

**Summer Annuals, Hay, No-Till Establishment
Estimated Expenses per Acre**

| Item | Description | Unit | Quantity | Price | Amount (\$/acre) | Your Farm |
|--------------------------------|----------------------|------|-----------|----------|---------------------|--------------|
| Variable Expenses | | | | | | |
| Seed ¹ | Sorghum-Sudan Hybrid | lb | 35.00 | \$ 0.35 | \$ 12.25 | _____ |
| Fertilizer ² | N | lb | 120.00 | \$ 0.48 | \$ 57.60 | _____ |
| | P2O5 | lb | 30.00 | \$ 0.34 | \$ 10.20 | _____ |
| | K2O | lb | 60.00 | \$ 0.23 | \$ 13.80 | _____ |
| | Custom Application | acre | 2.00 | \$ 5.00 | \$ 10.00 | _____ |
| Lime ³ | Custom Application | ton | 0.50 | \$ 21.00 | \$ 10.50 | _____ |
| Weed Control | | | | | | |
| Burndown | Gramoxone Max | pt | 1.50 | \$ 4.91 | \$ 7.37 | _____ |
| | Surfactant | pt | 0.50 | \$ 1.63 | \$ 0.82 | _____ |
| | Custom Application | acre | 1.00 | \$ 5.00 | \$ 5.00 | _____ |
| Post-Emerge | 2,4-D Amine | pt | 2.00 | \$ 2.05 | \$ 4.10 | _____ |
| | Custom Application | acre | 1.00 | \$ 5.00 | \$ 5.00 | _____ |
| Twine | | bale | 6.00 | \$ 0.24 | \$ 1.43 | _____ |
| Machinery | | | | | | |
| Fuel | | acre | 1.00 | \$ 23.21 | \$ 23.21 | _____ |
| Oil & Filter | | acre | 1.00 | \$ 3.48 | \$ 3.48 | _____ |
| Repairs & Maintenance | | acre | 1.00 | \$ 28.73 | \$ 28.73 | _____ |
| Interest on Operating Capital | 6 Months | acre | \$ 193.48 | 8.0% | \$ 7.74 | _____ |
| Total Variable Expenses | | | | | \$ 201.22 | _____ |
| Fixed Expenses | | | | | | |
| Machinery | | | | | | |
| Depreciation | | acre | 1.00 | \$ 13.63 | \$ 13.63 | _____ |
| Interest | | acre | 1.00 | \$ 17.62 | \$ 17.62 | _____ |
| Housing & Insurance | | acre | 1.00 | \$ 1.56 | \$ 1.56 | _____ |
| Total Fixed Expenses | | | | | \$ 32.81 | _____ |
| Labor Expenses | | | | | | |
| Labor ⁴ | | hour | 4.51 | \$ 8.50 | \$ 38.30 | _____ |
| Total Budgeted Expenses | | | | | \$ 272.33 | _____ |

Footnotes:

¹Pearlmillet and sudangrass may also be used for hay.

²60 lbs of nitrogen applied at seeding, remainder applied following first cutting of hay, assuming seed is planted before June 20.

³Lime is applied at the rate of 2 tons every 4 years.

⁴Labor expense is \$8.50 per hour, including wages, Social Security and Medicaid taxes and payroll administration costs.

