

*AgriProfit\$*

**Cost and Return Profiles for  
Selected Crops, 2001  
*Grey-Wooded Soil Zone***

**August, 2005**

**Alberta**  
AGRICULTURE, FOOD AND  
RURAL DEVELOPMENT



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## OVERVIEW

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### 2001 Grey Wooded Soil Zone

The AgriProfit\$ Cost and Return study is a provincial overview of costs and returns for various annual field crops and forages grown throughout the province. Participating farmers are surveyed throughout the winter and the Alberta Agriculture Economics Unit compiles all the information into this summary package. This detailed and world-class database is used for extension and research purposes.

In this package you will find a brief summary of various field crops and forages grown in the grey wooded soil zone. Where numbers warrant, there are two levels of analysis – the group average and the top third. The top third analysis is based on the top third of fields that have the highest return to equity.

The map on the upper right illustrates the Grey Wooded Soil Zone area of Alberta. Please note that farms highlighted within this zone may contain characteristics of neighbouring soil zones, however, this is the grouping method used for this study.

The map on the lower right highlights the locations of participating farmers for the 2001 survey season.

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2001 Participant Map coming soon























































## 2001 Crop Enterprise Analysis

*AgriProfit\$*

**Crop:** *Mixed Grass Hay - Own*  
**Soil Zone:** *Grey Wooded - Dryland*  
**Unit:** *Tonne*

		-----\$/Acre-----		-----\$/Tonne-----	
		Average	Top 1/3	Average	Top 1/3
<b>(A)</b>	1. Crop Sales	66.50	86.67	92.64	83.07
	2. Crop Insurance Receipts	7.29	19.32	10.16	18.52
	3. Other Receipts	30.22	66.96	42.11	64.18
<b>Gross Receipts</b>		<b>104.01</b>	<b>172.95</b>	<b>144.90</b>	<b>165.78</b>
<b>(B)</b>	<b>Cost Items</b>				
	1. Seed	0.00	0.00	0.00	0.00
	2. Fertilizer	5.23	5.85	7.28	5.60
	3. Chemical	1.33	1.01	1.86	0.97
	4. Hail/Crop Insurance Premium	0.76	2.01	1.05	1.92
	5. Trucking and Marketing	0.53	0.40	0.74	0.39
	6. Fuel	2.18	3.12	3.04	2.99
	7. Irrigation Fuel and Electricity	0.00	0.00	0.00	0.00
	8. Repairs - Machinery	7.76	5.46	10.81	5.23
	9. Repairs - Buildings	0.08	0.22	0.11	0.21
	10. Utilities and Miscellaneous	2.13	2.77	2.97	2.66
	11. Custom Work	2.87	0.83	4.00	0.80
	12. Operating Interest Paid	0.88	0.44	1.23	0.42
	13. Paid Labour	1.63	2.49	2.26	2.39
	14. Unpaid Labour	5.51	3.42	7.68	3.28
<b>Variable Costs</b>		<b>30.89</b>	<b>28.01</b>	<b>43.04</b>	<b>26.84</b>
<b>(C)</b>	1. Cash/ Share Land Rent	0.00	0.00	0.00	0.00
	2. Taxes, Water Rates, License & Ins.	3.87	3.01	5.39	2.89
	3. Equipment and Building: a) Depreciation	12.28	14.23	17.11	13.64
	b) Lease Payments	0.00	0.00	0.00	0.00
	4. Paid Capital Interest	5.05	5.87	7.03	22.15
<b>Capital Costs</b>		<b>21.20</b>	<b>23.11</b>	<b>29.53</b>	<b>38.67</b>
<b>(D)</b>	<b>Cash Costs (B+C-B14-C3a)</b>	<b>34.30</b>	<b>33.46</b>	<b>47.78</b>	<b>48.60</b>
<b>(E)</b>	<b>Total Production Costs (B+C)</b>	<b>52.09</b>	<b>51.11</b>	<b>72.57</b>	<b>65.52</b>
	<b>Gross Margin (A-D)</b>	<b>69.71</b>	<b>139.48</b>	<b>97.12</b>	<b>117.18</b>
	<b>Return to Unpaid Labour (A-E+B14)</b>	<b>57.43</b>	<b>125.26</b>	<b>80.01</b>	<b>103.54</b>
	<b>Return to Investment (A-E+C4)</b>	<b>56.97</b>	<b>127.71</b>	<b>79.36</b>	<b>122.41</b>
	<b>Return to Equity (A-E)</b>	<b>51.92</b>	<b>121.84</b>	<b>72.33</b>	<b>100.26</b>

**Investment**

Buildings	10.09	5.90
Machinery	115.97	141.88
Irrigation Machinery	0.00	0.00
<b>Total (incl. Land)</b>	<b>616.32</b>	<b>642.78</b>

**Management**

Average Yield	(Tonne/acre)	0.72	1.04
Expected Market Price	(\$/Tonne)	92.64	83.07

## 2001 Crop Enterprise Analysis

*AgriProfit\$*

**Crop:** *Mixed Grass Hay - Rent*  
**Soil Zone:** *Grey Wooded - Dryland*  
**Unit:** *Tonne*

		-----\$/Acre-----		-----\$/Tonne-----	
		Average	Top 1/3	Average	Top 1/3
<b>(A)</b>	1. Crop Sales	97.74	--	111.33	--
	2. Crop Insurance Receipts	0.00	--	0.00	--
	3. Other Receipts	0.08	--	0.09	--
	<b>Gross Receipts</b>	<b>97.82</b>	<b>0.00</b>	<b>111.42</b>	<b>0.00</b>
<b>(B)</b>	<b>Cost Items</b>				
	1. Seed	0.00	--	0.00	--
	2. Fertilizer	2.94	--	3.35	--
	3. Chemical	2.27	--	2.59	--
	4. Hail/Crop Insurance Premium	0.00	--	0.00	--
	5. Trucking and Marketing	1.86	--	2.12	--
	6. Fuel	3.81	--	4.34	--
	7. Irrigation Fuel and Electricity	0.00	--	0.00	--
	8. Repairs - Machinery	15.49	--	17.64	--
	9. Repairs - Buildings	0.10	--	0.11	--
	10. Utilities and Miscellaneous	4.65	--	5.30	--
	11. Custom Work	1.88	--	2.14	--
	12. Operating Interest Paid	2.24	--	2.55	--
	13. Paid Labour	6.20	--	7.06	--
	14. Unpaid Labour	8.36	--	9.52	--
	<b>Variable Costs</b>	<b>49.80</b>	<b>0.00</b>	<b>56.73</b>	<b>0.00</b>
<b>(C)</b>	1. Cash/ Share Land Rent	18.47	--	21.04	--
	2. Taxes, Water Rates, License & Ins.	1.64	--	1.86	--
	3. Equipment and Building: a) Depreciation	11.39	--	12.98	--
	b) Lease Payments	0.00	--	0.00	--
	4. Paid Capital Interest	1.32	--	1.50	--
	<b>Capital Costs</b>	<b>32.82</b>	<b>0.00</b>	<b>37.38</b>	<b>0.00</b>
<b>(D)</b>	<b>Cash Costs</b>	<b>62.87</b>	--	<b>71.60</b>	--
<b>(E)</b>	<b>Total Production Costs</b>	<b>82.62</b>	--	<b>94.11</b>	--
	<b>Gross Margin</b>	<b>34.95</b>	--	<b>39.81</b>	--
	<b>Return to Unpaid Labour</b>	<b>23.56</b>	--	<b>26.83</b>	--
	<b>Return to Investment</b>	<b>16.52</b>	--	<b>18.81</b>	--
	<b>Return to Equity</b>	<b>15.20</b>	--	<b>17.31</b>	--

**Investment**

Buildings	16.56	--
Machinery	107.66	--
Irrigation Machinery	0.00	--
<b>Total (incl. Land)</b>	<b>124.22</b>	--

**Management**

Average Yield	(Tonne/acre)	0.88	--
Expected Market Price	(\$/Tonne)	111.33	--

## 2001 Crop Enterprise Analysis

*AgriProfit\$*

**Crop:** Native/Slough Grass Hay - All  
**Soil Zone:** Grey Wooded - Dryland  
**Unit:** Tonne

		-----\$/Acre-----		-----\$/Tonne-----	
		Average	Top 1/3	Average	Top 1/3
<b>(A)</b>	1. Crop Sales	56.15	--	50.92	--
	2. Crop Insurance Receipts	0.00	--	0.00	--
	3. Other Receipts	5.20	--	4.71	--
<b>Gross Receipts</b>		<b>61.34</b>	<b>0.00</b>	<b>55.63</b>	<b>0.00</b>
<b>(B)</b>	<b>Cost Items</b>				
	1. Seed	0.00	--	0.00	--
	2. Fertilizer	0.00	--	0.00	--
	3. Chemical	0.00	--	0.00	--
	4. Hail/Crop Insurance Premium	0.00	--	0.00	--
	5. Trucking and Marketing	7.07	--	6.42	--
	6. Fuel	11.22	--	10.18	--
	7. Irrigation Fuel and Electricity	0.00	--	0.00	--
	8. Repairs - Machinery	6.25	--	5.67	--
	9. Repairs - Buildings	0.62	--	0.56	--
	10. Utilities and Miscellaneous	4.46	--	4.04	--
	11. Custom Work	4.55	--	4.13	--
	12. Operating Interest Paid	0.07	--	0.06	--
	13. Paid Labour	1.57	--	1.42	--
	14. Unpaid Labour	11.50	--	10.43	--
<b>Variable Costs</b>		<b>47.32</b>	<b>0.00</b>	<b>42.91</b>	<b>0.00</b>
<b>(C)</b>	1. Cash/ Share Land Rent	3.75	--	3.40	--
	2. Taxes, Water Rates, License & Ins.	1.76	--	1.59	--
	3. Equipment and Building: a) Depreciation	24.92	--	22.60	--
	b) Lease Payments	0.00	--	0.00	--
	4. Paid Capital Interest	11.49	--	10.42	--
<b>Capital Costs</b>		<b>41.91</b>	<b>0.00</b>	<b>38.01</b>	<b>0.00</b>
<b>(D)</b>	<b>Cash Costs (B+C-B14-C3a)</b>	<b>52.82</b>	--	<b>47.90</b>	--
<b>(E)</b>	<b>Total Production Costs (B+C)</b>	<b>89.23</b>	--	<b>80.93</b>	--
	<b>Gross Margin (A-D)</b>	<b>8.53</b>	--	<b>7.73</b>	--
	<b>Return to Unpaid Labour (A-E+B14)</b>	<b>(16.39)</b>	--	<b>(14.86)</b>	--
	<b>Return to Investment (A-E+C4)</b>	<b>(16.39)</b>	--	<b>(14.87)</b>	--
	<b>Return to Equity (A-E)</b>	<b>(27.89)</b>	--	<b>(25.29)</b>	--

