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Background

This publication provides price information for operating inputs commonly used in Idaho crop production. This information is used to develop new or modify existing cost of production estimates for traditional and alternative crops or crop production systems. Input prices include: herbicides, fungicides, insecticides/nematicides, fertilizers, seeds, interest rates, labor, fuel, water assessments, and custom rate charges for chemical and fertilizer applications. Additional custom rates are found in University of Idaho Bulletin 729, *Custom Rates for Idaho Agricultural Operations 2005/2006*. A PDF version of this publication is available on the Internet at <http://info.ag.uidaho.edu/pdf/BUL/BUL0729.pdf>

The University of Idaho College of Agricultural and Life Sciences publishes costs and returns (CAR) estimates – more commonly referred to as enterprise budgets – for many of the major crops grown in Idaho. Crop CAR estimates are revised and published every other year in odd-numbered years. Livestock CAR estimates are revised and published in even-numbered years. PDF versions of the CAR estimates can be found on the Internet at <http://www.ag.uidaho.edu/aers> Click on **Resources** and then click on **Crops** or **Livestock**. The crop CAR estimates are also available in Excel format and as data files for the U of I's Crop Enterprise Budget Worksheet program. These data files are also available at no charge and can be found at the same Internet site.

Idaho crop costs and returns estimates are developed for four regions of the state. Not only are there different crops produced within these regions because of varying climatic and soil conditions, but the crop production practices for the same crop can and do vary significantly by region. The four crop regions include: 1) Northern Idaho (NI) with primary emphasis on Boundary, Clearwater, Idaho, Kootenai, Latah and Lewis counties 2) Southwestern Idaho (SWI) with primary emphasis on Canyon, Elmore, Owyhee, Payette and Washington counties, 3) Southcentral Idaho (SCI) with primary emphasis on Cassia, Gooding, Jerome, Minidoka, and Twin Falls counties, and 4) Eastern Idaho (EI) with an emphasis on two areas: Bannock, Bingham and Power counties for the southern part of the region and Bonneville, Jefferson, Fremont and Madison counties for the northern portion of the region. The Southcentral region also contains crop costs and returns for the Blaine-Lincoln county area and the Lemhi-Custer-Butte county area.

Procedure

The data used to generate the information in this publication were collected by phone and mail surveys conducted from July through September 2006. Cost data reported in this publication are the averages reported by survey respondents by region. Sample selection was not random, nor was the sample stratified according to characteristics of the firms. The objective of the surveys was to obtain representative price information within each geographic region, including price information from different firms operating within a region. Firms with multiple outlets in a given geographic area were sampled only once.

Five primary types of businesses were surveyed. These were 1) irrigation districts and canal companies, 2) custom applicators, 3) agricultural lenders, 4) farm chemical and fertilizer dealers and 5) seed dealers. The price for seed potatoes and the cost of treating potato seed was obtained from a survey of Idaho seed potato growers. The seed potato prices shown in parenthesis in Table 10 are the F.O.B price for whole seed potatoes in the seed producing regions of eastern Idaho. The seed potato price shown for each region includes the F.O.B. seed price plus handling and transportation costs from the seed area to the commercial potato area of the respective regions.

General Input Costs

Input costs that do not vary consistently between regions and those that do not fit one of the major input categories are found on page 9 in table 1. This is a catchall category and includes interest rates and labor costs.

Interest Rates

Agricultural lenders use a risk-rating system to evaluate a customer's credit status. Along with loan volume, the credit score is used in determining the interest rate on a loan. Low risk, high volume borrowers are charged a lower interest rate. Interest rates also vary depending on whether the rate is variable or fixed over the loan period. The interest rate charged on an operating line by most banks is on a "Prime Rate plus basis." Typically, the interest rate is 0.5 to 2.5 percent above the Prime Interest Rate, but financially sound borrowers may have a sub-prime rate. The interest rate charged on most operating lines remains variable and fluctuates with the Prime Rate, although the rate may be fixed for a specified period of time, six months for example. The interest rate on intermediate term loans lasting one to eight years was typically 0.25 to 0.50 percent above the operating interest for a given borrower. Some financial institutions now use LIBOR-based interest rates for term loans (London Inter-Bank Offered Rate).