**Summer Annuals, Hay, No-Till Establishment
Estimated Machinery and Labor Requirements per Acre**

| Month | Operation | Power Unit | Implement | Hours per Acre | |
|--------------|---------------------------|----------------|------------------------|----------------|-------------|
| | | | | Machine | Labor |
| May | Burndown (Gramoxone Max) | Custom | Custom | --- | --- |
| May | Fertilize & Lime | Custom | Custom | --- | --- |
| May | Plant | Tractor, 70 hp | No-Till Drill, 10' | 0.47 | 0.59 |
| Jun | Post-Emerge (2-4,D Amine) | Custom | Custom | --- | --- |
| Jul | Mow | Tractor, 70 hp | Mower-Conditioner, 9' | 0.37 | 0.46 |
| Jul | Tedder, 10', 2X | Tractor, 70 hp | Tedder, 10' | 0.20 | 0.25 |
| Jul | Rake | Tractor, 70 hp | Rake, 18' | 0.19 | 0.24 |
| Jul | Bale | Tractor, 70 hp | Baler, Round, 5 x 4 | 0.40 | 0.50 |
| Jul | Stack & Move | Tractor, 70 hp | Front-End Loader/Spear | 0.40 | 0.50 |
| Jul | Fertilize | Custom | Custom | --- | --- |
| Sep | Mow | Tractor, 70 hp | Mower-Conditioner, 9' | 0.37 | 0.46 |
| Sep | Tedder, 10', 2X | Tractor, 70 hp | Tedder, 10' | 0.20 | 0.25 |
| Sep | Rake | Tractor, 70 hp | Rake, 18' | 0.19 | 0.24 |
| Sep | Bale | Tractor, 70 hp | Baler, Round, 5 x 4 | 0.40 | 0.50 |
| Sep | Stack & Move | Tractor, 70 hp | Front-End Loader/Spear | 0.40 | 0.50 |
| Total | | | | 4.51 | 4.51 |

Estimated Machinery Expenses per Acre

| Machine | Hours per Acre | Variable Cost | | | Total Variable Costs | Fixed Cost | | | Total Fixed Costs |
|-----------------------------|----------------|-----------------|----------------|-----------------|----------------------|-----------------|-----------------|---------------------|-------------------|
| | | Fuel | Oil & Filter | Repairs | | Depreciation | Interest | Housing & Insurance | |
| Tractor, 70 hp | 3.60 | 23.21 | 3.48 | 7.65 | 34.34 | 4.63 | 5.50 | 0.41 | 10.54 |
| No-Till Drill, 10' | 0.47 | 0.00 | 0.00 | 5.05 | 5.05 | 1.91 | 3.15 | 0.24 | 5.30 |
| Mower-Conditioner, 9' | 0.74 | 0.00 | 0.00 | 3.76 | 3.76 | 2.03 | 3.31 | 0.27 | 5.62 |
| Tedder, 10' | 0.40 | 0.00 | 0.00 | 0.22 | 0.22 | 0.17 | 0.27 | 0.08 | 0.52 |
| Rake, 18' | 0.38 | 0.00 | 0.00 | 0.27 | 0.27 | 0.22 | 0.25 | 0.07 | 0.54 |
| Baler, Round, 5 x 4 | 0.81 | 0.00 | 0.00 | 10.72 | 10.72 | 3.48 | 3.82 | 0.38 | 7.68 |
| Front-End Loader/Spear | 0.81 | 0.00 | 0.00 | 1.07 | 1.07 | 1.19 | 1.32 | 0.10 | 2.61 |
| Total | | \$ 23.21 | \$ 3.48 | \$ 28.73 | \$ 55.42 | \$ 13.63 | \$ 17.62 | \$ 1.56 | \$ 32.81 |
| Total Machinery Cost | | | | | | | | | \$ 88.23 |

Break-even Analysis

| | | <u>Yield/Acre</u> | | <u>Break-even Price/Ton</u> |
|--|---------------------|-------------------|--|-----------------------------|
| Break-even Price over Total Variable Expenses: | Below-Average Yield | 1.5 tons | | \$ 134.15 |
| | Average Yield | 3.0 tons | | \$ 67.07 |
| | Above-Average Yield | 4.5 tons | | \$ 44.72 |
| Break-even Price over Total Budgeted Expenses: | Below-Average Yield | 1.5 tons | | \$ 181.55 |
| | Average Yield | 3.0 tons | | \$ 90.78 |
| | Above-Average Yield | 4.5 tons | | \$ 60.52 |