

**Table 6. Irrigated Enterprise Comparison (per acre), Farm Management Association, NW, 2002**

Irrigated Crop	Wheat	Corn	Soybean	Pinto Bean	Sunflower	Cane Hay	Alfalfa
Number of Farms	31	56	29	10	8	12	13
Crop Acres	216	460	212	51	134	71	93
Acres Owned	77	152	49	111	0	41	67
Acres Rented	139	308	162	140	134	30	27
Yield	42	114.9	41.8	14.12	3.38	2.86	4.1
Operator Share	87.81%	87.45%	85.73%	82.22%	87.65%	0.97%	93.89%
Gross Income/ Unit	\$4.52	\$3.29	\$6.22	\$20.47	\$34.46	\$62.08	\$99.56
Variable Cost/ Unit	\$2.98	\$3.07	\$5.45	\$22.34	\$44.18	\$55.55	\$58.56
Total Expense/ Unit	\$4.48	\$3.84	\$6.87	\$28.15	\$58.81	8/5.81	\$102.21
<b>Revenue Sources</b>							
Crop Revenue	\$136.39	\$257.35	\$184.58	\$196.13	\$34.26	\$156.03	\$363.63
Government Payments	\$21.68	\$21.82	\$27.97	\$13.41	\$16.04	\$14.31	\$14.31
Crop Insurance Proceeds	\$6.56	\$48.91	\$8.64	\$26.01	\$51.28	\$0.00	\$0.00
Other Income	\$2.20	\$2.68	\$1.72	\$2.16	\$0.51	\$1.04	\$5.32
Total Other Income	\$30.44	\$73.41	\$38.33	\$41.58	\$67.83	\$15.35	\$19.63
<b>Gross Revenue</b>	<b>\$166.83</b>	<b>\$330.76</b>	<b>\$222.91</b>	<b>\$237.71</b>	<b>\$102.09</b>	<b>\$171.38</b>	<b>\$383.26</b>
<b>Expenses</b>							
Labor	\$7.69	\$10.97	\$6.71	\$8.91	\$3.20	\$5.57	\$10.94
General Machinery Repairs	\$13.62	\$18.62	\$11.69	\$15.13	\$13.30	\$14.08	\$32.10
Irrigation Equipment Repairs	\$5.85	\$6.22	\$6.09	\$8.65	\$10.09	\$5.45	\$24.21
Interest	\$12.35	\$27.38	\$16.21	\$24.61	\$4.96	\$14.98	\$20.71
Seed/Other Crop Expenses	\$6.67	\$35.90	\$27.52	\$35.96	\$16.69	\$14.44	\$0.86
Crop Insurance Prem	\$4.11	\$11.19	\$11.28	\$5.28	\$3.36	\$0.00	\$0.03
Fertilizer/Lime	\$7.69	\$39.41	\$5.28	\$20.87	\$8.49	\$9.27	\$15.22
Machinery Hire/ Leases	\$11.08	\$17.77	\$15.28	\$26.29	\$6.78	\$33.69	\$20.92
Farm Org Fees/Travel/Pub	\$2.00	\$3.56	\$1.99	\$2.97	\$1.53	\$1.82	\$4.01
Gas/Fuel/Oil	\$8.92	\$11.49	\$4.92	\$14.73	\$3.72	\$10.21	\$17.70
Irrigation Fuel - Pumping	\$17.42	\$59.20	\$50.75	\$57.63	\$21.77	\$23.16	\$53.89
Crop Storage & Marketing	\$0.16	\$0.85	\$0.26	\$0.44	\$0.06	\$0.00	\$0.03
Personal Property Tax	\$0.44	\$0.79	\$0.50	\$0.48	\$0.46	\$0.54	\$2.78
General Farm Insurance	\$2.56	\$5.30	\$3.94	\$4.30	\$2.17	\$3.49	\$5.71
Utilities	\$2.07	\$3.04	\$2.34	\$1.64	\$1.89	\$2.67	\$2.52
Cash Farm Rent	\$4.78	\$14.84	\$4.94	\$1.20	\$15.19	\$5.65	\$6.13
Herbicides/Insecticides	\$2.19	\$40.69	\$24.81	\$29.50	\$16.47	\$7.53	\$6.55
Conservation	\$0.01	\$0.02	\$0.04	\$0.00	\$0.00	\$0.02	\$0.20
Auto Expense	\$0.54	\$0.94	\$0.80	\$0.75	\$0.76	\$0.76	\$0.91
Total Variable Cost	\$110.15	\$308.18	\$195.35	\$259.34	\$130.89	\$153.33	\$225.42
<b>Return Above Variable Cost</b>	<b>\$56.68</b>	<b>\$22.58</b>	<b>\$27.56</b>	<b>-\$21.63</b>	<b>-\$28.80</b>	<b>\$18.05</b>	<b>\$157.84</b>
<b>Fixed Costs</b>							
Depreciation	\$20.76	\$25.67	\$19.99	\$19.34	\$20.48	\$13.60	\$34.31
Real Estate Tax	\$2.14	\$3.16	\$1.83	\$2.39	\$0.00	\$1.98	\$4.27
Uppaid Operator Labor	\$9.63	\$16.29	\$11.69	\$12.59	\$13.41	\$32.01	\$29.37
Interest Charge *	\$0.90	\$0.00	\$1.91	\$0.00	\$9.45	\$0.00	\$3.79
Total Fixed Cost	\$33.43	\$45.12	\$35.42	\$34.32	\$43.34	\$47.59	\$71.74
Land Charge **	\$21.81	\$32.96	\$15.22	\$33.17	\$0.00	\$35.95	\$96.29
Total Expense	\$165.39	\$386.26	\$245.99	\$326.83	\$174.23	\$236.87	\$393.45
<b>Net Return to Management</b>	<b>\$1.44</b>	<b>-\$55.50</b>	<b>-\$23.08</b>	<b>-\$89.12</b>	<b>-\$72.14</b>	<b>-\$65.49</b>	<b>-\$10.19</b>
<b>Net Return to Labor-Mgt</b>	<b>18.76</b>	<b>-28.24</b>	<b>-4.68</b>	<b>-67.62</b>	<b>-55.53</b>	<b>-27.91</b>	<b>30.12</b>

\* Interest charge equals: ((8.0% times three-fourths the variable cost) plus (4.0% times depreciation times 8)) minus cash interest paid

\*\* Land charge represents a charge (equal to landlord's share) on owned land and equals (production from owned acres X price / unit X 33.33%)  
Crop production paid to the landlord on rented land (already removed above, or cash rent is charged for rented land)

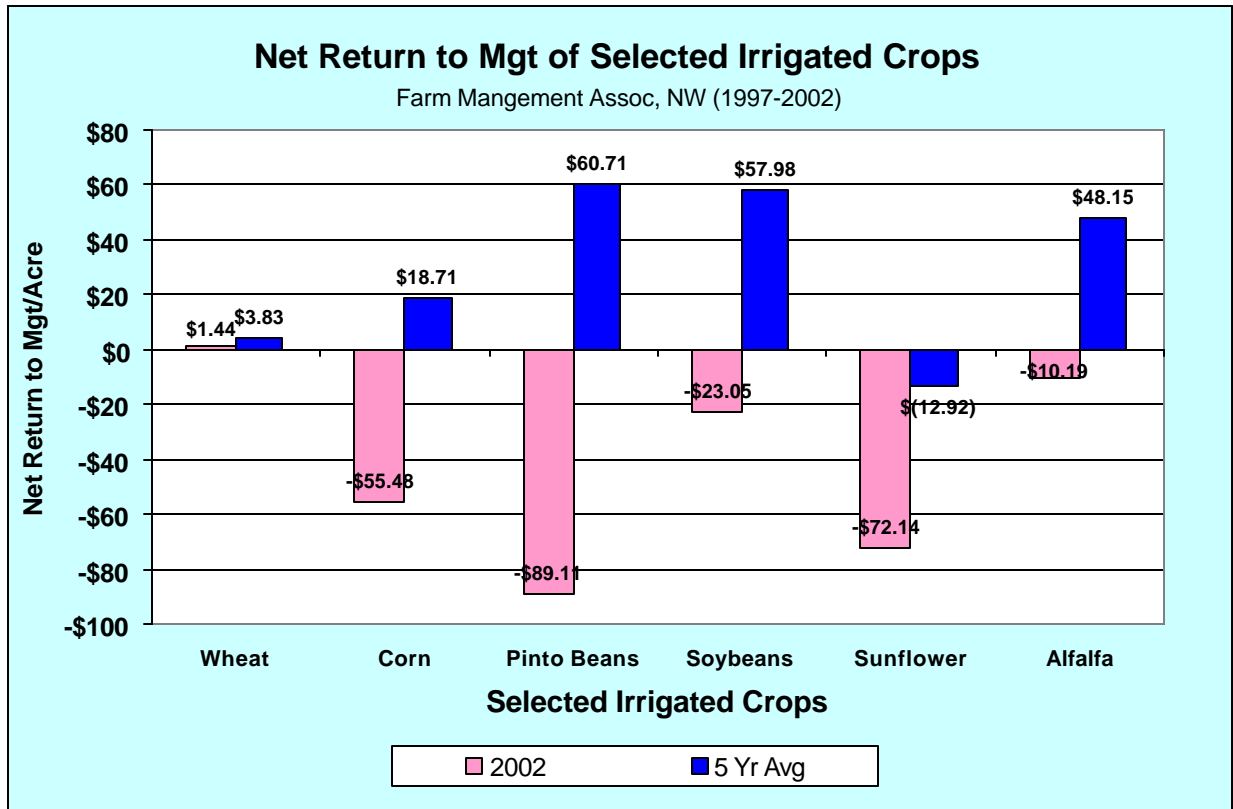


Figure 25

Table 6 and Figure 25 display the assortment of irrigated crops included in the 2002 Northwest Association Enterprise analysis. The net return to management earned in 2002 is compared to average over the previous five years in Figure 25. Net return to management is the net return after all direct costs and charges for: operator labor, and investment charges for crop investment, equipment and land are subtracted from gross income. Irrigated wheat was the only enterprise in 2002 that averaged a positive net return to management of \$1.44 per acre. Enterprises that have enjoyed excellent net return to management over the five-year average experienced serious losses in 2002. Irrigated pinto beans, which have historically been a volatile net return enterprise dropped from a five-year average high of \$60.71 to a dismal -\$89.11 per acre in 2002. Irrigated soybeans, earning the second highest five-year average net return to management of \$57.98 per acre, generated a disappointing -\$23.05 in 2002. Irrigated corn dropped from \$18.71 for the five-year average to a serious loss of -\$55.48. Irrigated sunflower have not enjoyed net returns to management above zero in the five-year average and the 2002 results are even more severe with levels of loss equaling -\$72.14. Irrigated alfalfa was holding a third place level of net return to management in the five-year average at \$48.15, but slid into 2002 with a -\$10.19 per acre net return to management.

**NORTHWEST KANSAS FARM MANAGEMENT ASSOCIATION**  
**PROFIT CENTER ANALYSIS: 5-YEAR AVERAGE & 2002**  
**IRRIGATED (ALL) WHEAT**

	1997-2001 Average	2002
Number of Farms	29	31
Crop Acres	226	216
Acres Owned	71	77
Acres Rented	154	139
Yield / Acre	53.2	42.0
Bushels	10,009	7,974
Operator Percentage	83.25%	87.81%
Gross Income / Acre	\$159.36	\$166.82
Variable Costs / Acre	\$110.72	\$110.13
Total Expense / Acre	\$155.54	\$165.38
Gross Income / Bushel	\$3.60	\$4.52
Total Expense / Bushel	\$3.51	\$4.48

	Total Dollars	\$ / Bushel	\$ / Acre	Total Dollars	\$ / Bushel	\$ / Acre
<b>INCOME:</b>						
Wheat (Operator's Share)	\$26,525.81	\$2.65	\$117.37	\$29,460.69	\$3.69	\$136.39
Patronage Refunds	145.59	0.01	0.64	68.21	0.01	0.32
Government Payments	8,707.19	0.87	38.53	4,681.80	0.59	21.68
Miscellaneous Income	198.70	0.02	0.88	406.14	0.05	1.88
Crop Insurance Proceeds	438.86	0.04	1.94	1,416.32	0.18	6.56
OTHER INCOME	\$9,490.34	\$0.95	\$41.99	\$6,572.47	\$0.82	\$30.43
<b>GROSS INCOME</b>	<b>\$36,016.15</b>	<b>\$3.60</b>	<b>\$159.36</b>	<b>\$36,033.16</b>	<b>\$4.52</b>	<b>\$166.82</b>
<b>EXPENSES:</b>						
Labor Hired	\$1,975.84	\$0.20	\$8.74	\$1,661.13	\$0.21	\$7.69
General Machinery Repairs	2,816.49	0.28	12.46	2,942.83	0.37	13.62
Irrigation Equipment Repairs	1,016.48	0.10	4.50	1,263.22	0.16	5.85
Interest Paid	2,449.92	0.24	10.84	2,667.46	0.33	12.35
Seed / Other Crop Expense	1,289.46	0.13	5.71	1,439.70	0.18	6.67
Crop Insurance	750.56	0.07	3.32	887.13	0.11	4.11
Fertilizer / Lime	2,634.43	0.26	11.66	1,660.42	0.21	7.69
Machine Hire - Lease	3,041.14	0.30	13.46	2,392.44	0.30	11.08
Farm Org Fees / Travel / Publ	383.11	0.04	1.70	432.44	0.05	2.00
Gas / Fuel / Oil	1,849.77	0.18	8.18	1,925.72	0.24	8.92
Irrigation Fuel - Pumping	3,093.46	0.31	13.69	3,762.87	0.47	17.42
Crop Storage & Marketing	223.48	0.02	0.99	33.58	0.00	0.16
Personal Property Tax	96.95	0.01	0.43	95.03	0.01	0.44
General Farm Insurance	467.20	0.05	2.07	553.71	0.07	2.56
Utilities	241.96	0.02	1.07	448.09	0.06	2.07
Cash Farm Rent	1,266.52	0.13	5.60	1,031.68	0.13	4.78
Herbicide / Insecticide	1,329.85	0.13	5.88	473.77	0.06	2.19
Conservation	1.98	0.00	0.01	1.16	0.00	0.01
Auto Expense	94.06	0.01	0.42	116.07	0.01	0.54
<b>TOTAL VARIABLE COSTS</b>	<b>\$25,022.67</b>	<b>\$2.50</b>	<b>\$110.72</b>	<b>\$23,788.45</b>	<b>\$2.98</b>	<b>\$110.13</b>
<b>RETURN ABOVE VARIABLE COSTS</b>	<b>\$10,993.49</b>	<b>\$1.10</b>	<b>\$48.64</b>	<b>\$12,244.71</b>	<b>\$1.54</b>	<b>\$56.69</b>
Depreciation	3,784.57	0.38	16.75	4,484.04	0.56	20.76
Real Estate Tax	348.39	0.03	1.54	463.11	0.06	2.14
Unpaid Operator Labor	2,287.26	0.23	10.12	2,080.40	0.26	9.63
Interest Charge *	299.58	0.03	1.33	194.74	0.02	0.90
<b>TOTAL FIXED COSTS</b>	<b>\$6,719.80</b>	<b>\$0.67</b>	<b>\$29.73</b>	<b>\$7,222.29</b>	<b>\$0.91</b>	<b>\$33.44</b>
Land Charge **	\$3,408.69	\$0.34	\$15.08	\$4,710.44	\$0.59	\$21.81
<b>TOTAL EXPENSE</b>	<b>\$35,151.15</b>	<b>\$3.51</b>	<b>\$155.54</b>	<b>\$35,721.18</b>	<b>\$4.48</b>	<b>\$165.38</b>
<b>NET RETURN TO MANAGEMENT</b>	<b>\$865.00</b>	<b>\$0.09</b>	<b>\$3.83</b>	<b>\$311.98</b>	<b>\$0.04</b>	<b>\$1.44</b>
<b>NET RETURN TO LABOR-MGT</b>	<b>\$5,128.11</b>	<b>\$0.51</b>	<b>\$22.69</b>	<b>\$4,053.51</b>	<b>\$0.51</b>	<b>\$18.77</b>

\*Interest charge equals: ((8.0% times three-fourths the variable costs) plus (4.0% times depreciation times 8)) minus cash interest paid.

