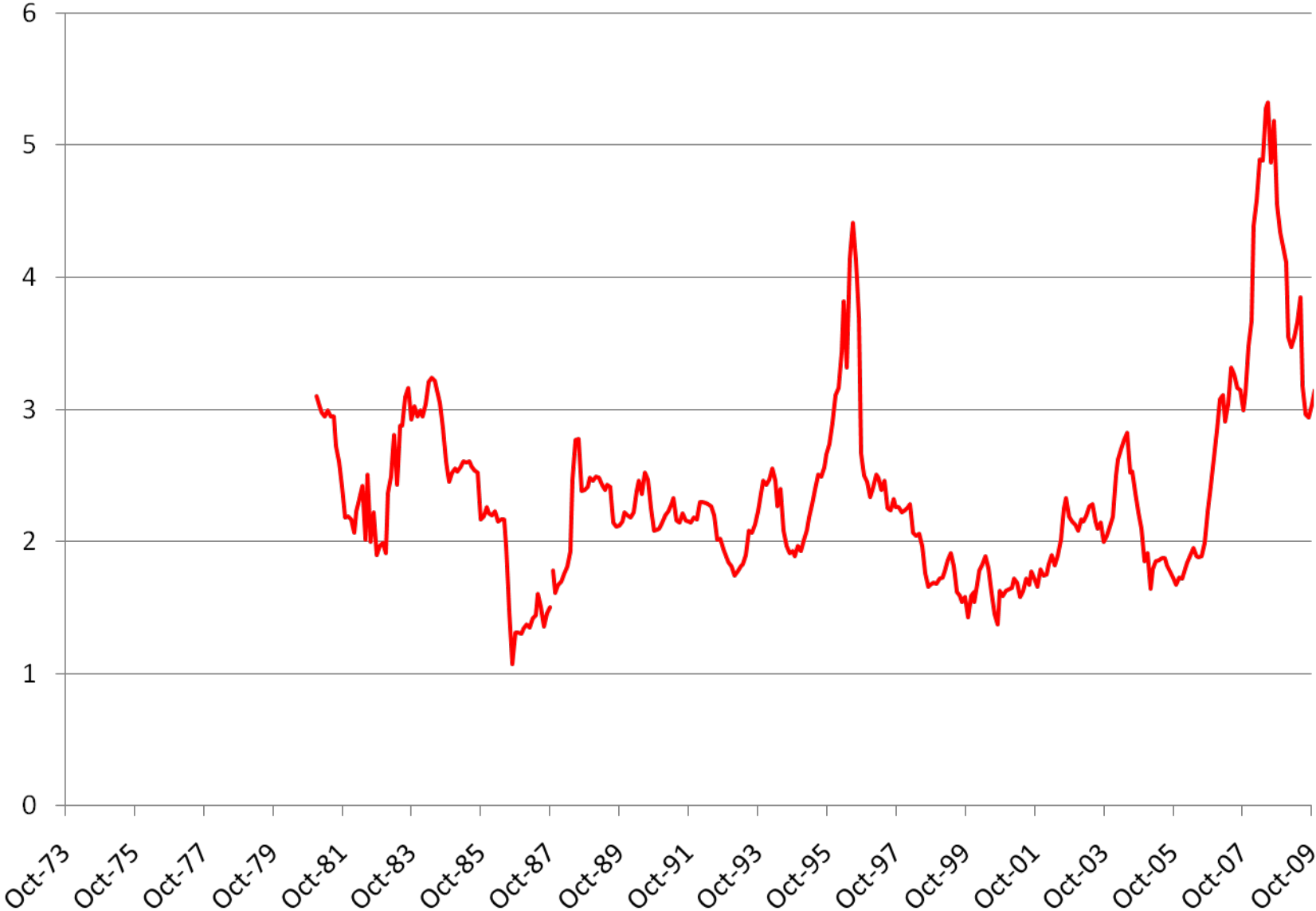


IRRIGATED CROP BUDGETS: - WHAT'S PROFITABLE?

What has Changed?