Typical interest rates charged on operating and intermediate term loans are shown in table 1. Operating loan interest rates at the time of the survey (July 2006) ranged between 7.5 and 11.0

percent. A typical interest rate was 9.50 percent. This rate pertains to a low credit risk customer on a moderate to high loan volume. At the time of the survey in July, 2006 the Prime Rate was 8.25 percent, a full 2 percentage points higher than the 6.25 percent rate in July 2005. Further increases by the Fed are uncertain for the next 6 to 12 months, but the continuous string of ¼ point increases since June 2003 has come to a halt. The interest rate charged on intermediate loans, money borrowed from one to seven years, varied from 7.50 to 9.5 percent in the July survey. A typical rate was 8.75 percent. This rate assumes a fixed rather than a variable rate loan, and a low credit risk borrower. Cheaper financing is generally available through many machinery and equipment dealerships, however.

Labor

Labor charges used in the CAR estimates vary according to the type of job and the skill of the laborer. There are three labor categories used in the University of Idaho CAR estimates. These are shown in table 1. "Other labor" pertains to unskilled, seasonal labor hired primarily to help during planting and harvesting. Irrigation labor is the hourly wage equivalent paid to move handlines and wheellines, or to manage center pivots. Machinery labor includes semi-skilled laborers that operate tractors, machinery and drive trucks. The hourly labor costs shown in table 1 are based on a 2001 survey of potato farmers in southern Idaho, adjusted to 2006 using the USDA's Wage Rate Prices Paid Index (1990-92 = 100). From 2001 to July 2006, the Wage Rate Index increased from 146 to 168, or 15.1 percent. The base wage rates from 2001 were increased by 15 percent. Compared to 2005 wage rates, this amounted to a \$.25 to \$.30 per hour increase. The labor costs shown in table 1 include a base wage, plus the employer's payroll tax contribution and other benefits and overhead typically paid by the employer. The value of payroll taxes and benefits vary by the class of labor and is expressed as a percent of the base wage. The tax/benefit rate is 15 percent for other labor, 25 percent for irrigation labor and 30 percent for machinery labor. The tax benefit percentages also come from the 2001 and earlier labor surveys.

Power Costs

The cost per acre of inch of water applied by different irrigation systems at different lifts (0, 100, 200 and 300 feet) are shown in table 2. This is the first year that the costs for lifts other than zero have been included. The costs for all systems are based on a 160-acre field and Idaho Power's Agricultural Irrigation Schedule 24 for 2006. The standard cost per acre-inch of water applied used in most irrigated crop costs and returns estimates published by the University of Idaho is the center pivot with a corner system and zero lift. 2006 CAR estimates will use \$1.12 per acre-inch, while \$1.39 was used in 2005, a drop of 19.4 percent. Idaho Power's energy charge per kilowatt-hour decreased 2.7 percent from 2005 to 2006 (3.4897 cents vs 3.3964 cents), but the effective power

rate (the Energy Charge plus the Power Cost Adjustment) decreased 26.1 percent, dropping from 4.0949 cents per kWh to 3.0275 cents per kWh. The Power Cost Adjustment factor in 2005 was a plus 0.6052 cents, reflecting the higher cost Idaho Power had to pay for replacement power in a poor water year, and it was a minus 0.3689 in 2006, reflecting the benefits of hydro power in a good water year. Demand charge per kW increased from \$4.19 to \$4.36, a 4.1 percent change, and the monthly service charge increased from \$12 per month to \$14.25 per month, an 18.75 percent change. Recent changes in Idaho Power rates have significantly increased the proportion of the irrigation pumping cost that is fixed (demand charge and monthly service charge) relative to the variable energy use component.

General Input Costs With Regional Variation

Table 3 on page 9 includes fuel prices, water assessments and fertilizer component prices by region. The fertilizer component prices found in Table 3 are derived from fertilizer product prices listed in Table 11. Fertilizers in the University of Idaho CAR estimates are listed in pounds of element (N, P₂O₅, K₂O, etc.), not product (i.e. 11-52-0). The price per pound for nitrogen (dry and liquid), phosphate (dry and liquid), potassium and sulfur are included in Table 3. The source material is identified in the last footnote below the table.