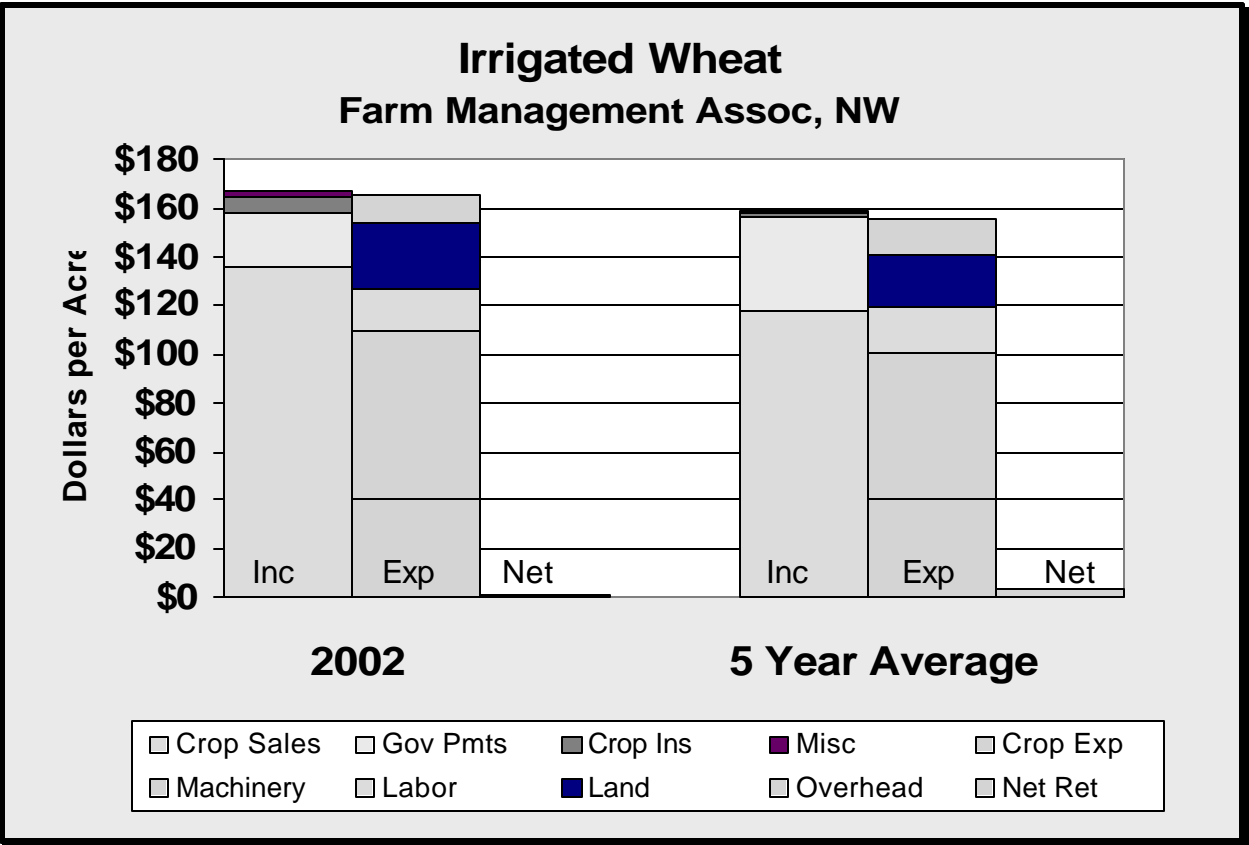


Figure 26

Irrigated wheat income and expense details are highlighted in the table on the facing page and in Figure 26. Irrigated wheat yields declined from 53.2 for the five-year average to 42 bushels per acre in 2002. This yield was more than offset by the improved market price for wheat experienced in 2002 of \$3.69 instead of \$2.65 for the five-year average. Crop income increased from \$117.37 for the five-year average to \$136.39 in 2002. This is rare in 2002. Irrigated wheat and irrigated alfalfa are the only enterprise that accumulated more crop income in 2002 than the previous five-year average. Variable cost per acre is nearly identical for 2002 as the previous five years, \$110.13 and \$110.72 respectively. The total cost was higher for 2002 than the previous five-year average, but income more than offset the increased cost.

**NORTHWEST KANSAS FARM MANAGEMENT ASSOCIATION**  
**PROFIT CENTER ANALYSIS: 5 YEARS AVERAGE & 2002**  
**Irrigated Wheat**

	1998-2002 Average				2002			
	Low third	Mid third	Top Third	Average	Low third	Mid third	Top Third	Average
Number of Farms	7	6	6	19	11	10	10	31
Crop Acres	1871	2044	3543	2486	1873	3391	2606	2624
Percentage of total crop Acres	13%	8%	10%	10%	9%	10%	5%	8%
Crop Acres	249	154	367	251	178	335	140	216
Acres Owned	104	43	39	64	55	109	70	77
Acres Rented	145	112	328	187	122	226	70	139
Yield / Acre	50	52	47	50	33	38	64	45
Total Operator Bushels	10407	6539	13584	10004	5151	10691	8361	7974
<b>INCOME:</b>								
Irrigated Wheat (Op Share)	115.82	121.36	108.91	115.71	101.86	132.82	214.00	148.02
Patronage Refunds	0.35	0.92	0.77	0.67	0.31	0.28	0.65	0.41
Government Payments	40.14	35.35	43.66	39.52	15.85	19.84	28.31	21.16
Miscellaneous Income	0.56	0.68	0.47	0.57	0.71	0.41	0.46	0.54
Crop Insurance Proceeds	7.04	5.07	5.52	5.92	3.70	9.95	19.43	10.79
OTHER INCOME	\$48.56	\$42.06	\$50.48	\$46.89	\$21.52	\$30.74	\$53.70	\$34.88
<b>GROSS INCOME</b>	<b>\$164.39</b>	<b>\$163.54</b>	<b>\$159.18</b>	<b>\$162.58</b>	<b>\$123.38</b>	<b>\$163.57</b>	<b>\$267.70</b>	<b>\$182.90</b>
<b>EXPENSES:</b>								
Labor Hired	12.28	4.95	6.13	7.97	2.74	11.12	7.44	6.96
General Machinery Repairs	17.29	12.57	10.87	13.79	17.78	9.59	14.10	13.95
Irrigation Repairs	6.42	4.98	5.55	5.68	6.78	5.19	8.12	6.70
Interest Paid	12.53	14.29	10.09	12.42	12.23	12.41	17.51	13.99
Seed / Other Crop Expense	5.74	6.27	4.90	5.67	4.63	8.44	5.94	6.28
Crop Insurance	4.55	2.78	1.77	3.13	4.64	4.80	6.87	5.41
Fertilizer / Lime	12.64	11.97	8.86	11.31	12.36	7.53	1.82	7.40
Machine Hire - Lease	12.04	12.61	7.76	10.99	5.49	16.14	6.73	9.32
Farm Org Fees / Travel / Publ	1.88	2.30	1.82	2.01	2.13	1.96	2.88	2.32
Gas / Fuel / Oil	9.02	8.19	10.40	9.14	11.36	7.39	8.40	9.13
Irrigation Energy	17.35	16.75	13.54	16.03	19.27	16.46	21.33	19.03
Crop Storage & Marketing	1.04	0.45	0.17	0.58	0.00	0.07	0.30	0.12
Personal Property Tax	0.47	0.51	0.56	0.51	0.37	0.41	0.76	0.51
General Farm Insurance	2.39	2.37	2.38	2.38	2.83	2.99	4.14	3.31
Utilities	1.81	0.88	1.36	1.36	3.24	1.54	1.65	2.18
Cash Farm Rent	0.00	4.70	3.60	2.66	9.03	4.48	1.11	5.01
Herbicide / Insecticide	7.09	9.98	2.21	6.66	7.14	1.26	1.03	3.27
Conservation	0.07	0.03	0.00	0.04	0.00	0.00	0.01	0.00
Auto Expense	0.23	0.51	0.48	0.40	0.41	0.75	0.64	0.59
<b>TOTAL VARIABLE COSTS</b>	<b>\$124.83</b>	<b>\$117.08</b>	<b>\$93.34</b>	<b>\$112.98</b>	<b>\$122.45</b>	<b>\$112.52</b>	<b>\$110.79</b>	<b>\$115.49</b>
<b>RETURN ABOVE VARIABLE COSTS</b>	<b>\$39.56</b>	<b>\$46.46</b>	<b>\$65.85</b>	<b>\$49.60</b>	<b>\$0.93</b>	<b>\$51.19</b>	<b>\$156.90</b>	<b>\$67.46</b>
Depreciation	21.43	17.69	14.33	18.07	21.40	16.74	26.83	21.65
Real Estate Tax	2.05	1.38	1.17	1.56	2.39	2.48	3.45	2.76
Unpaid Operator Labor	12.69	11.99	9.39	11.49	14.77	9.34	9.66	11.37
Interest Charge *	3.58	2.11	1.83	2.56	4.36	1.87	5.65	3.97
<b>TOTAL FIXED COSTS</b>	<b>\$39.75</b>	<b>\$33.17</b>	<b>\$26.71</b>	<b>\$33.69</b>	<b>\$42.93</b>	<b>\$30.44</b>	<b>\$45.58</b>	<b>\$39.76</b>
Land Charge **	15.75	7.87	9.04	11.09	10.44	17.46	33.18	20.04
<b>TOTAL EXPENSE</b>	<b>\$180.34</b>	<b>\$158.12</b>	<b>\$129.09</b>	<b>\$157.75</b>	<b>\$175.82</b>	<b>\$160.42</b>	<b>\$189.56</b>	<b>\$175.29</b>
<b>NET RETURN TO MANAGEMENT</b>	<b>(\$15.95)</b>	<b>\$5.42</b>	<b>\$30.09</b>	<b>\$4.82</b>	<b>(\$52.45)</b>	<b>\$3.15</b>	<b>\$78.13</b>	<b>\$7.61</b>
<b>NET RETURN TO LABOR-MGT</b>	<b>\$9.01</b>	<b>\$22.36</b>	<b>\$45.62</b>	<b>\$24.28</b>	<b>(\$34.94)</b>	<b>\$23.61</b>	<b>\$95.23</b>	<b>\$25.94</b>

\*Interest charge equals: ((8.0% times three-fourths the variable costs) plus (4.0% times depreciation times 8)) minus cash interest paid.

\*\*Land charge represents a charge (equal to landlord's share) on owned land and equals (production from owned acres X price / unit X 33.33% (25% for Irrigated).Crop production paid to the landlord on rented land (already removed above), or cash rent is the charge on rented land.

This crop enterprise is based on the operator's share of production, and thus includes only production expenses paid by the operator. A charge for management is not included in the expenses.

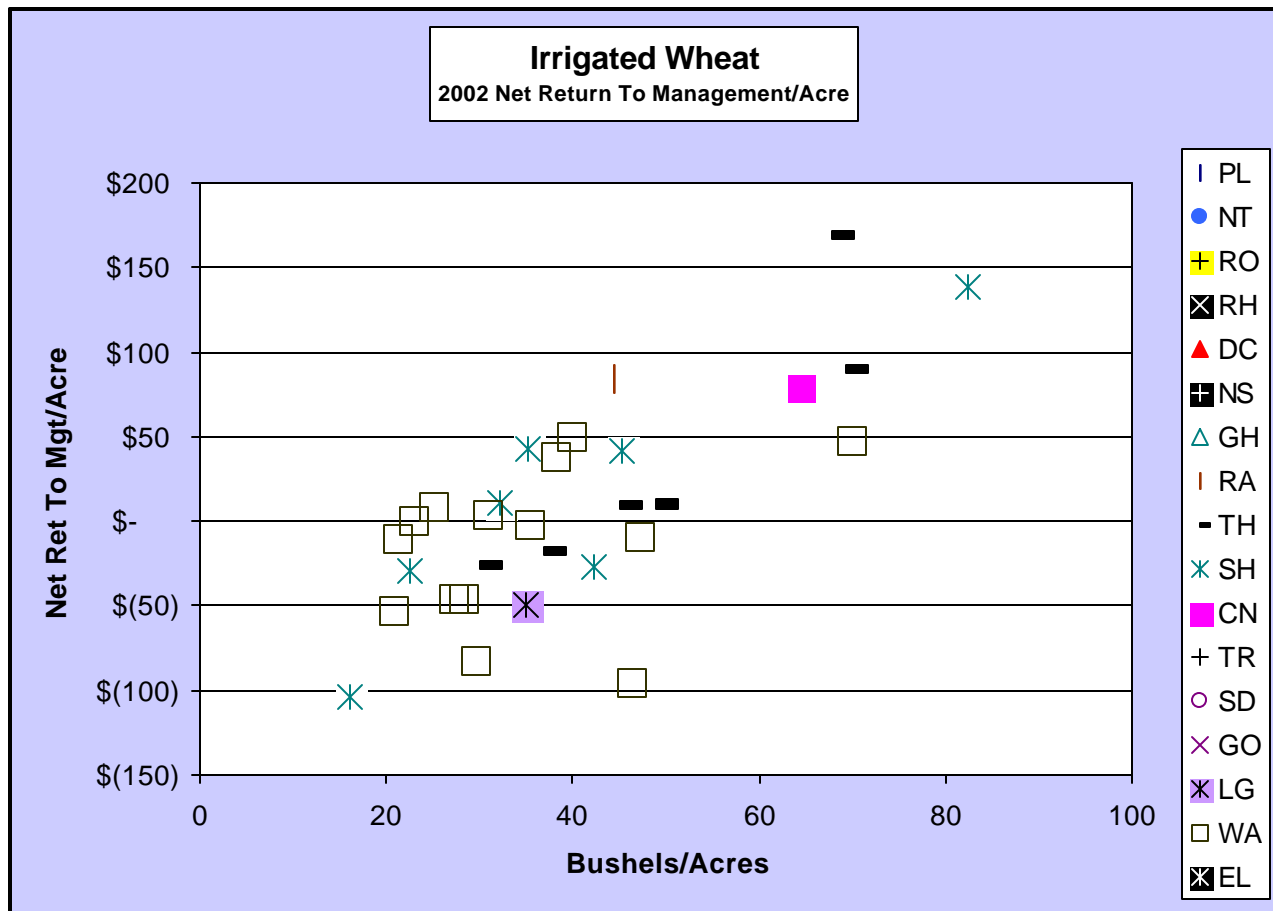


Figure 27

Comparison of irrigated wheat enterprise financial performance for low, mid, and top thirds is demonstrated in the table on the facing page. Net returns to management for individual enterprises are displayed in Figure 27 with symbols to identify the county of source data.

Top third irrigated wheat enterprises earned a healthy \$78.13 net return to management in 2002, which compares very favorably to the five-year average for top third producers net returns of \$30.09. The range from the top to the low third for 2002 of \$130.58 demonstrates the wide range net returns experienced in 2002. This is 283% of the variation identified in the five-year average net returns from low to top third enterprises. Note the yield difference between the top third, 64 bushels, and the low third, 33 bushels per acre. This explains the majority of the income differences between the thirds in 2002.

The cost of irrigation has become a challenge in the drought conditions and high petroleum cost era this data encompasses. It is useful to note in 2002 that the top third farms spent more on irrigation fuel than the low, mid and average group. Examination of the five-year section of the table shows that top third farms in the past have been the ones that spent less on irrigation fuel than the low third enterprises.