**Investment**

Buildings	24.86	--
Machinery	243.58	--
Irrigation Machinery	0.00	--
<b>Total (incl. Land)</b>	<b>491.84</b>	--

**Management**

Average Yield	(Tonne/acre)	1.10	--
Expected Market Price	(\$/Tonne)	50.92	--

## 2001 Crop Enterprise Analysis

*AgriProfit\$*

Crop: *Greenfeed - All*  
 Soil Zone: *Grey Wooded - Dryland*  
 Unit: *Tonne*

		-----\$/Acre-----		-----\$/Tonne-----	
		Average	Top 1/3	Average	Top 1/3
<b>(A)</b>	1. Crop Sales	98.40	--	65.26	--
	2. Crop Insurance Receipts	0.00	--	0.00	--
	3. Other Receipts	3.03	--	2.01	--
<b>Gross Receipts</b>		<b>101.44</b>	<b>0.00</b>	<b>67.27</b>	<b>0.00</b>
<b>(B)</b>	<b>Cost Items</b>				
	1. Seed	11.70	--	7.76	--
	2. Fertilizer	16.74	--	11.10	--
	3. Chemical	4.36	--	2.89	--
	4. Hail/Crop Insurance Premium	0.75	--	0.49	--
	5. Trucking and Marketing	0.00	--	0.00	--
	6. Fuel	10.48	--	6.95	--
	7. Irrigation Fuel and Electricity	0.00	--	0.00	--
	8. Repairs - Machinery	6.87	--	4.56	--
	9. Repairs - Buildings	1.54	--	1.02	--
	10. Utilities and Miscellaneous	2.77	--	1.84	--
	11. Custom Work	11.90	--	7.89	--
	12. Operating Interest Paid	0.41	--	0.27	--
	13. Paid Labour	0.29	--	0.19	--
	14. Unpaid Labour	5.20	--	3.45	--
<b>Variable Costs</b>		<b>73.01</b>	<b>0.00</b>	<b>48.42</b>	<b>0.00</b>
<b>(C)</b>	1. Cash/ Share Land Rent	7.81	--	5.18	--
	2. Taxes, Water Rates, License & Ins.	2.44	--	1.62	--
	3. Equipment and Building: a) Depreciation	17.12	--	11.35	--
	b) Lease Payments	0.42	--	0.28	--
	4. Paid Capital Interest	2.48	--	1.65	--
<b>Capital Costs</b>		<b>30.27</b>	<b>0.00</b>	<b>20.07</b>	<b>0.00</b>
<b>(D)</b>	<b>Cash Costs</b>	<b>(B+C-B14-C3a)</b>	<b>80.96</b>	<b>--</b>	<b>53.69</b>
<b>(E)</b>	<b>Total Production Costs</b>	<b>(B+C)</b>	<b>103.28</b>	<b>--</b>	<b>68.49</b>
	<b>Gross Margin</b>	<b>(A-D)</b>	<b>20.48</b>	<b>--</b>	<b>13.58</b>
	<b>Return to Unpaid Labour</b>	<b>(A-E+B14)</b>	<b>3.35</b>	<b>--</b>	<b>2.22</b>
	<b>Return to Investment</b>	<b>(A-E+C4)</b>	<b>0.64</b>	<b>--</b>	<b>0.42</b>
	<b>Return to Equity</b>	<b>(A-E)</b>	<b>(1.85)</b>	<b>--</b>	<b>(1.22)</b>

**Investment**

Buildings	8.08	--
Machinery	164.68	--
Irrigation Machinery	0.00	--
<b>Total (incl. Land)</b>	<b>646.78</b>	<b>--</b>

**Management**

Average Yield	(Tonne/acre)	1.51	--
Expected Market Price	(\$/Tonne)	65.26	--

## 2001 Crop Enterprise Analysis

*AgriProfit\$*

Crop: *Greenfeed - Own*  
 Soil Zone: *Grey Wooded - Dryland*  
 Unit: *Tonne*

		-----\$/Acre-----		-----\$/Tonne-----	
		Average	Top 1/3	Average	Top 1/3
<b>(A)</b>	1. Crop Sales	96.29	--	61.93	--
	2. Crop Insurance Receipts	0.00	--	0.00	--
	3. Other Receipts	3.71	--	2.39	--
<b>Gross Receipts</b>		<b>100.00</b>	<b>0.00</b>	<b>64.32</b>	<b>0.00</b>
<b>(B)</b>	<b>Cost Items</b>				
	1. Seed	9.00	--	5.79	--
	2. Fertilizer	15.63	--	10.05	--
	3. Chemical	4.92	--	3.17	--
	4. Hail/Crop Insurance Premium	0.46	--	0.29	--
	5. Trucking and Marketing	0.00	--	0.00	--
	6. Fuel	7.95	--	5.11	--
	7. Irrigation Fuel and Electricity	0.00	--	0.00	--
	8. Repairs - Machinery	5.00	--	3.22	--
	9. Repairs - Buildings	0.00	--	0.00	--
	10. Utilities and Miscellaneous	2.48	--	1.59	--
	11. Custom Work	17.95	--	11.55	--
	12. Operating Interest Paid	0.58	--	0.37	--
	13. Paid Labour	0.07	--	0.05	--
	14. Unpaid Labour	5.70	--	3.67	--
<b>Variable Costs</b>		<b>69.74</b>	<b>0.00</b>	<b>44.86</b>	<b>0.00</b>
<b>(C)</b>	1. Cash/ Share Land Rent	0.00	--	0.00	--
	2. Taxes, Water Rates, License & Ins.	3.14	--	2.02	--
	3. Equipment and Building: a) Depreciation	16.23	--	10.44	--
	b) Lease Payments	0.00	--	0.00	--
	4. Paid Capital Interest	3.75	--	2.41	--
<b>Capital Costs</b>		<b>23.12</b>	<b>0.00</b>	<b>14.87</b>	<b>0.00</b>
<b>(D)</b>	<b>Cash Costs</b>	<b>(B+C-B14-C3a)</b>	<b>70.92</b>	<b>--</b>	<b>45.61</b>
<b>(E)</b>	<b>Total Production Costs</b>	<b>(B+C)</b>	<b>92.85</b>	<b>--</b>	<b>59.72</b>
	<b>Gross Margin</b>	<b>(A-D)</b>	<b>29.08</b>	<b>--</b>	<b>18.71</b>
	<b>Return to Unpaid Labour</b>	<b>(A-E+B14)</b>	<b>12.85</b>	<b>--</b>	<b>8.27</b>
	<b>Return to Investment</b>	<b>(A-E+C4)</b>	<b>10.89</b>	<b>--</b>	<b>7.01</b>
	<b>Return to Equity</b>	<b>(A-E)</b>	<b>7.15</b>	<b>--</b>	<b>4.60</b>

**Investment**

Buildings	5.28	--
Machinery	152.82	--
Irrigation Machinery	0.00	--
<b>Total (incl. Land)</b>	<b>873.19</b>	<b>--</b>

**Management**

Average Yield	(Tonne/acre)	1.55	--
Expected Market Price	(\$/Tonne)	61.93	--



## 2001 Crop Enterprise Analysis

*AgriProfit\$*

**Crop:** Grain Silage - All  
**Soil Zone:** Grey Wooded - Dryland  
**Unit:** Tonne

		-----\$/Acre-----		-----\$/Tonne-----	
		Average	Top 1/3	Average	Top 1/3
<b>(A)</b>	1. Crop Sales	217.69	312.83	34.77	38.87
	2. Crop Insurance Receipts	2.63	1.80	0.42	0.22
	3. Other Receipts	3.41	3.08	0.54	0.38
<b>Gross Receipts</b>		<b>223.74</b>	<b>317.70</b>	<b>35.73</b>	<b>39.47</b>
<b>(B)</b>	<b>Cost Items</b>				
	1. Seed	16.52	32.36	2.64	4.02
	2. Fertilizer	24.79	28.15	3.96	3.50
	3. Chemical	3.75	4.28	0.60	0.53
	4. Hail/Crop Insurance Premium	2.88	1.82	0.46	0.23
	5. Trucking and Marketing	2.19	2.66	0.35	0.33
	6. Fuel	10.46	11.09	1.67	1.38
	7. Irrigation Fuel and Electricity	0.00	0.00	0.00	0.00
	8. Repairs - Machinery	7.16	6.94	1.14	0.86
	9. Repairs - Buildings	1.17	1.43	0.19	0.18
	10. Utilities and Miscellaneous	6.32	5.40	1.01	0.67
	11. Custom Work	35.33	27.85	5.64	3.46
	12. Operating Interest Paid	2.45	1.16	0.39	0.14
	13. Paid Labour	5.74	5.09	0.92	0.63
	14. Unpaid Labour	8.97	4.29	1.43	0.53
<b>Variable Costs</b>		<b>127.72</b>	<b>132.53</b>	<b>20.40</b>	<b>16.47</b>
<b>(C)</b>	1. Cash/ Share Land Rent	13.65	5.83	2.18	0.72
	2. Taxes, Water Rates, License & Ins.	2.38	3.15	0.38	0.39
	3. Equipment and Building: a) Depreciation	17.75	15.01	2.84	1.87
	b) Lease Payments	0.07	0.00	0.01	0.00
	4. Paid Capital Interest	6.10	3.84	0.97	3.46
<b>Capital Costs</b>		<b>39.95</b>	<b>27.84</b>	<b>6.38</b>	<b>6.44</b>
<b>(D)</b>	<b>Cash Costs (B+C-B14-C3a)</b>	<b>140.94</b>	<b>141.06</b>	<b>22.51</b>	<b>20.51</b>
<b>(E)</b>	<b>Total Production Costs (B+C)</b>	<b>167.67</b>	<b>160.36</b>	<b>26.78</b>	<b>22.91</b>
	<b>Gross Margin (A-D)</b>	<b>82.79</b>	<b>176.65</b>	<b>13.22</b>	<b>18.97</b>
	<b>Return to Unpaid Labour (A-E+B14)</b>	<b>65.04</b>	<b>161.63</b>	<b>10.39</b>	<b>17.10</b>
	<b>Return to Investment (A-E+C4)</b>	<b>62.17</b>	<b>161.18</b>	<b>9.93</b>	<b>20.03</b>
	<b>Return to Equity (A-E)</b>	<b>56.07</b>	<b>157.34</b>	<b>8.95</b>	<b>16.57</b>