Fuel

Fuel price varies by location within the state. In general, the price of gasoline typically increases going from eastern Idaho across southern Idaho. While the price of gas was eight cents higher in western Idaho compared to eastern Idaho, gas prices in the Magic Valley were lower than those in eastern Idaho at the time of the survey. Diesel prices have not always followed a consistent price difference by region. Historically, diesel prices were also cheapest in eastern Idaho and increased going west. But in the 2005 survey and again in 2006, prices in southern Idaho were fairly similar with prices slightly lower in western Idaho and slightly higher in south central Idaho. Fuel prices in southern Idaho were obtained the first week of August. While fuel prices have moderated since early August, fuel prices will remain high by historical standards, and increased demand primarily from China and political instability will keep oil prices volatile. While nominal fuel prices set new records this summer, inflation adjusted prices at the time of the survey remained below the record real price set in 1981. Unleaded gasoline prices were roughly \$.60 to \$.70 per gallon higher than those obtained at roughly the same time last year. Diesel prices were \$.65 to \$.75 higher than in 2005. On-road diesel prices were included for the first time this year. No fuel price information was gathered for northern Idaho.

Irrigation Water Assessments

A typical water assessment charge for each region in southern Idaho is shown in table 3. These water assessment charges are the simple average of the values reported by irrigation districts and canal companies contacted in each region. The same irrigation districts/canal companies are surveyed each year to maintain a consistent base for price change comparisons. Assessments made on a per share of water basis are converted to a per acre charge. All canal companies and irrigation districts surveyed deliver water to the farm in an open ditch.

The average water assessment reported by the seven water organizations surveyed in Southwestern Idaho increased by \$1.45 to \$35.90 per acre, ranging from a low of \$20.00 per acre to a high of \$60.00. The average water assessment charge reported by the four water organizations surveyed in Southcentral Idaho increased by \$3.75 to \$33.95, ranging from \$21.00 to \$45.00 per acre. Water charges in Eastern Idaho are considerably lower than for the other two areas of southern Idaho, especially in the upper Snake River. The average water assessment reported by the four water organizations surveyed in eastern Idaho increased by \$.55 to \$12.95 per acre, ranging from \$9.00 to \$23.00 per acre. The three water organizations in the north end of the region charged an average \$9.55 per acre, a \$.05 increase over 2005, while the one water organization in the south end of the region charged \$23 per acre, a \$2 increase over 2005.

Fertilizer Component Prices

The component fertilizer prices, shown in table 3, can be used to revise cost estimates where fertilizer is specified by element, not by total pounds of product. Table 11 contains the price per ton of various source materials as well as the price per pound for micronutrients. The component price will vary depending on the source material. The dry nitrogen price in table 3 is based on the price of nitrogen in Urea (46-0-0) and is used for most pre-plant nitrogen applications in the University of Idaho's CAR estimates, while the liquid nitrogen price is based on the price of nitrogen in Solution 32 (32-0-0). The liquid nitrogen price is typically used on post-planting applications. Dry phosphate price is based on the price of phosphate in 11-52-0 with the nitrogen in 11-52-0 valued at the price of nitrogen in Urea. The liquid phosphate price is based on the price of phosphate in 10-34-0 with the nitrogen valued at the price of nitrogen in Solution 32. Potassium's price is based on Muriate of potash (0-0-60) and sulfur's price is based on sulfur's price in ammonium sulfate with nitrogen valued at that of urea. On average, nitrogen prices in southern Idaho were comparable to last year's prices, but price differences within some regions were more pronounced.

Dry nitrogen prices were higher in two regions of southern Idaho, southwest and eastern, by 3 and 1 cents, respectively. The southern Idaho average of \$.41 was 1 cent higher than in 2005. The price

in northern Idaho was the same as last year. The price for liquid nitrogen was higher by 1 cent in southwestern, 1 cent lower in southcentral and unchanged in eastern. The average across southern Idaho was \$.45, the same as last year. Liquid nitrogen at \$.44 in northern Idaho was 6 cents lower than last year. Dry phosphate prices were higher all across the state by 1 to 5 cents over last year's prices. The average price in southern Idaho of \$.27 was 3 cents higher. Prices were 5 cents higher in northern and southcentral Idaho, 3 cents higher in southwestern and 1 cent higher in eastern Idaho. Potassium price was unchanged in northern Idaho and averaged 2 cents higher across southern Idaho.