**NORTHWEST KANSAS FARM MANAGEMENT ASSOCIATION**  
**PROFIT CENTER ANALYSIS : 5-YEAR AVERAGE & 2002**  
**IRRIGATED (ALL) CORN**

	1997-2001 Average	2002
Number of Farms	77	56
Crop Acres	421	460
Acres Owned	139	152
Acres Rented	283	308
Yield / Acre	174.5	114.9
Bushels	62,687	46,233
Operator Percentage	85.30%	87.45%
Gross Income / Acre	\$400.49	\$330.75
Variable Costs / Acre	\$296.89	\$308.16
Total Expense / Acre	\$381.79	\$386.23
Gross Income / Bushel	\$2.69	\$3.29
Total Expense / Bushel	\$2.57	\$3.84

	Total Dollars	\$ / Bushel	\$ / Acre	Total Dollars	\$ / Bushel	\$ / Acre
<b>INCOME:</b>						
Corn (Operator's Share)	\$128,126.91	\$2.04	\$304.19	\$118,380.21	\$2.56	\$257.35
Patronage Refunds	834.36	0.01	1.98	496.26	0.01	1.08
Government Payments	35,648.15	0.57	84.63	10,036.68	0.22	21.82
Miscellaneous Income	1,515.17	0.02	3.60	735.72	0.02	1.60
Crop Insurance Proceeds	2,562.38	0.04	6.08	22,497.19	0.49	48.91
OTHER INCOME	\$40,560.05	\$0.65	\$96.30	\$33,765.85	\$0.73	\$73.40
<b>GROSS INCOME</b>	<b>\$168,686.97</b>	<b>\$2.69</b>	<b>\$400.49</b>	<b>\$152,146.06</b>	<b>\$3.29</b>	<b>\$330.75</b>
<b>EXPENSES:</b>						
Labor Hired	\$4,049.64	\$0.06	\$9.61	\$5,047.92	\$0.11	\$10.97
General Machinery Repairs	8,853.66	0.14	21.02	8,563.23	0.19	18.62
Irrigation Equipment Repairs	2,809.73	0.04	6.67	2,860.37	0.06	6.22
Interest Paid	11,167.18	0.18	26.51	12,592.74	0.27	27.38
Seed / Other Crop Expense	15,309.18	0.24	36.35	16,513.43	0.36	35.90
Crop Insurance	4,398.78	0.07	10.44	5,146.09	0.11	11.19
Fertilizer / Lime	18,606.59	0.30	44.18	18,126.94	0.39	39.41
Machine Hire - Lease	10,320.15	0.16	24.50	8,173.65	0.18	17.77
Farm Org Fees / Travel / Publ	1,412.89	0.02	3.35	1,636.38	0.04	3.56
Gas / Fuel / Oil	4,748.70	0.08	11.27	5,285.11	0.11	11.49
Irrigation Fuel - Pumping	16,269.40	0.26	38.63	27,232.39	0.59	59.20
Crop Storage & Marketing	1,005.95	0.02	2.39	389.54	0.01	0.85
Personal Property Tax	310.91	0.00	0.74	365.39	0.01	0.79
General Farm Insurance	2,043.53	0.03	4.85	2,437.31	0.05	5.30
Utilities	1,380.81	0.02	3.28	1,399.25	0.03	3.04
Cash Farm Rent	4,955.48	0.08	11.77	6,824.35	0.15	14.84
Herbicide / Insecticide	16,860.75	0.27	40.03	18,719.08	0.40	40.69
Conservation	21.64	0.00	0.05	7.42	0.00	0.02
Auto Expense	524.06	0.01	1.24	433.08	0.01	0.94
<b>TOTAL VARIABLE COSTS</b>	<b>\$125,049.03</b>	<b>\$1.99</b>	<b>\$296.89</b>	<b>\$141,753.67</b>	<b>\$3.07</b>	<b>\$308.16</b>
<b>RETURN ABOVE VARIABLE COSTS</b>	<b>\$43,637.94</b>	<b>\$0.70</b>	<b>\$103.60</b>	<b>\$10,392.39</b>	<b>\$0.22</b>	<b>\$22.59</b>
Depreciation	10,685.39	0.17	25.37	11,809.17	0.26	25.67
Real Estate Tax	1,082.22	0.02	2.57	1,451.59	0.03	3.16
Unpaid Operator Labor	7,369.50	0.12	17.50	7,491.25	0.16	16.29
Interest Charge *	346.81	0.01	0.82	-	-	-
<b>TOTAL FIXED COSTS</b>	<b>\$19,483.93</b>	<b>\$0.31</b>	<b>\$46.26</b>	<b>\$20,752.01</b>	<b>\$0.45</b>	<b>\$45.11</b>
Land Charge **	\$16,275.18	\$0.26	\$38.64	\$15,160.17	\$0.33	\$32.96
<b>TOTAL EXPENSE</b>	<b>\$160,808.14</b>	<b>\$2.57</b>	<b>\$381.79</b>	<b>\$177,665.85</b>	<b>\$3.84</b>	<b>\$386.23</b>
<b>NET RETURN TO MANAGEMENT</b>	<b>\$7,878.83</b>	<b>\$0.13</b>	<b>\$18.71</b>	<b>(\$25,519.79)</b>	<b>(\$0.55)</b>	<b>(\$55.48)</b>
<b>NET RETURN TO LABOR-MGT</b>	<b>\$19,297.97</b>	<b>\$0.31</b>	<b>\$45.82</b>	<b>(\$12,980.62)</b>	<b>(\$0.28)</b>	<b>(\$28.22)</b>

\*Interest charge equals: ((8.0% times three-fourths the variable costs) plus (4.0% times depreciation times 8)) minus cash interest paid.

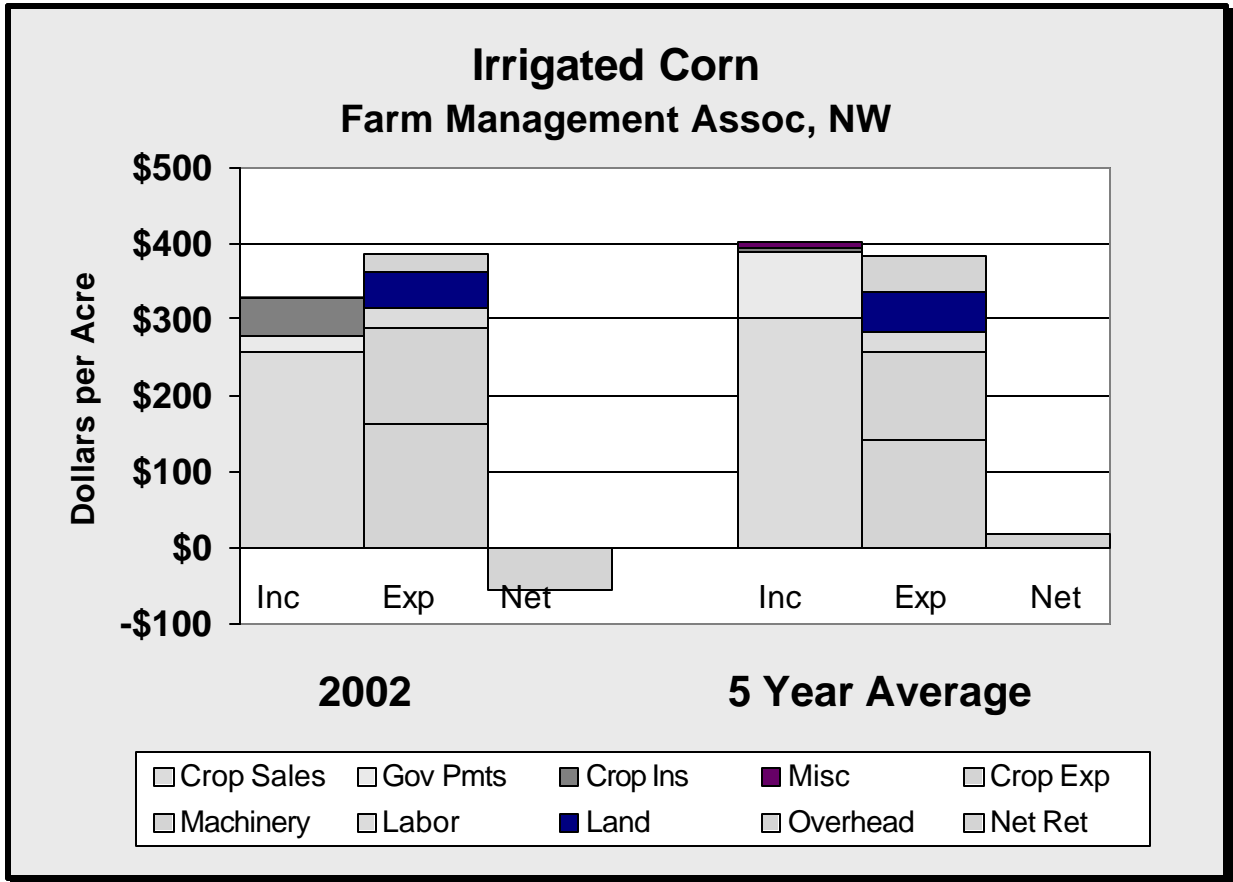


Figure 28

Irrigated corn has been a staple irrigated crop enterprise in Northwest Kansas. The challenging weather since 1999 has shifted some acres to alternative crops such as soybeans, sunflower and wheat. Irrigated corn as an enterprise encountered too many negatives to hold a positive net return to management in 2002. Yields decreased from a five-year average of 174.5 bushels to a near record low (1995 yields were 115 bushels association wide) 114.9 bushels in 2002. Prices enjoyed some improvement, but given the decline in yields, crop income dropped from \$304.19 for the five-year average to \$257.35 in 2002. Crop insurance contributed \$48.91 per acre in 2002. Crop value combined with crop insurance proceeds in 2002 equaled 306.26, which was only \$4.01 per acre below the five-year average of \$310.27. The factor that hurt income resources for the irrigated corn enterprise was the \$62.81 decline in government payments experienced on the 2002 enterprise when compared to the five-year average.

Compounding the challenges of 2002 was the increase in cost of production. Note though that total expense increased to \$386.23 in 2002, which was only \$4.44 more than the five-year average of \$381.79. Reductions of machine hire (less harvest), and fertilizer (there were a few bargains if you looked) paid for 1/2 of the jump in irrigation fuel from \$38.63 for the five-year average to \$59.20 in 2002.

**NORTHWEST KANSAS FARM MANAGEMENT ASSOCIATION**  
**PROFIT CENTER ANALYSIS: 5 YEARS AVERAGE & 2002**  
**Irrigated Corn (All)**

	1998-2002 Average				2002			
	Low third	Midthird	Top Third	Average	Low third	Midthird	Top Third	Average
Number of Farms	17	16	17	50	19	18	17	54
Crop Acres	2122	2363	2386	2290	2059	2196	2929	2395
Percentage of total crop Acres	18%	24%	22%	22%	19%	22%	19%	20%
Crop Acres	373	575	536	492	397	484	548	473
Acres Owned	199	163	113	158	142	173	153	156
Acres Rented	174	412	423	334	255	311	395	318
Yield / Acre	158	169	172	166	92	122	126	112
Total Operator Bushels	51495	83589	76223	70055	31476	51455	60917	47404
<b>INCOME:</b>								
(All) Irrigated Corn (Op Share)	279.18	291.66	294.48	288.35	207.48	283.28	290.27	258.81
Patronage Refunds	2.66	1.88	1.92	2.16	1.55	0.52	1.65	1.24
Government Payments	79.28	89.30	91.37	86.57	20.51	22.47	29.35	23.95
Miscellaneous Income	3.44	2.56	1.79	2.60	1.27	2.09	3.31	2.18
Crop Insurance Proceeds	11.80	7.66	16.59	12.14	40.46	35.02	72.41	48.70
OTHER INCOME	\$99.21	\$102.08	\$112.04	\$104.51	\$63.86	\$61.39	\$106.85	\$76.57
<b>GROSS INCOME</b>	<b>\$377.30</b>	<b>\$394.88</b>	<b>\$405.88</b>	<b>\$392.62</b>	<b>\$264.97</b>	<b>\$344.86</b>	<b>\$399.58</b>	<b>\$333.98</b>
<b>EXPENSES:</b>								
Labor Hired	8.00	11.34	7.47	8.87	12.68	9.91	7.16	10.02
General Machinery Repairs	22.25	22.66	19.52	21.44	20.75	17.33	23.06	20.34
Irrigation Repairs	9.99	6.85	5.11	7.33	7.13	8.41	4.60	6.76
Interest Paid	33.49	24.93	23.57	27.40	30.60	26.48	27.11	28.13
Seed / Other Crop Expense	39.06	36.33	37.11	37.53	38.50	37.92	39.53	38.63
Crop Insurance	11.67	10.01	8.97	10.22	8.89	10.09	10.51	9.80
Fertilizer / Lime	46.11	39.42	42.90	42.91	43.24	44.49	32.70	40.34
Machine Hire - Lease	29.40	20.09	17.31	22.33	19.70	21.52	9.21	17.01
Farm Org Fees / Travel / Publ	4.07	3.28	4.08	3.82	3.82	4.18	4.10	4.03
Gas / Fuel / Oil	11.76	12.18	9.50	11.12	11.52	12.62	8.31	10.88
Irrigation Energy	43.19	46.93	38.69	42.82	58.33	56.22	48.88	54.65
Crop Storage & Marketing	2.88	0.96	1.16	1.69	1.15	0.46	0.68	0.77
Personal Property Tax	0.91	1.06	0.87	0.94	0.94	1.31	1.03	1.09
General Farm Insurance	5.63	5.93	5.53	5.69	6.14	5.86	5.19	5.75
Utilities	3.35	3.73	2.72	3.25	2.72	2.49	5.61	3.55
Cash Farm Rent	5.21	18.02	8.39	10.32	23.05	10.58	19.95	17.92
Herbicide / Insecticide	42.27	36.12	36.87	38.49	42.03	43.76	38.43	41.47
Conservation	0.04	0.16	0.06	0.08	0.00	0.02	0.26	0.09
Auto Expense	1.69	1.22	1.22	1.38	1.16	1.10	1.10	1.12
<b>TOTAL VARIABLE COSTS</b>	<b>\$320.96</b>	<b>\$301.60</b>	<b>\$271.18</b>	<b>\$297.81</b>	<b>\$332.34</b>	<b>\$314.73</b>	<b>\$287.43</b>	<b>\$312.33</b>
<b>RETURN ABOVE VARIABLE COSTS</b>	<b>\$56.68</b>	<b>\$93.36</b>	<b>\$134.69</b>	<b>\$94.96</b>	<b>(\$67.37)</b>	<b>\$30.82</b>	<b>\$112.51</b>	<b>\$21.99</b>
Depreciation	25.81	25.77	24.69	25.41	29.47	22.54	23.58	25.31
Real Estate Tax	4.16	2.79	2.53	3.17	4.94	2.83	3.06	3.65
Unpaid Operator Labor	19.72	19.80	15.64	18.34	17.40	19.47	18.23	18.35
Interest Charge *	5.08	7.38	7.17	6.52	7.38	6.44	6.42	6.77
<b>TOTAL FIXED COSTS</b>	<b>\$54.77</b>	<b>\$55.75</b>	<b>\$50.02</b>	<b>\$53.45</b>	<b>\$59.19</b>	<b>\$51.28</b>	<b>\$51.29</b>	<b>\$54.07</b>
Land Charge **	44.56	30.82	20.44	31.98	24.31	40.91	21.77	29.05
<b>TOTAL EXPENSE</b>	<b>\$420.30</b>	<b>\$388.17</b>	<b>\$341.65</b>	<b>\$383.23</b>	<b>\$415.84</b>	<b>\$406.93</b>	<b>\$360.49</b>	<b>\$395.45</b>
<b>NET RETURN TO MANAGEMENT</b>	<b>(\$42.99)</b>	<b>\$6.71</b>	<b>\$64.23</b>	<b>\$9.39</b>	<b>(\$150.87)</b>	<b>(\$62.07)</b>	<b>\$39.09</b>	<b>(\$61.47)</b>
<b>NET RETURN TO LABOR-MGT</b>	<b>(\$15.27)</b>	<b>\$37.85</b>	<b>\$87.33</b>	<b>\$36.60</b>	<b>(\$120.80)</b>	<b>(\$32.69)</b>	<b>\$64.48</b>	<b>(\$33.10)</b>

\*Interest charge equals: ((8.0% times three-fourths the variable costs) plus (4.0% times depreciation times 8)) minus cash interest paid.

\*\*Land charge represents a charge (equal to landlord's share) on owned land and equals (production from owned acres X price / unit X 33.33% (25% for Irrigated).Crop production paid to the landlord on rented land (already removed above), or cash rent is the charge on rented land.

This crop enterprise is based on the operator's share of production, and thus includes only production expenses paid by the operator. A charge for management is not included in the expenses.

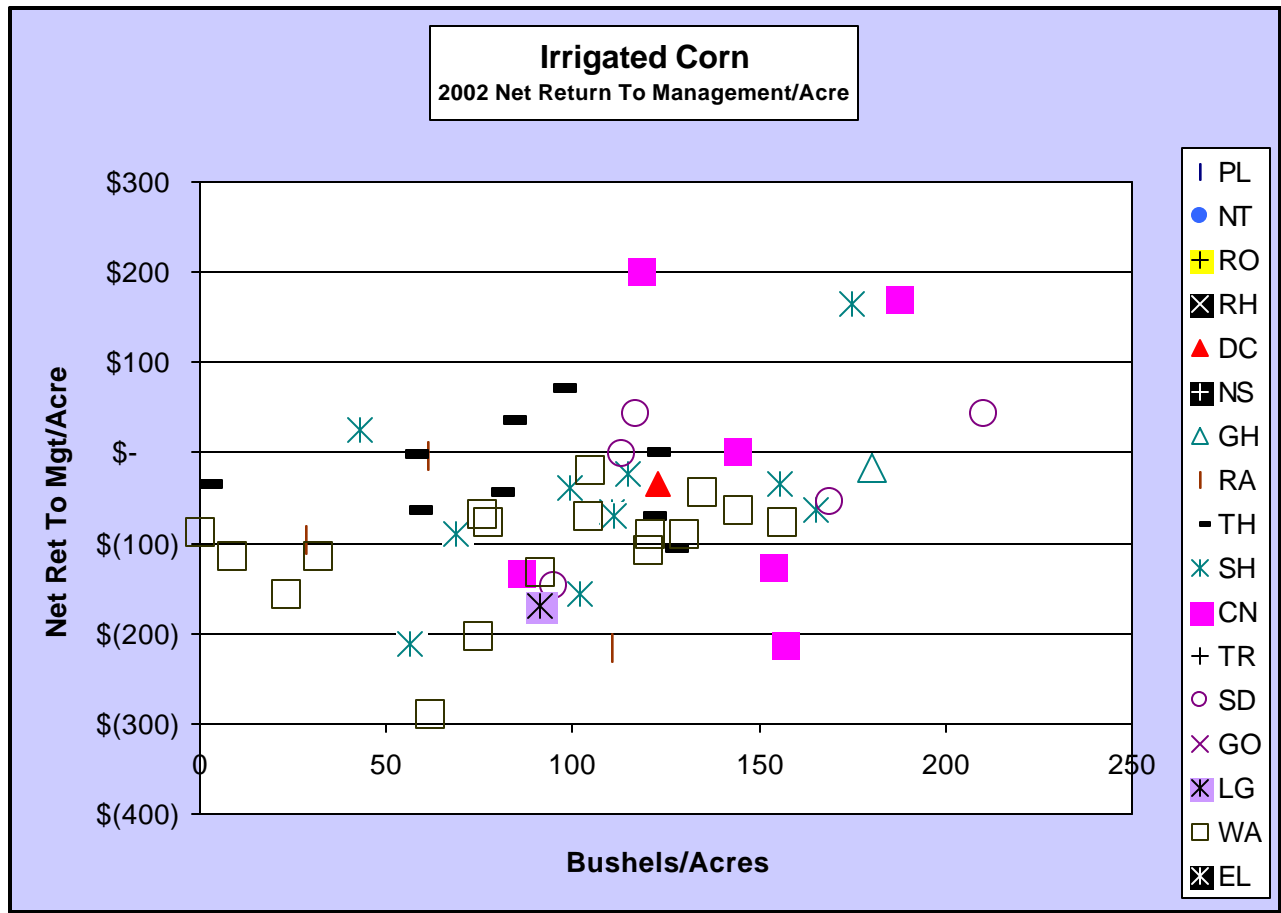


Figure 29

Details of the low, mid, and top third divisions by net return to management of the irrigated corn enterprise are shown in the table on the facing page. Net return to management identified by county is compared with yields in Figure 29.

