**Supplementary material**

Table A1. Organic milk production costs and returns per hundredweight sold, by region, 2005

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Northeast | Corn Belt | West | Upper Midwest | All regions |
|  | *Dollars per hundredweight* |
| Gross value of production |  |  |  |  |
| Milk sold  | 24.17 | 20.77 | 19.15 | 20.73 | 20.76 |
| Cattle  | 1.60 | 2.00 | 1.53 | 1.80 | 1.64 |
| Other income  | 0.78 | 0.64 | 0.54 | 0.66 | 0.63 |
| Total | 26.65 | 23.20 | 21.28 | 22.93 | 22.99 |
|  |   |   |   |   |   |
| Feed |  |  |  |  |  |
| Purchased feed | 7.06 | 5.30 | 8.64 | 3.52 | 6.73 |
| Homegrown feed | 5.99 | 6.74 | 1.74 | 8.31 | 4.74 |
| Grazed feed | 0.87 | 0.56 | 0.49 | 0.50 | 0.58 |
| Total feed costs | 7.77 | 7.46 | 9.51 | 3.88 | 7.50 |
|  |  |  |  |  |  |
| Other operating costs |  |  |  |  |  |
| Vet and medicine | 0.70 | 0.67 | 0.63 | 0.55 | 0.62 |
| Bedding & litter | 0.46 | 0.36 | 0.15 | 0.37 | 0.29 |
| Marketing | 0.28 | 0.25 | 0.25 | 0.26 | 0.26 |
| Custom services | 0.20 | 0.44 | 0.22 | 0.48 | 0.40 |
| Fuel, lube, electricity | 0.96 | 0.78 | 0.74 | 0.79 | 0.73 |
| Repairs | 0.99 | 1.13 | 0.89 | 0.87 | 0.91 |
| Other operating costs | 0.14 | 0.10 | 0.05 | 0.11 | 0.08 |
| Interest on operating capital | 0.29 | 0.25 | 0.23 | 0.26 | 0.26 |
| Total other operating costs | 4.02 | 3.98 | 3.21 | 3.69 | 3.55 |
|  |  |  |  |  |  |
| Total operating costs | 17.65 | 15.00 | 14.09 | 15.94 | 15.43 |
|  |   |   |   |   |   |
| Value of production less operating costs | 9.00 | 8.20 | 7.19 | 6.99 | 7.56 |
|  |  |  |  |  |  |
| Net return on assets | 0.04 | 0.05 | 0.05 | 0.05 | 0.04 |
| Net return on hh assets | 0.03 | 0.05 | 0.05 | 0.05 | 0.04 |
|  |  |  |  |  |  |
| Milk cows per farm  | 50 | 63 | 209 | 59 | 79 |
| Milk per cow (pounds) | 12,498 | 13,717 | 18,670 | 15,230 | 16,173 |
| Milk per farm (pounds) | 619,513 | 861,419 | 3,911,024 | 900,920 | 1,274,282 |

Notes: Northeast = ME, NY, PA, and VT; Upper Midwest = MI, MN, WI; Corn Belt = IA, IN, IL, MO and OH; West = CA, ID, OR and WA.

Source: ARMS 2005.

**Table A2. Organic milk production costs and returns per hundredweight sold, by region, 2010**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Northeast | Corn Belt | West | Upper Midwest | All regions |
|  | *Dollars per hundredweight* |
| Gross value of production |  |  |  |  |
| Milk sold  | 28.27 | 25.15 | 27.48 | 24.69 | 26.59 |
| Cattle  | 1.24 | 1.54 | 1.37 | 1.52 | 1.41 |
| Other income  | 1.31 | 1.18 | 0.95 | 1.06 | 1.11 |
| Total | 30.82 | 27.87 | 29.80 | 27.27 | 29.11 |
| Operating costs |  |  |  |  |
| Feed |  |  |  |  |  |
| Purchased feed | 6.58 | 5.37 | 10.39 | 4.00 | 7.08 |
| Homegrown feed | 7.26 | 10.35 | 3.51 | 10.18 | 7.36 |
| Grazed feed | 0.99 | 0.73 | 0.62 | 0.86 | 0.80 |
| Total feed costs | 14.83 | 16.45 | 14.52 | 15.04 | 15.24 |
|  |  |  |  |  |  |
| Other |  |  |  |  |  |
| Vet and medicine | 0.64 | 0.50 | 0.84 | 0.63 | 0.68 |
| Bedding & litter | 0.59 | 1.06 | 0.38 | 0.65 | 0.59 |
| Marketing | 0.25 | 0.20 | 0.23 | 0.29 | 0.25 |
| Custom services | 0.57 | 0.57 | 0.40 | 0.43 | 0.50 |
| Fuel, lube, electricity | 1.47 | 1.50 | 0.79 | 1.23 | 1.20 |
| Repairs | 1.57 | 1.56 | 1.20 | 1.17 | 1.33 |
| Other operating costs | 0.16 | 0.15 | 0.05 | 0.16 | 0.12 |
| Interest on operating capital | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| Total other operating costs | 5.27 | 5.56 | 3.91 | 4.58 | 4.69 |
|  |  |  |  |  |  |
| Total operating costs | 20.11 | 22.01 | 18.43 | 19.62 | 19.93 |
|  |  |  |  |  |  |
| Value of production less operating costs | 10.71 | 5.86 | 11.37 | 7.65 | 9.18 |
|  |  |  |  |  |  |
| Net return on assets | 0.05 | 0.05 | 0.03 | 0.04 | 0.04 |
| Net return on hh assets | 0.08 | 0.07 | 0.02 | 0.06 | 0.05 |
|  |  |  |  |  |  |
| Milk cows per farm  | 64 | 64 | 288 | 64 | 77 |
| Milk per cow (pounds) | 12,625 | 13,676 | 17,042 | 13,676 | 13,884 |
| Milk per farm (pounds) | 851,717 | 606,880 | 7,878,466 | 877,414 | 1,395,565 |

Notes: Northeast = ME, NY, PA, and VT; Upper Midwest = MI, MN, WI; Corn Belt = IA, IN, IL, MO and OH; West = CA, ID, OR and WA.