Custom Rates

Table 4 on page 11 contains the rate charged by aerial applicators for both liquid and dry material applications. Table 4 also lists the custom charges made to apply fertilizer and chemical by various ground methods. Aerial application charges typically vary by the quantity and type of material applied. The charge for applying liquid materials falls into the categories based on the application rate. While other categories exist, table 4 shows the most common categories: 3-gallon, 5-gallon, 7-gallon, 10-gallon and 15-gallon rates. Aerial application of dry material is typically charged on a per pound basis with a minimum per acre charge. The minimum per acre charge on dry material is generally based on 100 pounds of material. Many aerial applicators have a sliding scale, charging less per acre for a large job and more per acre for smaller jobs. They may also charge less when fields are large and easily accessible, compared with small or irregular shaped fields. These same factors help explain some of the regional cost differences. Fields in Eastern Idaho tend to be large, while those in Western Idaho, and to some extent Southcentral Idaho, are smaller. The standard charge in Eastern Idaho is for large fields, while the standard charge in Western Idaho is for small fields. These regional differences are reflected in table 4. Table 4 also contains costs of other types of services, including the custom application of sulfuric acid to kill potato vines. A complete list of custom rates can be found in Extension Bulletin 729, Custom Rates of Idaho Agricultural Operations 2005-2006. A PDF can be found at <http://info.ag.uidaho.edu/pdf/BUL/BUL0729.pdf>

Herbicide Prices

Table 5, found on pages 12-15, gives regional price information for herbicides. Dry material is priced per pound and liquid material is priced per gallon or ounce. There are a few products priced per case. The price of liquid products was generally based on a 2-1/2 gallon container price. Prices are rounded to the nearest \$.05 for most products or to the nearest \$1 on the very expensive products costing several hundred dollars. While the list of herbicides is not all encompassing, it

covers a wide range of products currently used on row crops, small grains and other crops for which the University of Idaho has developed CAR estimates.

Sticker/Spreader Prices

The price per gallon for commonly used stickers and spreaders are found on page 16 in Table 6. Prices are rounded to the nearest \$.05.

Fungicide Prices

Table 7, found on pages 17-18, contains regional price information for commonly used fungicides. Dry material is priced per pound and liquid material is priced per gallon or per ounce. Prices were rounded to the nearest \$.05 or the nearest \$1, depending on the price of the product. Fumigant prices are listed in Table 8 found on page 18.

Insecticide and Nematicide Prices

Insecticide and nematicide prices are shown in table 9 on pages 19 and 20. Dry material is priced on per pound or ounce basis and the price of liquids is per gallon. Prices were rounded to the nearest \$.05 or the nearest \$1, depending on the price of the product.

Seed Prices

Table 10 on page 21 contains seed prices by region. Prices are given in the common units for that commodity and include pound, hundredweight, unit (100,000 seeds) in the case of sugarbeet seed, and pail (500,000 seeds) for onion seed. In general, seed prices were obtained only for those crops for which the University of Idaho presently publishes a costs and returns estimate. *Keep in mind that there is a great deal of variability in seed prices, particularly among different varieties.* The seed prices in Table 10 should be considered representative, but they are by no means comprehensive. Seed prices in table 10 generally include a seed treatment. Potatoes are an exception.

Fertilizer Prices

Table 11 on pages 22-23 contains the price information on fertilizer. Prices for the macronutrients are per ton. The formulation of the various materials is also shown. Prices for micronutrients (trace elements) are given both per ton and per pound of element. Some caution is advised on the prices for the trace elements. The price variation is extreme and there are likely subtle but important differences in the source material that were not picked up by the survey.

Costs and Returns Estimates

University of Idaho crop costs and returns estimates are no longer printed. But they can be downloaded from the Department of Agricultural Economics and Rural Sociology website at the following URL: <http://www.ag.uidaho.edu/aers> Click on Resources, then on Crops. Each budget is a separate publication, which is stored as a PDF (portable document file). A program called Acrobat Reader is required to view and or print these files. A link to obtain a free copy of Acrobat Reader is also shown on the AERS website.

Further Information

For additional information about publications and other resource materials available from the College of Agriculture, contact Ag Publications, University of Idaho, Moscow, ID 83844-2240 (885-7982). A catalog of all available publications can be found on the Internet at <http://info.ag.uidaho.edu/> Many of these publications are available as PDFs.

If you have any questions or comments regarding the information contained in this publication, contact Paul Patterson (pattersn@uidaho.edu) at the Idaho Falls R & E Center, 1776 Science Center Drive, Suite 205, Idaho Falls, ID 83402 (529-8376) or Bob Smathers (rsmather@uidaho.edu) at the Department of Agricultural Economics and Rural Sociology, P.O. Box 442334, University of Idaho, Moscow, ID 83843 (885-6934).