- Crop prices are down
- Input costs are down
- Risk is higher
- Safety net is lower

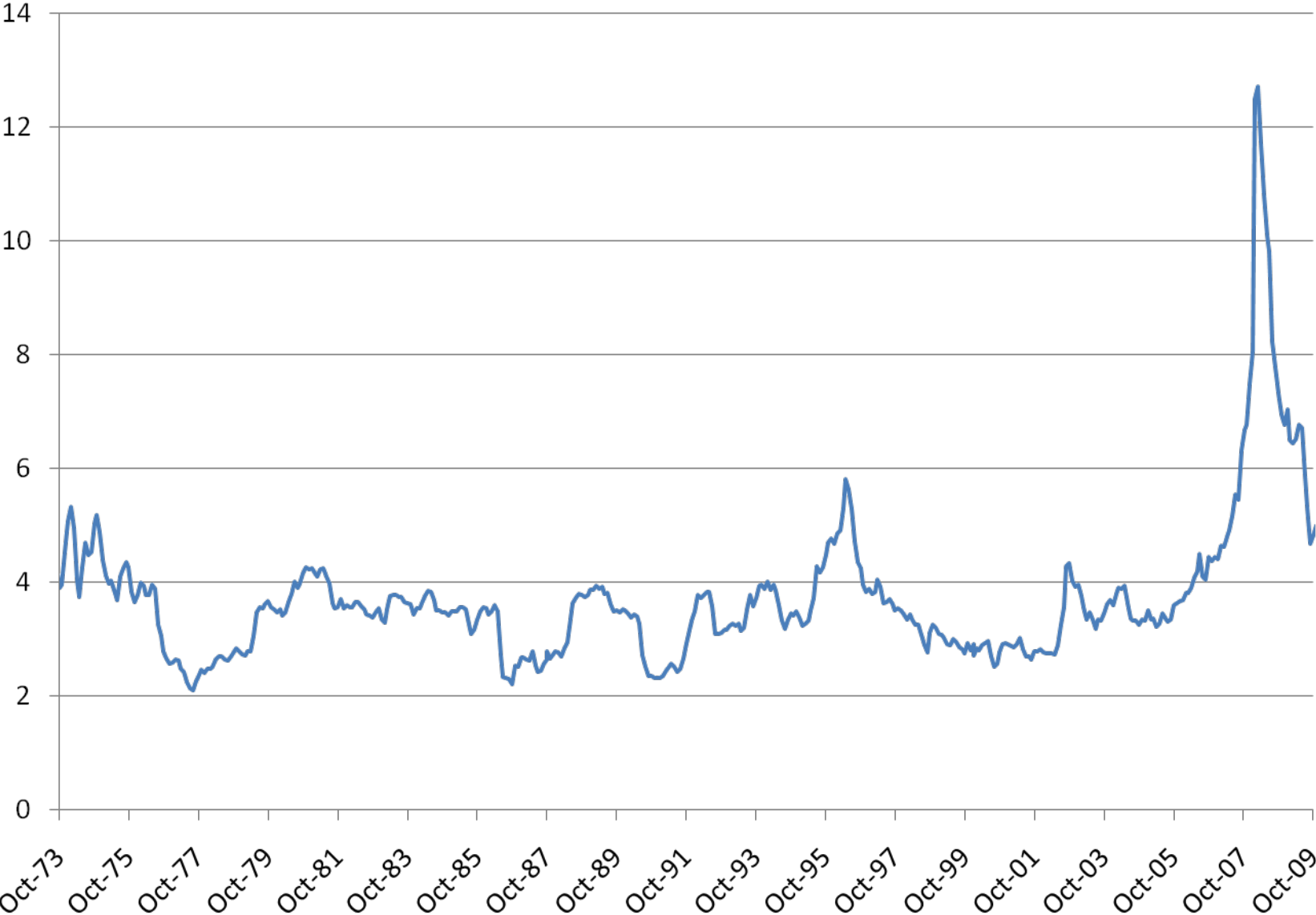
Average Corn Monthly Prices



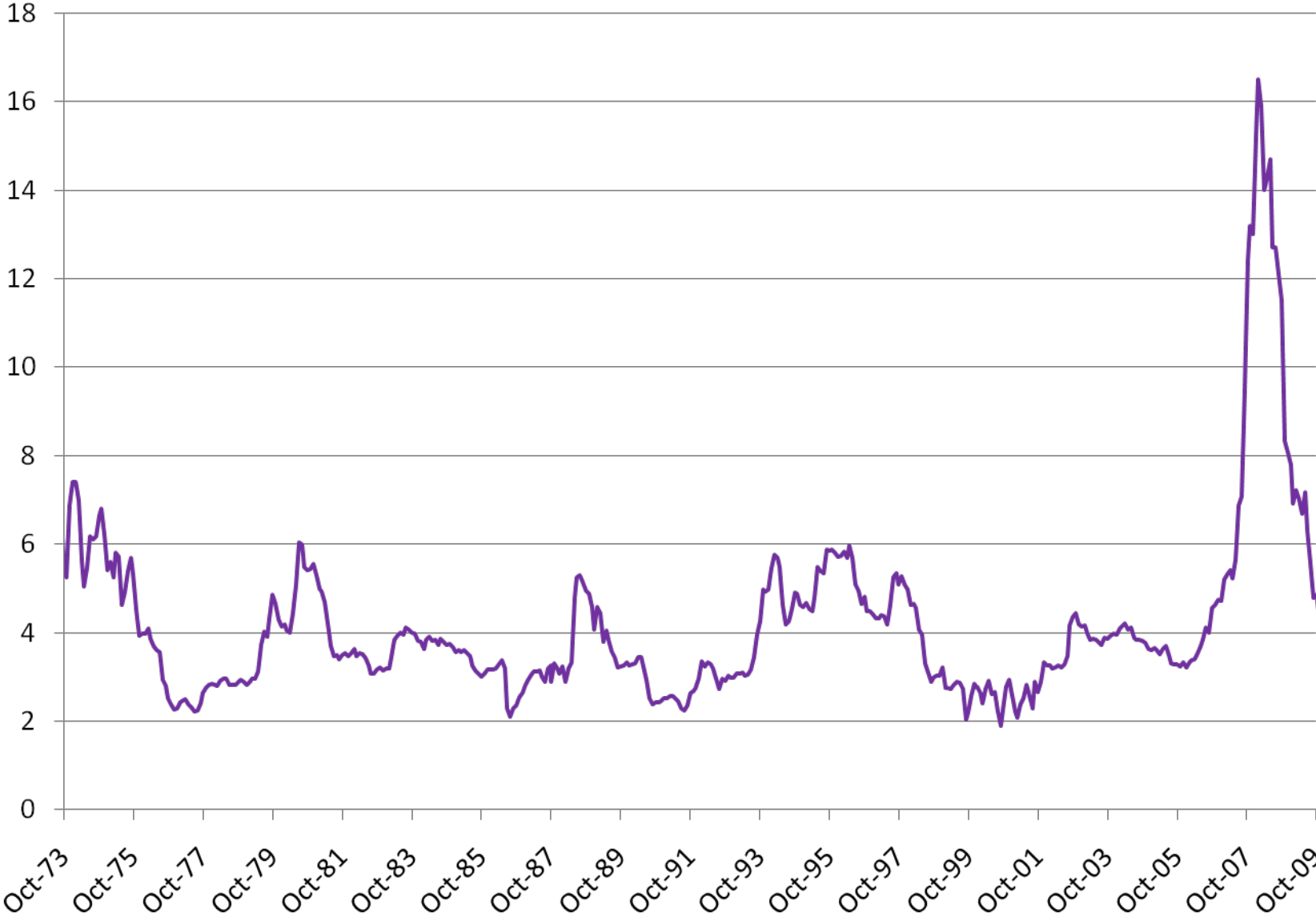
Average Soybean Monthly Prices



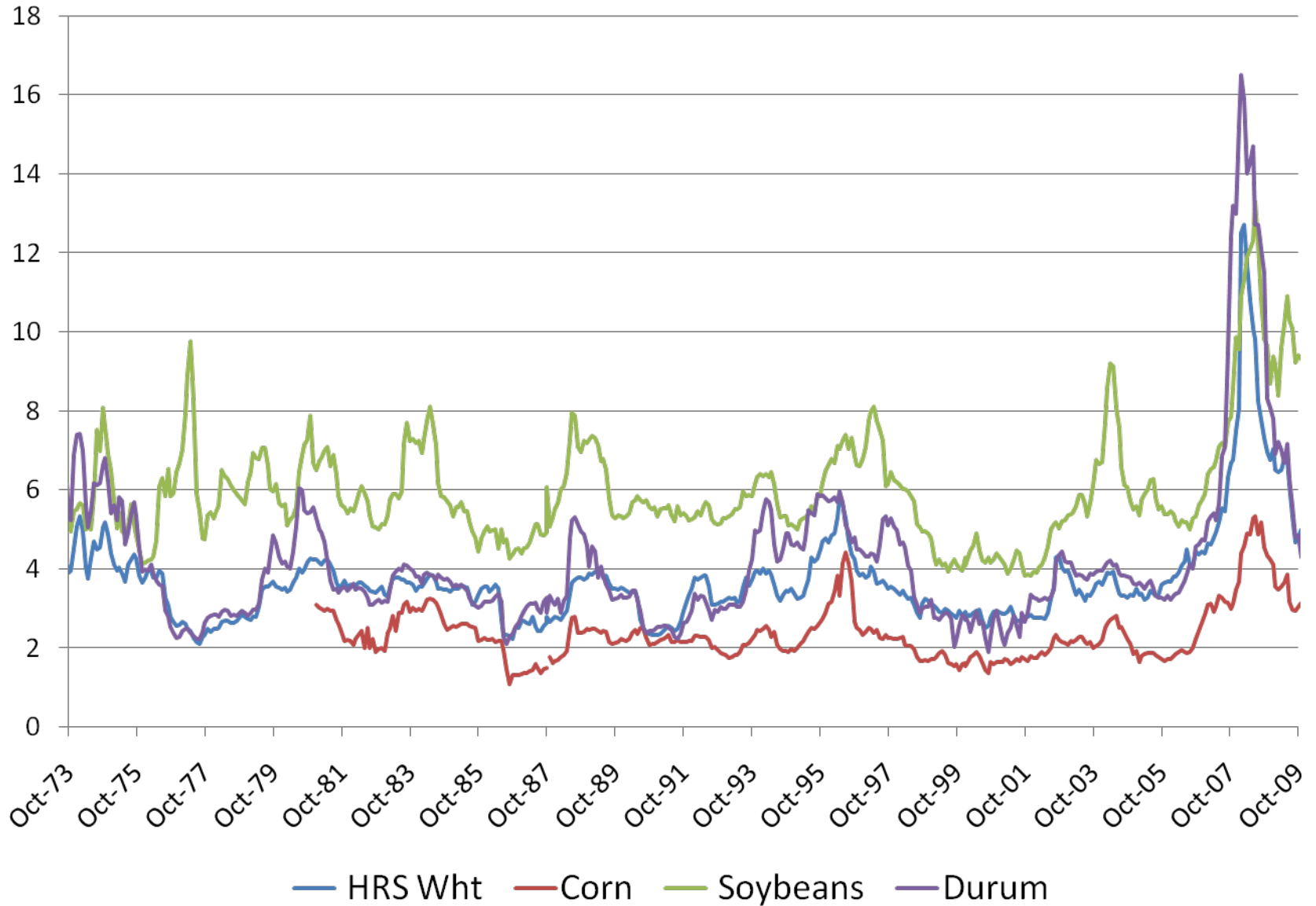
Average HRS Wheat Monthly Prices



Average Durum Monthly Prices



Average North Dakota Monthly Prices



Input Prices Used

	Crop	Price
Seed	Alfalfa	\$2.50/pound
	Barley	\$6.60/bushel
	Corn	\$198/unit (80,000 kern.)
	Dry beans	\$0.84/pound
	Soybeans RR	\$0.285/1000 seeds
	Spring wheat	\$8.40/bushel
