



Southwest Idaho: Treasure Valley

Field Corn: Roundup Ready

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Background and Assumptions

The University of Idaho's costs and returns estimates are based on economic costs, not accounting costs. All resources are valued at a market rate or "opportunity cost." Input prices are taken from the U of I's annual survey of agricultural supply companies. The selling price is an historical average, not a current year's price. The cost estimate shown here is typical for producing alfalfa in northern Idaho. Production practices most closely resemble those in Canyon, Payette and Owyhee counties. Although production practices may be similar for individual farms, each farm has a unique set of resources with different levels of productivity, different production problems, and therefore different costs. Farm size, crop rotation, age and type of equipment, and the quality and intensity of management are all crucial factors that influence costs.

The Model Farm

This costs and returns estimate models a 1,200-acre farm with 300 acres in field corn, 300 acres in potatoes or sugarbeets, 150 acres in onions or dry beans, 300 acres in grain, and 150 acres in alfalfa seed or alfalfa hay. The farm uses a concrete ditch and siphon tube irrigation system with water delivered to the farm from an irrigation district. The district charges a flat fee per acre for water.

Tillage, Fertilization, Pest Control & Irrigation

After harvest of the previous crop, the ground is disc-ripped, roller harrowed and bedded in the fall. Prior to planting in the spring, the field receives a pre-plant irrigation before the beds are knocked down and a pre-emergence herbicide is applied and incorporated. The beds are re-established and the field is planted in 30-inch rows with a seeding rate of .45 bags per acre, or 36,000 seed kernels. An insecticide is also applied at planting. Corn is cultivated once for weed control and receives two applications of Roundup herbicide. In September, corn silage is custom chopped, hauled and packed in a nearby silage pit.

Fertilizer is custom applied in the fall, with additional nitrogen top-dressed in the spring after planting. No costs are included for fungicides because their use is infrequent and unpredictable. No costs are included for fungicides because their use is infrequent and unpredictable. Field corn receives about 33 inches of water during the growing season from eleven irrigations: 3 inches in April before planting, 6 inches in June, 9 inches in July, 9 inches in August and 6 inches in September.

Table 1 lists costs and returns by cost category (fertilizers, pesticides, machinery) for alfalfa production in southwestern Idaho. The cost for each operation can be found in Table 2. Costs by month can be found in Table 3.

Resources: Machinery, Land, Labor, and Capital

Table 4 lists hourly equipment costs for the tractors, trucks, and other farm equipment, along with total annual hours of use for this crop and for all crops in the model farm. Except for trucks, machinery is valued at 75 percent of new replacement cost. In the years between equipment price surveys, which are done approximately every five years, machinery prices are adjusted using USDA's Farm Machinery Prices Paid Index. Machinery cost assumptions are listed in Table 5, and include purchase price, salvage value, annual capital recovery costs, and cash overhead costs.

Land rent for field corn production is estimated to be \$250 per acre. The cost of the irrigation system is included in the rent.

The University of Idaho uses the budget generator program *Budget Planner* from the University of California-Davis to produce the various tables shown in this publication. Machinery operating and ownership costs are calculated based on engineering equations in this program. Machinery operating costs include fuel, lubricants and repairs.

The cost of labor used in this study includes a base wage, plus a percentage to account for various payroll taxes (FICA, SUTA & FUTA), and workman's compensation, as well as benefits such

as paid vacation/personal leave days, health insurance and bonuses. Labor is classified by the type of work performed. Labor classifications, labor rates and payroll overhead are shown below.

Labor Values

| Labor Class | Base Rate | Payroll Overhead | Effective Rate |
|---------------------|-----------|------------------|----------------|
| General Farm Labor | \$8.90 | 15% | \$10.25 |
| Truck Drivers | \$12.00 | 15% | \$13.80 |
| Equipment Operators | \$14.25 | 25% | \$17.80 |

Based on the speed, width and overall field efficiency, *Budget Planner* calculates equipment operator labor hours for all field operations except those performed on a custom basis. Custom operations are listed separately. General farm labor accounts for extra field labor used during planting or harvest.

