

Winter Annual, Hay, Round Bale
Estimated Expenses per Acre^{1,2}

| Item | Description | Unit | Quantity | Price | Amount (\$/acre) | Amount (\$/ton) | Amount (\$/bale) | Round 4x5 710 |
|--|--------------------------|---------|-----------|-----------|------------------|-----------------|------------------|---------------------|
| Income | | | | | | | | |
| Hay | Triticale | ton | 2.50 | \$ 150.00 | \$ 375.00 | \$ 150.00 | \$ 53.25 | |
| Expenses | | | | | | | | |
| Burndown | Burndown | acre | 1.00 | \$ 15.66 | \$ 15.66 | \$ 6.26 | \$ 2.22 | |
| Seed | Triticale | lb | 100.00 | \$ 0.52 | \$ 52.00 | \$ 20.80 | \$ 7.38 | |
| Fertilizer | N ³ | lb | 120.00 | \$ 0.60 | \$ 71.84 | \$ 28.73 | \$ 10.20 | |
| | P2O5 | lb | 40.00 | \$ 0.61 | \$ 24.54 | \$ 9.82 | \$ 3.49 | |
| | K2O | lb | 40.00 | \$ 0.41 | \$ 16.35 | \$ 6.54 | \$ 2.32 | |
| | Custom Application | acre | 2.00 | \$ 12.71 | \$ 25.42 | \$ 10.17 | \$ 3.61 | |
| Lime & Application ^{4,5} | Custom Application | ton | 0.50 | \$ 43.63 | \$ 21.82 | \$ 8.73 | \$ 3.10 | |
| Weed Control | | | | | | | | |
| Post-Emerge ⁶ | Herbicide Application | acre | | \$ 12.30 | \$ - | \$ - | \$ - | |
| | Custom Application | acre | | \$ 11.81 | \$ - | \$ - | \$ - | |
| Pest Control | Pest Control Application | acre | | \$ 6.51 | \$ - | \$ - | \$ - | |
| | Custom Application | acre | | \$ 11.81 | \$ - | \$ - | \$ - | |
| Total Variable Expenses | | | | | \$ 227.63 | \$ 91.05 | \$ 32.32 | |
| Return over Variable Expenses | | | | | \$ 147.37 | \$ 58.95 | \$ 20.93 | |
| Custom Machinery Cost | | | | | | | | |
| Spraying | | acre | 1 | \$ 11.81 | \$ 11.81 | \$ 4.72 | \$ 1.68 | |
| No-till Drill | | acre | 1 | \$ 17.08 | \$ 17.08 | \$ 6.83 | \$ 2.43 | |
| Disk Mowing | | cutting | 1 | \$ 16.50 | \$ 16.50 | \$ 6.60 | \$ 2.34 | |
| Tedding | | cutting | 1 | \$ 6.67 | \$ 6.67 | \$ 2.67 | \$ 0.95 | |
| Raking | | cutting | 1 | \$ 8.67 | \$ 8.67 | \$ 3.47 | \$ 1.23 | |
| Baling | | cutting | 1 | \$ 13.17 | \$ 92.75 | \$ 37.10 | \$ 13.17 | |
| Hauling | | bale | 7.04 | \$ 5.42 | \$ 38.17 | \$ 15.27 | \$ 5.42 | |
| Total Custom Machinery Cost | | | | | \$ 191.65 | \$ 76.66 | \$ 27.21 | |
| Interest on Operating Capital | 6 months | acre | \$ 227.63 | 8.0% | \$ 9.11 | \$ 3.64 | \$ 1.29 | |
| Cash Rent | | acre | 1.0% | | \$ - | \$ - | \$ - | |
| Storage | | | | | | | | |
| Fixed Cost | Hay Barn | bale | 7.04 | \$ 4.43 | \$ 31.22 | \$ 12.49 | \$ 4.43 | |
| Shrinkage Loss ⁷ | | annual | 3.5% | | \$ 14.99 | \$ 6.00 | \$ 2.13 | |
| Total Storage Cost | | | | | \$ 46.21 | \$ 18.48 | \$ 6.56 | |
| Total Budgeted Expenses | | | | | \$ 474.59 | \$ 189.83 | \$ 67.39 | |
| Return to Land & Management | | | | | \$ (99.59) | \$ (39.83) | \$ (14.14) | |