Fertilizer	Nitrogen	\$0.34/pound
	Phosphorous	\$0.32/pound
	Potassium	\$0.46/pound
Fuel	Diesel	\$2.50/gallon
	Gasoline	\$2.90/gallon

Crop Insurance Safety Net

Crop	APH	Coverage Level	APH Price	Guarantee
2009 Wheat	70	75%	6.70	351.75
2010 Wheat	70	75%	4.80	252.00
2009 Corn	150	75%	4.00	450.00
2010 Corn	150	75%	3.55	399.37
2009 Soybeans	50	75%	9.90	371.25
2010 Soybeans	50	75%	8.55	320.62

Irrigation Investment Assumptions

Irrigation Investment Assumptions

Center Pivot	\$63,000
Well	\$20,000
Pump, motor and electrical	\$20,000
Pipe	\$8,000
Total Investment	\$111,000

Irrigation Costs by Amount of Water Pumped

Dry Beans, Corn & Small Grain

	Pivot acres		125
	Inches pumped		14
	Operating hours		982
	Kwh/hr		55.37
	\$/kwh		0.06
			Per Acre
Average annual interest cost per acre @ 6%			\$29.30
Depreciation cost per acre			\$39.96
Total ownership costs			\$69.26
Repairs per hour of operation	per hour	total	per acre
Power unit @	\$0.36	\$353.45	\$2.82
Delivery system @	\$0.89	\$873.80	\$6.99
Oil/elec. motor@	\$0.05	\$49.09	\$0.39
Total repairs			\$10.21
Electricity	\$3.32	\$3,262.40	\$26.10
Total operating costs/acre			\$36.31