### Investment

Buildings	27.05	14.05
Machinery	170.97	160.54
Irrigation Machinery	0.00	0.00
<b>Total (incl. Land)</b>	<b>598.05</b>	<b>617.28</b>

### Management

Average Yield	(Tonne/acre)	6.26	8.05
Expected Market Price	(\$/Tonne)	34.77	38.87

## 2001 Crop Enterprise Analysis

*AgriProfit\$*

Crop: *Grain Silage - Own*  
 Soil Zone: *Grey Wooded - Dryland*  
 Unit: *Tonne*

		-----\$/Acre-----		-----\$/Tonne-----	
		Average	Top 1/3	Average	Top 1/3
<b>(A)</b>	1. Crop Sales	214.30	310.07	34.84	39.37
	2. Crop Insurance Receipts	3.10	2.12	0.50	0.27
	3. Other Receipts	4.67	3.48	0.76	0.44
<b>Gross Receipts</b>		<b>222.06</b>	<b>315.67</b>	<b>36.10</b>	<b>40.08</b>
<b>(B)</b>	<b>Cost Items</b>				
	1. Seed	19.09	36.31	3.10	4.61
	2. Fertilizer	26.21	27.16	4.26	3.45
	3. Chemical	4.33	5.03	0.70	0.64
	4. Hail/Crop Insurance Premium	3.35	2.08	0.54	0.26
	5. Trucking and Marketing	2.97	3.13	0.48	0.40
	6. Fuel	8.75	7.13	1.42	0.91
	7. Irrigation Fuel and Electricity	0.00	0.00	0.00	0.00
	8. Repairs - Machinery	5.66	4.30	0.92	0.55
	9. Repairs - Buildings	1.10	1.52	0.18	0.19
	10. Utilities and Miscellaneous	5.75	5.26	0.93	0.67
	11. Custom Work	36.40	32.77	5.92	4.16
	12. Operating Interest Paid	1.38	0.55	0.22	0.07
	13. Paid Labour	5.80	3.50	0.94	0.44
	14. Unpaid Labour	7.46	3.44	1.21	0.44
<b>Variable Costs</b>		<b>128.24</b>	<b>132.19</b>	<b>20.85</b>	<b>16.78</b>
<b>(C)</b>	1. Cash/ Share Land Rent	0.00	0.00	0.00	0.00
	2. Taxes, Water Rates, License & Ins.	2.67	3.58	0.43	0.45
	3. Equipment and Building: a) Depreciation	15.91	14.77	2.59	1.87
	b) Lease Payments	0.00	0.00	0.00	0.00
	4. Paid Capital Interest	7.25	3.75	1.18	2.81
<b>Capital Costs</b>		<b>25.83</b>	<b>22.10</b>	<b>4.20</b>	<b>5.13</b>
<b>(D)</b>	<b>Cash Costs (B+C-B14-C3a)</b>	<b>130.70</b>	<b>136.08</b>	<b>21.25</b>	<b>19.61</b>
<b>(E)</b>	<b>Total Production Costs (B+C)</b>	<b>154.07</b>	<b>154.28</b>	<b>25.05</b>	<b>21.92</b>
	<b>Gross Margin (A-D)</b>	<b>91.37</b>	<b>179.60</b>	<b>14.85</b>	<b>20.47</b>
	<b>Return to Unpaid Labour (A-E+B14)</b>	<b>75.46</b>	<b>164.83</b>	<b>12.27</b>	<b>18.60</b>
	<b>Return to Investment (A-E+C4)</b>	<b>75.25</b>	<b>165.14</b>	<b>12.23</b>	<b>20.97</b>
	<b>Return to Equity (A-E)</b>	<b>68.00</b>	<b>161.39</b>	<b>11.05</b>	<b>18.16</b>

### Investment

Buildings	22.45	13.07
Machinery	154.81	159.68
Irrigation Machinery	0.00	0.00
<b>Total (incl. Land)</b>	<b>731.49</b>	<b>693.68</b>

### Management

Average Yield	(Tonne/acre)	6.15	7.88
Expected Market Price	(\$/Tonne)	34.84	39.37

## 2001 Crop Enterprise Analysis

*AgriProfit\$*

Crop: *Grain Silage - Rent*  
 Soil Zone: *Grey Wooded - Dryland*  
 Unit: *Tonne*

		-----\$/Acre-----		-----\$/Tonne-----	
		Average	Top 1/3	Average	Top 1/3
<b>(A)</b>	1. Crop Sales	226.50	328.41	34.59	36.39
	2. Crop Insurance Receipts	1.42	0.00	0.22	0.00
	3. Other Receipts	0.16	0.79	0.02	0.09
<b>Gross Receipts</b>		<b>228.08</b>	<b>329.20</b>	<b>34.83</b>	<b>36.48</b>
<b>(B)</b>	<b>Cost Items</b>				
	1. Seed	9.87	10.03	1.51	1.11
	2. Fertilizer	21.13	33.80	3.23	3.75
	3. Chemical	2.25	0.00	0.34	0.00
	4. Hail/Crop Insurance Premium	1.66	0.40	0.25	0.04
	5. Trucking and Marketing	0.15	0.00	0.02	0.00
	6. Fuel	14.91	33.47	2.28	3.71
	7. Irrigation Fuel and Electricity	0.00	0.00	0.00	0.00
	8. Repairs - Machinery	11.04	21.88	1.69	2.42
	9. Repairs - Buildings	1.35	0.89	0.21	0.10
	10. Utilities and Miscellaneous	7.79	6.16	1.19	0.68
	11. Custom Work	32.55	0.00	4.97	0.00
	12. Operating Interest Paid	5.23	4.60	0.80	0.51
	13. Paid Labour	5.58	14.09	0.85	1.56
	14. Unpaid Labour	12.89	9.13	1.97	1.01
<b>Variable Costs</b>		<b>126.39</b>	<b>134.45</b>	<b>19.30</b>	<b>14.90</b>
<b>(C)</b>	1. Cash/ Share Land Rent	49.06	38.82	7.49	4.30
	2. Taxes, Water Rates, License & Ins.	1.63	0.74	0.25	0.08
	3. Equipment and Building: a) Depreciation	22.53	16.41	3.44	1.82
	b) Lease Payments	0.24	0.00	0.04	0.00
	4. Paid Capital Interest	3.10	4.37	0.47	6.68
<b>Capital Costs</b>		<b>76.56</b>	<b>60.32</b>	<b>11.69</b>	<b>12.89</b>
<b>(D)</b>	<b>Cash Costs (B+C-B14-C3a)</b>	<b>167.52</b>	<b>169.24</b>	<b>25.59</b>	<b>24.96</b>
<b>(E)</b>	<b>Total Production Costs (B+C)</b>	<b>202.95</b>	<b>194.77</b>	<b>31.00</b>	<b>27.79</b>
	<b>Gross Margin (A-D)</b>	<b>60.56</b>	<b>159.97</b>	<b>9.25</b>	<b>11.53</b>
	<b>Return to Unpaid Labour (A-E+B14)</b>	<b>38.03</b>	<b>143.56</b>	<b>5.81</b>	<b>9.71</b>
	<b>Return to Investment (A-E+C4)</b>	<b>28.23</b>	<b>138.79</b>	<b>4.31</b>	<b>15.38</b>
	<b>Return to Equity (A-E)</b>	<b>25.13</b>	<b>134.43</b>	<b>3.84</b>	<b>8.70</b>

### Investment

Buildings	38.98	19.58
Machinery	212.89	165.38
Irrigation Machinery	0.00	0.00
<b>Total (incl. Land)</b>	<b>251.86</b>	<b>184.96</b>

### Management

Average Yield	(Tonne/acre)	6.55	9.02
Expected Market Price	(\$/Tonne)	34.59	36.39