The authors would like to thank all the companies and individuals who assisted with this publication by providing price information. Because of the confidential nature of the information obtained from companies participating in the survey, it is our policy not to identify the companies that provide information. While this keeps us from publicly thanking the cooperators, it also avoids problems of price disclosure. We would also like to thank the Idaho Potato Commission for their assistance in funding a portion of this project under BDK902, Cost of Potato Production in Idaho.

Table 1. Interest rates and labor costs, 2006.

		<u>All Regions</u>
Operating Interest		9.50%
Intermediate Term Interest		8.75%
	(Base Wage)	
Machinery Labor: cost per hour*	(\$10.35)	\$13.45
Irrigation Labor: cost per hour*	(\$7.20)	\$ 9.00
Other Labor: cost per hour*	(\$6.90)	\$ 7.95

* Labor cost includes a base wage plus 15 percent for taxes and benefits on other labor, 25 percent on irrigation labor, and 30 percent on machinery labor.

Table 2. Irrigation power costs, 2006.**Southern Idaho**

Pumping costs are based on Idaho Power's Irrigation Service Schedule 24, and a net water application of 22 inches. Cost per acre inch of water applied will drop when the total water applied is increased because the fixed cost component of the power charge is spread over more inches of water.

	<u>\$/ ac-inch</u>
Center Pivot w/ Corner System, 0 lift	\$1.12
Center Pivot w/ Corner System, 100 ft. lift	\$1.95
Center Pivot w/ Corner System, 200 ft. lift	\$2.70
Center Pivot w/ Corner System, 300 ft. lift	\$3.45
Center Pivot w/o Corner System, 0 lift	\$0.77
Center Pivot w/o Corner System, 100 ft. lift	\$1.45
Center Pivot w/o Corner System, 200 ft. lift	\$2.09
Center Pivot w/o Corner System, 300 ft. lift	\$2.72
Wheelline, 0 lift	\$0.75
Wheelline, 100 ft. lift	\$1.45
Wheelline, 200 ft. lift	\$2.09
Wheelline, 300 ft. lift	\$2.73

2006 Idaho Power Irrigation Service: Schedule 24

Monthly Service Charge: irrigation season	\$14.25
Monthly Demand Charge per kW: irrigation season	\$ 4.36
Energy Charge Base Rate: per kWh	3.3964¢
Power Cost Adjustment: per kWh	- 0.36989¢
Effective Energy Charge: per kWh	3.0275

Table 3. Fuel, water assessments and fertilizer component prices by region, 2006.

	<u>NI*</u>	<u>SWI*</u>	<u>SCI*</u>	<u>EI*</u>
Gasoline: per gallon **		\$2.98	\$2.97	\$2.89
Off-Road Diesel: per gallon **		\$2.75	\$2.82	\$2.79
Road Diesel: per gallon		\$3.26	\$3.31	\$3.28
Water Assessment: per acre		\$35.90	\$33.95	\$12.95
Eastern Idaho: South District				\$23.00
Eastern Idaho: North District				\$9.55
Dry Nitrogen per lb*** (46-0-0-0)	\$ 0.40	\$ 0.45	\$ 0.38	\$ 0.40
Liquid Nitrogen per lb*** (32-0-0-0)	\$ 0.44	\$ 0.48	\$ 0.44	\$ 0.43
Dry Phosphate (P ₂ O ₅) per lb*** (11-52-0)	\$ 0.30	\$ 0.27	\$ 0.28	\$ 0.25
Liquid Phosphate (per lb*** (10-34-0)	\$ 0.42	\$ 0.36	\$ 0.37	\$ 0.30
Potassium (K ² O)per lb*** (0-0-60)	\$ 0.24	\$ 0.24	\$ 0.25	\$ 0.23
Sulfur per lb	\$ 0.17	\$ 0.18	\$ 0.17	\$ 0.15

* Northern Idaho (NI), Southwestern Idaho (SWI), Southcentral Idaho (SCI) and Eastern Idaho (EI).

** Price is for bulk delivery to the farm. Fuel prices were obtained the first week of August.

*** Fertilizer prices are per pound of element, not product, and are based on values found in Table 10. Price will vary depending on source material. Nitrogen in 11-52-0 was valued at cost of N in urea and nitrogen in 10-34-0 was valued at cost of N in Solution 32.

Table 4. Custom fertilizer & chemical application rates by region, 2006.