Return Above Variable Expenses

| | Price (\$/ton) | | | | |
|--------------|----------------|------------|-----------|-----------|-----------|
| | \$ 100.00 | \$ 125.00 | \$ 150.00 | \$ 175.00 | \$ 200.00 |
| Yield | 1.5 | 2.0 | 2.5 | 3.0 | 3.5 |
| | \$ (77.63) | \$ (40.13) | \$ (2.63) | \$ 34.87 | \$ 72.37 |
| | \$ (27.63) | \$ 22.37 | \$ 72.37 | \$ 122.37 | \$ 172.37 |
| | \$ 22.37 | \$ 84.87 | \$ 147.37 | \$ 209.87 | \$ 272.37 |
| | \$ 72.37 | \$ 147.37 | \$ 222.37 | \$ 297.37 | \$ 372.37 |
| | \$ 122.37 | \$ 209.87 | \$ 297.37 | \$ 384.87 | \$ 472.37 |

Return Above Fixed Expenses

| | Price (\$/ton) | | | | |
|--------------|----------------|-------------|-------------|-------------|-------------|
| | \$ 100.00 | \$ 125.00 | \$ 150.00 | \$ 175.00 | \$ 200.00 |
| Yield | 1.5 | 2.0 | 2.5 | 3.0 | 3.5 |
| | \$ (324.59) | \$ (287.09) | \$ (249.59) | \$ (212.09) | \$ (174.59) |
| | \$ (274.59) | \$ (224.59) | \$ (174.59) | \$ (124.59) | \$ (74.59) |
| | \$ (224.59) | \$ (162.09) | \$ (99.59) | \$ (37.09) | \$ 25.41 |
| | \$ (174.59) | \$ (99.59) | \$ (24.59) | \$ 50.41 | \$ 125.41 |
| | \$ (124.59) | \$ (37.09) | \$ 50.41 | \$ 137.91 | \$ 225.41 |

Return Above Variable Expenses

| | Variable (per bale) | Total Costs (per bale) |
|--------------|---------------------|------------------------|
| Yield | 1.4 | \$119.81 |
| | 1.9 | \$89.85 |
| | 2.5 | \$67.39 |
| | 3.1 | \$53.91 |
| | 3.9 | \$43.13 |

Return Above Fixed Expenses

| | Price (\$/bale) | | | | |
|---------------------|-----------------|-------------|-------------|------------|------------|
| | \$ 43.25 | \$ 48.25 | \$ 53.25 | \$ 58.25 | \$ 63.25 |
| Yield (bale) | 3.0 | 5.0 | 7.0 | 9.0 | 11.0 |
| | \$ (112.75) | \$ (107.75) | \$ (102.75) | \$ (97.75) | \$ (92.75) |
| | \$ (50.87) | \$ (45.87) | \$ (40.87) | \$ (35.87) | \$ (30.87) |
| | \$ (24.14) | \$ (19.14) | \$ (14.14) | \$ (9.14) | \$ (4.14) |
| | \$ (9.24) | \$ (4.24) | \$ 0.76 | \$ 5.76 | \$ 10.76 |
| | \$ 0.27 | \$ 5.27 | \$ 10.27 | \$ 15.27 | \$ 20.27 |

Summer and Winter Annual Assumptions

1. The budget is based on custom rates for machinery processes. Labor, operating, maintenance, and ownership costs are included in these rates. The baling rate includes binding.
2. The budget is based on no-till establishment.
3. Nitrogen is applied in split applications.
4. Lime prorated at one ton over two years.
5. For a more accurate fertilizer and lime recommendation, take a soil sample. ([Instructions on how to take a soil sample.](#))
6. The post-emergence weed control is based on an average of three common practices. Burndown is a common practice. For weed control and/or burndown recommendations, contact the county Extension office. ([County office contact information.](#))
7. Storage loss is based on an average of multiple studies.