# Detailed Summary (Yield Unit)

CS1YR - Corn silage non-irr (1st year after sod) - WIDATA99  
Created: 02/01/1999

## Gross Value of Production

<table>
<thead>
<tr>
<th>Products</th>
<th>Price</th>
<th>Quantity</th>
<th>Times Over 1 Acre</th>
<th>Cost per 1 Acre Yield Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CORN SILAGE - 35% DM (75)</strong></td>
<td>$22.500 per ton</td>
<td>20.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>450.00</td>
<td></td>
<td>22.50</td>
</tr>
</tbody>
</table>

## Operating Costs

### Input Expenses

1. **FERTILITY**
   - FROM PLOWDOWN CR - LBS N  
     $0.140 per lbs  
     120.00  
     1.00  
     16.80  
     0.84
   - DAIRY MANURE  
     $2.000 per ton  
     12.00  
     1.00  
     24.00  
     1.20
   - N, P & K 09-23-30 LB  
     $0.010 per lb  
     100.00  
     1.00  
     1.00  
     0.05

2. **SEED_PLANTS**
   - CORN SEED - BAG  
     $90.000 per bag  
     0.40  
     1.00  
     36.00  
     1.80

3. **MISCELLANEOUS**
   - CUSTOM SPRAYING  
     $7.000 per acre  
     1.00  
     2.00  
     14.00  
     0.70
   - PEST SCOUTING  
     $7.500 per acre  
     1.00  
     7.50  
     0.38
   - CROP INSURANCE - CORN  
     $11.000 per acre  
     1.00  
     11.00  
     0.55

4. **WEED_CONTROL**
   - DUAL II-GAL  
     $71.610 per gal  
     0.31  
     1.00  
     22.38  
     1.12
   - CLARITY-GAL  
     $90.670 per gal  
     0.13  
     1.00  
     11.33  
     0.57
   - ROUNDUP ULTRA-GAL  
     $41.600 per gal  
     0.25  
     1.00  
     10.40  
     0.52

### Energy Expenses

- DIESEL FUEL  
  $0.950 per gal  
  10.64  
  10.11  
  0.51
- GASOLINE  
  $1.150 per gal  
  0.90  
  1.03  
  0.05
- ELECTRICITY  
  $0.070 per KW hr  
  2.00  
  0.14  
  0.01
- ENGINE LUBRICATION  
  1.67  
  1.67  
  0.08  
  0.08  
  12.96  
  0.65

### Repair & Maintenance Expenses

- POWER UNIT  
  2.42  
  2.42  
  0.12
- IMPLEMENT  
  3.89  
  3.89  
  0.19
- DURABLE  
  0.40  
  0.40  
  0.02  
  0.02  
  6.72  
  0.34

### Input Interest Expenses

- $174.084  
  0.06  
  10.45  
  0.52

**Total Operating Costs**: 184.53  
**9.23**

**Value of Prod. Less Total Operating Costs**: 265.47  
**13.27**
### Input Expenses

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Rate</th>
<th>Units</th>
<th>Amount</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/miscellaneous</td>
<td>MANAGEMENT</td>
<td>6.000%</td>
<td>1.00</td>
<td>27.00</td>
<td>1.35</td>
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<tr>
<td></td>
<td>LAND CHARGE</td>
<td>$50.000</td>
<td>1.00</td>
<td>50.00</td>
<td>2.50</td>
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<tr>
<td></td>
<td>PROPERTY TAXES</td>
<td>$22.000</td>
<td>1.00</td>
<td>22.00</td>
<td>1.10</td>
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<tr>
<td></td>
<td></td>
<td></td>
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<td>99.00</td>
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### Labor Expenses

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Rate</th>
<th>Units</th>
<th>Amount</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPERATOR</td>
<td>OPERATOR</td>
<td>$15.000</td>
<td>2.44</td>
<td>36.55</td>
<td>1.83</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>36.55</td>
<td>1.83</td>
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</table>

### Interest & Insurance Expenses

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Rate</th>
<th>Units</th>
<th>Amount</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>POWER UNIT</td>
<td></td>
<td>13.10</td>
<td></td>
<td>0.65</td>
<td></td>
</tr>
<tr>
<td>IMPLEMENT</td>
<td></td>
<td>19.85</td>
<td></td>
<td>0.99</td>
<td></td>
</tr>
<tr>
<td>DURABLE</td>
<td></td>
<td>2.36</td>
<td></td>
<td>0.12</td>
<td></td>
</tr>
</tbody>
</table>