## 2001 Crop Enterprise Analysis

*AgriProfit\$*

Crop: *Haylage - All*  
 Soil Zone: *Grey Wooded - Dryland*  
 Unit: *Tonne*

		-----\$/Acre-----		-----\$/Tonne-----	
		Average	Top 1/3	Average	Top 1/3
<b>(A)</b>	1. Crop Sales	117.64	132.08	28.00	28.39
	2. Crop Insurance Receipts	0.00	0.00	0.00	0.00
	3. Other Receipts	19.47	35.90	4.63	7.72
<b>Gross Receipts</b>		<b>137.12</b>	<b>167.97</b>	<b>32.63</b>	<b>36.10</b>
<b>(B)</b>	<b>Cost Items</b>				
	1. Seed	0.47	0.00	0.11	0.00
	2. Fertilizer	8.19	6.78	1.95	1.46
	3. Chemical	0.00	0.00	0.00	0.00
	4. Hail/Crop Insurance Premium	0.19	0.00	0.04	0.00
	5. Trucking and Marketing	2.74	3.83	0.65	0.82
	6. Fuel	13.95	9.44	3.32	2.03
	7. Irrigation Fuel and Electricity	0.00	0.00	0.00	0.00
	8. Repairs - Machinery	11.73	6.90	2.79	1.48
	9. Repairs - Buildings	1.70	1.93	0.40	0.42
	10. Utilities and Miscellaneous	4.52	5.59	1.08	1.20
	11. Custom Work	4.99	0.00	1.19	0.00
	12. Operating Interest Paid	2.77	2.23	0.66	0.48
	13. Paid Labour	10.68	9.97	2.54	2.14
	14. Unpaid Labour	7.83	8.03	1.86	1.73
<b>Variable Costs</b>		<b>69.76</b>	<b>54.68</b>	<b>16.60</b>	<b>11.75</b>
<b>(C)</b>	1. Cash/ Share Land Rent	12.91	14.59	3.07	3.14
	2. Taxes, Water Rates, License & Ins.	1.96	1.69	0.47	0.36
	3. Equipment and Building: a) Depreciation	15.88	14.57	3.78	3.13
	b) Lease Payments	0.00	0.00	0.00	0.00
	4. Paid Capital Interest	12.30	16.58	2.93	10.19
<b>Capital Costs</b>		<b>43.05</b>	<b>47.42</b>	<b>10.24</b>	<b>16.82</b>
<b>(D)</b>	<b>Cash Costs (B+C-B14-C3a)</b>	<b>89.09</b>	<b>79.51</b>	<b>21.20</b>	<b>23.72</b>
<b>(E)</b>	<b>Total Production Costs (B+C)</b>	<b>112.80</b>	<b>102.11</b>	<b>26.84</b>	<b>28.58</b>
	<b>Gross Margin (A-D)</b>	<b>48.03</b>	<b>88.46</b>	<b>11.43</b>	<b>12.38</b>
	<b>Return to Unpaid Labour (A-E+B14)</b>	<b>32.14</b>	<b>73.90</b>	<b>7.65</b>	<b>9.25</b>
	<b>Return to Investment (A-E+C4)</b>	<b>36.61</b>	<b>82.44</b>	<b>8.71</b>	<b>17.72</b>
	<b>Return to Equity (A-E)</b>	<b>24.31</b>	<b>65.87</b>	<b>5.79</b>	<b>7.53</b>

**Investment**

Buildings	28.68	36.91
Machinery	153.01	127.07
Irrigation Machinery	0.00	0.00
<b>Total (incl. Land)</b>	<b>514.61</b>	<b>446.56</b>

**Management**

Average Yield	(Tonne/acre)	4.20	4.65
Expected Market Price	(\$/Tonne)	28.00	28.39

## 2001 Crop Enterprise Analysis

*AgriProfit\$*

Crop: *Haylage - Own*  
 Soil Zone: *Grey Wooded - Dryland*  
 Unit: *Tonne*

		-----\$/Acre-----		-----\$/Tonne-----	
		Average	Top 1/3	Average	Top 1/3
<b>(A)</b>	1. Crop Sales	124.48	--	32.61	--
	2. Crop Insurance Receipts	0.00	--	0.00	--
	3. Other Receipts	36.78	--	9.64	--
	<b>Gross Receipts</b>	<b>161.26</b>	<b>0.00</b>	<b>42.24</b>	<b>0.00</b>
<b>(B)</b>	<b>Cost Items</b>				
	1. Seed	0.00	--	0.00	--
	2. Fertilizer	13.81	--	3.62	--
	3. Chemical	0.00	--	0.00	--
	4. Hail/Crop Insurance Premium	0.37	--	0.10	--
	5. Trucking and Marketing	1.59	--	0.42	--
	6. Fuel	18.65	--	4.89	--
	7. Irrigation Fuel and Electricity	0.00	--	0.00	--
	8. Repairs - Machinery	11.60	--	3.04	--
	9. Repairs - Buildings	2.56	--	0.67	--
	10. Utilities and Miscellaneous	3.54	--	0.93	--
	11. Custom Work	7.84	--	2.05	--
	12. Operating Interest Paid	0.91	--	0.24	--
	13. Paid Labour	6.62	--	1.73	--
	14. Unpaid Labour	10.68	--	2.80	--
	<b>Variable Costs</b>	<b>78.17</b>	<b>0.00</b>	<b>20.48</b>	<b>0.00</b>
<b>(C)</b>	1. Cash/ Share Land Rent	0.00	--	0.00	--
	2. Taxes, Water Rates, License & Ins.	3.38	--	0.89	--
	3. Equipment and Building: a) Depreciation	22.30	--	5.84	--
	b) Lease Payments	0.00	--	0.00	--
	4. Paid Capital Interest	21.76	--	5.70	--
	<b>Capital Costs</b>	<b>47.45</b>	<b>0.00</b>	<b>12.43</b>	<b>0.00</b>
<b>(D)</b>	<b>Cash Costs</b>	<b>(B+C-B14-C3a)</b>	<b>92.64</b>	<b>--</b>	<b>24.27</b>
<b>(E)</b>	<b>Total Production Costs</b>	<b>(B+C)</b>	<b>125.62</b>	<b>--</b>	<b>32.91</b>
	<b>Gross Margin</b>	<b>(A-D)</b>	<b>68.62</b>	<b>--</b>	<b>17.98</b>
	<b>Return to Unpaid Labour</b>	<b>(A-E+B14)</b>	<b>46.33</b>	<b>--</b>	<b>12.14</b>
	<b>Return to Investment</b>	<b>(A-E+C4)</b>	<b>57.41</b>	<b>--</b>	<b>15.04</b>
	<b>Return to Equity</b>	<b>(A-E)</b>	<b>35.64</b>	<b>--</b>	<b>9.34</b>

**Investment**

Buildings	48.46	--
Machinery	209.44	--
Irrigation Machinery	0.00	--
<b>Total (incl. Land)</b>	<b>894.09</b>	<b>--</b>

**Management**

Average Yield	(Tonne/acre)	3.82	--
Expected Market Price	(\$/Tonne)	32.61	--

## 2001 Crop Enterprise Analysis

*AgriProfit\$*

Crop: *Haylage - Rent*  
 Soil Zone: *Grey Wooded - Dryland*  
 Unit: *Tonne*

		-----\$/Acre-----		-----\$/Tonne-----	
		Average	Top 1/3	Average	Top 1/3
<b>(A)</b>	1. Crop Sales	111.13	--	23.61	--
	2. Crop Insurance Receipts	0.00	--	0.00	--
	3. Other Receipts	0.28	--	0.06	--
<b>Gross Receipts</b>		<b>111.41</b>	<b>0.00</b>	<b>23.67</b>	<b>0.00</b>
<b>(B)</b>	<b>Cost Items</b>				
	1. Seed	1.02	--	0.22	--
	2. Fertilizer	1.31	--	0.28	--
	3. Chemical	0.00	--	0.00	--
	4. Hail/Crop Insurance Premium	0.00	--	0.00	--
	5. Trucking and Marketing	3.85	--	0.82	--
	6. Fuel	9.28	--	1.97	--
	7. Irrigation Fuel and Electricity	0.00	--	0.00	--
	8. Repairs - Machinery	12.40	--	2.63	--
	9. Repairs - Buildings	0.68	--	0.14	--
	10. Utilities and Miscellaneous	5.68	--	1.21	--
	11. Custom Work	0.00	--	0.00	--
	12. Operating Interest Paid	4.97	--	1.06	--
	13. Paid Labour	15.54	--	3.30	--
	14. Unpaid Labour	4.96	--	1.05	--
<b>Variable Costs</b>		<b>59.69</b>	<b>0.00</b>	<b>12.68</b>	<b>0.00</b>
<b>(C)</b>	1. Cash/ Share Land Rent	27.89	--	5.92	--
	2. Taxes, Water Rates, License & Ins.	0.43	--	0.09	--
	3. Equipment and Building: a) Depreciation	8.59	--	1.83	--
	b) Lease Payments	0.00	--	0.00	--
	4. Paid Capital Interest	2.42	--	0.51	--
<b>Capital Costs</b>		<b>39.33</b>	<b>0.00</b>	<b>8.36</b>	<b>0.00</b>
<b>(D)</b>	<b>Cash Costs (B+C-B14-C3a)</b>	<b>85.47</b>	--	<b>18.16</b>	--
<b>(E)</b>	<b>Total Production Costs (B+C)</b>	<b>99.02</b>	--	<b>21.03</b>	--
	<b>Gross Margin (A-D)</b>	<b>25.94</b>	--	<b>5.51</b>	--
	<b>Return to Unpaid Labour (A-E+B14)</b>	<b>17.35</b>	--	<b>3.69</b>	--
	<b>Return to Investment (A-E+C4)</b>	<b>14.81</b>	--	<b>3.15</b>	--
	<b>Return to Equity (A-E)</b>	<b>12.39</b>	--	<b>2.63</b>	--

**Investment**

Buildings	7.23	--
Machinery	86.97	--
Irrigation Machinery	0.00	--
<b>Total (incl. Land)</b>	<b>94.20</b>	--

**Management**

Average Yield	(Tonne/acre)	4.71	--
Expected Market Price	(\$/Tonne)	23.61	--

## FREQUENCY AND CUMULATIVE FREQUENCY DISTRIBUTION

Distribution charts organize data into pictures, which is a format that the human processing system (the brain) can better understand. Frequency distributions relate the percentage (or number) of observations falling in a specific range. Cumulative frequency distribution displays the same information as frequency distribution, but it is expressed as a “rate of change” (i.e. the steeper the slope the greater the change). Cumulative frequency also illustrates how many observations lie above or below certain values, rather than only recording the number of items within the intervals.