	<u>NI*</u>	<u>SWI*</u>	<u>SCI*</u>	<u>EI*</u>
Custom Aerial Application: price/acre	\$/acre	\$/acre	\$/acre	\$/acre
Liquid Material:**				
3-gallon: Standard	\$5.75	\$5.75	\$4.65	\$5.00
5-gallon: Standard	\$5.80	\$7.95	\$7.35	\$5.90
7 & 7.5-gallon: Standard	\$5.95	\$8.90	\$8.00	\$7.10
10-gallon: Standard	\$7.05	\$10.40	\$9.90	\$8.05
15-gallon: Standard		\$15.35		
Dry Material:				
Cents per lb	6.0	7.1	6.8	7.0
Min. Charge or 100 lbs /acre	\$5.90	\$8.35	\$7.50	\$7.00
Dry Fertilizer Application: price/acre				
Broadcast: no rate or crops specified	\$6.15		\$5.50	\$5.15
Broadcast: Grain or < 500 lbs		\$6.25	\$5.30	\$5.25
Broadcast: Row Crops: 500 – 1,000 lbs		\$6.90	\$6.50	\$6.00
Fertilizer Spinner Cart, Rental	\$2.00			
Liquid Fertilizer Application: price/acre				
Spray	\$6.65		\$6.00	\$5.50
Markout		\$15.00	\$16.00	\$18.80
Sidedress		\$11.40		\$5.50
Shank-in	\$8.00			\$31.00
Chemical Application: price per acre				
Ground Spray: Grain, Hay, Beans	\$6.60	\$7.50	\$5.70	\$5.15
Ground Spray: Potatoes/Sugarbeets		\$8.50	\$6.95	\$5.95
Ground Spray & Incorporate		\$12.00	\$12.00	
Fumigate: Deep injection		\$23.75	\$27.00	\$33.00
Fumigate: Bedding Row		\$18.50		
Other				
Markout (dry)		\$15.00	\$14.00	\$13.65
Sulfuric Acid: application only			\$ 8.95	\$ 9.05
Sulfuric Acid & Application: 20 gal/ac		\$18.75	\$24.95	\$25.75
Sulfuric Acid & Application: 30 gal/ac			\$33.20	\$33.25

* Northern Idaho (NI), Southwestern Idaho (SWI), Southcentral Idaho (SCI) and Eastern Idaho (EI).

** The charge to apply sulfuric acid to kill potato vines varies by the amount of product applied. The rate varies between 15 and 40 gallons of sulfuric acid per acre. The application charge varies from \$8 to \$10 per acre and the product charge is \$.75 to \$.80 per gallon of acid.

Note: Custom rates obtained from Extension Bulletin 729, revised 2006.

Table 5. Herbicide prices by region, 2006.

<u>Product</u>	<u>Unit</u>	<u>NI*</u>	<u>SWI*</u>	<u>SCI*</u>	<u>EI*</u>
2,4-DB	gal		\$34.00	\$33.00	\$32.20
2,4-D Amine (4 lb)	gal	\$16.95	\$14.65	\$14.85	\$15.40
2,4-D Ester (LV4)	gal	\$21.70	\$17.05		\$18.00
2,4-D Ester (LV6)	gal			\$24.25	\$22.50
Accent SP	oz		\$35.50	\$40.00	\$39.00
Achieve 3.33 EC	gal	\$256		\$248	\$258
Affinity BroadSpec 50 SG	oz		\$7.90	\$9.05	\$8.40
Affinity TankMix 50 SG	oz		\$5.70	\$6.50	\$7.10
Aim	oz		\$9.20	\$10.25	\$10.00
Aim 2 EW	gal	\$880		\$745	\$700
Ally 60 XP	oz			\$27.65	\$24.75
Ally Extra	oz	\$11.75			\$9.95
Amber 75DF	lb	\$11.30			
Assure II EC	gal	\$137.65	\$126.40	\$134.20	\$140.55
Assert 2.5EC	gal			\$89.00	\$92.80
Atrazine 4L	gal	\$14.80	\$15.30	\$11.90	\$14.50
Atrazine 90 DF	lb				\$3.00
Axial 0.83 EC	gal			\$216	\$227
Balan	lb		\$11.00		
Banvel 4SC	gal	\$85.00	\$85.00	\$90.00	\$96.65
Barrage	gal	\$37.75			
Basagran	gal	\$94.85	\$78.30	\$89.50	\$87.30
Beacon	oz	\$28.65			
Betamix 1.3EC	gal		\$79.65	\$76.70	\$71.65
Beyond	gal	\$574			
Brash	gal				\$40.00
Bronate	gal	\$45.40	\$42.00	\$39.00	\$37.70
Bronate Advanced (2.5 lb)	gal	\$62.00	\$52.10	\$52.00	\$57.25
Bromox (4 lb)	gal		\$38.50	\$38.45	\$33.95
Buctril 2EC	gal	\$74.05	\$65.40	\$69.00	\$79.35
Callisto (4 lb)	gal		\$544.00		
Casoron	lb	\$2.95	\$2.15		\$2.60
Celebrity DF	oz				
Cerone	gal	\$120.00		\$98.00	\$95.00
Chateau WDG	lb		\$84.00	\$90.00	
Cinch 7.64 EC	gal				
Clarion 75 DF	oz		\$31.50	38.00	
Clarity	gal	\$97.65	\$92.60	\$98.50	\$101.65
Clopyr Ag	gal			\$425	\$409