A management fee is charged based on approximately 5% of total production costs.

Capital and Overhead Costs

Interest on operating capital is charged from the time an input is applied until harvest and is calculated at a nominal rate of 5.75 percent. Interest on intermediate term capital, primarily equipment, is calculated using a rate of 6.0 percent. A general overhead charge, calculated at

approximately 2.5 percent of operating expenses, is included to cover unallocated whole-farm costs such as office expenses, legal and accounting fees, cell phones, internet service and utilities. Irrigation power is not included as part of general farm utilities.

Sensitivity Analysis

Impacts of changes in crop price and yield assumptions on net returns, known as sensitivity or ranging analysis, can be found in Table 6.

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Disclaimer

The practices and chemicals specified in this publication are not recommendations. Always read and follow the directions printed on the pesticide label. Due to constantly changing pesticide laws and labels, some pesticides may have been cancelled or had certain uses prohibited. The use of trade names for various products simplifies presentation of this material and should not be considered an endorsement, nor is any criticism implied of similar products not mentioned.

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TABLE 1. COSTS AND RETURNS PER ACRE TO PRODUCE ROUNDUP READY FIELD CORN

| | Quantity/ Acre | Unit | Price or Cost/Unit | Value or Cost/Acre | Your Cost |
|--|-------------------|-----------|-----------------------|-----------------------|--------------|
| GROSS RETURNS | | | | | |
| Corn Grain | 195.00 | bu | 5.50 | 1,072.50 | |
| TOTAL GROSS RETURNS | 195.00 | bu | | 1,072.50 | |
| OPERATING COSTS | | | | | |
| Seed: | | | | 108.00 | |
| Corn Seed - Roundup Ready | 0.48 | bag | 225.00 | 108.00 | |
| Fertilizer: | | | | 238.50 | |
| Dry Nitrogen | 210.00 | lb | 0.66 | 138.60 | |
| Dry P2O5 | 80.00 | lb | 0.53 | 42.40 | |
| K2O | 100.00 | lb | 0.50 | 50.00 | |
| Sulfur | 30.00 | lb | 0.25 | 7.50 | |
| Pesticide: | | | | 47.38 | |
| Micro-Tech | 2.00 | qt | 7.30 | 14.60 | |
| Counter 15G L-N-L | 8.00 | lb | 3.00 | 24.00 | |
| Roundup Power Ma 4.5 | 40.00 | fl oz | 0.20 | 8.00 | |
| AMS | 2.00 | lb | 0.39 | 0.78 | |
| Custom: | | | | 55.00 | |
| Custom Combine Corn | 1.00 | acre | 55.00 | 55.00 | |
| Irrigation: | | | | 51.60 | |
| Water Assessment | 1.00 | acre | 48.85 | 48.85 | |
| Irr. Repairs - cd | 1.00 | acre | 2.75 | 2.75 | |
| Other: | | | | 30.00 | |
| Crop Insurance | 1.00 | acre | 30.00 | 30.00 | |
| Custom and Consultants: | | | | 50.60 | |
| Custom Fertilize | 2.00 | acre | 7.75 | 15.50 | |
| Custom Haul - bu | 195.00 | bu | 0.18 | 35.10 | |
| Labor | | | | 95.79 | |
| Equipment Operator Labor | 2.48 | hrs | 17.80 | 44.21 | |
| Irrigation Labor | 3.85 | hrs | 12.60 | 48.51 | |
| General Farm Labor | 0.30 | hrs | 10.25 | 3.08 | |
| Machinery | | | | 57.61 | |
| Fuel-Gas | 1.27 | gal | 3.70 | 4.70 | |
| Fuel-Diesel | 9.41 | gal | 3.60 | 33.89 | |
| Fuel-Road Diesel | 0.08 | gal | 4.10 | 0.31 | |
| Lube | | | | 5.83 | |
| Machinery Repair | | | | 12.88 | |
| Interest on Operating Capital @ 5.75% | | | | 26.98 | |
| TOTAL OPERATING COSTS/ACRE | | | | 761.46 | |
| TOTAL OPERATING COSTS/BU | | | | 3.90 | |
| NET RETURNS ABOVE OPERATING COSTS | | | | 311.04 | |