Net return to management experienced a huge increase in variation in 2002. The top third net returns in 2002 were \$39.09, which is a decrease from the five-year average of \$64.23. The low third net returns in 2002 were -\$150.87 compared to -\$42.99 for the five-year average. The range in net return to management in 2002 was \$189.96, 177% of that experienced in the five-year average.

Gross income for irrigated corn is a key factor in net returns in 2002. The top third enterprises averaged \$399.58 or \$134.61 more than the low third. Crop income accounts for \$82.79 or 61.5% of the difference. Crop insurance on the higher third farms was \$72.41 instead of the \$40.46 experienced by the low third farms.

The comparison of variable cost shows some cost control in the top third farms. Machine hire is \$10.49 less per acre for top third farms in relation to low third farms. Fertilizer, herbicides and irrigation energy account for another \$23.59 per acre decrease in variable cost for the top third farms from the low third.

Note in Figure 29 that only one producer had a whole farm enterprise average above 200 bushels in 2002. It was a tough year for irrigated corn in 2002.

**NORTHWEST KANSAS FARM MANAGEMENT ASSOCIATION**  
**PROFIT CENTER ANALYSIS : 5-YEAR AVERAGE & 2002**  
**IRRIGATED (ALL) SOYBEANS**

	<b>1997-2001 Average</b>			<b>2002</b>		
Number of Farms		24			29	
Crop Acres		140			212	
Acres Owned		40			49	
Acres Rented		99			162	
Yield / Acre		53.3			41.8	
Bushels		5,988			7,595	
Operator Percentage		80.37%			85.73%	
Gross Income / Acre		\$290.53			\$222.91	
Variable Costs / Acre		\$175.05			\$195.33	
Total Expense / Acre		\$232.55			\$245.96	
Gross Income / Bushel		\$6.78			\$6.22	
Total Expense / Bushel		\$5.43			\$6.87	

	<b>Total Dollars</b>	<b>\$ / Bushel</b>	<b>\$ / Acre</b>	<b>Total Dollars</b>	<b>\$ / Bushel</b>	<b>\$ / Acre</b>
<b>INCOME:</b>						
Soybeans (Operator's Share)	\$27,386.71	\$4.57	\$195.90	\$39,131.58	\$5.15	\$184.58
Patronage Refunds	196.46	0.03	1.41	153.36	0.02	0.72
Government Payments	12,102.84	2.02	86.57	5,929.44	0.78	27.97
Miscellaneous Income	330.88	0.06	2.37	210.96	0.03	1.00
Crop Insurance Proceeds	599.07	0.10	4.29	1,831.73	0.24	8.64
OTHER INCOME	\$13,229.24	\$2.21	\$94.63	\$8,125.49	\$1.07	\$38.33
<b>GROSS INCOME</b>	<b>\$40,615.94</b>	<b>\$6.78</b>	<b>\$290.53</b>	<b>\$47,257.07</b>	<b>\$6.22</b>	<b>\$222.91</b>
<b>EXPENSES:</b>						
Labor Hired	\$1,045.66	\$0.17	\$7.48	\$1,422.64	\$0.19	\$6.71
General Machinery Repairs	2,019.35	0.34	14.44	2,477.31	0.33	11.69
Irrigation Equipment Repairs	753.80	0.13	5.39	1,290.93	0.17	6.09
Interest Paid	2,150.83	0.36	15.39	3,436.76	0.45	16.21
Seed / Other Crop Expense	3,646.14	0.61	26.08	5,833.27	0.77	27.52
Crop Insurance	1,244.48	0.21	8.90	2,391.89	0.31	11.28
Fertilizer / Lime	1,235.73	0.21	8.84	1,118.47	0.15	5.28
Machine Hire - Lease	2,114.48	0.35	15.13	3,238.70	0.43	15.28
Farm Org Fees / Travel / Publ	354.14	0.06	2.53	422.09	0.06	1.99
Gas / Fuel / Oil	1,030.89	0.17	7.37	1,043.11	0.14	4.92
Irrigation Fuel - Pumping	4,107.41	0.69	29.38	10,759.27	1.42	50.75
Crop Storage & Marketing	73.00	0.01	0.52	54.81	0.01	0.26
Personal Property Tax	70.69	0.01	0.51	105.13	0.01	0.50
General Farm Insurance	490.45	0.08	3.51	835.33	0.11	3.94
Utilities	354.62	0.06	2.54	495.40	0.07	2.34
Cash Farm Rent	803.73	0.13	5.75	1,047.64	0.14	4.94
Herbicide / Insecticide	2,802.93	0.47	20.05	5,259.07	0.69	24.81
Conservation	11.02	0.00	0.08	8.00	0.00	0.04
Auto Expense	162.62	0.03	1.16	169.08	0.02	0.80
<b>TOTAL VARIABLE COSTS</b>	<b>\$24,471.97</b>	<b>\$4.09</b>	<b>\$175.05</b>	<b>\$41,408.90</b>	<b>\$5.45</b>	<b>\$195.33</b>
<b>RETURN ABOVE VARIABLE COSTS</b>	<b>\$16,143.98</b>	<b>\$2.70</b>	<b>\$115.48</b>	<b>\$5,848.17</b>	<b>\$0.77</b>	<b>\$27.59</b>
Depreciation	2,363.88	0.39	16.91	4,238.25	0.56	19.99
Real Estate Tax	277.84	0.05	1.99	388.45	0.05	1.83
Unpaid Operator Labor	1,994.32	0.33	14.27	2,478.18	0.33	11.69
Interest Charge *	177.52	0.03	1.27	404.01	0.05	1.91
<b>TOTAL FIXED COSTS</b>	<b>\$4,813.56</b>	<b>\$0.80</b>	<b>\$34.43</b>	<b>\$7,508.89</b>	<b>\$0.99</b>	<b>\$35.42</b>
Land Charge **	\$3,224.98	\$0.54	\$23.07	\$3,226.27	\$0.42	\$15.22
<b>TOTAL EXPENSE</b>	<b>\$32,510.51</b>	<b>\$5.43</b>	<b>\$232.55</b>	<b>\$52,144.06</b>	<b>\$6.87</b>	<b>\$245.96</b>
<b>NET RETURN TO MANAGEMENT</b>	<b>\$8,105.43</b>	<b>\$1.35</b>	<b>\$57.98</b>	<b>(\$4,886.99)</b>	<b>(\$0.64)</b>	<b>(\$23.05)</b>
<b>NET RETURN TO LABOR-MGT</b>	<b>\$11,145.42</b>	<b>\$1.86</b>	<b>\$79.72</b>	<b>(\$986.17)</b>	<b>(\$0.13)</b>	<b>(\$4.65)</b>

\*Interest charge equals: ((8.0% times three-fourths the variable costs) plus (4.0% times depreciation times 8)) minus cash interest paid.

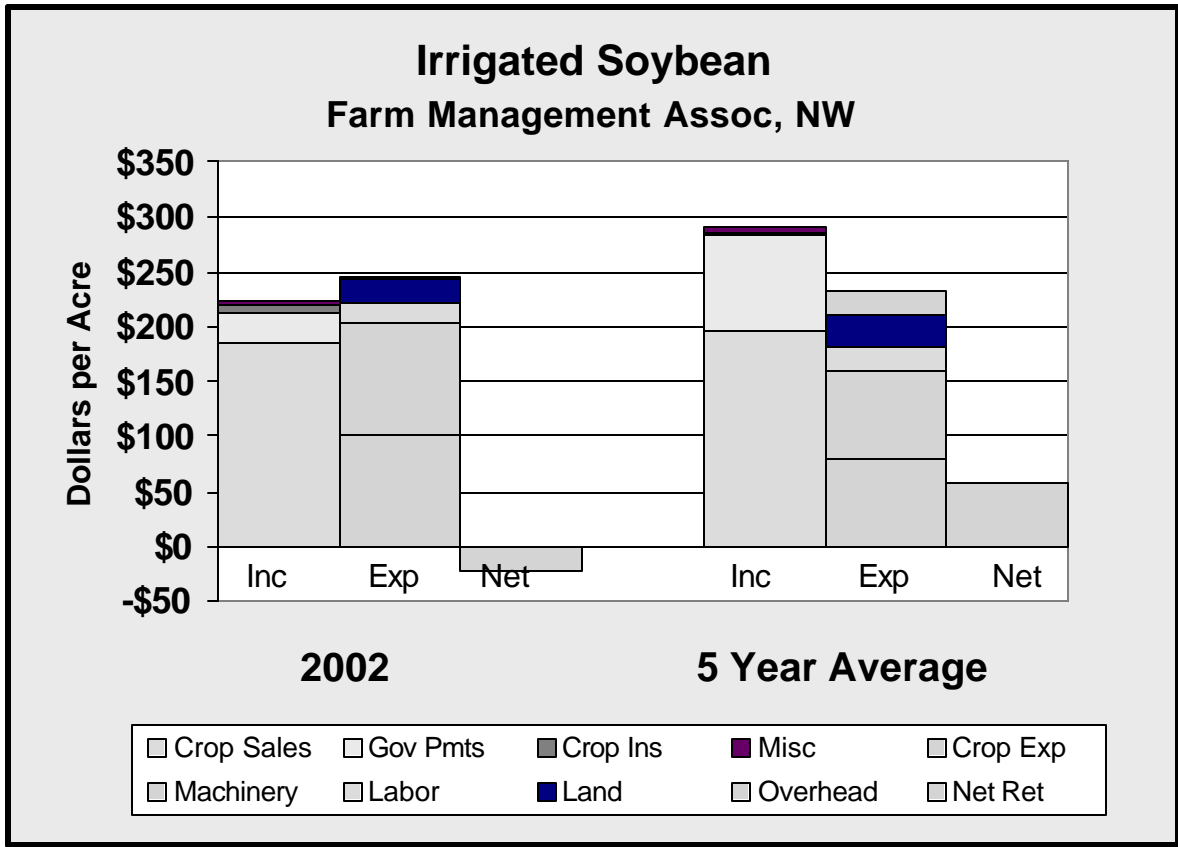


Figure 30

Irrigated soybeans have generated the second best net return to management of the irrigated enterprise in the Northwest Association over the five-year average. This was not the case in 2002. Net returns to management declined from a five-year average of \$57.98 to -\$23.05 per acre in 2002.

Yields declined from 53.3 bushels for the five-year average to 41.8 in 2002. Government payments also declined across all irrigated enterprises. Even though prices did increase from \$4.57 from the five-year average to \$5.15 for 2002, crop income decline from \$195.90 on the five-year average to \$184.58 in 2002.

Variable costs increased \$20.30 per acre in 2002 from the five-year average. Irrigation energy increased \$21.37 per acre from \$29.38 for the five-year average to \$50.75 in 2002. Other than energy cost increases, irrigated soybean cost of production did not change appreciably in 2002 when compared to the five-year average.

**NORTHWEST KANSAS FARM MANAGEMENT ASSOCIATION**  
**PROFIT CENTER ANALYSIS: 5 YEARS AVERAGE & 2002**  
**Irrigated Soybeans**

	1998-2002 Average				2002			
	Low third	Mid third	Top Third	Average	Low third	Mid third	Top Third	Average
Number of Farms	5	4	5	14	10	9	8	27
Crop Acres	1828	2592	2528	2316	1798	3659	2289	2582
Percentage of total crop Acres	5%	7%	11%	8%	7%	7%	14%	9%
Crop Acres	98	177	280	185	124	245	317	221
Acres Owned	26	72	48	48	41	87	31	53
Acres Rented	73	106	232	137	83	158	285	168
Yield / Acre	39	49	53	47	31	40	48	39
Total Operator Bushels	3137	7327	12193	7555	3344	7492	14151	7929
<b>INCOME:</b>								
Irrigated Soybeans (Op Share)	153.51	187.29	201.60	180.71	145.19	160.13	244.55	179.61
Patronage Refunds	1.87	1.78	0.84	1.49	1.77	0.50	0.72	1.03
Government Payments	62.18	85.33	99.93	82.44	15.36	28.61	32.58	24.88
Miscellaneous Income	1.31	1.30	0.46	1.02	1.59	0.39	4.15	1.95
Crop Insurance Proceeds	14.06	4.04	2.18	6.80	31.62	5.48	0.00	13.54
OTHER INCOME	\$79.42	\$93.11	\$104.69	\$92.40	\$50.33	\$35.34	\$37.45	\$41.52
<b>GROSS INCOME</b>	<b>\$232.01</b>	<b>\$280.76</b>	<b>\$306.93</b>	<b>\$273.13</b>	<b>\$195.53</b>	<b>\$197.75</b>	<b>\$285.29</b>	<b>\$222.87</b>
<b>EXPENSES:</b>								
Labor Hired	4.26	7.55	8.40	6.72	2.92	10.11	4.65	5.83
General Machinery Repairs	15.59	13.32	13.53	14.16	13.42	13.62	15.59	14.13
Irrigation Repairs	5.69	5.58	5.67	5.65	6.01	6.03	6.85	6.26
Interest Paid	18.23	13.97	15.66	15.98	17.70	15.10	20.00	17.52
Seed / Other Crop Expense	28.01	27.08	29.13	28.09	39.68	22.26	24.90	29.49
Crop Insurance	7.57	6.83	8.30	7.58	27.31	7.18	7.89	14.85
Fertilizer / Lime	6.42	9.29	8.39	8.02	9.74	4.34	5.01	6.54
Machine Hire - Lease	20.75	17.97	9.37	16.00	21.25	17.34	9.79	16.55
Farm Org Fees / Travel / Publ	3.09	2.43	1.91	2.48	2.60	1.76	2.68	2.34
Gas / Fuel / Oil	7.01	5.91	7.37	6.78	4.65	5.30	4.49	4.82
Irrigation Energy	39.78	34.80	35.01	36.55	62.27	42.16	51.99	52.52
Crop Storage & Marketing	0.39	0.18	0.31	0.30	0.81	0.30	0.11	0.44
Personal Property Tax	0.45	0.51	0.71	0.56	0.58	0.48	0.79	0.61
General Farm Insurance	3.69	3.86	3.47	3.67	4.35	2.77	4.26	3.80
Utilities	2.13	2.47	1.44	2.01	2.27	2.78	2.41	2.48
Cash Farm Rent	4.84	4.67	7.57	5.71	5.09	6.84	10.50	7.28
Herbicide / Insecticide	28.08	22.36	21.92	24.14	29.75	21.26	25.17	25.56
Conservation	0.00	0.01	0.06	0.03	0.00	0.01	0.53	0.16
Auto Expense	0.51	1.87	0.65	1.00	0.81	0.79	0.92	0.84
<b>TOTAL VARIABLE COSTS</b>	<b>\$196.49</b>	<b>\$180.68</b>	<b>\$179.25</b>	<b>\$185.54</b>	<b>\$251.21</b>	<b>\$180.44</b>	<b>\$198.52</b>	<b>\$212.01</b>
<b>RETURN ABOVE VARIABLE COSTS</b>	<b>\$35.52</b>	<b>\$100.09</b>	<b>\$127.68</b>	<b>\$87.59</b>	<b>(\$55.68)</b>	<b>\$17.31</b>	<b>\$86.77</b>	<b>\$10.86</b>
Depreciation	16.82	18.98	17.09	17.61	18.10	21.18	18.42	19.22
Real Estate Tax	1.86	2.71	1.41	1.98	2.00	2.25	2.21	2.15
Unpaid Operator Labor	18.56	12.14	10.25	13.67	14.94	10.34	13.68	13.03
Interest Charge *	3.60	6.32	3.95	4.60	5.06	5.46	2.93	4.56
<b>TOTAL FIXED COSTS</b>	<b>\$40.83</b>	<b>\$40.15</b>	<b>\$32.70</b>	<b>\$37.86</b>	<b>\$40.10</b>	<b>\$39.23</b>	<b>\$37.24</b>	<b>\$38.96</b>
Land Charge **	19.19	24.33	10.43	17.89	16.77	15.51	19.02	17.02
<b>TOTAL EXPENSE</b>	<b>\$256.52</b>	<b>\$245.16</b>	<b>\$222.37</b>	<b>\$241.30</b>	<b>\$308.08</b>	<b>\$235.18</b>	<b>\$254.78</b>	<b>\$267.99</b>
<b>NET RETURN TO MANAGEMENT</b>	<b>(\$24.50)</b>	<b>\$35.61</b>	<b>\$84.56</b>	<b>\$31.84</b>	<b>(\$112.55)</b>	<b>(\$37.43)</b>	<b>\$30.51</b>	<b>(\$45.12)</b>
<b>NET RETURN TO LABOR-MGT</b>	<b>(\$1.68)</b>	<b>\$55.30</b>	<b>\$103.20</b>	<b>\$52.23</b>	<b>(\$94.69)</b>	<b>(\$16.97)</b>	<b>\$48.84</b>	<b>(\$26.26)</b>

\*Interest charge equals: ((8.0% times three-fourths the variable costs) plus (4.0% times depreciation times 8)) minus cash interest paid.