The frequency information in this benchmark report provides an indication of how crops performed, on a field-by-field basis, within the *AgriProfit\$* pool. Looking forward, this information can be used to evaluate how and why this crop might be included in future cropping plans based on these types of frequencies. In the following discussions, the feed barley frequency distribution charts are used as an example of how to interpret the frequency information.

The first pair of charts provides the distribution of the feed barley yield range in the Grey Wooded soil zone. From these charts a lot can be interpreted about yield performance:

- The low is greater than 40 bushels per acre and the high is less than 100 bushels per acre, and
- 70% of the feed barley fields in the Grey Wooded soil zone yield between 40 and 80 bushels per acre

This detailed information provides a better understanding of yield variability. The average yield is 75.11 bushels per acre as listed on page 13 of the feed barley crop analysis. While the average (or mean) is important, consideration of both the mean and variability ultimately sets the stage for good decision-making and management practices.

The second set of graphs focuses on the distribution of cost totals. Understanding these provides a basis for cost control and managing for yield per dollar invested. It is important to look at cash costs for individual field analysis (as an indication of cash flow pressure points). Cash costs include all cash expenses accrued to the production of that crop. Total production costs are important when assessing all crops together for an overall enterprise analysis, relating the longer term cost efficiency of each crop and the combined crop mix. Total production costs include the non-cash elements of unpaid labour and depreciation, in addition to cash costs. Looking at the charts, if the price of feed barley was \$2.50 per bushel, then 80% of the fields are covering their cash costs and 60% of the fields are covering their total production costs. In the long run, the best mix of crops would cover total production costs and give a positive net return per acre.

The third set of graphs highlights contribution and gross margins. Contribution margin is the return over variable costs, which are a combination of variable cash and non-cash (unpaid labour) costs. It is the best single indicator of profitability at the individual field level and it is used to compare and select crops to grow regardless of the fields being owned or rented. The first objective in setting up a crop plan is to select crops with a positive contribution margin; this will identify the most profitable crop mix over the long term. Gross margin is the return over total cash costs, which include fixed costs (land rent, taxes, water rights, licenses and capital interest). It is valuable in predicting each crop’s ability to generate cash flow for the year. From

a cash flow point of view, the gross margin provides an indication of the crop's ability to contribute to principal payments and operator withdrawals. From a profitability perspective, gross margin is what is leftover to cover the non-cash costs and provide a return on investment.

The final set of graphs shows the distribution of returns to equity, or profit per unit of production. This example shows that 30% of the fields had a loss and 70% of the fields at least broke even. Return to equity can be used to compare the profitability of one crop versus another or one farm enterprise to another in the same industry.

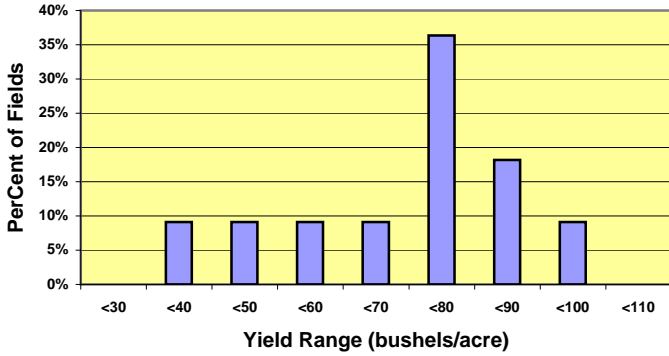
Understanding these concepts in *AgriProfit\$* and evaluating historical performance on a per bushel basis can be very useful for other AAFRD applications. For example, [CropChoice\\$](#) is a tool that combines traditional crop planning with the ability to measure the riskiness of your plan. Producers can then creatively evaluate potential risk management strategies.



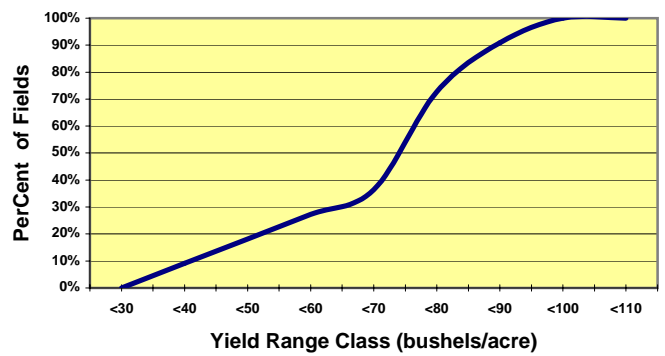
# Grey Wooded Soil Zone - Feed Barley: 2001

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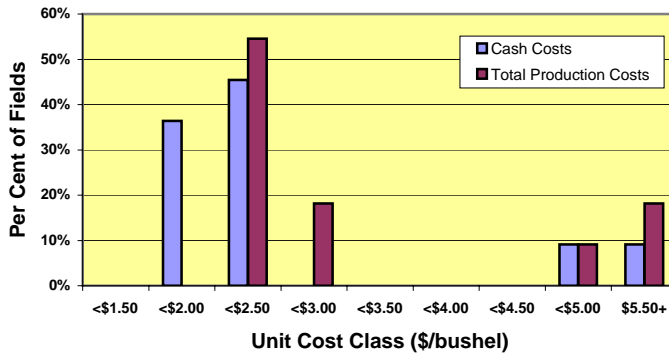
Frequency Distribution: Grey Wooded Soil Zone - Feed Barley Yields



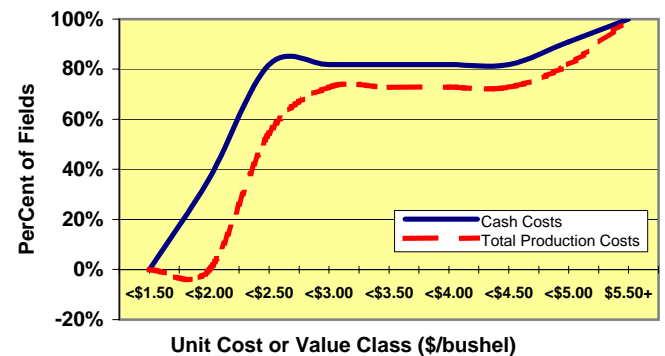
Cumulative Frequency Distribution of Grey Wooded Soil Zone - Feed Barley Yields



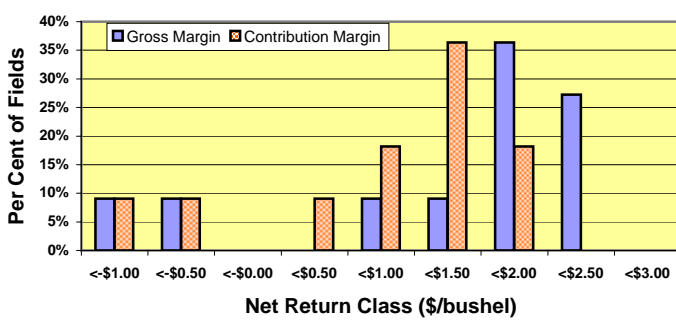
Frequency Distribution: Grey Wooded Soil Zone - Feed Barley Costs



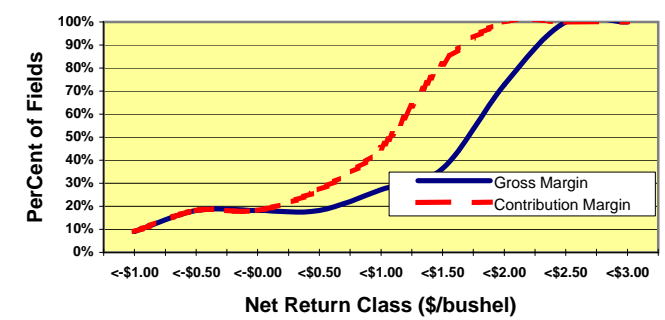
Cumulative Frequency Distribution of Grey Wooded Soil Zone - Feed Barley Costs



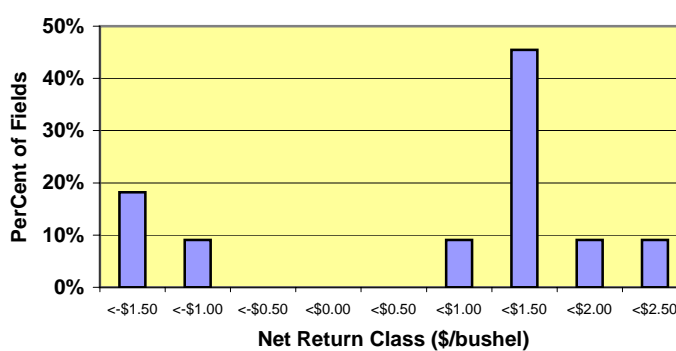
Frequency Distribution: Grey Wooded Soil Zone - Feed Barley Margins



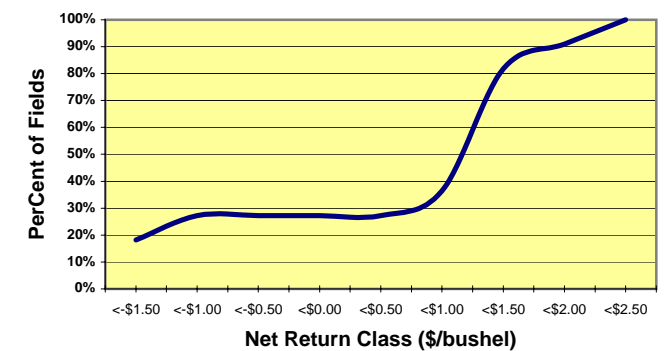
Cumulative Frequency Distribution of Grey Wooded Soil Zone - Feed Barley Margins