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TABLE 1. CONTINUED

| | Quantity/ Acre | Unit | Price or Cost/Unit | Value or Cost/Acre | Your Cost |
|---|-------------------|------|-----------------------|-----------------------|--------------|
| CASH OVERHEAD COSTS | | | | | |
| General Overhead | | | | 37.00 | |
| Land Rent | | | | 250.00 | |
| Management Fee | | | | 46.00 | |
| Property Taxes | | | | 0.00 | |
| Property Insurance | | | | 1.49 | |
| Investment Repairs | | | | 0.00 | |
| TOTAL CASH OVERHEAD COSTS/ACRE | | | | 334.49 | |
| TOTAL CASH OVERHEAD COSTS/BU | | | | 1.72 | |
| TOTAL CASH COSTS/ACRE | | | | 1,095.96 | |
| TOTAL CASH COSTS/BU | | | | 5.62 | |
| NET RETURNS ABOVE CASH COSTS | | | | -23.46 | |
| NON-CASH OVERHEAD COSTS (Capital Recovery) | | | | | |
| Equipment | | | | 51.39 | |
| TOTAL NON-CASH OVERHEAD COSTS/ACRE | | | | 51.39 | |
| TOTAL NON-CASH OVERHEAD COSTS/BU | | | | 0.26 | |
| TOTAL COST/ACRE | | | | 1,147.35 | |
| TOTAL COST/BU | | | | 5.88 | |
| NET RETURNS ABOVE TOTAL COST | | | | -75.35 | |

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TABLE 2. COSTS PER ACRE TO PRODUCE ROUNDUP READY FIELD CORN

| Operation | Operation | Cash and Labor Costs per Acre | | | | | Total Cost | Your Cost |
|--|--------------|-------------------------------|--------------|----------------|---------------|--------------|---------------|-----------|
| | Time (Hrs/A) | Labor Cost | Fuel | Lube & Repairs | Material Cost | Custom/Rent | | |
| Preharvest: | | | | | | | | |
| Disk Ripper | 0.17 | 3.54 | 5.78 | 4.78 | 0.00 | 0.00 | 14.10 | |
| Fertilize | 0.00 | 0.00 | 0.00 | 0.00 | 254.00 | 0.00 | 254.00 | |
| Roller Harrow | 0.16 | 3.34 | 3.40 | 1.70 | 0.00 | 0.00 | 8.44 | |
| Bed | 0.28 | 5.88 | 6.95 | 2.50 | 0.00 | 0.00 | 15.33 | |
| Crop Insurance | 0.00 | 0.00 | 0.00 | 0.00 | 30.00 | 0.00 | 30.00 | |
| Irrigation Water Assessment | 0.00 | 0.00 | 0.00 | 0.00 | 48.85 | 0.00 | 48.85 | |
| Irrigation Repairs | 0.00 | 0.00 | 0.00 | 0.00 | 2.75 | 0.00 | 2.75 | |
| Irrigate | 3.85 | 48.51 | 0.00 | 0.00 | 0.00 | 0.00 | 48.51 | |
| Spray & Incorporate | 0.16 | 3.34 | 3.40 | 1.87 | 14.60 | 0.00 | 23.21 | |
| Plane | 0.12 | 2.59 | 2.64 | 1.06 | 0.00 | 0.00 | 6.30 | |
| Seed Hauling | 0.13 | 2.67 | 0.31 | 0.54 | 0.00 | 0.00 | 3.52 | |
| Plant & Apply Insecticide | 0.21 | 7.59 | 4.60 | 2.33 | 132.00 | 0.00 | 146.53 | |
| Ground Spray | 0.21 | 4.52 | 2.77 | 0.90 | 8.78 | 0.00 | 16.96 | |
| Cultivate | 0.17 | 3.67 | 4.34 | 1.57 | 0.00 | 0.00 | 9.58 | |
| General Pickup Use | 0.48 | 10.15 | 4.70 | 1.46 | 0.00 | 0.00 | 16.31 | |
| TOTAL PREHARVEST COSTS | 5.92 | 95.79 | 38.90 | 18.71 | 490.98 | 0.00 | 644.39 | |
| Harvest: | | | | | | | | |
| Combine | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 55.00 | 55.00 | |
| Crop Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 35.10 | 0.00 | 35.10 | |
| TOTAL HARVEST COSTS | 0.00 | 0.00 | 0.00 | 0.00 | 35.10 | 55.00 | 90.10 | |
| Interest on Operating Capital at 5.75% | | | | | | | 26.98 | |
| TOTAL OPERATING COSTS/ACRE | 5.92 | 95.79 | 38.90 | 18.71 | 526.08 | 55.00 | 761.46 | |