\*\*Land charge represents a charge (equal to landlord's share) on owned land and equals (production from owned acres X price / unit X 33.33% (25% for Irrigated).Crop production paid to the landlord on rented land (already removed above), or cash rent is the charge on rented land.

This crop enterprise is based on the operator's share of production, and thus includes only production expenses paid by the operator. A charge for management is not included in the expenses.

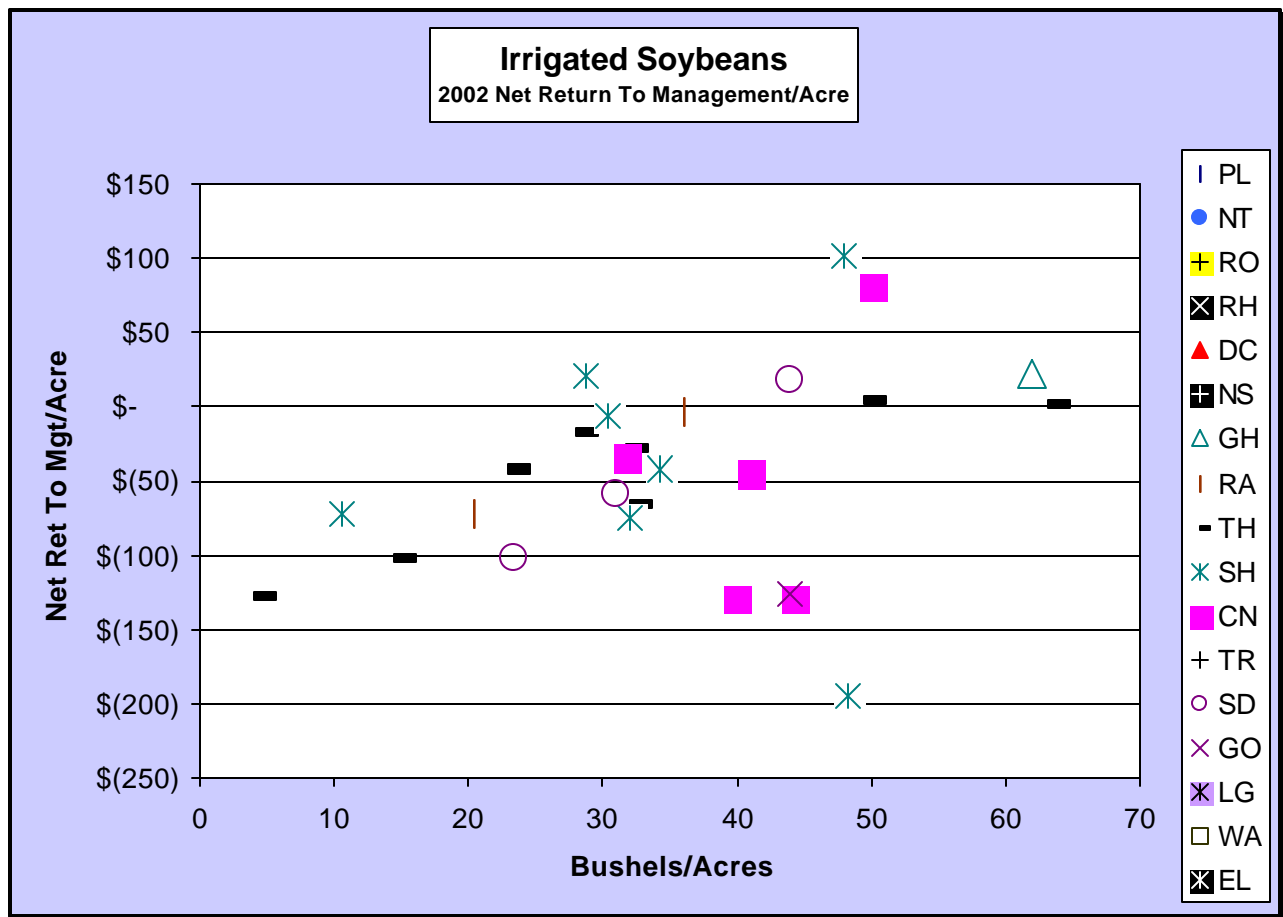


Figure 31

Irrigated soybean enterprise data is divided into low, mid, and top thirds by net return to management in the table on the facing page. Net return to management compared with yields is displayed in Figure 31. Note the near linear relationship between net returns and yields for irrigated soybeans in Figure 31.

Net return to management in irrigated soybeans is heavily dependent on the yields of production. Crop insurance proceeds for the low third of 2002 enterprises contributed \$31.62 to “crop” income. When combined with crop income, the low third generated income of \$176.81 per acre compared with the top third “crop” income of \$244.55. The variation in net return to management in 2002 was \$143.06 top to low thirds. This variation is \$34 more than the five-year average.

**NORTHWEST KANSAS FARM MANAGEMENT ASSOCIATION**  
**PROFIT CENTER ANALYSIS: 5-YEAR AVERAGE & 2002**  
**IRRIGATED (ALL) PINTO BEANS**

	1997-2001 Average	2002
Number of Farms	11	10
Crop Acres	208	251
Acres Owned	61	111
Acres Rented	147	140
Yield / Acre	20.82	14.12
Cwt	3,659	2,914
Operator Percentage	84.32%	82.22%
Gross Income / Acre	\$388.43	\$237.70
Variable Costs / Acre	\$260.56	\$259.34
Total Expense / Acre	\$327.73	\$326.81
Gross Income / Cwt	\$22.12	\$20.47
Total Expense / Cwt	\$18.67	\$28.15

	Total Dollars	\$ / Cwt	\$ / Acre	Total Dollars	\$ / Cwt	\$ / Acre
<b>INCOME:</b>						
Pinto Beans (Operator's Share)	\$63,733.54	\$17.42	\$305.82	\$49,228.19	\$16.89	\$196.13
Patronage Refunds	352.96	0.10	1.69	59.59	0.02	0.24
Government Payments	13,909.40	3.80	66.74	3,365.25	1.15	13.41
Miscellaneous Income	648.93	0.18	3.11	482.28	0.17	1.92
Crop Insurance Proceeds	2,304.30	0.63	11.06	6,528.33	2.24	26.01
OTHER INCOME	\$17,215.60	\$4.71	\$82.61	\$10,435.45	\$3.58	\$41.58
<b>GROSS INCOME</b>	<b>\$80,949.13</b>	<b>\$22.12</b>	<b>\$388.43</b>	<b>\$59,663.64</b>	<b>\$20.47</b>	<b>\$237.70</b>
<b>EXPENSES:</b>						
Labor Hired	\$2,705.39	\$0.74	\$12.98	\$2,235.32	\$0.77	\$8.91
General Machinery Repairs	3,567.48	0.97	17.12	3,796.98	1.30	15.13
Irrigation Equipment Repairs	1,243.55	0.34	5.97	2,172.12	0.75	8.65
Interest Paid	5,213.10	1.42	25.01	6,177.67	2.12	24.61
Seed / Other Crop Expense	7,397.49	2.02	35.50	9,026.80	3.10	35.96
Crop Insurance	1,744.79	0.48	8.37	1,324.90	0.45	5.28
Fertilizer / Lime	4,477.64	1.22	21.49	5,239.50	1.80	20.87
Machine Hire - Lease	6,252.17	1.71	30.00	6,598.59	2.26	26.29
Farm Org Fees / Travel / Publ	718.01	0.20	3.45	745.63	0.26	2.97
Gas / Fuel / Oil	2,823.21	0.77	13.55	3,697.13	1.27	14.73
Irrigation Fuel - Pumping	6,992.43	1.91	33.55	14,465.67	4.96	57.63
Crop Storage & Marketing	238.38	0.07	1.14	110.90	0.04	0.44
Personal Property Tax	184.33	0.05	0.88	119.56	0.04	0.48
General Farm Insurance	1,033.59	0.28	4.96	1,078.47	0.37	4.30
Utilities	519.52	0.14	2.49	412.55	0.14	1.64
Cash Farm Rent	1,982.70	0.54	9.51	300.00	0.10	1.20
Herbicide / Insecticide	6,938.90	1.90	33.30	7,403.90	2.54	29.50
Conservation	1.50	0.00	0.01	-	-	-
Auto Expense	266.37	0.07	1.28	187.63	0.06	0.75
<b>TOTAL VARIABLE COSTS</b>	<b>\$54,300.53</b>	<b>\$14.84</b>	<b>\$260.56</b>	<b>\$65,093.32</b>	<b>\$22.34</b>	<b>\$259.34</b>
<b>RETURN ABOVE VARIABLE COSTS</b>	<b>\$26,648.60</b>	<b>\$7.28</b>	<b>\$127.87</b>	<b>(\$5,429.68)</b>	<b>(\$1.86)</b>	<b>(\$21.63)</b>
Depreciation	4,400.66	1.20	21.12	4,853.62	1.67	19.34
Real Estate Tax	398.82	0.11	1.91	599.64	0.21	2.39
Unpaid Operator Labor	2,694.99	0.74	12.93	3,159.00	1.08	12.59
Interest Charge *	-	-	-	-	-	-
<b>TOTAL FIXED COSTS</b>	<b>\$7,494.47</b>	<b>\$2.05</b>	<b>\$35.96</b>	<b>\$8,612.26</b>	<b>\$2.96</b>	<b>\$34.31</b>
Land Charge **	\$6,502.95	\$1.78	\$31.20	\$8,324.79	\$2.86	\$33.17
<b>TOTAL EXPENSE</b>	<b>\$68,297.95</b>	<b>\$18.67</b>	<b>\$327.73</b>	<b>\$82,030.37</b>	<b>\$28.15</b>	<b>\$326.81</b>
<b>NET RETURN TO MANAGEMENT</b>	<b>\$12,651.18</b>	<b>\$3.46</b>	<b>\$60.71</b>	<b>(\$22,366.73)</b>	<b>(\$7.68)</b>	<b>(\$89.11)</b>
<b>NET RETURN TO LABOR-MGT</b>	<b>\$18,051.56</b>	<b>\$4.93</b>	<b>\$86.62</b>	<b>(\$16,972.41)</b>	<b>(\$5.82)</b>	<b>(\$67.62)</b>

\*Interest charge equals: ((8.0% times three-fourths the variable costs) plus (4.0% times depreciation times 8)) minus cash interest paid.

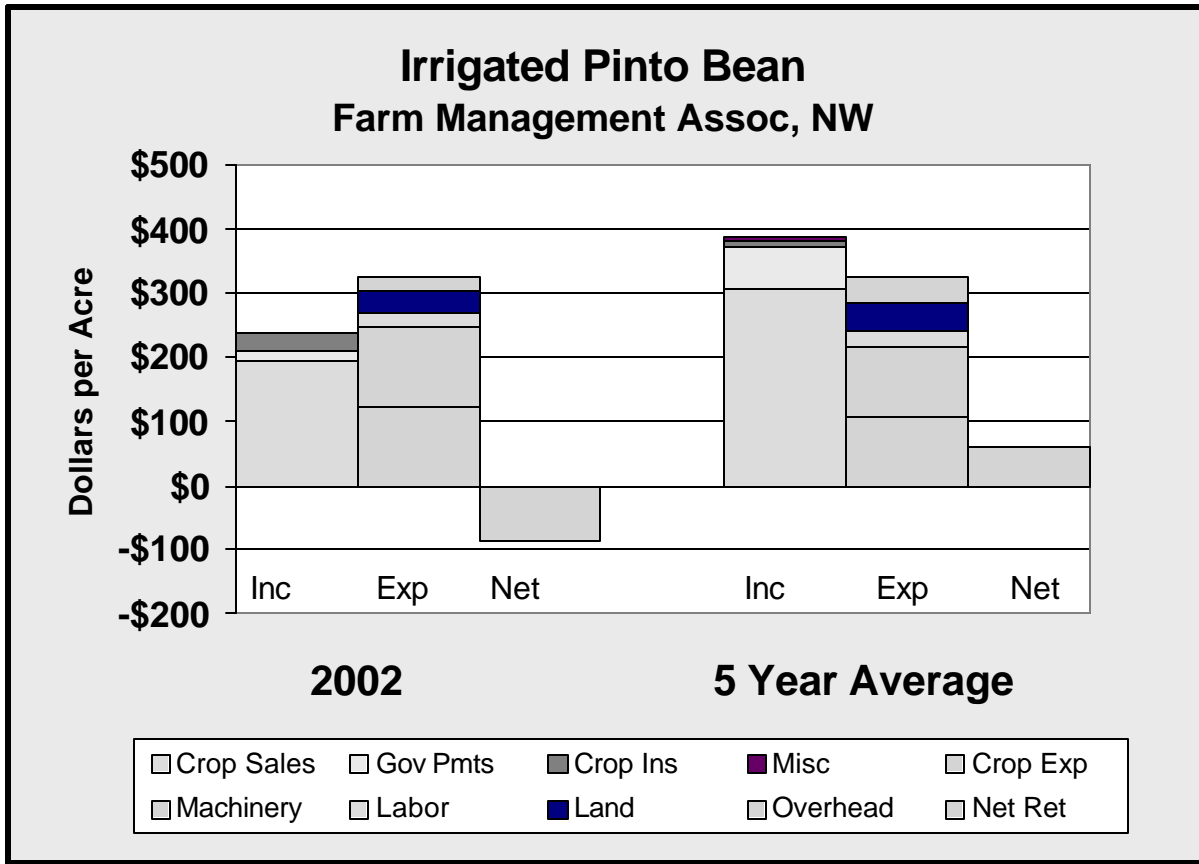


Figure 32

Irrigated pinto bean enterprise data from 2002 and the previous five-year average is presented in the table on the facing page. Net return to management deteriorated to -\$89.11 per acres loss. Total expenses actually decreased only \$.92 per acre, so the net income decline was totally from the revenue side.

Irrigated pinto beans struggled with slightly reduced market prices in 2002, \$16.89 per cwt compared to \$17.42 cwt for the five-year average. Yields declined from 20.82 cwt per acre for the previous five years to 14.12 cwt per acre in 2002. The combination of lower prices and yields reduced crop income from \$305.82 for five-year average to \$196.13 for 2002. Common with all other irrigated enterprises, government payments decreased from \$66.72 for the five-year average to only \$13.41 in 2002.

