.91 | - | 18 | - |
| Barley | 3,960 | 370 | 455 | 2.28 | 4.38 | 843 | 1,994 |
| Oats | 835 | 350 | 130 | 1.96 | 3.76 | 686 | 488 |
| Mixed Grains | 185 | 100 | 50 | 1.93 | 4.55 | 193 | 227 |
| Triticale | 40 | 15 | 10 | 1.69 | 4.54 | 25 | 45 |
| Other Crops* | 5,800 | 175 | 225 | 0.97 | 2.12 | 169 | 476 |
| Total | 17,625 | 1,235 | 945 | 1.74 | 3.66 | 2,150 | 3,460 |
| 2008 Spring Wheat | 5,700 | - | 8 | - | 4.31 | - | 34 |
| Durum | 930 | - | - | - | - | - | - |
| Barley | 4,150 | 115 | 255 | 2.77 | 6.11 | 318 | 1,557 |
| Oats | 850 | 170 | 120 | 2.49 | 5.53 | 424 | 664 |
| Mixed Grains | 130 | 42 | 40 | 2.63 | 6.49 | 110 | 259 |
| Triticale | 35 | 8 | 10 | 2.8 | 6.67 | 22 | 67 |
| Other Crops* | 5,910 | - | 2 | - | - | - | - |
| Total | 17,705 | 335 | 435 | 2.61 | 5.93 | 875 | 2,582 |
| 2007 Spring Wheat | 4,867 | 2 | 8 | - | 5.67 | - | 45 |
| Durum | 765 | - | - | - | - | - | - |
| Barley | 4,850 | 180 | 340 | 2.49 | 5.72 | 449 | 1,943 |
| Oats | 1,050 | 190 | 125 | 2.45 | 5.4 | 465 | 675 |
| Mixed Grains | 140 | 50 | 55 | 2.54 | 5.67 | 127 | 312 |
| Triticale | 40 | 8 | 11 | 2.72 | 7.17 | 22 | 79 |
| Other Crops* | 5,645 | - | 11 | - | 4.09 | - | 45 |
| Total | 17,357 | 430 | 550 | 2.47 | 5.64 | 1,063 | 3,099 |

* Other crops include canola and dry peas - Not available Totals may not add up due to rounding

Note: Yields and production are reported on a wet weight basis.

Source: Alberta Agriculture and Rural Development

Table 1 (Cont'd): Alberta Greenfeed and Silage Production

| | Total Seeded Area | Harvested Greenfeed Area | Harvested Silage Area | Average Greenfeed Yield | Average Silage Yield | Total Greenfeed Production | Total Silage Production |
|-------------------|-------------------|--------------------------|-----------------------|-------------------------|----------------------|----------------------------|-------------------------|
| 2006 Spring Wheat | 5,769 | 15 | 35 | 1.81 | 3.63 | 27 | 127 |
| Durum | 571 | - | - | - | - | - | - |
| Barley | 4,095 | 185 | 465 | 2.72 | 6.12 | 503 | 2,847 |
| Oats | 1,269 | 275 | 150 | 2.49 | 5.44 | 686 | 816 |
| Mixed Grains | 373 | 100 | 85 | 2.77 | 6.03 | 277 | 513 |
| Triticale | 76 | 20 | 30 | 3.04 | 6.8 | 61 | 204 |
| Other Crops* | 5,087 | 5 | 35 | 2.2 | 4.34 | 11 | 152 |
| Total | 17,240 | 600 | 800 | 2.61 | 5.82 | 1,565 | 4,660 |
| 2005 Spring Wheat | 5,587 | 25 | 40 | 2.5 | 4.9 | 63 | 196 |
| Durum | 860 | 5 | - | 1.8 | - | 9 | - |
| Barley | 4,225 | 185 | 455 | 3 | 7 | 555 | 3,185 |
| Oats | 1,250 | 290 | 235 | 3.15 | 7.15 | 914 | 1,680 |
| Mixed Grains | 220 | 110 | 75 | 3.15 | 7.15 | 347 | 536 |
| Triticale | 65 | 20 | 20 | 3.05 | 7.3 | 61 | 146 |
| Other Crops* | 4,855 | 5 | 35 | 2.4 | 4.46 | 12 | 156 |
| Total | 17,062 | 640 | 860 | 3.06 | 6.86 | 1,960 | 5,900 |
| 2004 Spring Wheat | 5,285 | 25 | 10 | 2.5 | 2.6 | 63 | 26 |
| Durum | 875 | - | - | - | - | - | - |
| Barley | 4,720 | 245 | 340 | 3.3 | 7.2 | 809 | 2,448 |
| Oats | 1,450 | 285 | 220 | 3.35 | 6.9 | 955 | 1,518 |
| Mixed Grains | 210 | 55 | 105 | 3.4 | 7.1 | 187 | 746 |
| Triticale | 100 | 17 | 28 | 3.8 | 7.9 | 65 | 221 |
| Other Crops* | 4,615 | 8 | 12 | 2.88 | 3.42 | 23 | 41 |
| Total | 17,255 | 635 | 715 | 3.31 | 6.99 | 2,100 | 5,000 |
| 2003 Spring Wheat | 5,158 | 90 | 20 | 1.27 | 3.63 | 114 | 73 |
| Durum | 1,025 | 5 | - | 0.91 | - | 5 | - |
| Barley | 5,300 | 380 | 500 | 2.18 | 4.99 | 827 | 2,495 |
| Oats | 1,600 | 470 | 270 | 2 | 4.63 | 938 | 1,249 |
| Mixed Grains | 250 | 80 | 130 | 2.04 | 4.54 | 163 | 590 |
| Other Crops* | 3,950 | 10 | 50 | 1 | 2.4 | 10 | 120 |
| Total | 17,283 | 1,035 | 970 | 1.99 | 4.67 | 2,058 | 4,526 |
| 2002 Spring Wheat | 5,159 | 500 | 520 | 0.64 | 1.27 | 318 | 660 |
| Durum | 1,100 | 30 | 40 | 0.36 | 0.82 | 11 | 33 |
| Barley | 5,360 | 750 | 1,000 | 0.83 | 2.09 | 626 | 2,087 |
| Oats | 1,650 | 450 | 310 | 0.82 | 1.54 | 367 | 478 |
| Mixed Grains | 250 | 70 | 80 | 0.82 | 2 | 57 | 160 |
| Other Crops* | 3,600 | 200 | 550 | 0.61 | 1.06 | 121 | 583 |
| Total | 17,119 | 2,000 | 2,500 | 0.75 | 1.6 | 1,500 | 4,000 |

* Other crops include canola and dry peas - Not available Totals may not add up due to rounding

Note: Yields and production are reported on a wet weight basis.

Source: Alberta Agriculture and Rural Development