Irrigation Costs by Amount of Water Pumped

Alfalfa			
	Pivot acres		125
	Inches pumped		18
	Operating hours		1262
	Kwh/hr		55.37
	\$/kwh		0.06
			Per Acre
	Average annual interest cost per acre @ 6%		\$29.30
	Depreciation cost per acre		\$39.96
	Total ownership costs		\$69.26
Repairs per hour of operation	per hour	total	per acre
Power unit @	\$0.36	\$454.32	\$3.63
Delivery system @	\$0.89	\$1,123.18	\$8.99
Oil/elec. motor@	\$0.05	\$63.10	\$0.50
Total repairs			\$13.12
Electricity	\$3.32	\$4,192.62	\$33.54
Total operating costs/acre			\$46.66

Direct Costs – Western N.D.

	Alfalfa	Alfalfa Seeding	Corn Grain	Corn Silage
Seed	0.00	50.00	86.73	75.25
Herbicides	0.00	13.75	14.00	14.00
Fungicides	0.00	0.00	0.00	0.00
Insecticides	0.00	0.00	0.00	0.00
Fertilizer	74.84	36.22	106.36	132.74
Crop Insurance	0.00	0.00	22.00	22.00
Fuel & Lubrication	17.85	22.09	22.59	42.77
Repairs	10.76	12.43	18.26	15.08
Irrigation Power	33.54	33.54	26.10	26.10
Irrigation Repairs	13.12	13.12	10.21	10.21
Drying	0.00	0.00	21.15	0.00
Miscellaneous	6.60	4.10	1.00	1.00
Operating Interest	4.70	5.56	9.85	10.17
Sum of Listed Direct Costs	161.41	190.81	338.25	349.32

Direct Costs – Western N.D.

	Drybeans	Malting Barley	Soybeans	Spring Wheat
Seed	42.00	16.50	57.00	16.80
Herbicides	35.50	14.70	24.00	14.70
Fungicides	18.00	14.50	0.00	14.50
Insecticides	0.00	0.00	6.50	0.00
Fertilizer	36.80	70.56	21.22	104.10
Crop Insurance	30.00	10.00	22.00	14.00
Fuel & Lubrication	15.18	17.16	15.18	14.94
Repairs	20.86	13.07	14.77	13.07
Irrigation Power	26.10	26.10	26.10	26.10
Irrigation Repairs	10.21	10.21	10.21	10.21
Drying	0.00	0.00	0.00	0.00
Miscellaneous	1.00	1.00	1.00	1.00
Operating Interest	7.07	5.81	5.94	6.88
Sum of Listed Direct Costs	242.72	191.61	203.92	236.30