**NORTHWEST KANSAS FARM MANAGEMENT ASSOCIATION**  
**PROFIT CENTER ANALYSIS: 5 YEARS AVERAGE & 2002**  
**Pinto Beans**

	1998-2002 Average				2002			
	Low third	Mid third	Top Third	Average	Low third	Mid third	Top Third	Average
Number of Farms	4	3	3	10	4	3	3	10
Crop Acres	1978	1650	2638	2089	1959	2527	2392	2293
Percentage of total crop Acres	12%	9%	10%	11%	12%	13%	8%	11%
Crop Acres	245	150	266	226	242	332	185	252
Acres Owned	120	27	72	79	180	70	61	111
Acres Rented	125	123	193	147	61	263	124	140
Yield / Acre	16	21	22	19	10	16	19	14
Total Operator Bushels	3428	2549	4729	3627	2261	3825	2874	2914
<b>INCOME:</b>								
Pinto Beans (Op Share)	205.57	285.17	323.28	266.03	116.43	199.27	299.97	196.35
Patronage Refunds	1.05	0.46	1.70	1.11	0.58	0.22	0.08	0.32
Government Payments	69.78	51.55	71.59	65.52	9.43	12.73	12.41	11.31
Miscellaneous Income	1.66	1.12	0.43	1.11	0.41	0.35	0.46	0.41
Crop Insurance Proceeds	28.37	1.72	7.58	14.33	69.25	16.34	9.80	35.54
OTHER INCOME	\$102.22	\$55.53	\$81.34	\$82.81	\$79.67	\$29.64	\$29.21	\$49.53
<b>GROSS INCOME</b>	<b>\$307.79</b>	<b>\$340.29</b>	<b>\$404.62</b>	<b>\$348.73</b>	<b>\$196.11</b>	<b>\$228.92</b>	<b>\$329.19</b>	<b>\$245.87</b>
<b>EXPENSES:</b>								
Labor Hired	11.14	10.93	5.07	9.06	6.21	12.20	10.54	9.31
General Machinery Repairs	19.44	17.99	10.25	15.99	21.49	10.90	18.03	17.28
Irrigation Repairs	8.09	3.25	5.14	5.82	10.07	4.41	7.22	7.52
Interest Paid	21.85	23.72	26.64	23.95	15.66	18.24	26.89	19.81
Seed / Other Crop Expense	32.66	32.53	37.04	34.09	36.65	40.50	34.34	37.11
Crop Insurance	4.54	4.87	4.11	4.48	6.23	6.51	2.33	5.14
Fertilizer / Lime	19.14	14.48	19.21	17.92	12.77	21.58	20.58	17.76
Machine Hire - Lease	18.16	51.60	22.02	28.36	19.35	28.71	32.66	26.15
Farm Org Fees / Travel / Publ	3.93	4.76	3.65	4.06	2.28	3.25	2.99	2.78
Gas / Fuel / Oil	11.84	15.09	11.74	12.67	11.83	15.35	14.60	13.72
Irrigation Energy	42.75	28.99	40.63	38.37	56.73	51.45	47.99	52.52
Crop Storage & Marketing	0.79	0.16	0.33	0.46	0.33	0.23	0.00	0.20
Personal Property Tax	1.03	0.70	0.90	0.90	0.30	0.82	0.27	0.45
General Farm Insurance	4.02	3.18	3.75	3.71	4.40	4.01	3.37	3.98
Utilities	2.49	2.20	2.01	2.25	1.11	1.10	2.23	1.44
Cash Farm Rent	0.26	0.32	3.91	1.49	0.00	6.58	0.00	1.97
Herbicide / Insecticide	34.01	35.68	31.48	33.61	44.56	20.66	35.81	34.77
Conservation	0.00	0.00	0.03	0.01	0.00	0.00	0.00	0.00
Auto Expense	1.39	0.83	1.00	1.11	0.39	0.76	0.92	0.66
<b>TOTAL VARIABLE COSTS</b>	<b>\$238.28</b>	<b>\$251.25</b>	<b>\$228.91</b>	<b>\$238.61</b>	<b>\$250.36</b>	<b>\$247.25</b>	<b>\$260.79</b>	<b>\$252.56</b>
<b>RETURN ABOVE VARIABLE COSTS</b>	<b>\$69.52</b>	<b>\$89.04</b>	<b>\$175.71</b>	<b>\$110.12</b>	<b>(\$54.26)</b>	<b>(\$18.33)</b>	<b>\$68.40</b>	<b>(\$6.68)</b>
Depreciation	24.52	13.20	22.32	20.77	27.42	15.19	13.55	19.59
Real Estate Tax	2.14	1.00	0.95	1.44	2.43	0.81	2.68	2.02
Unpaid Operator Labor	10.66	13.08	15.23	12.83	11.85	17.42	9.13	12.70
Interest Charge *	7.04	2.04	1.18	3.75	14.43	3.09	1.62	7.19
<b>TOTAL FIXED COSTS</b>	<b>\$44.36</b>	<b>\$29.32</b>	<b>\$39.68</b>	<b>\$38.79</b>	<b>\$56.13</b>	<b>\$36.52</b>	<b>\$26.98</b>	<b>\$41.50</b>
Land Charge **	30.04	22.06	24.98	26.23	26.77	9.48	50.35	28.66
<b>TOTAL EXPENSE</b>	<b>\$312.68</b>	<b>\$302.64</b>	<b>\$293.56</b>	<b>\$303.63</b>	<b>\$333.26</b>	<b>\$293.24</b>	<b>\$338.12</b>	<b>\$322.71</b>
<b>NET RETURN TO MANAGEMENT</b>	<b>(\$4.89)</b>	<b>\$37.66</b>	<b>\$111.06</b>	<b>\$45.11</b>	<b>(\$137.16)</b>	<b>(\$64.33)</b>	<b>(\$8.93)</b>	<b>(\$76.84)</b>
<b>NET RETURN TO LABOR-MGT</b>	<b>\$16.91</b>	<b>\$61.66</b>	<b>\$131.36</b>	<b>\$66.99</b>	<b>(\$119.10)</b>	<b>(\$34.71)</b>	<b>\$10.74</b>	<b>(\$54.83)</b>

\*Interest charge equals: ((8.0% times three-fourths the variable costs) plus (4.0% times depreciation times 8)) minus cash interest paid.

\*\*Land charge represents a charge (equal to landlord's share) on owned land and equals (production from owned acres X price / unit X 33.33% (25% for Irrigated).Crop production paid to the landlord on rented land (already removed above), or cash rent is the charge on rented land.

This crop enterprise is based on the operator's share of production, and thus includes only production expenses paid by the operator. A charge for management is not included in the expenses.

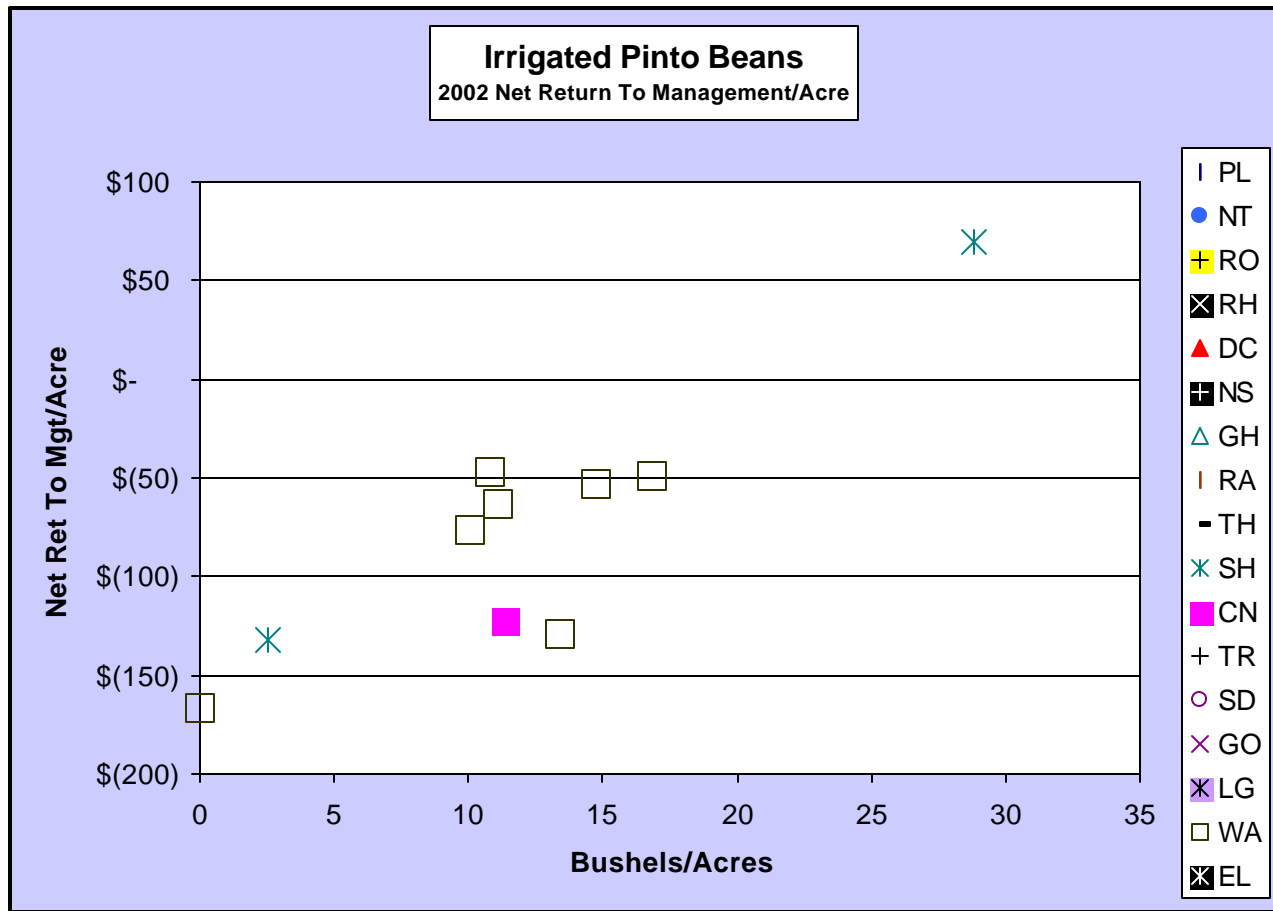


Figure 33

Irrigated pinto bean enterprise performance by division of low, mid, and top third net return to management is shown in the table on the facing page. Irrigated pinto beans suffered a negative net return to management on the average for all thirds for 2002. The decline in net returns is stark when compared to the previous five-year history. The top third dropped from \$111.06 for the five-year average to -\$8.93 in 2002, which represents a total decline in net returns of \$119.99 per acre. The low third also experienced a decline from the five-year average of -\$4.89 to -\$137.16 per acre in 2002.

Only one producer displayed in Figure 33 was able to generate a significant net return to management from their irrigated pinto bean enterprise.

**NORTHWEST KANSAS FARM MANAGEMENT ASSOCIATION**  
**PROFIT CENTER ANALYSIS: 5-YEAR AVERAGE & 2002**  
**IRRIGATED (ALL) OILSEED SUNFLOWERS**

	1997-2001 Average	2002
Number of Farms	9	8
Crop Acres	115	134
Acres Owned	34	-
Acres Rented	80	134
Yield / Acre	16.58	3.38
Cwt	1,528	397
Operator Percentage	80.27%	87.65%
Gross Income / Acre	\$176.69	\$102.09
Variable Costs / Acre	\$140.43	\$130.89
Total Expense / Acre	\$189.61	\$174.22
Gross Income / Cwt	\$13.28	\$34.46
Total Expense / Cwt	\$14.25	\$58.81

	Total Dollars	\$ / Cwt	\$ / Acre	Total Dollars	\$ / Cwt	\$ / Acre
<b>INCOME:</b>						
Sunflowers (Operator's Share)	\$13,280.00	\$8.69	\$115.68	\$4,590.84	\$11.56	\$34.26
Patronage Refunds	106.04	0.07	0.92	37.64	0.09	0.28
Government Payments	6,655.96	4.36	57.98	2,148.78	5.41	16.04
Miscellaneous Income	138.59	0.09	1.21	30.17	0.08	0.23
Crop Insurance Proceeds	103.26	0.07	0.90	6,872.09	17.31	51.28
OTHER INCOME	\$7,003.85	\$4.58	\$61.01	\$9,088.68	\$22.89	\$67.83
<b>GROSS INCOME</b>	<b>\$20,283.85</b>	<b>\$13.28</b>	<b>\$176.69</b>	<b>\$13,679.52</b>	<b>\$34.46</b>	<b>\$102.09</b>
<b>EXPENSES:</b>						
Labor Hired	\$825.77	\$0.54	\$7.19	\$428.96	\$1.08	\$3.20
General Machinery Repairs	1,664.07	1.09	14.50	1,781.95	4.49	13.30
Irrigation Equipment Repairs	650.66	0.43	5.67	1,352.67	3.41	10.09
Interest Paid	1,238.26	0.81	10.79	664.08	1.67	4.96
Seed / Other Crop Expense	1,901.50	1.24	16.56	2,237.00	5.63	16.69
Crop Insurance	269.38	0.18	2.35	450.88	1.14	3.36
Fertilizer / Lime	1,753.16	1.15	15.27	1,137.25	2.86	8.49
Machine Hire - Lease	1,301.45	0.85	11.34	908.09	2.29	6.78
Farm Org Fees / Travel / Publ	261.09	0.17	2.27	204.35	0.51	1.53
Gas / Fuel / Oil	965.04	0.63	8.41	499.03	1.26	3.72
Irrigation Fuel - Pumping	2,366.38	1.55	20.61	2,916.72	7.35	21.77
Crop Storage & Marketing	29.81	0.02	0.26	7.88	0.02	0.06
Personal Property Tax	70.63	0.05	0.62	61.49	0.15	0.46
General Farm Insurance	293.77	0.19	2.56	290.89	0.73	2.17
Utilities	212.26	0.14	1.85	252.88	0.64	1.89
Cash Farm Rent	542.82	0.36	4.73	2,036.00	5.13	15.19
Herbicide / Insecticide	1,645.61	1.08	14.33	2,206.63	5.56	16.47
Conservation	3.72	0.00	0.03	-	-	-
Auto Expense	126.31	0.08	1.10	101.96	0.26	0.76
<b>TOTAL VARIABLE COSTS</b>	<b>\$16,121.69</b>	<b>\$10.55</b>	<b>\$140.43</b>	<b>\$17,538.71</b>	<b>\$44.18</b>	<b>\$130.89</b>
<b>RETURN ABOVE VARIABLE COSTS</b>	<b>\$4,162.16</b>	<b>\$2.72</b>	<b>\$36.26</b>	<b>(\$3,859.19)</b>	<b>(\$9.72)</b>	<b>(\$28.80)</b>
Depreciation	1,819.36	1.19	15.85	2,744.51	6.91	20.48
Real Estate Tax	197.10	0.13	1.72	-	-	-
Unpaid Operator Labor	1,694.42	1.11	14.76	1,796.27	4.52	13.41
Interest Charge *	330.69	0.22	2.88	1,266.49	3.19	9.45
<b>TOTAL FIXED COSTS</b>	<b>\$4,041.57</b>	<b>\$2.65</b>	<b>\$35.21</b>	<b>\$5,807.27</b>	<b>\$14.63</b>	<b>\$43.34</b>
Land Charge **	\$1,604.20	\$1.05	\$13.97	\$0.00	\$0.00	\$0.00
<b>TOTAL EXPENSE</b>	<b>\$21,767.46</b>	<b>\$14.25</b>	<b>\$189.61</b>	<b>\$23,345.98</b>	<b>\$58.81</b>	<b>\$174.22</b>
<b>NET RETURN TO MANAGEMENT</b>	<b>(\$1,483.61)</b>	<b>(\$0.97)</b>	<b>(\$12.92)</b>	<b>(\$9,666.46)</b>	<b>(\$24.35)</b>	<b>(\$72.14)</b>
<b>NET RETURN TO LABOR-MGT</b>	<b>\$1,036.58</b>	<b>\$0.68</b>	<b>\$9.03</b>	<b>(\$7,441.23)</b>	<b>(\$18.74)</b>	<b>(\$55.53)</b>

\*Interest charge equals: ((8.0% times three-fourths the variable costs) plus (4.0% times depreciation times 8)) minus cash interest paid.