Source: ARMS, 2010.

**Table A3. Organic milk production costs and returns per hundredweight sold, by region, 2016**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Northeast | Corn Belt | West | Upper Midwest | All regions |
|  | *dollars per hundredweight* |
| Gross value of production |  |  |  |  |
| Milk sold  | 33.07 | 30.01 | 34.98 | 31.60 | 32.71 |
| Cattle  | 1.48 | 2.39 | 2.05 | 2.18 | 2.00 |
| Other income  | 0.81 | 0.73 | 0.90 | 0.67 | 0.77 |
| Total | 35.35 | 32.49 | 37.94 | 33.95 | 35.23 |
|  | *dollars per hundredweight* |
| Operating costs |  |  |  |  |
| Feed |  |  |  |  |  |
| Purchased feed | 9.06 | 7.48 | 10.62 | 6.32 | 8.27 |
| Homegrown feed | 8.96 | 7.06 | 1.87\* | 8.01 | 6.39 |
| Grazed feed | 0.77 | 0.66 | 1.11 | 0.59 | 0.78 |
| Total feed costs | 17.62 | 13.72 | 13.88 | 14.43 | 14.92 |
| Other |  |  |  |  |  |
| Vet and medicine | 0.55 | 0.76 | 0.51 | 0.72 | 0.63 |
| Bedding & litter | 0.49 | 0.40 | 0.18 | 0.49 | 0.39 |
| Marketing | 0.22 | 0.22 | 0.48 | 0.17 | 0.28 |
| Custom services | 0.58 | 0.79 | 0.41 | 0.76 | 0.62 |
| Fuel, lube, electricity | 0.93 | 0.95 | 0.77 | 1.11 | 0.96 |
| Repairs | 1.75 | 1.69 | 1.25 | 1.82 | 1.63 |
| Other operating costs | 0.19 | 0.15 | 0.05 | 0.13 | 0.12 |
| Interest on operating capital | 0.05 | 0.04 | 0.04 | 0.05 | 0.04 |
| Total other operating costs | 4.76 | 5 | 3.69 | 5.25 | 4.67 |
| Total operating costs | 22.37 | 18.72 | 17.58 | 19.67 | 19.60 |
|  |  |  |  |  |  |
| Value of production less operating costs | 12.98 | 13.77 | 20.35 | 14.28 | 15.63 |
|  |  |  |  |  |  |
| Net return on assets | 0.06 | 0.07 | 0.13 | 0.07 | 0.08 |
| Net return on hh assets | 0.05 | 0.07 | 0.14 | 0.07 | 0.08 |
|  | *per farm* |
| Milk cows per farm | 58 | 48 | 424 | 85 | 89 |
| Pounds of milk per cow | 13,945 | 14,793 | 14,298 | 16,047 | 14,902 |
| Milk per cow (pounds) | 802,218 | 716,040 | 6,061,474 | 1,365,010 | 1,324,848 |

Notes: Northeast = ME, NY, PA,VT, and VA; Upper Midwest = MI, MN, WI, and KY; Corn Belt = IA, IN, IL, MO and OH; West = CA, ID, OR, WA, and TX.

Source: ARMS, 2016

**Table A4. Organic milk production, cows, and operations, 2008, 2011, 2016, 2019**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Region | Year | Operations | Cows | Cows per farm | Pounds | Pounds per farm |
| Northeast | 2008 | 812 | \* | n/a | 436,516,340 | 688,512 |
| Northeast | 2011 | 722 | 48,625 | 67 | 556,722,343 | 794,183 |
| Northeast | 2016 | 1,042 | 61,313 | 59 | 766,972,290 | 736,058 |
| Northeast | 2019 | 1,289 | 82,098 | 64 | 917,510,314 | 711,800 |
|  |  |  |  |   |  |  |
| Corn Belt | 2008 | 287 | \* | n/a  | 173,923,401 | 606,005 |
| Corn Belt | 2011 | 315 | 16,380 | 52 | 186,165,963 | 591,003 |
| Corn Belt | 2016 | 547 | 25,079 | 46 | 308,907,438 | 564,730 |
| Corn Belt | 2019 | 645 | 34,088 | 53 | 365,532,021 | 566,716 |
|  |  |  |  |   |  |  |
| West | 2008 | 222 | \* | n/a  | 1,386,704,932 | 6,331,986 |
| West | 2011 | 182 | 96,463 | 530 | 1,336,684,219 | 7,638,196 |
| West | 2016 | 229 | 116,141 | 507 | 1,869,189,699 | 8,457,872 |
| West | 2019 | 290 | 178,630 | 616 | 2,984,575,959 | 10,291,641 |
|  |  |  |  |   |  |  |
| Upper Midwest | 2008 | 627 | \* | n/a  | 347,099,288 | 670,076 |
| Upper Midwest | 2011 | 557 | 37,413 | 67 | 438,904,598 | 858,913 |
| Upper Midwest | 2016 | 636 | 44,183 | 69 | 565,897,170 | 892,582 |
| Upper Midwest | 2019 | 754 | 53,858 | 71 | 655,106,172 | 871,152 |

Note: The number of cows is not disclosed for 2008.

Source: USDA, Organic Surveys.