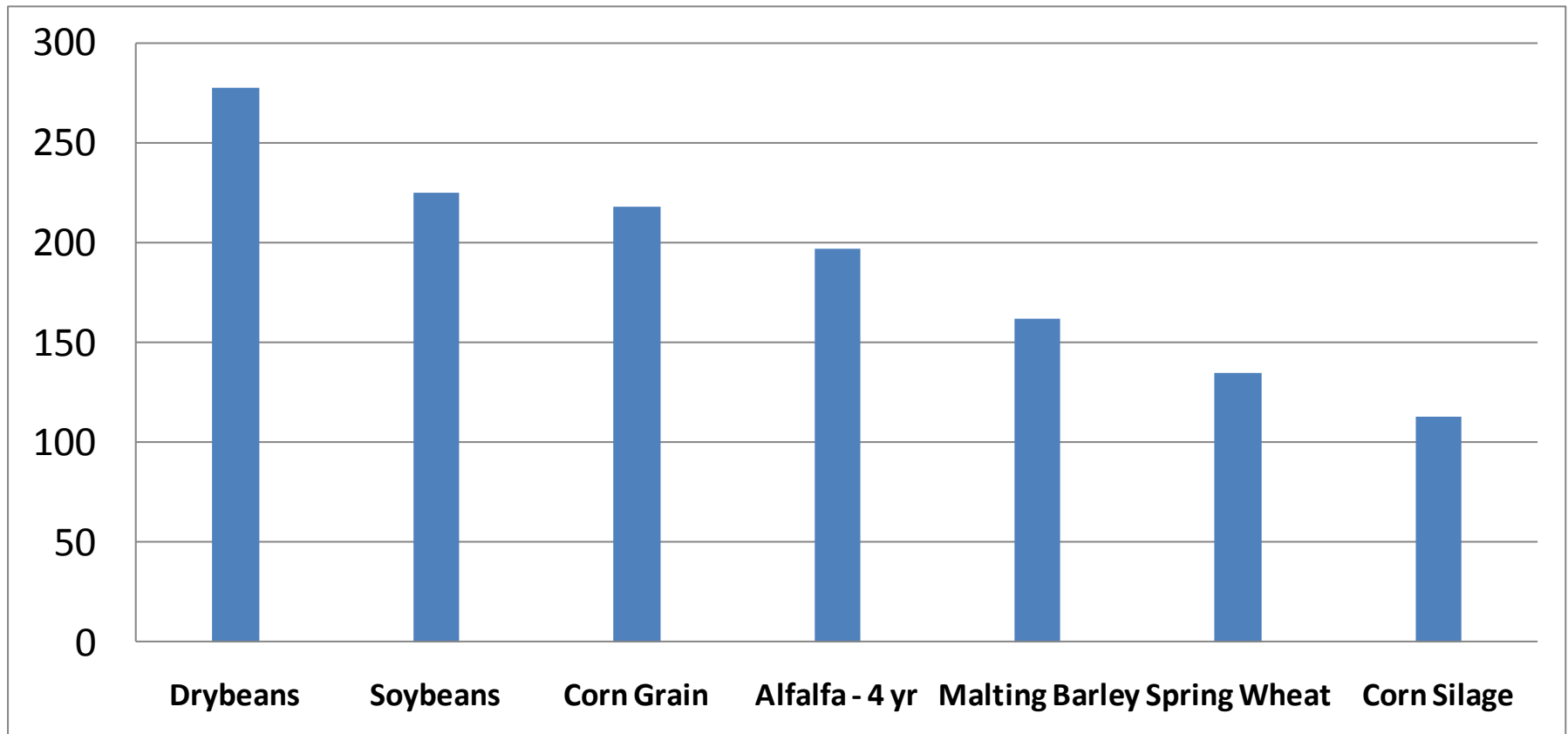
Western North Dakota Irrigated Crops

	Alfalfa	Alfalfa Seeding	Corn Grain	Corn Silage
Yield	5.5	3.0	150	22
Price	<u>75.00</u>	<u>75.00</u>	<u>3.71</u>	<u>21.00</u>
Income	412.50	225.00	556.50	462.00
Direct Costs	161.41	190.81	338.25	349.32
Indirect Costs	<u>143.72</u>	<u>146.59</u>	<u>160.80</u>	<u>209.73</u>
All Listed Costs	305.13	337.40	499.05	559.05
Return to Labor and Management	107.37	-112.40	57.45	-97.05
Cost/Unit	55.48	112.47	3.33	25.41

Western North Dakota Irrigated Crops

	Drybeans	Barley	Soybeans	Spring Wheat
Yield	2,000	100	50	70
Price	<u>0.26</u>	<u>3.61</u>	<u>8.58</u>	<u>5.30</u>
Income	520.00	361.00	429.00	371.00
Direct Costs	242.72	199.61	203.92	236.30
Indirect Costs	<u>146.36</u>	<u>134.63</u>	<u>134.63</u>	<u>134.63</u>
All Listed Costs	389.08	334.24	338.55	370.93
Return to Labor and Management	130.92	26.76	90.45	0.07
Cost/Unit	0.19	3.34	6.77	5.30

Return Over Variable Costs



Methods to Derive a Cash Rental Rate

1. What the operator can afford to pay
2. Return on investment to the owner
3. marketplace

Projected Western North Dakota Irrigated Budget -2010

	Corn Grain	Soybeans	Barley
Market Income	556.50	429.00	361.00
Direct Payment	10.00	10.00	10.00
Total Income	566.50	439.00	371.00
Direct Costs	338.25	203.92	199.61
Machinery and Misc. Overhead	57.54	31.37	31.37
Return to Land, Irrigation Investment, Labor & Management	170.71	203.71	140.02
Weighted Average	171.48		

Renting Land with an Existing System

Renting Land with an Existing System

Irrigation Depreciation	\$ 39.96
Irrigation Interest	\$ 29.30
Land Charge	<u>\$ 34.00</u>
Opportunity Cost of Investment	\$103.26



Farm Management Webpage

<http://www.ag.ndsu.nodak.edu/aginfo/farmmgmt/farmmgmt.htm>