**Table 1. Diverse crop rotation yields for grain, oilseed, forage, and cover crops**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Crop** | **Units** | **2011** | **2012** | **2-Yr** **Avg** | **Crop Value, $** |
| Spring Wheat – Control  | Bu/Ac | 28.0 | 55.7 | 41.9 | 323.88 |
|  Protein Content | % | 13.4 | 15.0 | 14.2 |  |
|  Test Weight | Lb | 59.3 | 58.3 | 58.8 |  |
| Spring Wheat – Rotation  | Bu/Ac | 30.1 | 45.1 | 37.6 | 288.02 |
|  Protein Content | % | 13.7 | 13.4 | 13.6 |  |
|  Test Weight | Lb | 58.8 | 59.5 | 59.2 |  |
| Sunflower (oilseed type) | Lb/Ac | 890.8 | 1590.2 | 1240.5 | 249.34 |
|  Percent oil Content | % | - | 37.3 | 37.3 |  |
| Corn Grain (90 Day forage type) | Bu/Ac | 15.0 | 55.2 | 35.2 | 260.48 |
| Corn Forage (Dry Matter (DM)) | T/Ac | 1.65 | 3.66 | 2.66 | 212.80 |
| Triticale – Hairy Vetch Hay  | T/Ac | 2.71 | 1.59 | 2.15 | 172.00 |
| Pea Grain  | Bu/Ac | 19.1 | - | 19.1 | 162.35 |
| Pea-Barley Forage (DM) | T/Ac | - | 3.11 | 3.11 |  |
| Cover Crop: |  |  |  |  |  |
|  September  | T/Ac | - | 4.25 | 4.25 |  |
|  October | T/Ac | - | 2.61 | 2.61 | 208.80 |
|  November | T/Ac | - | 1.67 | 1.67 |  |

**Table 2. Cow and calf performance through weaning a**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Control** | **Integrated** | **Forage** |
| No. Cows with Calves | 72 | 72 | 72 |
| Cow:  |  |  |  |
|  Start Wt., lb. | 1441 | 1348 | 1321 |
|  Wean Wt., lb | 1386 | 1361 | 1337 |
|  Gain, lb  | -55 | 13 | 16 |
|  ADG, lb  | -0.35 | 0.083 | 0.103 |
|  Cow BCS b:  |  |  |  |
|  Start | 6.3 | 5.9 | 6.1 |
|  Weaning | 4.4 | 4.4 | 4.5 |
| Calf:  |  |  |  |
|  Birth Wt., lb | 88.3 | 88.8 | 88.7 |
|  Weaning Age, d | 176.1 | 176.2 | 176.5 |
|  Weaning Wt., lb | 515 | 508 | 499 |
|  ADG, lb  | 3.30 | 3.26 | 3.20 |

aGrazing of native range pasture started on June 16, 2013 and calves were weaned

 November 19, 2012 a total of 156 days.

bBody Condition Score: (1 – emaciated; 9 – obese)

**Table 3. Yearling Steer Extended Grazing Economics: Income, Expense, and Net Retur**n

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Perennial** **Grass** | **Perennial Grass & Ann. Forage** | **Feedlot** |
| No. Steers | 24 | 24 | 23 |
| **Income:**  |  |  |  |
| Carcass Value/Head, $ | **1747.48** | **1760.94** | **1376.87** |
|  |  |  |  |
| **Expenses:**  |  |  |  |
| Steer Cost/Head, $ | 998.78 | 1012.80 | 991.38 |
| Winter Pre-Grazing Cost/Head, $ | 60.00 | 60.00 | 60.00 |
| Grazing Cost/Head |  |  |  |
|  Perennial Grass | 156.12 | 90.48 |  |
|  Field Pea/Barley |  | 49.87 |  |
|  Standing Unharvested Corn |  | 94.36 |  |
| Feedlot Feeding Cost/Head, $ | 356.79 | 265.03 | 505.60 |
| Transportation, Health & Brand | 70.75 | 65.32 | 87.44 |
|  |  |  |  |
| Total System Expense/Head, $ | **1642.44** | **1637.86** | **1644.42** |
|  |  |  |  |
| **System Net Return/Head, $** | **105.04** | **123.08** | **-267.55** |