Table 5. Herbicide prices by region, 2006. (cont.)

<u>Product</u>	<u>Unit</u>	<u>NI*</u>	<u>SWI*</u>	<u>SCI*</u>	<u>EI*</u>
Curtail 2.38SC	gal	\$45.75	\$40.30	\$43.50	\$43.45
Curtail M 2.77SC	gal	\$51.70	\$44.50	\$50.00	\$50.65
Direx 80DF	lb		\$3.90		\$4.30
Direx 4E	gal	\$22.20	\$18.65		
Des-i-cate II	gal		\$43.05		
Discover	case	\$705		\$698	\$668
Discover	gal	\$564		\$558	\$534
Distinct	lb		\$41.65	\$47.90	\$45.35
Diuron 80DF	lb		\$3.60	\$4.50	\$4.05
Dual Magnum	gal	\$133.00	\$99.80	\$111.00	\$94.40
Dual II Magnum EC	gal		\$108.75	\$118.00	\$128.00
Eptam 7EC	gal	\$32.15	\$25.50	\$26.20	\$26.35
Eradicane 6.7E	gal				\$34.00
ET	gal				\$235
Etho SC	gal		\$74.00	\$84.40	\$81.00
Escort XP	oz	\$21.05	\$19.75		\$23.00
Everest	oz	\$28.60			
Express XP	oz	\$21.90	\$18.90	\$19.75	\$20.55
Far-Go 10G	lb	\$1.00			
Far-Go EC	gal	\$50.10		\$47.00	\$46.40
Finesse 75DF	oz	\$17.40			\$16.00
Frontier 6.0	gal	\$105			
Fusilade	gal	\$165.00	\$142.80		\$160.00
Glean 75DF	oz	\$18.75			\$16.50
Goal 2XL	gal	\$119.00			
Gramoxone Inteon	gal		\$29.95	\$34.15	\$39.90
Gramoxone Max	gal	\$44.80			
Harmony Extra 75DF	oz		\$13.40		\$15.30
Harmony Extra XP	oz	\$14.70	\$13.30	\$14.85	\$14.25
Harmony GT XP	oz	\$14.10	\$13.30	\$13.50	\$13.80
Harness	gal		\$88.90	\$93.50	
Hoelon 3EC	gal	\$89.95			
Karmex 80DF	lb		\$4.15		\$5.15
Landmaster BW	gal		\$17.70	\$20.50	\$17.55
Lasso	gal				
Matrix 25DF	oz		\$13.05	\$13.35	\$13.30
Maverick WDG	oz	\$17.45		\$16.45	
MCPA-Amine	gal	\$18.85	\$16.85	\$18.00	\$17.60
MCPA-Ester	gal	\$22.30	\$20.00	\$19.75	\$18.90

Table 5. Herbicide prices by region, 2006. (cont.)