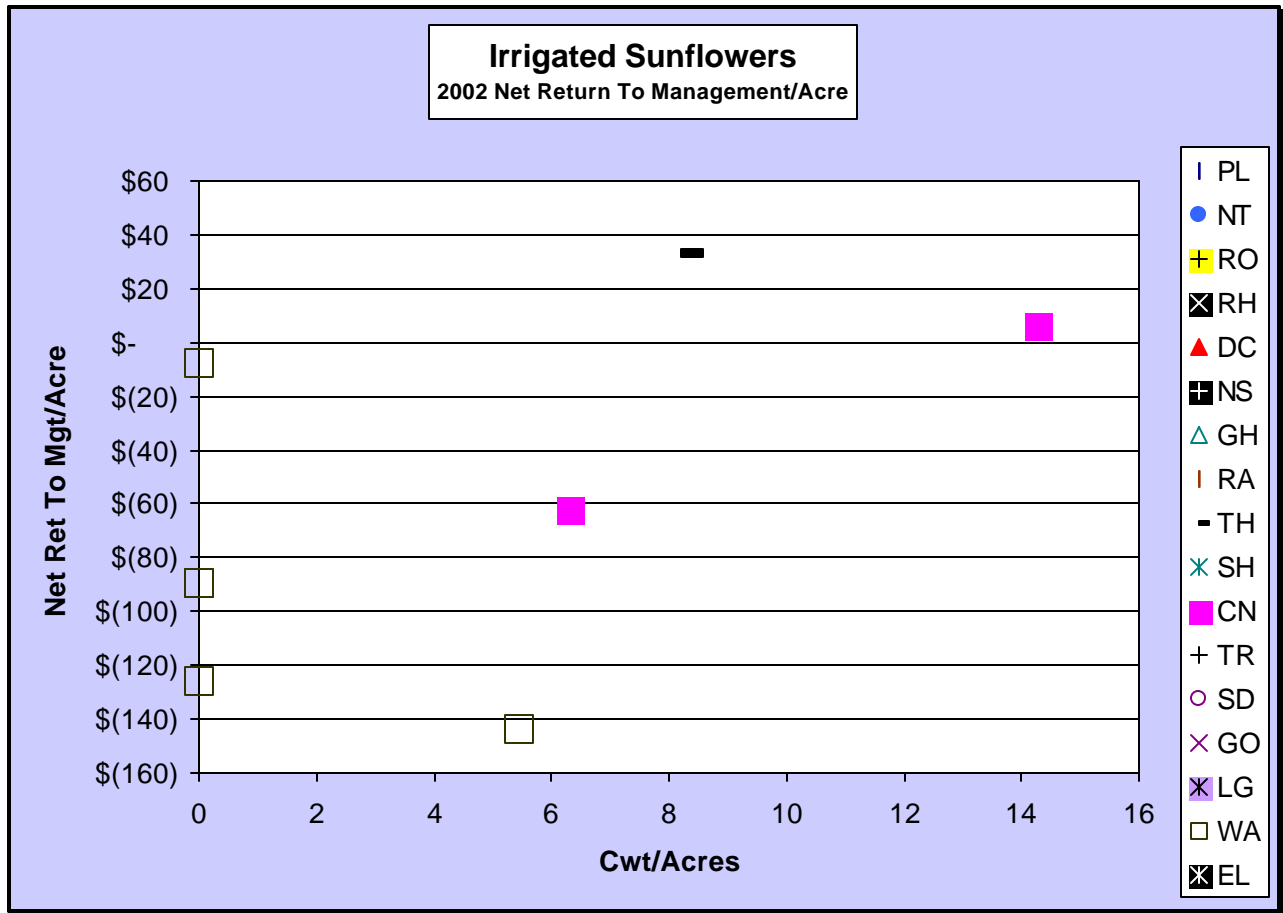


Figure 34

Irrigated oil sunflower have not demonstrated strong net return to management performance over the previous five years with a -\$12.92 per acre average. Net returns for 2002 were even more depressing, earning -\$72.14 per acre. An average yield of only 3.38 cwt in 2002 is well behind the pace of 16.58 cwt for the five-year average. Both variable and total costs were lower in 2002 when compared to the five-year average, but gross income was \$74.60 lower also, more than offsetting the reduced expenses.

There are rumors of irrigated sunflower yields in excess of 30 cwt per acre for 2002 in Northwest Kansas. But a quick review of Figure 34 would indicate that none of those were in the Northwest Association irrigated sunflower enterprise summary.

**NORTHWEST KANSAS FARM MANAGEMENT ASSOCIATION**  
**PROFIT CENTER ANALYSIS: TWO-YEAR AVERAGE & 2002**  
**IRRIGATED (ALL) SUDAN/CANE HAY**

	2000-2001	2002
Number of Farms	12	12
Crop Acres	72	71
Acres Owned	20	41
Acres Rented	52	30
Yield / Acre	4.21	2.86
Tons	260	196
Operator Percentage	86.21%	96.52%
Gross Income / Acre	\$243.70	\$171.38
Variable Costs / Acre	\$159.51	\$153.34
Total Expense / Acre	\$229.97	\$236.89
Gross Income / Ton	\$67.15	\$62.08
Total Expense / Ton	\$63.36	\$85.81

	Total Dollars	\$ / Ton	\$ / Acre	Total Dollars	\$ / Ton	\$ / Acre
<b>INCOME:</b>						
Sudan/Cane Hay (Operator's Share)	\$13,200.07	\$50.87	\$184.62	\$11,077.78	\$56.52	\$156.03
Patronage Refunds	43.89	0.17	0.61	22.90	0.12	0.32
Government Payments	4,056.95	15.63	56.74	1,016.20	5.18	14.31
Miscellaneous Income	123.66	0.48	1.73	50.84	0.26	0.72
Crop Insurance Proceeds	-	-	-	-	-	-
OTHER INCOME	\$4,224.49	\$16.28	\$59.08	\$1,089.94	\$5.56	\$15.35
<b>GROSS INCOME</b>	<b>\$17,424.56</b>	<b>\$67.15</b>	<b>\$243.70</b>	<b>\$12,167.72</b>	<b>\$62.08</b>	<b>\$171.38</b>
<b>EXPENSES:</b>						
Labor Hired	\$542.12	\$2.09	\$7.58	\$395.63	\$2.02	\$5.57
General Machinery Repairs	1,675.54	6.46	23.43	999.91	5.10	14.08
Irrigation Equipment Repairs	307.47	1.18	4.30	386.84	1.97	5.45
Interest Paid	1,414.44	5.45	19.78	1,063.31	5.43	14.98
Seed / Other Crop Expense	610.29	2.35	8.54	1,025.08	5.23	14.44
Crop Insurance	4.15	0.02	0.06	-	-	-
Fertilizer / Lime	807.66	3.11	11.30	658.17	3.36	9.27
Machine Hire - Lease	1,073.24	4.14	15.01	2,392.16	12.20	33.69
Farm Org Fees / Travel / Publ	211.38	0.81	2.96	129.50	0.66	1.82
Gas / Fuel / Oil	792.26	3.05	11.08	725.02	3.70	10.21
Irrigation Fuel - Pumping	2,674.56	10.31	37.41	1,644.63	8.39	23.16
Crop Storage & Marketing	2.77	0.01	0.04	-	-	-
Personal Property Tax	26.18	0.10	0.37	38.35	0.20	0.54
General Farm Insurance	246.34	0.95	3.45	247.86	1.26	3.49
Utilities	136.02	0.52	1.90	189.67	0.97	2.67
Cash Farm Rent	509.17	1.96	7.12	401.00	2.05	5.65
Herbicide / Insecticide	280.59	1.08	3.92	534.75	2.73	7.53
Conservation	-	-	-	1.63	0.01	0.02
Auto Expense	91.02	0.35	1.27	53.96	0.28	0.76
<b>TOTAL VARIABLE COSTS</b>	<b>\$11,405.16</b>	<b>\$43.95</b>	<b>\$159.51</b>	<b>\$10,887.47</b>	<b>\$55.55</b>	<b>\$153.34</b>
<b>RETURN ABOVE VARIABLE COSTS</b>	<b>\$6,019.41</b>	<b>\$23.20</b>	<b>\$84.19</b>	<b>\$1,280.25</b>	<b>\$6.53</b>	<b>\$18.03</b>
Depreciation	1,312.32	5.06	18.35	965.93	4.93	13.60
Real Estate Tax	103.78	0.40	1.45	140.92	0.72	1.98
Unpaid Operator Labor	2,189.38	8.44	30.62	2,272.46	11.59	32.01
Interest Charge *	-	-	-	-	-	-
<b>TOTAL FIXED COSTS</b>	<b>\$3,605.47</b>	<b>\$13.89</b>	<b>\$50.43</b>	<b>\$3,379.31</b>	<b>\$17.24</b>	<b>\$47.60</b>
Land Charge **	\$1,432.51	\$5.52	\$20.04	\$2,552.53	\$13.02	\$35.95
<b>TOTAL EXPENSE</b>	<b>\$16,443.13</b>	<b>\$63.36</b>	<b>\$229.97</b>	<b>\$16,819.31</b>	<b>\$85.81</b>	<b>\$236.89</b>
<b>NET RETURN TO MANAGEMENT</b>	<b>\$981.43</b>	<b>\$3.78</b>	<b>\$13.73</b>	<b>(\$4,651.59)</b>	<b>(\$23.73)</b>	<b>(\$65.52)</b>
<b>NET RETURN TO LABOR-MGT</b>	<b>\$3,712.92</b>	<b>\$14.31</b>	<b>\$51.93</b>	<b>(\$1,983.50)</b>	<b>(\$10.12)</b>	<b>(\$27.94)</b>

\*Interest charge equals: ((8.0% times three-fourths the variable costs) plus (4.0% times depreciation times 8)) minus cash interest paid.

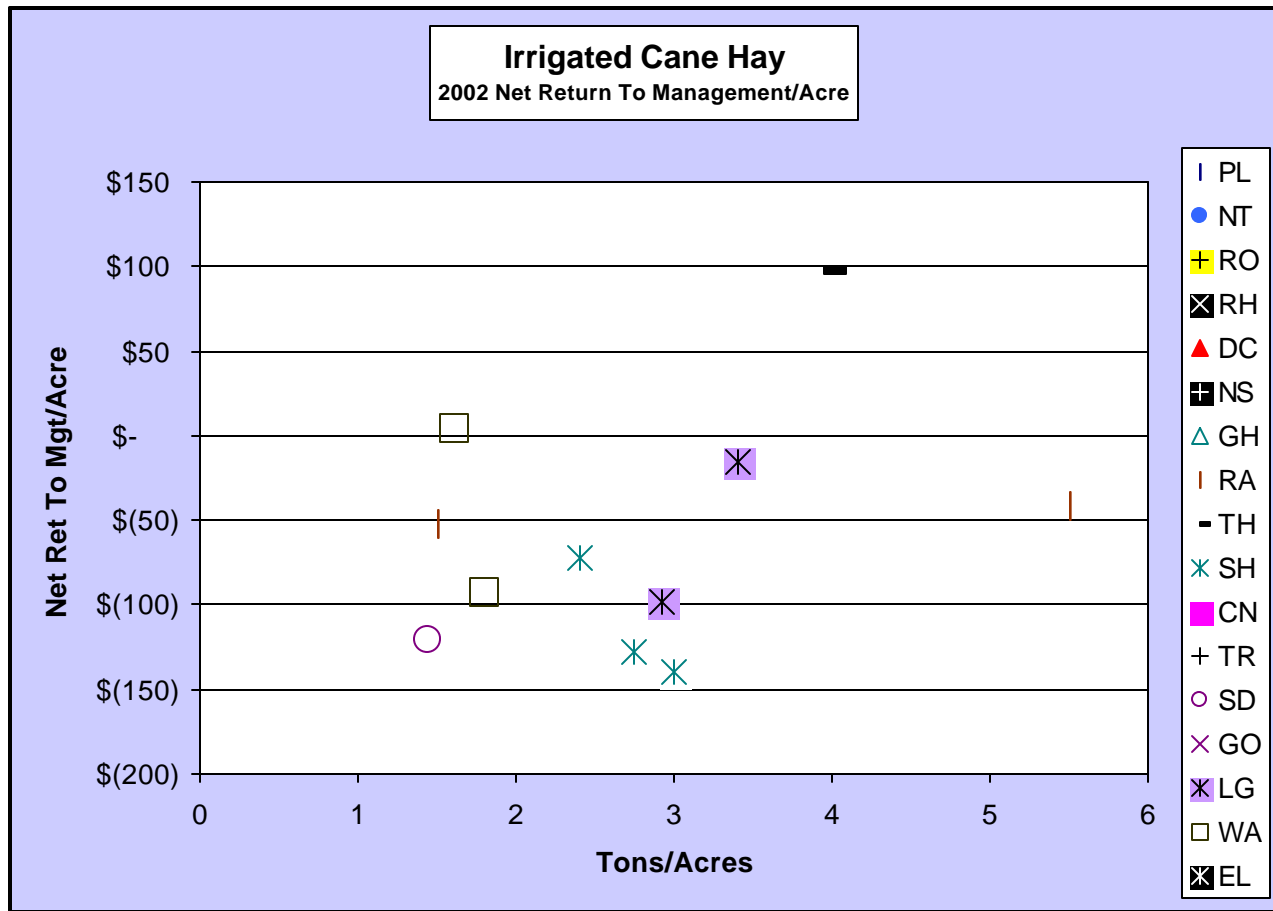


Figure 35

Several producers in the Association have attempted to double crop irrigated cane hay behind irrigated wheat since the drought started in 2000. This has helped supply local livestock producers with feed, but has there been a profit to irrigated cane hay production? The five-year average in the table facing this page shows a net return to management of \$13.73 per acre, but 2002 deteriorated and earned only -\$65.62 per acre.

Total expenses increased in 2002 to \$236.89 from the \$229.97 listed as a five-year average. On the other hand yields dropped from 4.21 ton per acre to 2.86 in 2002. Few crop insurance instruments exist for cane hay or feed crops so there are no crop insurance proceeds to compensate for the loss of crop production in 2002. In addition, government payments decreased from \$56.74 to \$14.31, a decline of \$42.43 in 2002. Although, prices did increase a little from \$50.87 for the five-year average to \$56.52 per ton in 2002, it was not enough to compensate for the negative factors.

**NORTHWEST KANSAS FARM MANAGEMENT ASSOCIATION  
PROFIT CENTER ANALYSIS: 5-YEAR AVERAGE & 2002  
IRRIGATED (ALL) ALFALFA**

	<b>1997-2001 Average</b>	<b>2002</b>
Number of Farms	14	13
Crop Acres	89	93
Acres Owned	24	67
Acres Rented	65	27
Yield / Acre	5.34	4.10
Tons	382	358
Operator Percentage	80.44%	93.89%
Gross Income / Acre	\$323.80	\$383.26
Variable Costs / Acre	\$187.38	\$225.42
Total Expense / Acre	\$275.65	\$393.45
Gross Income / Ton	\$75.35	\$99.56
Total Expense / Ton	\$64.14	\$102.21

	<b>Total Dollars</b>	<b>\$ / Ton</b>	<b>\$ / Acre</b>	<b>Total Dollars</b>	<b>\$ / Ton</b>	<b>\$ / Acre</b>
<b>INCOME:</b>						
Alfalfa (Operator's Share)	\$25,738.42	\$67.45	\$289.85	\$33,817.49	\$94.46	\$363.63
Patronage Refunds	78.93	0.21	0.89	87.80	0.25	0.94
Government Payments	2,735.16	7.17	30.80	1,331.24	3.72	14.31
Miscellaneous Income	200.72	0.53	2.26	406.99	1.14	4.38
OTHER INCOME	\$3,014.80	\$7.90	\$33.95	\$1,826.03	\$5.10	\$19.63
<b>GROSS INCOME</b>	<b>\$28,753.22</b>	<b>\$75.35</b>	<b>\$323.80</b>	<b>\$35,643.52</b>	<b>\$99.56</b>	<b>\$383.26</b>
<b>EXPENSES:</b>						
Labor Hired	\$550.05	\$1.44	\$6.19	\$1,017.67	\$2.84	\$10.94
General Machinery Repairs	3,221.98	8.44	36.28	2,985.61	8.34	32.10
Irrigation Equipment Repairs	902.78	2.37	10.17	2,251.55	6.29	24.21
Interest Paid	2,095.18	5.49	23.59	1,926.34	5.38	20.71
Seed / Other Crop Expense	534.52	1.40	6.02	79.69	0.22	0.86
Crop Insurance	-	-	-	3.08	0.01	0.03
Fertilizer / Lime	1,150.23	3.01	12.95	1,415.40	3.95	15.22
Machine Hire - Lease	1,504.95	3.94	16.95	1,945.11	5.43	20.92
Farm Org Fees / Travel / Publ	520.34	1.36	5.86	373.26	1.04	4.01
Gas / Fuel / Oil	1,147.24	3.01	12.92	1,646.44	4.60	17.70
Irrigation Fuel - Pumping	3,124.34	8.19	35.18	5,011.38	14.00	53.89
Crop Storage & Marketing	1.75	0.00	0.02	3.12	0.01	0.03
Personal Property Tax	82.18	0.22	0.93	258.62	0.72	2.78
General Farm Insurance	319.05	0.84	3.59	530.71	1.48	5.71
Utilities	294.24	0.77	3.31	234.12	0.65	2.52
Cash Farm Rent	189.55	0.50	2.13	570.38	1.59	6.13
Herbicide / Insecticide	804.71	2.11	9.06	608.99	1.70	6.55
Conservation	2.44	0.01	0.03	18.78	0.05	0.20
Auto Expense	193.49	0.51	2.18	84.22	0.24	0.91
<b>TOTAL VARIABLE COSTS</b>	<b>\$16,639.02</b>	<b>\$43.60</b>	<b>\$187.38</b>	<b>\$20,964.47</b>	<b>\$58.56</b>	<b>\$225.42</b>
<b>RETURN ABOVE VARIABLE COSTS</b>	<b>\$12,114.20</b>	<b>\$31.75</b>	<b>\$136.42</b>	<b>\$14,679.05</b>	<b>\$41.00</b>	<b>\$157.84</b>
Depreciation	2,167.38	5.68	24.41	3,190.94	8.91	34.31
Real Estate Tax	190.19	0.50	2.14	396.91	1.11	4.27
Unpaid Operator Labor	2,663.13	6.98	29.99	2,731.54	7.63	29.37
Interest Charge *	-	-	-	352.63	0.99	3.79
<b>TOTAL FIXED COSTS</b>	<b>\$5,020.70</b>	<b>\$13.16</b>	<b>\$56.54</b>	<b>\$6,672.02</b>	<b>\$18.64</b>	<b>\$71.74</b>
Land Charge **	\$2,817.67	\$7.38	\$31.73	\$8,954.64	\$25.01	\$96.29
<b>TOTAL EXPENSE</b>	<b>\$24,477.39</b>	<b>\$64.14</b>	<b>\$275.65</b>	<b>\$36,591.13</b>	<b>\$102.21</b>	<b>\$393.45</b>
<b>NET RETURN TO MANAGEMENT</b>	<b>\$4,275.83</b>	<b>\$11.21</b>	<b>\$48.15</b>	<b>(\$947.61)</b>	<b>(\$2.65)</b>	<b>(\$10.19)</b>
<b>NET RETURN TO LABOR-MGT</b>	<b>\$7,489.01</b>	<b>\$19.63</b>	<b>\$84.34</b>	<b>\$2,801.60</b>	<b>\$7.83</b>	<b>\$30.12</b>

\*Interest charge equals: ((8.0% times three-fourths the variable costs) plus (4.0% times depreciation times 8)) minus cash interest paid.

