



# Double-Crop Sunflowers in North Central and Eastern Kansas

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## Cost-Return Projections

Sunflowers are becoming a popular cash crop in North Central and Eastern Kansas. The purpose of this projection is to provide estimated costs and returns for forward farm planning.

Costs and returns are estimated for double-crop (after small grain) sunflowers. In Eastern and especially South-eastern Kansas, full season sunflowers are not recommended because of insect problems. Another important factor in sunflower production is the limited markets available for selling sunflowers. Marketing arrangements should be made before planting.

## Yield Levels

Cost per bushel and net returns in crop production are highly dependent on yields. The following estimated budget includes three different yield levels. Yield levels vary for a number of reasons such as soil type, land quality, weather, input levels, and management. The three yield levels included in this estimated budget reflects yield variability due to input levels and management as opposed to land quality since land values are held constant. Budgeting at multiple yield levels can help producers examine the financial risk of a crop enterprise that is directly related to production risk.

## Variable and Fixed Costs

Table 1 shows some of the assumptions used to develop this budget. Note the lime amount assumes that one ton of ECC is applied every five years. See MF-942, *Cost-Return Budgets—Dryland Crops*, for herbicide, insecticide, and seed usage.

Variable costs are costs that vary with level of production such as fertilizer, repairs, and fuel oil. Interest on variable costs is calculated for one-half year.

Fixed cost are costs that do not vary with level of production, and are incurred by virtue of owning assets such as land and machinery. Land costs for double crop sunflowers are charged to the main crop.

Machinery investment was estimated for an average size farm to meet tillage, planting, and harvest requirements. Interest on machinery was calculated on one-half the original cost plus salvage value.

## Profit and Return Factors

Net return on investment is the percentage return on investment. This measure enables comparisons to be made between other enterprises as well as other investment alternatives. Asset turnover is the percentage of investment recovered by total returns. Inverting this measure allows different enterprises to be compared on the basis of capital required to generate a dollar of gross income.

**Table 1. Factors Used for Cost-Return Budget**

| Item                        | Yield Level (lb) |        |        |           |
|-----------------------------|------------------|--------|--------|-----------|
|                             | 800              | 1,000  | 1,200  |           |
| Fertilizer:                 |                  |        |        |           |
| N (Anhy.)                   | 0                | 0      | 0      | \$0.19/lb |
| N (Dry)                     | 40               | 40     | 40     | \$0.29/lb |
| P                           | 0                | 0      | 0      | \$0.27/lb |
| K                           | 0                | 0      | 0      | \$0.13/lb |
| Lime                        | 400              | 400    | 400    | \$0.01/lb |
| Planting pop.               | 23,400           | 23,400 | 23,400 |           |
| Seed cost,                  |                  |        |        |           |
| \$/1000 seeds               | \$0.55           | \$0.55 | \$0.55 |           |
| Labor Hours                 | 1.25             | 1.25   | 1.25   |           |
| Labor Price/Hour            |                  |        |        | \$9.00    |
| Land Value/Acre             |                  |        |        | \$0       |
| Land Interest Rate          |                  |        |        | 6.00%     |
| Machinery Investment        |                  |        |        | \$60.00   |
| Machinery Life              |                  |        |        | 10 yrs    |
| Salvage value               |                  |        |        | 35.00%    |
| Interest Rate on Machinery  |                  |        |        | 10.00%    |
| Insurance Rate on Machinery |                  |        |        | 0.25%     |
| Interest on Variable Costs  |                  |        |        | 10.00%    |