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TABLE 2. CONTINUED

| Operation | Operation | Cash and Labor Costs per Acre | | | | | Total Cost | Your Cost |
|---------------------------------------|-----------------|-------------------------------|------|---------------------------------|------------------|-----------------|-----------------|--------------|
| | Time (Hrs/A) | Labor Cost | Fuel | Lube &Repairs | Material Cost | Custom/ Rent | | |
| CASH OVERHEAD: | | | | | | | | |
| General Overhead | | | | | | | 37.00 | |
| Land Rent | | | | | | | 250.00 | |
| Management Fee | | | | | | | 46.00 | |
| Property Taxes | | | | | | | 0.00 | |
| Property Insurance | | | | | | | 1.49 | |
| Investment Repairs | | | | | | | 0.00 | |
| TOTAL CASH OVERHEAD COSTS/ACRE | | | | | | | 334.49 | |
| TOTAL CASH COSTS/ACRE | | | | | | | 1,095.96 | |
| NON-CASH OVERHEAD: | | | | | | | | |
| | | Per Producing Acre | | Annual Cost Capital Recovery | | | | |
| Equipment | | 508.25 | | 51.39 | | | 51.39 | |
| TOTAL NON-CASH OVERHEAD COSTS | | | | | | | 51.39 | |
| TOTAL COSTS/ACRE | | | | | | | 1,147.35 | |