\*\*Land charge represents a charge (equal to landlord's share) on owned land and equals (production from owned acres X price / unit X 33.33%). Crop production paid to the landlord on rented land (already removed above), or cash rent is the charge on rented land.

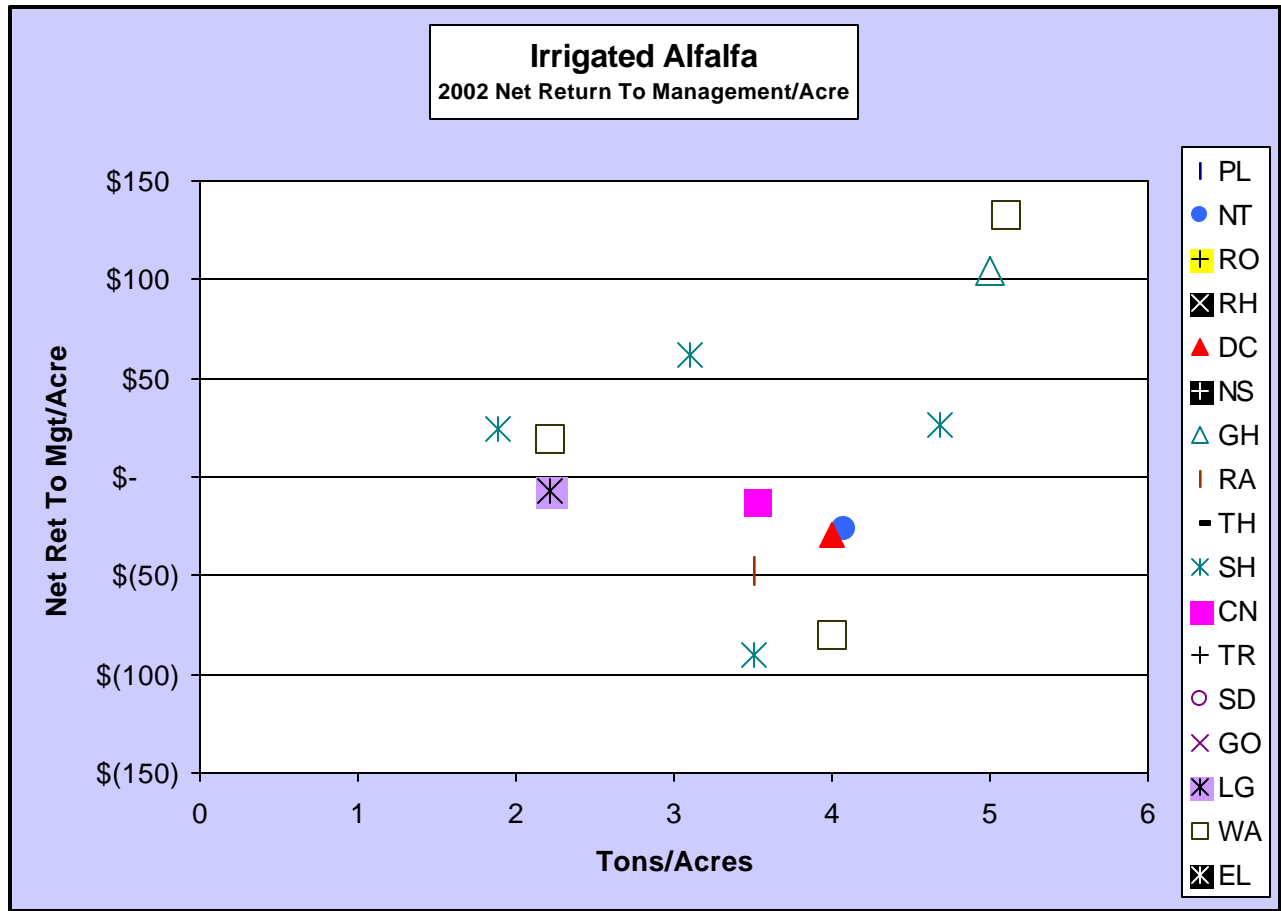


Figure 36

Irrigated alfalfa has been earning a decent net return to management of \$48.15 for the previous five years. However, net returns declined to -\$10.19 in 2002. Most of the decline can be attributed to increased expenses. Income actually increased in 2002 over the five-year average due to an increase in price. Alfalfa prices increased from \$67.45 for the five-year average to \$94.46 per ton in 2002. Improved alfalfa prices more than offset the decreased yields, which declined from 5.34 tons to 4.10 tons per acres in 2002. Government payments declined, but are not a major contributor to gross income for the irrigated alfalfa enterprise.

There was an increase in variable cost from the five-year average of \$187.38 to \$225.42 for 2002. Irrigation cost increased from \$35.18 on the five-year average to \$53.89 per acre in 2002. Total expense also increased due to the increase in depreciation and land charges. Land charge is the value of the landlord share of the crop applied to the owned acres, which increased from \$31.73 for the five-year average to \$96.29 for 2002.

**NORTHWEST KANSAS FARM MANAGEMENT ASSOCIATION**  
**PROFIT CENTER ANALYSIS: 5-YEAR AVERAGE & 2002**  
**IRRIGATED (ALL) CORN SILAGE**

	1997-2001 Average	2002
Number of Farms	11	7
Crop Acres	59	109
Acres Owned	32	64
Acres Rented	27	45
Yield / Acre	18.1	10.8
Tons	992	1,135
Operator Percentage	92.63%	96.33%
Gross Income / Acre	\$473.54	\$287.45
Variable Costs / Acre	\$335.34	\$339.22
Total Expense / Acre	\$457.52	\$449.74
Gross Income / Ton	\$28.18	\$27.61
Total Expense / Ton	\$27.22	\$43.19

	Total Dollars	\$ / Ton	\$ / Acre	Total Dollars	\$ / Ton	\$ / Acre
<b>INCOME:</b>						
Silage (Operator's Share)	\$18,958.52	\$19.12	\$321.33	\$20,036.09	\$17.65	\$183.82
Patronage Refunds	149.63	0.15	2.54	259.16	0.23	2.38
Government Payments	5,524.86	5.57	93.64	2,005.24	1.77	18.40
Miscellaneous Income	202.62	0.20	3.43	157.97	0.14	1.45
Crop Insurance Proceeds	3,103.01	3.13	52.59	8,874.01	7.82	81.41
OTHER INCOME	\$8,980.11	\$9.06	\$152.21	\$11,296.38	\$9.95	\$103.64
<b>GROSS INCOME</b>	<b>\$27,938.63</b>	<b>\$28.18</b>	<b>\$473.54</b>	<b>\$31,332.47</b>	<b>\$27.61</b>	<b>\$287.45</b>
<b>EXPENSES:</b>						
Labor Hired	\$1,085.63	\$1.09	\$18.40	\$1,866.87	\$1.64	\$17.13
General Machinery Repairs	1,102.06	1.11	18.68	1,935.87	1.71	17.76
Irrigation Equipment Repairs	345.66	0.35	5.86	771.76	0.68	7.08
Interest Paid	1,269.21	1.28	21.51	1,514.80	1.33	13.90
Seed / Other Crop Expense	1,936.40	1.95	32.82	4,713.00	4.15	43.24
Crop Insurance	461.00	0.46	7.81	716.43	0.63	6.57
Fertilizer / Lime	2,584.25	2.61	43.80	4,968.71	4.38	45.58
Machine Hire - Lease	3,802.16	3.83	64.44	5,225.76	4.60	47.94
Farm Org Fees / Travel / Publ	212.91	0.21	3.61	276.46	0.24	2.54
Gas / Fuel / Oil	599.95	0.61	10.17	1,283.74	1.13	11.78
Irrigation Fuel - Pumping	2,522.74	2.54	42.76	6,924.65	6.10	63.53
Crop Storage & Marketing	23.35	0.02	0.40	-	-	-
Personal Property Tax	24.42	0.02	0.41	60.79	0.05	0.56
General Farm Insurance	261.84	0.26	4.44	527.68	0.46	4.84
Utilities	149.38	0.15	2.53	106.07	0.09	0.97
Cash Farm Rent	1,126.04	1.14	19.09	883.22	0.78	8.10
Herbicide / Insecticide	2,166.68	2.19	36.72	5,138.86	4.53	47.15
Conservation	7.41	0.01	0.13	-	-	-
Auto Expense	103.73	0.10	1.76	60.82	0.05	0.56
<b>TOTAL VARIABLE COSTS</b>	<b>\$19,784.82</b>	<b>\$19.95</b>	<b>\$335.34</b>	<b>\$36,975.49</b>	<b>\$32.58</b>	<b>\$339.22</b>
<b>RETURN ABOVE VARIABLE COSTS</b>	<b>\$8,153.81</b>	<b>\$8.22</b>	<b>\$138.20</b>	<b>(\$5,643.02)</b>	<b>(\$4.97)</b>	<b>(\$51.77)</b>
Depreciation	1,303.07	1.31	22.09	3,270.64	2.88	30.01
Real Estate Tax	170.04	0.17	2.88	358.42	0.32	3.29
Unpaid Operator Labor	1,622.41	1.64	27.50	2,478.21	2.18	22.74
Interest Charge *	342.06	0.34	5.80	1,750.33	1.54	16.06
<b>TOTAL FIXED COSTS</b>	<b>\$3,437.57</b>	<b>\$3.47</b>	<b>\$58.26</b>	<b>\$7,857.60</b>	<b>\$6.92</b>	<b>\$72.09</b>
Land Charge **	\$3,771.58	\$3.80	\$63.93	\$4,188.81	\$3.69	\$38.43
<b>TOTAL EXPENSE</b>	<b>\$26,993.96</b>	<b>\$27.22</b>	<b>\$457.52</b>	<b>\$49,021.90</b>	<b>\$43.19</b>	<b>\$449.74</b>
<b>NET RETURN TO MANAGEMENT</b>	<b>\$944.67</b>	<b>\$0.95</b>	<b>\$16.01</b>	<b>(\$17,689.43)</b>	<b>(\$15.59)</b>	<b>(\$162.29)</b>
<b>NET RETURN TO LABOR-MGT</b>	<b>\$3,652.71</b>	<b>\$3.68</b>	<b>\$61.91</b>	<b>(\$13,344.35)</b>	<b>(\$11.76)</b>	<b>(\$122.43)</b>

\*Interest charge equals: ((8.0% times three-fourths the variable costs) plus (4.0% times depreciation times 8)) minus cash interest paid.

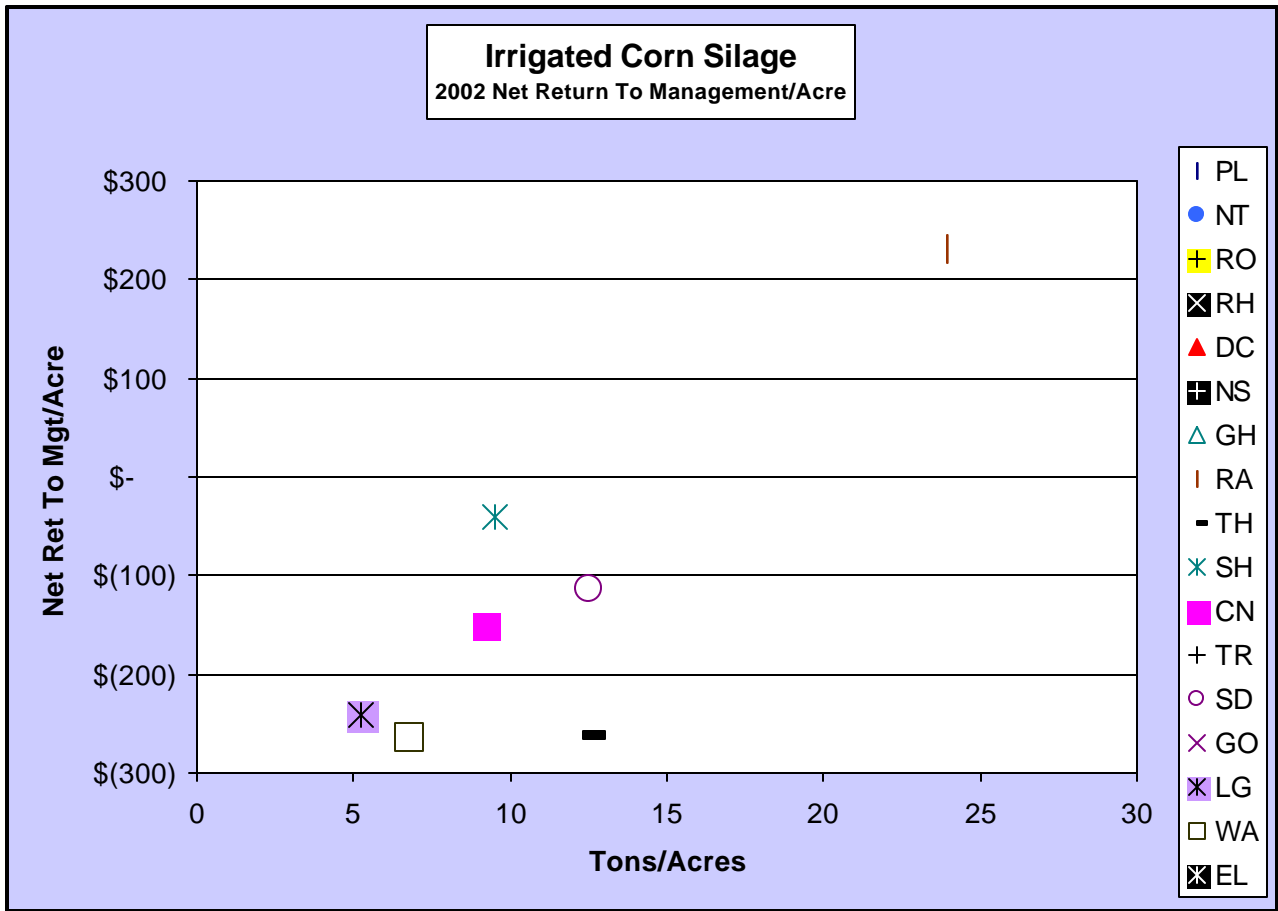


Figure 37

Irrigated corn silage has been historically a “clean up” enterprise for hailed corn, or diseased corn that is going to have “ear drop” problems prior to harvesting the corn dry. In 2002 many irrigated corn enterprises were harvested for silage, but that income was attributed to the corn enterprises for revenue purposes. This said, the average yield for irrigated corn silage enterprises summarized in 2002 was only 10.8 ton when compared to the five-year average yield of 18.1 tons per acre. Crop insurance proceeds were typically high for both the five-year average and 2002, \$52.59 and \$81.41 respectively. Government payments declined as has been mentioned in previous crop enterprises, and especially the irrigated enterprises, from \$93.64 for the five-year average to only \$18.40 in 2002.

Total and variable costs of production per acre are mixed in 2002 in relation to the five-year average. Variable cost increased, reflecting higher irrigation cost. Total cost on the other hand decreased due to lower land charges, which is directly related to the effective landlord share of the crop value produced on owned land.