### Depreciation Expenses

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Rate</th>
<th>Units</th>
<th>Amount</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>POWER UNIT</td>
<td></td>
<td>11.73</td>
<td></td>
<td>0.59</td>
<td></td>
</tr>
<tr>
<td>IMPLEMENT</td>
<td></td>
<td>18.98</td>
<td></td>
<td>0.95</td>
<td></td>
</tr>
<tr>
<td>DURABLE</td>
<td></td>
<td>1.64</td>
<td></td>
<td>0.08</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Rate</th>
<th>Units</th>
<th>Amount</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Allocated Overhead</td>
<td></td>
<td>203.21</td>
<td>10.16</td>
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<td></td>
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</tbody>
</table>

### Total

- Total Gross Value of Production: 450.00
- Total Operating Costs: 184.53
- Value of Prod. Less Total Operating Costs: 265.47
- Residual Return to Operator Labor & Management: 125.81
- Total Costs Listed: 387.74
- Value of Prod. Less Total Costs Listed: 62.26

### Calculations

- **Allocated Overhead:**
  - MANAGEMENT: 27.00 (6.000% of $22.000 per acre)
  - LAND CHARGE: 50.00 (1.00 acre)
  - PROPERTY TAXES: 22.00 (1.00 acre)
  - Total Overhead: $203.21

- **Labor Expenses:**
  - OPERATOR: 36.55 ($15.000 per hour, 2.44 hours)
  - Total Labor Expenses: $36.55

- **Interest & Insurance Expenses:**
  - POWER UNIT: 0.65
  - IMPLEMENT: 0.99
  - DURABLE: 0.12
  - Total Interest & Insurance Expenses: $35.31

- **Depreciation Expenses:**
  - POWER UNIT: 0.59
  - IMPLEMENT: 0.95
  - DURABLE: 0.08
  - Total Depreciation Expenses: $32.35

- **Total Allocated Overhead:**
  - Total labor expenses: 36.55
  - Interest and insurance expenses: 35.31
  - Depreciation expenses: 32.35
  - Total Allocated Overhead: 203.21

- **Total:**
  - Gross Value of Production: 450.00
  - Operating Costs: 184.53
  - Value of Production Less Operating Costs: 265.47
  - Residual Return: 125.81
  - Total Costs: 387.74
  - Value of Production Less Total Costs: 62.26
**Risk & Sensitivity Analysis**
CS1YR - Corn silage non-irr (1st year after sod) - WIDATA99

Created : 02/01/1999

### Risk Analysis
*(Value of Production less Total Costs as Price and Yield Vary)*

<table>
<thead>
<tr>
<th></th>
<th>-20%</th>
<th>-10%</th>
<th>Price</th>
<th>+10%</th>
<th>+20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>$18.00</td>
<td>$20.25</td>
<td>$22.50</td>
<td>$24.75</td>
<td>$27.00</td>
</tr>
<tr>
<td>-20%</td>
<td>16.00</td>
<td>$-99.74</td>
<td>$-63.74</td>
<td>$-27.74</td>
<td>$8.26</td>
</tr>
<tr>
<td>-10%</td>
<td>18.00</td>
<td>$-63.74</td>
<td>$-23.24</td>
<td>$17.26</td>
<td>$57.76</td>
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<tr>
<td>Yield</td>
<td>20.00</td>
<td>$-27.74</td>
<td>$17.26</td>
<td>$62.26</td>
<td>$107.26</td>
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<tr>
<td>+10%</td>
<td>22.00</td>
<td>$8.26</td>
<td>$57.76</td>
<td>$107.26</td>
<td>$156.76</td>
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<tr>
<td>+20%</td>
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<td>$44.26</td>
<td>$98.26</td>
<td>$152.26</td>
<td>$206.26</td>
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### Sensitivity Analysis
*(Break-Even Yields as Price and Total Costs Vary)*