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TABLE 3. MONTHLY COSTS PER ACRE TO PRODUCE ROUNDUP READY FIELD CORN

| | NOV 12 | DEC 12 | JAN 13 | FEB 13 | MAR 13 | APR 13 | MAY 13 | JUN 13 | JUL 13 | AUG 13 | SEP 13 | OCT 13 | NOV 13 | Total |
|--------------------------------------|---------------|--------------|--------------|--------------|--------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|---------------|-----------------|
| Preharvest: | | | | | | | | | | | | | | |
| Disk Ripper | 14.10 | | | | | | | | | | | | | 14.10 |
| Fertilize | 140.65 | | | | | | 113.35 | | | | | | | 254.00 |
| Roller Harrow | 8.44 | | | | | | | | | | | | | 8.44 |
| Bed | 7.66 | | | | | 7.66 | | | | | | | | 15.33 |
| Crop Insurance | | | | | | 30.00 | | | | | | | | 30.00 |
| Irrigation Water Assessment | | | | | | 48.85 | | | | | | | | 48.85 |
| Irrigation Repairs | | | | | | 2.75 | | | | | | | | 2.75 |
| Irrigate | | | | | | 4.41 | | 8.82 | 13.23 | 13.23 | 8.82 | | | 48.51 |
| Spray & Incorporate | | | | | | 23.21 | | | | | | | | 23.21 |
| Plane | | | | | | 6.30 | | | | | | | | 6.30 |
| Seed Hauling | | | | | | | 3.52 | | | | | | | 3.52 |
| Plant & Apply Insecticide | | | | | | | 146.53 | | | | | | | 146.53 |
| Ground Spray | | | | | | | 8.48 | 8.48 | | | | | | 16.96 |
| Cultivate | | | | | | | | 9.58 | | | | | | 9.58 |
| General Pickup Use | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 16.31 |
| TOTAL PREHARVEST COSTS | 172.10 | 1.25 | 1.25 | 1.25 | 1.25 | 124.44 | 273.14 | 28.13 | 14.48 | 14.48 | 10.07 | 1.25 | 1.25 | 644.39 |
| Harvest: | | | | | | | | | | | | | | |
| Combine | | | | | | | | | | | | | 55.00 | 55.00 |
| Crop Hauling | | | | | | | | | | | | | 35.10 | 35.10 |
| TOTAL HARVEST COSTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 90.10 | 90.10 |
| Interest on Operating Capital @5.75% | 0.83 | 0.83 | 0.84 | 0.84 | 0.85 | 1.45 | 2.76 | 2.89 | 2.96 | 3.03 | 3.08 | 3.09 | 3.53 | 26.98 |
| TOTAL OPERATING COSTS/ACRE | 172.93 | 2.09 | 2.09 | 2.10 | 2.11 | 125.89 | 275.89 | 31.03 | 17.45 | 17.52 | 13.16 | 4.34 | 94.88 | 761.46 |
| CASH OVERHEAD | | | | | | | | | | | | | | |
| General Overhead | 2.85 | 2.85 | 2.85 | 2.85 | 2.85 | 2.85 | 2.85 | 2.85 | 2.85 | 2.85 | 2.85 | 2.85 | 2.85 | 37.00 |
| Land Rent | 19.23 | 19.23 | 19.23 | 19.23 | 19.23 | 19.23 | 19.23 | 19.23 | 19.23 | 19.23 | 19.23 | 19.23 | 19.23 | 250.00 |
| Management Fee | 3.54 | 3.54 | 3.54 | 3.54 | 3.54 | 3.54 | 3.54 | 3.54 | 3.54 | 3.54 | 3.54 | 3.54 | 3.54 | 46.00 |
| Property Taxes | | 0.00 | | | | | | 0.00 | | | | | | 0.00 |
| Property Insurance | | | | | | 1.49 | | | | | | | | 1.49 |
| Investment Repairs | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| TOTAL CASH OVERHEAD COSTS | 25.62 | 25.62 | 25.62 | 25.62 | 25.62 | 27.11 | 25.62 | 25.62 | 25.62 | 25.62 | 25.62 | 25.62 | 25.62 | 334.49 |
| TOTAL CASH COSTS/ACRE | 198.55 | 27.70 | 27.71 | 27.71 | 27.72 | 153.00 | 301.51 | 56.64 | 43.06 | 43.13 | 38.77 | 29.96 | 120.50 | 1,095.96 |

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TABLE 4. HOURLY EQUIPMENT COSTS

