

**2002-03 Sugarbeet Costs and Returns  
Updates from USDA's Agricultural Resource Management Survey**

**Mir B. Ali**

*Agricultural Economist  
Resource Economics Division, ERS, USDA*

Sugarbeet production in 2003 totaled 30.5 million tons, up 10 percent from 2002's production. U.S. farmers planted sugarbeets on 1.36 million acres, 4.3 percent below 2002. Sugarbeet planted acreage declined in most sugarbeet growing States. The Red River Valley region (Minnesota and eastern North Dakota) had the largest share of U.S. sugarbeet acreage, 751,000 planted acres, a decrease of 2.5 percent over 2002. The Red River valley region typically has about half of the U.S. sugarbeet acreage.

The overall 2003 prices paid index for farm production inputs rose an average 4 percent over 2002. However, the increase in prices varied among individual inputs. The largest increases were for fuel (25 percent), fertilizer (15 percent), seed (8 percent), followed by farm machinery and labor (2 percent). Prices for agricultural chemicals were slightly up over 2002 (1 percent).

Reflecting the increase in prices paid, average 2003 operating costs of producing sugarbeets were more than in 2002. Average estimated operating costs were \$365 per planted acre among all U.S. beet growers, ranging from \$302 per acre in the Red River Valley to \$531 in the Northwest. The total estimated cost ("see table") of producing the 2003 beet crop averaged \$872 per acre, a figure that is \$26 per acre more than 2002 estimated costs. At the regional level, total estimated costs in 2003 ranged from \$716 per acre in the Red River Valley to \$1,250 in the Northwest. This wide range derives from differences in production practices and input use. Irrigation expenses in the Northwest and the Great Plains increased costs there relative to the other regions.

U.S. sugarbeet yields averaged 22.5 tons per planted acre in 2003, 2.4 tons per acre above that observed in 2002. Sugarbeet yields were higher in 2003 than in 2002 in all beet growing regions due to near ideal weather conditions. However, the influence of growing and harvest conditions on yields varied among regions. In the Great Plains and Northwest, beet yields in 2003 increased the most due primarily to irrigation combined with favorable growing conditions. Red River Valley beet yields were about 2 tons per acre more than in 2002, an average of 20.3 tons per planted acre.

On a per-ton basis, the operating costs of producing sugarbeets in 2003 were estimated at \$16.22, varying from \$14.88 to \$18.23 per ton at the regional level. U.S. beet growers averaged \$38.77 per ton in total costs of producing sugarbeets. Among regions, growers in the Red River Valley produced beets at the lowest total cost (\$35.28 per ton) compared with \$41- \$43 per ton in other regions.

Sugarbeet cost and return estimates are based on data collected in a special sugarbeet survey as part of the 2000 USDA Agricultural Resource Management Survey (ARMS). Therefore, the

2002 and 2003 estimates reflect the technology that was used in 2000 (for details, refer to “Characteristics and Production Costs of U.S. Sugarbeet Farms”, Ali, 2004). Annual changes in input-output prices and yields reported by USDA-NASS in *Agricultural Prices* and *Crop Production* were used to update costs and returns to 2002 and 2003 levels. The sugarbeet cost-of-production estimates were developed using accounting methods recommended by the American Agricultural Economics Association’s Task Force on Commodity Costs and Returns (1998). Note that the Southwest region is not shown in the table due to insufficient sample size in the 2000 ARMS, but this region’s sugarbeet costs and returns were included in the U.S. averages.

ERS’ time series costs of production can be found on ERS’ webpage.  
<http://www.ers.usda.gov/Data/CostsAndReturns/>

Contact: Mir Ali, (202) 694-5558, email: [mirali@ers.usda.gov](mailto:mirali@ers.usda.gov)

### References

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Sugarbeet production costs and returns per planted acre, 2002-03 1/