Frequency Distribution: Grey Wooded Soil Zone - Feed Barley Return To Equity

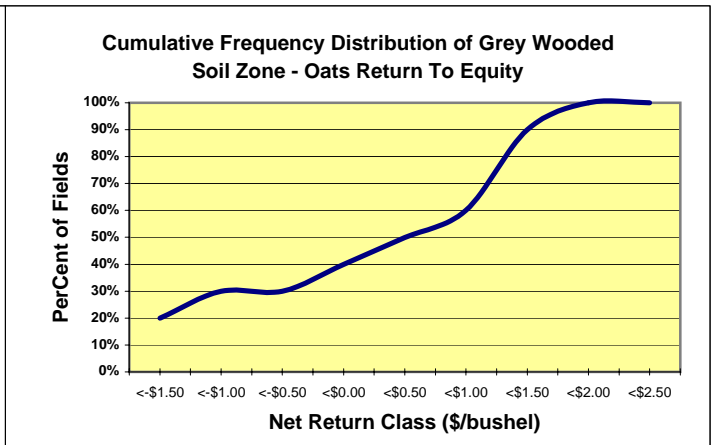
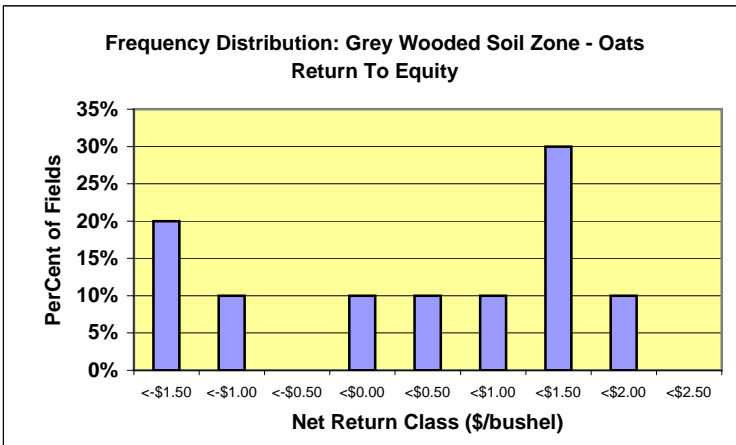
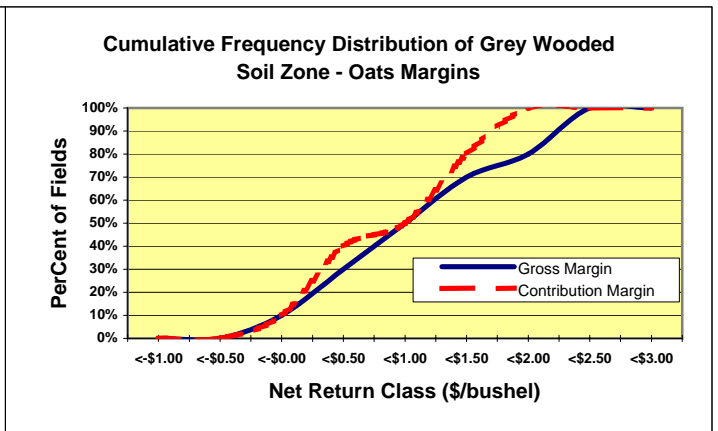
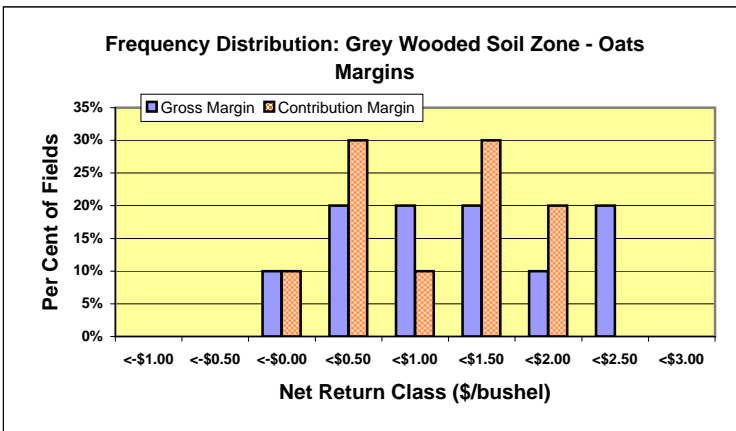
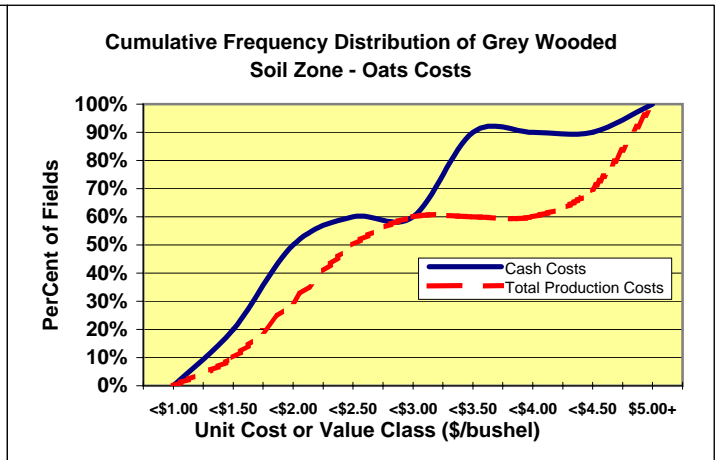
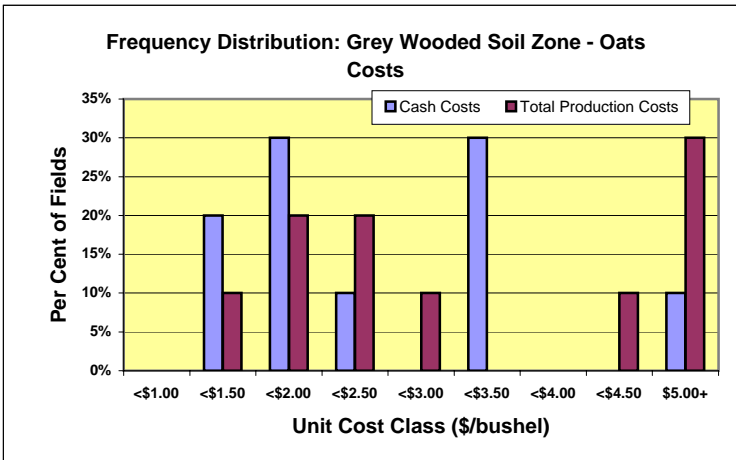
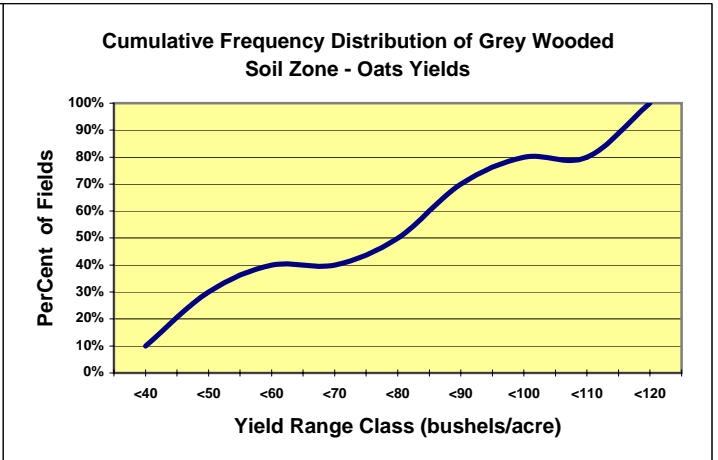
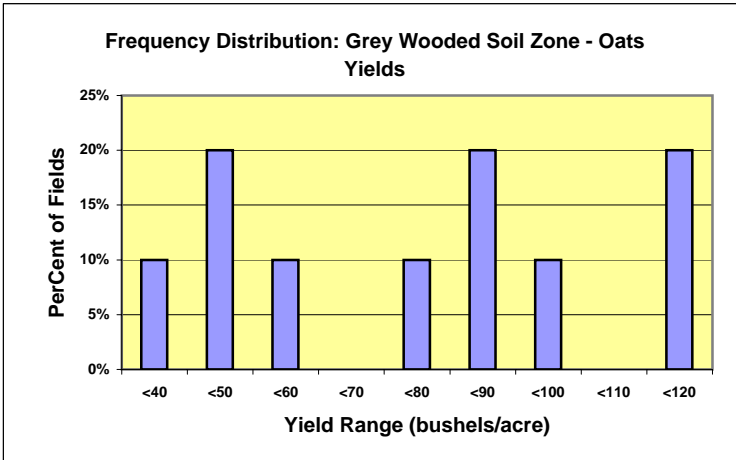


Cumulative Frequency Distribution of Grey Wooded Soil Zone - Feed Barley Return To Equity