| ROUNDUP READY FIELD CORN | | Total | | Cash Overhead | | | Operating | | Total | Total |
|--------------------------|---------------------------|---------------|---------------|---------------------|----------------|-------|------------------|-------|-------|-----------|
| Yr | Description | Hours Used | Hours Used | Capital Recovery | Insur- ance | Taxes | Lube& Repairs | Fuel | Oper. | Costs/Hr. |
| 13 | 4-wheeler | 30 | 120 | 4.91 | 0.13 | 0.00 | 0.68 | 1.22 | 1.90 | 6.94 |
| 13 | Cultivator - 6R CN | 52 | 75 | 7.31 | 0.20 | 0.00 | 0.91 | 0.00 | 0.91 | 8.42 |
| 13 | Disk-Ripper - 13' | 50 | 175 | 26.45 | 0.64 | 0.00 | 15.74 | 0.00 | 15.74 | 42.83 |
| 13 | Landplane - 16' | 36 | 125 | 8.83 | 0.24 | 0.00 | 2.42 | 0.00 | 2.42 | 11.49 |
| 13 | Pickup 1 - 3/4 ton | 56 | 750 | 8.17 | 0.15 | 0.00 | 3.73 | 12.21 | 15.94 | 24.26 |
| 13 | Pickup 2 - 3/4 ton | 56 | 750 | 8.17 | 0.15 | 0.00 | 3.73 | 12.21 | 15.94 | 24.26 |
| 13 | Planter - 6R CN | 63 | 75 | 19.92 | 0.55 | 0.00 | 4.67 | 0.00 | 4.67 | 25.15 |
| 13 | Roller Harrow -12' | 94 | 150 | 13.53 | 0.35 | 0.00 | 4.52 | 0.00 | 4.52 | 18.39 |
| 13 | Sprayer - 20' | 110 | 150 | 1.74 | 0.04 | 0.00 | 1.10 | 0.00 | 1.10 | 2.88 |
| 13 | Tractor - 125hp | 213 | 400 | 18.48 | 0.58 | 0.00 | 5.78 | 19.80 | 25.58 | 44.64 |
| 13 | Tractor - 145hp | 147 | 450 | 20.84 | 0.66 | 0.00 | 7.46 | 22.97 | 30.43 | 51.92 |
| 13 | Tractor - 200hp | 55 | 600 | 20.79 | 0.66 | 0.00 | 11.87 | 31.68 | 43.55 | 65.00 |
| 13 | Tractor - 75hp | 70 | 300 | 12.45 | 0.39 | 0.00 | 2.85 | 11.88 | 14.73 | 27.57 |
| 13 | Corrugator/Bedder 6R, 30" | 83 | 150 | 2.18 | 0.06 | 0.00 | 0.88 | 0.00 | 0.88 | 3.11 |
| 13 | Truck 1-O&P 10-Wheeler | 38 | 555 | 11.14 | 0.37 | 0.00 | 4.36 | 2.46 | 6.82 | 18.33 |

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TABLE 5. WHOLE FARM ANNUAL EQUIPMENT, INVESTMENT, AND BUSINESS OVERHEAD COSTS

ANNUAL EQUIPMENT COSTS

| Yr | Description | Price | Yrs Life | Salvage Value | Capital Recovery | Cash Overhead | | Total |
|------------------|---------------------------|------------|-------------|------------------|---------------------|----------------|-------|-----------|
| | | | | | | Insur- ance | Taxes | |
| 13 | 4-wheeler | 6,000.00 | 10 | 1,500.00 | 701.41 | 18.75 | 0.00 | 720.16 |
| 13 | Cultivator - 6R CN | 6,600.00 | 15 | 633.64 | 652.33 | 18.08 | 0.00 | 670.42 |
| 13 | Disk-Ripper - 13' | 45,000.00 | 10 | 7,957.86 | 5,510.31 | 132.39 | 0.00 | 5,642.71 |
| 13 | Landplane - 16' | 13,300.00 | 15 | 1,276.89 | 1,314.55 | 36.44 | 0.00 | 1,350.99 |
| 13 | Pickup 1 - 3/4 ton | 41,000.00 | 5 | 13,750.00 | 7,294.05 | 136.88 | 0.00 | 7,430.93 |
| 13 | Pickup 2 - 3/4 ton | 41,000.00 | 5 | 13,750.00 | 7,294.05 | 136.88 | 0.00 | 7,430.93 |
| 13 | Planter - 6R CN | 18,000.00 | 15 | 1,728.12 | 1,779.09 | 49.32 | 0.00 | 1,828.41 |
| 13 | Roller Harrow -12' | 21,750.00 | 12 | 3,012.52 | 2,415.70 | 61.91 | 0.00 | 2,477.61 |
| 13 | Sprayer - 20' | 2,800.00 | 12 | 387.82 | 310.99 | 7.97 | 0.00 | 318.96 |
| 13 | Tractor - 125hp | 93,000.00 | 15 | 18,105.45 | 8,797.68 | 277.76 | 0.00 | 9,075.44 |
| 13 | Tractor - 145hp | 118,000.00 | 15 | 22,972.51 | 11,162.64 | 352.43 | 0.00 | 11,515.07 |
| 13 | Tractor - 200hp | 157,000.00 | 15 | 30,565.12 | 14,851.99 | 468.91 | 0.00 | 15,320.90 |
| 13 | Tractor - 75hp | 47,000.00 | 15 | 9,150.07 | 4,446.14 | 140.38 | 0.00 | 4,586.51 |
| 13 | Corrugator/Bedder 6R, 30" | 3,500.00 | 12 | 484.77 | 388.73 | 9.96 | 0.00 | 398.70 |
| 13 | Truck 1-O&P 10-Wheeler | 95,000.00 | 25 | 4,000.00 | 7,358.63 | 247.50 | 0.00 | 7,606.13 |
| TOTAL | | 708,950.00 | - | 129,274.76 | 74,278.29 | 2,095.56 | 0.00 | 76,373.85 |
| 84% of New Cost* | | 595,518.00 | - | 108,590.80 | 62,393.76 | 1,760.27 | 0.00 | 64,154.03 |