Item	United States		Great Lakes		Red River Valley		Great Plains		Northwest	
	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003
<i>Dollars per planted acre</i>										
Gross value of production:										
Beets	792.14	886.73	752.54	767.82	721.69	791.90	745.86	950.37	1,035.84	1,210.56
Beet tops/grazing	0.10	0.09	0.00	0.00	0.00	0.00	0.69	0.66	0.00	0.00
Total, gross value of production	792.24	886.82	752.54	767.82	721.69	791.90	746.55	951.03	1,035.84	1,210.56
Cash expenses:										
Seed	46.63	45.60	42.77	41.97	48.02	47.12	50.26	48.81	41.79	41.05
Fertilizer	47.41	57.45	68.04	80.31	29.79	36.96	59.56	76.31	76.37	90.38
Chemicals	95.96	96.39	74.17	74.37	109.72	109.60	78.05	78.19	86.54	86.90
Custom operations	32.77	34.53	29.37	30.15	23.53	24.81	35.21	37.84	46.70	50.00
Fuel, lube, and electricity	47.95	50.58	46.31	48.14	23.07	24.40	46.97	50.32	125.98	131.46
Repairs	45.78	47.39	55.56	56.90	37.00	38.59	51.66	54.64	64.39	66.20
Purchased irrigation water	4.86	5.06	0.00	0.00	0.06	0.06	8.94	9.94	16.40	17.04
Freight and dirt hauling	14.78	16.05	19.80	21.05	13.88	15.08	12.97	14.81	14.65	15.35
Miscellaneous	16.43	17.43	3.21	3.34	13.65	14.39	17.23	19.79	29.13	30.72
Hauling allowance (-)	7.43	7.29	0.00	0.00	10.45	10.45	8.23	7.41	1.30	1.33
Interest on operating capital	2.92	1.92	2.87	1.89	2.44	1.59	2.98	2.03	4.23	2.80
Total, operating costs	348.06	365.11	342.10	358.12	290.71	302.15	355.60	385.27	504.88	530.57
Allocated overhead:										
Hired labor	61.76	63.54	31.92	32.32	55.95	58.44	55.30	56.50	102.56	102.67
Opportunity cost of unpaid labor	83.87	84.51	106.97	108.31	53.70	56.11	154.33	160.43	93.64	93.40
Capital recovery (machinery)	149.83	154.52	172.94	173.35	123.34	128.54	163.55	173.12	215.18	220.48
Opportunity cost of land	124.03	123.71	129.81	129.81	86.27	86.26	135.22	132.97	214.75	215.17
Taxes and insurance	15.24	15.59	14.42	14.74	12.84	13.13	16.23	16.90	21.52	21.94
General farm overhead	34.95	35.92	28.57	29.23	28.92	29.58	37.62	39.95	46.18	47.12
Coop share	28.56	29.39	12.16	12.36	41.33	42.02	11.55	11.75	18.69	19.04
Total, allocated overhead	498.24	507.18	496.79	500.12	402.35	414.08	573.80	591.62	712.52	719.82
Total costs listed	846.30	872.29	838.89	858.24	693.06	716.23	929.40	976.89	1,217.40	1,250.39
Value of production less total costs listed	-54.06	14.53	-86.35	-90.42	28.63	75.67	-182.85	-25.86	-181.56	-39.83
Value of production less operating costs	44.18	521.71	410.44	409.70	430.98	489.75	390.95	565.76	530.96	679.99
Yield (tons/planted acre) 2/	20.10	22.50	19.70	20.10	18.50	20.30	18.60	23.70	24.90	29.10
Season-average price (dollars/ton) 3/	39.41	39.41	38.20	38.20	39.01	39.01	40.10	40.10	41.60	41.60

1/ Developed from survey base year, 2000. 2003 estimates are preliminary.

2/ Yields are those reported in USDA's 2000-Agricultural Resource Management Survey of sugarbeet growers adjusted for year-to-year changes as reported in *Crop Production*, NASS/USDA.

3/ Sugarbeet season-average prices are for 2002 because State prices for 2003 will not be available until January 2005.

Note: Sugarbeet regions defined as: Great Lakes (Michigan), Red River Valley (eastern North Dakota, Minnesota), Great Plains (western North Dakota, Montana, Wyoming, Nebraska, Colorado), Northwest (Idaho, Oregon, Washington), and Southwest (California). The Southwest region is not reported because of limited data, but is included in the U.S. averages.