<table>
<thead>
<tr>
<th></th>
<th>-20%</th>
<th>-10%</th>
<th>Price</th>
<th>+10%</th>
<th>+20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>$18.00</td>
<td>$20.25</td>
<td>$22.50</td>
<td>$24.75</td>
<td>$27.00</td>
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<tr>
<td>-20%</td>
<td>$310.19</td>
<td>17.23</td>
<td>15.32</td>
<td>13.79</td>
<td>12.53</td>
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<tr>
<td>-10%</td>
<td>$348.97</td>
<td>19.39</td>
<td>17.23</td>
<td>15.51</td>
<td>14.14</td>
</tr>
<tr>
<td>Total Costs</td>
<td>$387.74</td>
<td>21.54</td>
<td>19.15</td>
<td>17.23</td>
<td>15.67</td>
</tr>
<tr>
<td>+10%</td>
<td>$426.51</td>
<td>23.70</td>
<td>21.06</td>
<td>18.96</td>
<td>17.23</td>
</tr>
<tr>
<td>+20%</td>
<td>$465.29</td>
<td>25.85</td>
<td>22.98</td>
<td>20.68</td>
<td>18.80</td>
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</tbody>
</table>
# Machinery Expenses

**CS1YR - Corn silage non-irr (1st year after sod) - WIDATA99**

**Created: 02/01/1999**

<table>
<thead>
<tr>
<th>Power Unit</th>
<th>Main Implement</th>
<th>Add Imps.</th>
<th>Deprec. Interest</th>
<th>Labor</th>
<th>Energy</th>
<th>Repair</th>
<th>Over</th>
<th>Cost per Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRACTOR 130 HP MFWD</td>
<td>PLOW, DISC-CHISEL 10 FT</td>
<td>0</td>
<td>3.25</td>
<td>3.88</td>
<td>4.16</td>
<td>1.36</td>
<td>0.52</td>
<td>1.00</td>
</tr>
<tr>
<td>TRACTOR 130 HP</td>
<td>DISK, TANDEM 20 FT</td>
<td>0</td>
<td>1.49</td>
<td>1.89</td>
<td>1.68</td>
<td>0.55</td>
<td>0.25</td>
<td>1.00</td>
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<tr>
<td>TRACTOR 100 HP USED</td>
<td>PLANTER 06-30 MIN-TILL</td>
<td>1</td>
<td>2.53</td>
<td>2.94</td>
<td>3.11</td>
<td>0.72</td>
<td>0.88</td>
<td>1.00</td>
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<tr>
<td>TRACTOR 100 HP USED</td>
<td>CULTIVATOR 06-30</td>
<td>0</td>
<td>0.73</td>
<td>0.89</td>
<td>2.35</td>
<td>0.59</td>
<td>0.29</td>
<td>1.00</td>
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<tr>
<td>TRACTOR 160 HP MFWD</td>
<td>FORAGE HARV BASE LARGE</td>
<td>2</td>
<td>17.88</td>
<td>17.99</td>
<td>10.73</td>
<td>3.66</td>
<td>2.81</td>
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<td>TRACTOR 100 HP USED</td>
<td>FORAGE WAGON #2 16 FT</td>
<td>0</td>
<td>1.42</td>
<td>1.24</td>
<td>3.63</td>
<td>0.92</td>
<td>0.62</td>
<td>2.00</td>
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<tr>
<td>TRACTOR 130 HP</td>
<td>BLOWER, FORAGE LARGE</td>
<td>0</td>
<td>1.73</td>
<td>1.81</td>
<td>3.63</td>
<td>1.19</td>
<td>0.40</td>
<td>2.00</td>
</tr>
<tr>
<td>TRUCK, HALF TON GPICKUP 068</td>
<td></td>
<td>0</td>
<td>0.41</td>
<td>0.53</td>
<td>3.30</td>
<td>1.03</td>
<td>0.13</td>
<td>1.00</td>
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<tr>
<td>TRACTOR 100 HP USED</td>
<td>ROTARY HOE 15 FT</td>
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<td>0.51</td>
<td>0.62</td>
<td>1.73</td>
<td>0.44</td>
<td>0.23</td>
<td>1.00</td>
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<tr>
<td>TRACTOR 130 HP</td>
<td>CULTIVATOR, FIELD 18 FT</td>
<td>0</td>
<td>0.76</td>
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<td>2.09</td>
<td>0.68</td>
<td>0.17</td>
<td>1.00</td>
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<tr>
<td>ENGINE LUBRICATION</td>
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<td></td>
<td></td>
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</table>

**Total Machinery Expenses**

119.19