*Used to reflect a mix of new and used equipment

ANNUAL INVESTMENT COSTS

| Description | Price | Yrs Life | Salvage Value | Capital Recovery | Cash Overhead | | | Total |
|------------------|-------|-------------|------------------|---------------------|----------------|-------|---------|-------|
| | | | | | Insur- ance | Taxes | Repairs | |
| INVESTMENT | | | | | | | | |
| TOTAL INVESTMENT | 0.00 | - | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

ANNUAL BUSINESS OVERHEAD COSTS

| Description | Units/ Farm | Unit | Price/ Unit | Total Cost |
|------------------|----------------|------|----------------|---------------|
| General Overhead | 300.00 | acre | 37 | 11,100.00 |
| Land Rent | 300.00 | acre | 250 | 75,000.00 |
| Management Fee | 300.00 | acre | 46 | 13,800.00 |

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TABLE 6. RANGING ANALYSIS - ROUNDUP READY FIELD CORN
COSTS PER ACRE AND PER BU AT VARYING YIELDS TO PRODUCE ROUNDUP READY FIELD CORN

| | YIELD(BU) | | | | | | |
|---------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | 133.00 | 152.00 | 171.00 | 190.00 | 209.00 | 228.00 | 247.00 |
| OPERATING COSTS/ACRE: | | | | | | | |
| Preharvest | 644.39 | 644.39 | 644.39 | 644.39 | 644.39 | 644.39 | 644.39 |
| Harvest | 90.10 | 90.10 | 90.10 | 90.10 | 90.10 | 90.10 | 90.10 |
| Interest on Operating Capital @ 5.75% | 26.98 | 26.98 | 26.98 | 26.98 | 26.98 | 26.98 | 26.98 |
| TOTAL OPERATING COSTS/ACRE | 761.46 | 761.46 | 761.46 | 761.46 | 761.46 | 761.46 | 761.46 |
| TOTAL OPERATING COSTS/BU | 5.73 | 5.01 | 4.45 | 4.01 | 3.64 | 3.34 | 3.08 |
| CASH OVERHEAD COSTS/ACRE | | | | | | | |
| CASH OVERHEAD COSTS/ACRE | 334.49 | 334.49 | 334.49 | 334.49 | 334.49 | 334.49 | 334.49 |
| TOTAL CASH COSTS/ACRE | 1,095.96 | 1,095.96 | 1,095.96 | 1,095.96 | 1,095.96 | 1,095.96 | 1,095.96 |
| TOTAL CASH COSTS/BU | 8.24 | 7.21 | 6.41 | 5.77 | 5.24 | 4.81 | 4.44 |
| NON-CASH OVERHEAD COSTS/ACRE | | | | | | | |
| NON-CASH OVERHEAD COSTS/ACRE | 51.39 | 51.39 | 51.39 | 51.39 | 51.39 | 51.39 | 51.39 |
| TOTAL COSTS/ACRE | 1,147.35 | 1,147.35 | 1,147.35 | 1,147.35 | 1,147.35 | 1,147.35 | 1,147.35 |
| TOTAL COSTS/BU | 8.63 | 7.55 | 6.71 | 6.04 | 5.49 | 5.03 | 4.65 |