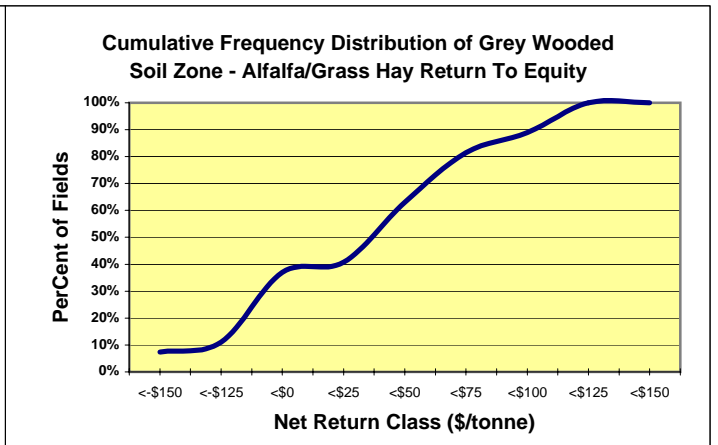
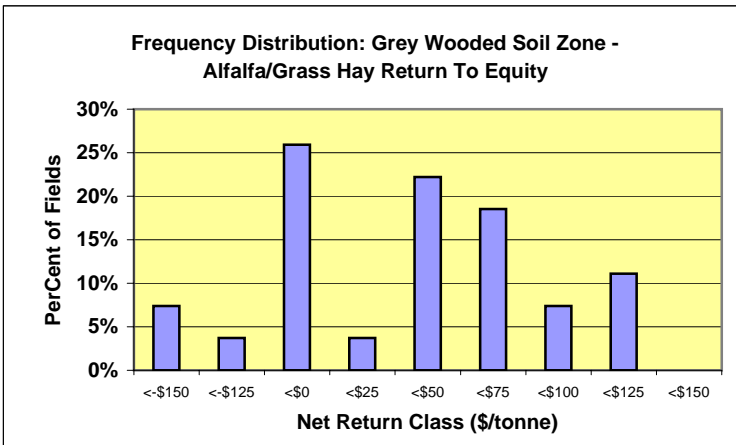
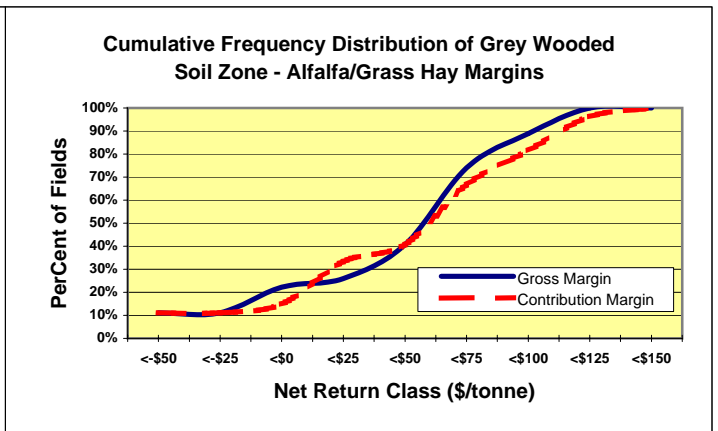
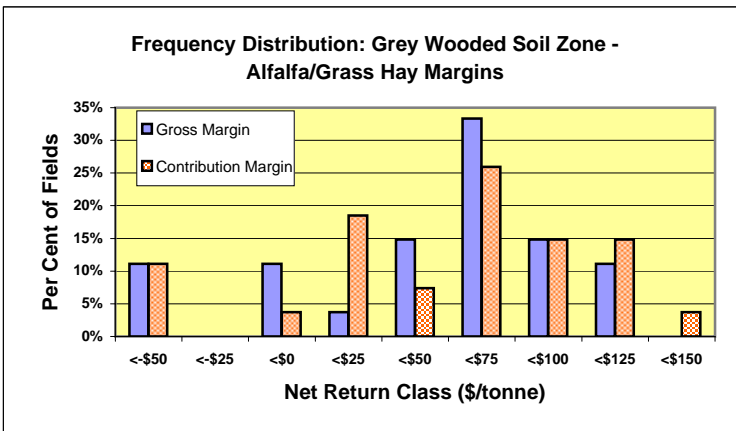
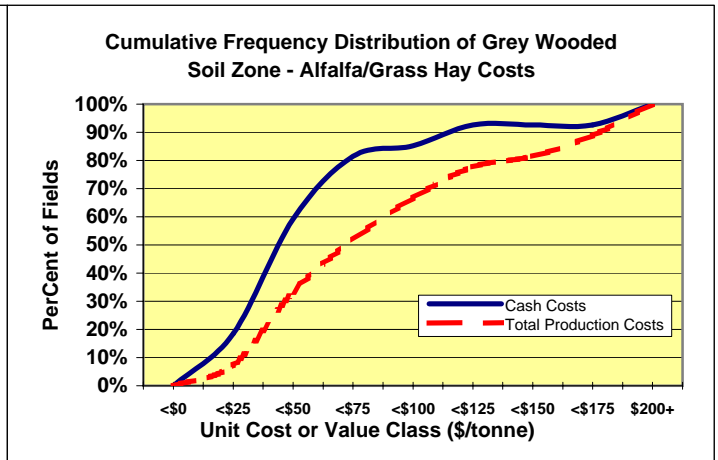
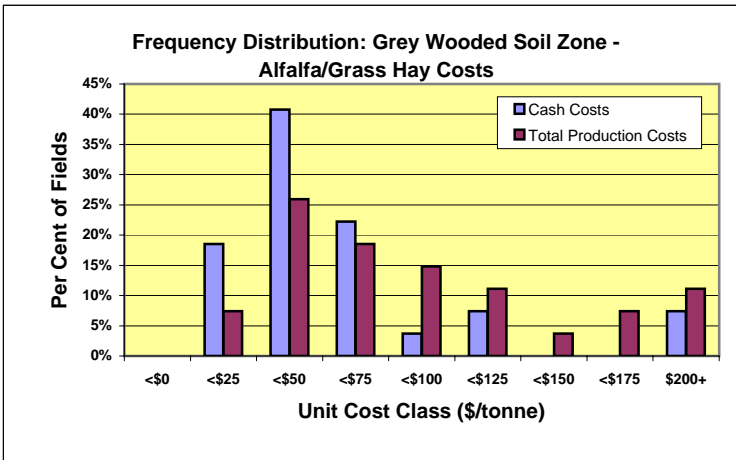
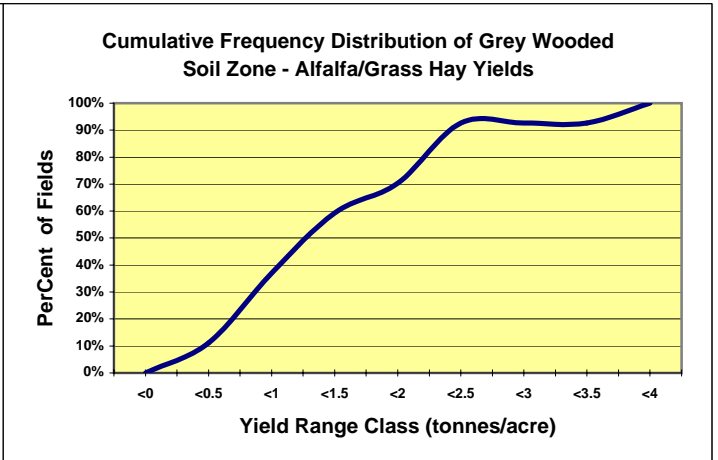
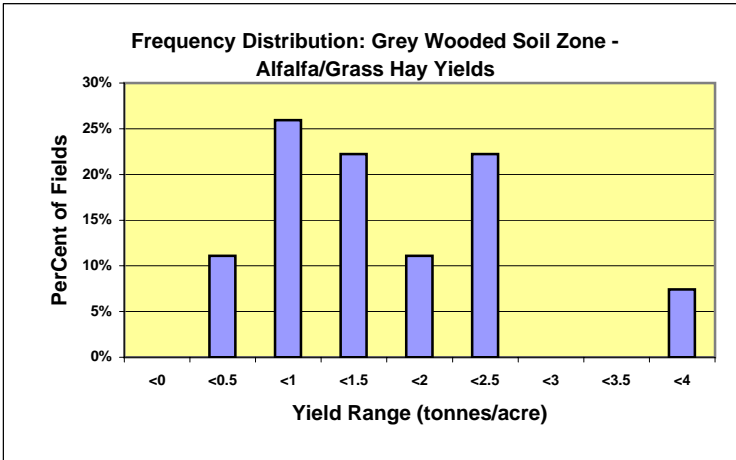
# Grey Wooded Soil Zone - Oats: 2001