**COST-RETURN PROJECTION—DOUBLE CROP SUNFLOWERS—  
NORTH CENTRAL AND EASTERN KANSAS**

|                                                                               | Yield Level (lb) |         |          | Your Farm |
|-------------------------------------------------------------------------------|------------------|---------|----------|-----------|
|                                                                               | 800              | 1,000   | 1,200    |           |
| VARIABLE COSTS PER ACRE:                                                      |                  |         |          |           |
| 1. Labor (1.25 hrs × \$9.00/hr) .....                                         | \$11.25          | \$11.25 | \$11.25  |           |
| 2. Seed (23,400 seeds × \$.55/1,000) .....                                    | 12.87            | 12.87   | 12.87    |           |
| 3. Herbicide (\$9.89) and Insecticide (\$12.26) .....                         | 22.15            | 22.15   | 22.15    |           |
| 4. Fertilizer and Lime .....                                                  | 13.60            | 13.60   | 13.60    |           |
| 5. Fuel and Oil .....                                                         | 5.40             | 5.50    | 5.60     |           |
| 6. ....                                                                       |                  |         |          |           |
| 7. Machinery & Equipment Repairs .....                                        | 8.85             | 8.85    | 8.85     |           |
| 8. ....                                                                       |                  |         |          |           |
| 9. Crop Insurance .....                                                       |                  |         |          |           |
| 10. Drying (\$.30/cwt) .....                                                  | 2.40             | 3.00    | 3.60     |           |
| 11. Custom Hire .....                                                         |                  |         |          |           |
| 12. Crop Consulting .....                                                     |                  |         |          |           |
| 13. Miscellaneous .....                                                       | 2.55             | 2.55    | 2.55     |           |
| 14. Interest on 1/2 Variable Costs @ 10% .....                                | 3.95             | 3.99    | 4.02     |           |
| A. TOTAL VARIABLE COSTS .....                                                 | \$83.02          | \$83.76 | \$84.49  |           |
| FIXED COSTS PER ACRE:                                                         |                  |         |          |           |
| 15. Real Estate Taxes @ .5% .....                                             |                  |         |          |           |
| 16. Interest on Land (\$585/a × 6%) <sup>1</sup> .....                        |                  |         |          |           |
| 17. Rent for Rented Land .....                                                |                  |         |          |           |
| 18. Depreciation on Crop Machinery .....                                      | 3.90             | 3.90    | 3.90     |           |
| 19. Interest on Crop Machinery <sup>2</sup> @ 10% .....                       | 4.05             | 4.05    | 4.05     |           |
| 20. ....                                                                      |                  |         |          |           |
| 21. ....                                                                      |                  |         |          |           |
| 22. Insurance on Machinery @ .25% .....                                       | 0.15             | 0.15    | 0.15     |           |
| B. TOTAL FIXED COSTS .....                                                    | \$8.10           | \$8.10  | \$8.10   |           |
| C. TOTAL COSTS (A + B) .....                                                  | \$91.12          | \$91.86 | \$92.59  |           |
| D. YIELD PER ACRE .....                                                       | 800              | 1,000   | 1,200    |           |
| E. PRICE PER CWT .....                                                        | \$9.35           | \$9.35  | \$9.35   |           |
| F. NET GOVERNMENT PAYMENT <sup>3</sup> .....                                  |                  |         |          |           |
| G. RETURNS PER ACRE ((D × E) + F) .....                                       | \$74.80          | \$93.50 | \$112.20 |           |
| H. RETURNS OVER VARIABLE COSTS (G-A) .....                                    | \$ -8.22         | \$9.74  | \$27.71  |           |
| I. RETURNS OVER TOTAL COSTS (G-C) .....                                       | \$ -16.32        | \$1.64  | \$19.61  |           |
| J. VARIABLE COSTS PER CWT (A ÷ D) .....                                       | \$10.38          | \$8.38  | \$7.04   |           |
| K. FIXED COSTS PER CWT(B ÷ D) .....                                           | \$1.01           | \$0.81  | \$0.68   |           |
| L. TOTAL COSTS PER CWT (C ÷ D) .....                                          | \$11.39          | \$9.19  | \$7.72   |           |
| M. ASSET TURNOVER (G ÷ INVESTMENT) <sup>4</sup> .....                         | 124.67%          | 155.83% | 187.00%  |           |
| N. NET RETURN ON INVESTMENT<br>((I+14+16+19) ÷ INVESTMENT) <sup>4</sup> ..... | -13.87%          | 16.13%  | 46.13%   |           |

<sup>1</sup>Assumes interest rate shown in Table 1.<sup>2</sup>Assumes one-half the (original cost plus salvage value) at the interest rate shown in Table 1.<sup>3</sup>Net government payment equals yield per acre (D) times expected deficiency payment minus prorated cost of set-aside acres. Based on 15% flex acres and 5% ARP. The price used was a five-year average price. The twelve month national average price for the crop year. The 1995 farm program may have major changes.<sup>4</sup>Investment equals total value of all fixed assets shown in Table 1.**COOPERATIVE EXTENSION SERVICE, MANHATTAN, KANSAS**

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