Net Return Per Acre Above Operating Costs For Roundup Ready Field Corn

| PRICE (\$/bu) | YIELD (bu/acre) | | | | | | |
|---------------|-----------------|--------|--------|--------|--------|--------|--------|
| Corn Grain | 133.00 | 152.00 | 171.00 | 190.00 | 209.00 | 228.00 | 247.00 |
| 4.75 | -129.71 | -39.46 | 50.79 | 141.04 | 231.29 | 321.54 | 411.79 |
| 5.00 | -96.46 | -1.46 | 93.54 | 188.54 | 283.54 | 378.54 | 473.54 |
| 5.25 | -63.21 | 36.54 | 136.29 | 236.04 | 335.79 | 435.54 | 535.29 |
| 5.50 | -29.96 | 74.54 | 179.04 | 283.54 | 388.04 | 492.54 | 597.04 |
| 5.75 | 3.29 | 112.54 | 221.79 | 331.04 | 440.29 | 549.54 | 658.79 |
| 6.00 | 36.54 | 150.54 | 264.54 | 378.54 | 492.54 | 606.54 | 720.54 |
| 6.25 | 69.79 | 188.54 | 307.29 | 426.04 | 544.79 | 663.54 | 782.29 |

Net Return Per Acre Above Cash Costs For Roundup Ready Field Corn

| PRICE (\$/bu) | YIELD (bu/acre) | | | | | | |
|---------------|-----------------|---------|---------|---------|---------|--------|--------|
| Corn Grain | 133.00 | 152.00 | 171.00 | 190.00 | 209.00 | 228.00 | 247.00 |
| 4.75 | -464.21 | -373.96 | -283.71 | -193.46 | -103.21 | -12.96 | 77.29 |
| 5.00 | -430.96 | -335.96 | -240.96 | -145.96 | -50.96 | 44.04 | 139.04 |
| 5.25 | -397.71 | -297.96 | -198.21 | -98.46 | 1.29 | 101.04 | 200.79 |
| 5.50 | -364.46 | -259.96 | -155.46 | -50.96 | 53.54 | 158.04 | 262.54 |
| 5.75 | -331.21 | -221.96 | -112.71 | -3.46 | 105.79 | 215.04 | 324.29 |
| 6.00 | -297.96 | -183.96 | -69.96 | 44.04 | 158.04 | 272.04 | 386.04 |
| 6.25 | -264.71 | -145.96 | -27.21 | 91.54 | 210.29 | 329.04 | 447.79 |

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TABLE 6. RANGING ANALYSIS CONTINUED

Net Return Per Acre Above Total Costs For Roundup Ready Field Corn

| PRICE (\$/bu) | YIELD (bu/acre) | | | | | | |
|---------------|-----------------|---------|---------|---------|---------|--------|--------|
| Corn Grain | 133.00 | 152.00 | 171.00 | 190.00 | 209.00 | 228.00 | 247.00 |
| 4.75 | -515.60 | -425.35 | -335.10 | -244.85 | -154.60 | -64.35 | 25.90 |
| 5.00 | -482.35 | -387.35 | -292.35 | -197.35 | -102.35 | -7.35 | 87.65 |
| 5.25 | -449.10 | -349.35 | -249.60 | -149.85 | -50.10 | 49.65 | 149.40 |
| 5.50 | -415.85 | -311.35 | -206.85 | -102.35 | 2.15 | 106.65 | 211.15 |
| 5.75 | -382.60 | -273.35 | -164.10 | -54.85 | 54.40 | 163.65 | 272.90 |
| 6.00 | -349.35 | -235.35 | -121.35 | -7.35 | 106.65 | 220.65 | 334.65 |
| 6.25 | -316.10 | -197.35 | -78.60 | 40.15 | 158.90 | 277.65 | 396.40 |