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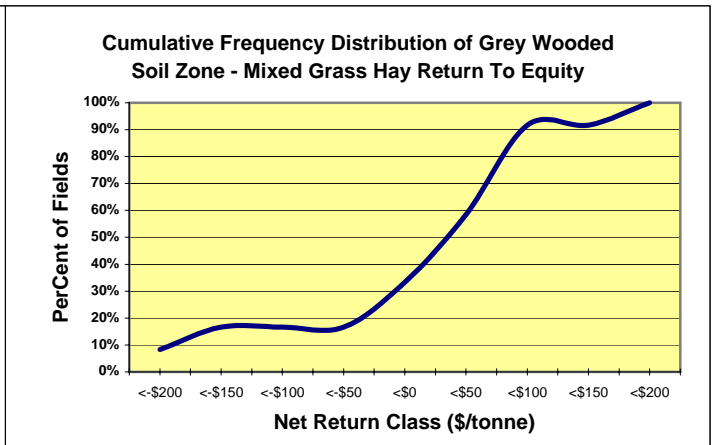
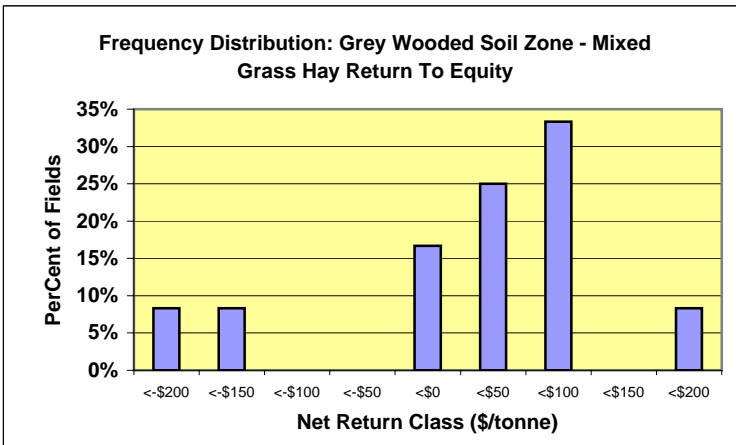
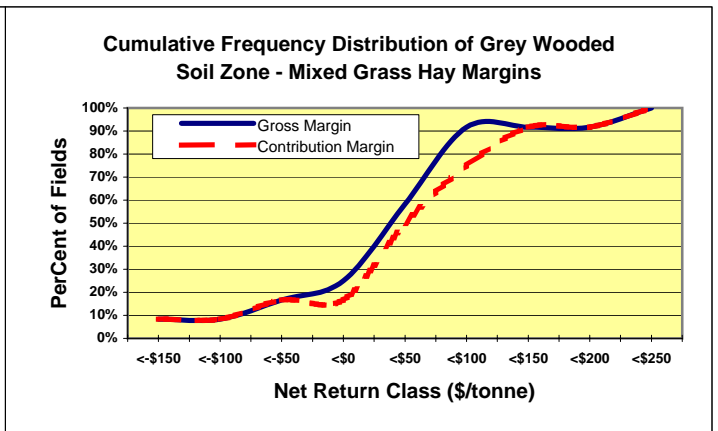
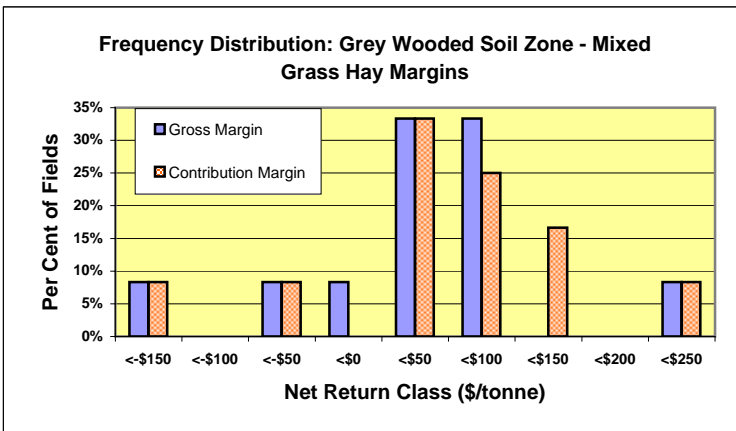
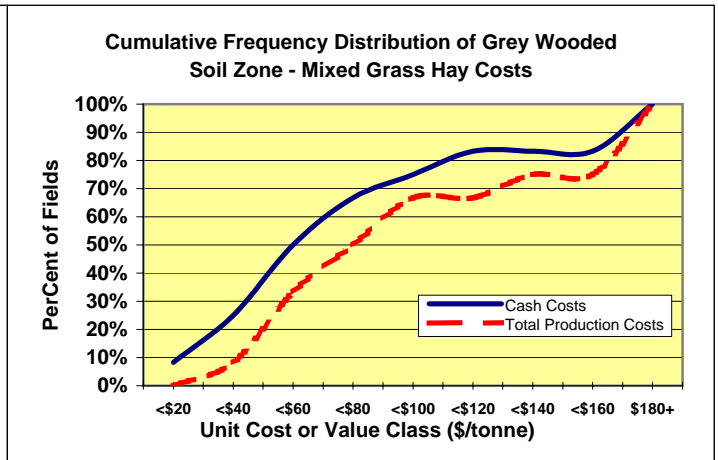
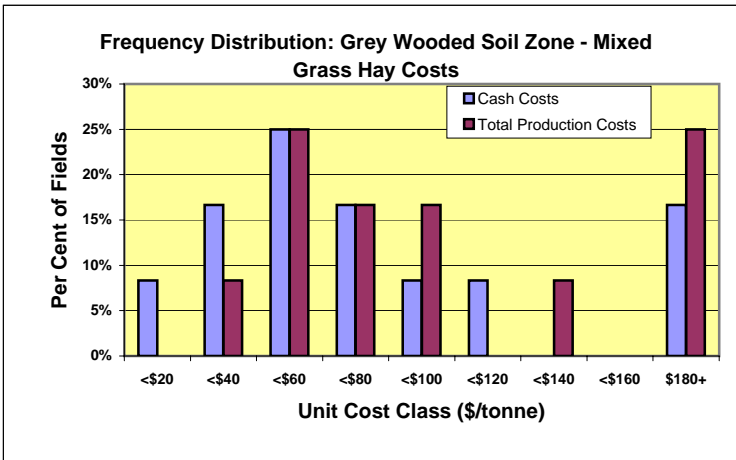
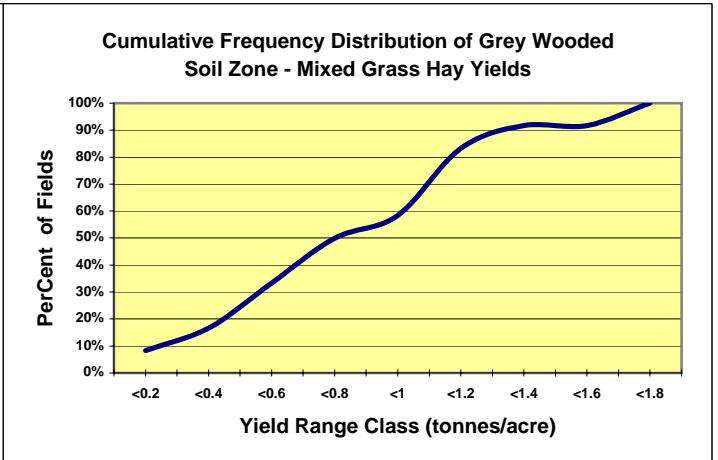
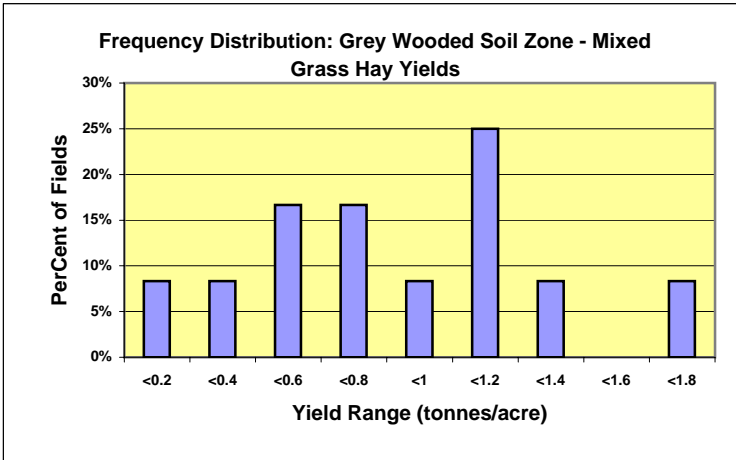
# Grey Wooded Soil Zone - Alfalfa/Grass Hay: 2001

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# Grey Wooded Soil Zone - Mixed Grass Hay: 2001

AgriProfit<sup>®</sup>



**DEFINITIONS AND ALLOCATIONS**

**I INCOME**

- A Imputed Value of Production** – total of estimated yields/acre X estimated final prices
- B Crop Insurance Receipts** – added regardless of when payment is received
- C Miscellaneous Receipts** – such as patronage dividends or input rebates
- D Government Program Receipts** – allocated to all cropped acres equally
- E Straw/Aftermath Grazing Revenue** – value of straw + imputed value of grazing

**II EXPENSES**

- A Crop Specific Inputs** – allocated by producer to each crop as documented on the survey form
  - 1. **Seed**
  - 2. **Fertilizer**
  - 3. **Chemical**
  - 4. **Hail and Crop Insurance**
  - 5. **Custom Work and Specialized Labour**
  - 6. **Land Rent** – cash rent or crop share (converted to a cash basis)
- B Allocated Crop Inputs** – allocation ratios based on research from AAFRD
  - 1. **Irrigation to Dryland Ratio** – allocated to crops at a 3:1 ratio
  - 2. **Trucking and Marketing** – allocated to specific cropping acres by producer
  - 3. **Fuel** – Summerfallow – allocation of 0.3:1 compared to crop acres; Sugar beets – allocation of 2.96:1 compared to other irrigated crop acres
  - 4. **Irrigation Fuel** – allocation based on total pumping hours for each crop
  - 5. **Machinery Repairs** – allocated equally to all acres except summerfallow (0.3:1) and special crops (as specified by producer)
  - 6. **Building Repairs** – allocated to all acres equally except for special crops buildings
  - 7. **Operating Interest** – interest paid on operating loans allocated equally
  - 8. **Paid Labour** – based on allocations between crops as specified by producer
  - 9. **Unpaid and Operator Labour** – operator - \$10/hour, other unpaid labour - \$7.50/hour
  - 10. **Land Taxes** – allocated equally to all owned cropped acres
  - 11. **Water Rates** – allocated equally to all owned irrigated acres
  - 12. **Water Rates** – allocated equally to all owned irrigated acres
  - 13. **Equipment Depreciation** – imputed at 8.5% for power equipment, 11% for non-power, based on current market value

- 14. **Insurance and Licenses** – allocated to all cropped acres equally
- 15. **Building Depreciation** – imputed at 5% on the current market value
- 16. **Paid Capital Interest** – allocated to all owned cropped acres equally except summerfallow (0.25:1)

**III CAPITAL INVESTMENT**

- A Land** – producer estimate of bare land value for both irrigated and dryland owned acreage
- B Buildings** – allocated equally to all acreage except special crops buildings (allocated to the crop)
- C Equipment**
  - 1. **General Use** – allocated to all acres equally, except summerfallow (0.3:1)
  - 2. **Crop Specific** – allocated by producer to each crop based on percentage of use
  - 3. **Irrigation** – allocated according to pumping hours as specified by producer

**IV SUMMARY CALCULATION**

- A Gross Return** = imputed value of production + crop insurance receipts + miscellaneous receipts + government program payments + straw/grazing revenue
- B Variable Costs** = seed + fertilizer + chemicals + crop insurance + trucking and marketing + fuel + machinery and building repairs + utilities + miscellaneous overhead + custom work + operating interest + paid and unpaid labour
- C Total Capital Costs** = land rent + land taxes + water rates + insurance + depreciation + paid capital interest
- D Cash Costs** = variable costs + capital costs – unpaid labour – depreciation
- E Total Production Costs** = variable costs + total capital costs
- F Gross Margin** (returns left to cover total capital costs and operator equity) = gross return – total cash costs
- G Return to Unpaid Labour** (funds remaining after all expenses have been paid except unpaid labour) = gross return – total production costs + unpaid labour
- H Return to Investment** (shows the operation's ability to earn a return on its total assets) = gross return – total production costs + paid capital interest
- I Return to Equity** (amount remaining from operations used to provide a return to individual or shareholder equity) = gross return – total production costs