<u>Product</u>	<u>Unit</u>	<u>NI*</u>	<u>SWI*</u>	<u>SCI*</u>	<u>EI*</u>
MCPA Sodium Salt (Chiptox)	gal	\$11.95			
MH-30	gal		\$18.40	\$19.80	\$15.15
Micro-Tech	gal		\$24.75	\$27.00	
Nortron 4SC	gal		\$86.90	\$92.95	
Olympus Flex	lb				
Olympus 70 WDF	lb				
Option	oz		\$9.80		\$9.75
Oust	gal	\$14.05			
Osprey	oz				\$3.00
Outlook 6EC	gal	\$170.00	\$138.25	\$152.85	\$119.00
Peak	oz	\$13.60			\$19.50
Poast 1.5EC	gal	\$89.25	\$66.35	\$72.00	\$68.30
Poast Plus	gal		\$48.00		
Princep 4L	gal				\$4.50
Progress 1.8EC	gal		\$97.85	\$96.20	\$7.15
Prowl 3.3 EC	gal	\$25.10	\$21.30	\$23.30	\$21.25
Prowl H2O	gal	\$37.25	\$30.75	\$33.30	\$29.20
Puma EC	gal	\$209	\$192	\$199	\$199
Pursuit W	gal	\$501	\$510		\$576
Pursuit WDG	oz	\$12.60		\$10.45	\$12.20
Pyramin 65DF	lb			\$16.50	\$14.90
Raptor	gal	\$611	\$500	\$556	\$546
Rave WDG	oz	\$28.15			
Reglone (Diquat)	gal		\$89.00	\$101.00	\$105.00
Rely	gal			\$71.00	\$73.50
Resolve 25 DF	oz				
Ro-Neet 6EC	gal		\$61.75	\$67.40	
Roundup Original Max	gal		\$35.45	\$37.80	\$35.05
Roundup Ultra Max RT	gal				
Roundup Ultra Max II	gal		\$38.90		\$53.00
Roundup Weather Max	gal				
Roundup RT Master II	gal	\$23.50			
Select 2EC	gal	\$222.50	\$184.00	\$196.25	\$194.80
Select Max	gal			\$134.00	\$138.00
Sencor 75DF	lb	\$16.50	\$13.65	\$13.60	\$10.75
Sencor 4L	gal		\$88.15	\$90.00	\$95.90
Metribuzen Generics	gal			\$13.80	

Table 5. Herbicide prices by region, 2006. (cont.)

Product	Unit	NI*	SWI*	SCI*	EI*
Sinbar 80W	lb	\$37.50	\$30.50		
Sonalan HFP	gal		\$28.65	\$30.05	\$32.25
Spartan 75DF	lb			\$35.50	
Stalwart	gal			\$76.00	
Starane 1.5EC	gal	\$101.00	\$101.00	\$104.25	\$105.65
Steadfast 75 DF	oz				\$23.00
Stinger 3EC	gal	\$570	\$445	\$462	\$457
Sulfuric Acid	gal			\$1.05	\$0.80
Targa	gal			\$118.00	
Tordon 22K	gal	\$121.00	\$103.00		\$113.00
Touchdown	gal			\$54.00	\$38.90
Treflan 4 HFP	gal		\$22.40	\$28.00	\$18.65
Treflan TR10	lb	\$1.10	\$0.95	\$0.90	
Trilin	gal		\$18.95	\$21.65	
Trust 10G	lb				
Trust	gal	\$20.60	\$18.00		
UpBeet 50DF	oz		\$43.75	\$48.05	\$39.15
Velpar Alfamax DG	lb		\$140.00	\$151.30	\$164.00
Velpar L	gal	\$70.85	\$57.70	\$63.85	
Weedmaster	gal	\$36.45	\$30.50	\$30.00	\$34.50
Weedone 638	gal		\$20.90	\$23.25	\$25.00

* Northern Idaho (NI), Southwestern Idaho (SWI), Southcentral Idaho (SCI), and Eastern Idaho (EI).

Table 6. Sticker/spreader prices by region, 2006.

<u>Product</u>	<u>Unit</u>	<u>NI*</u>	<u>SWI*</u>	<u>SCI*</u>	<u>EI*</u>
Activate Plus	gal	\$13.75			
Activator 90	gal			\$27.00	
Alliance	gal		\$11.50		
Breakthru	gal		\$86.00	\$80.00	
Class Act	gal	\$9.10	\$7.25		
Crop Oil	gal	\$9.80	\$13.45	\$12.60	\$10.80
Destiny	gal		\$11.30		\$14.00
Excel 90	gal		\$17.95	\$27.00	\$26.40
Indicate S	gal				\$35.90
Meth. Seed Oil	gal		\$8.50	\$15.50	\$14.45
Non Ionic	gal		\$13.80	\$11.00	
Placement	gal				\$34.90
Prime Oil	gal				\$10.00
Superb HC	gal		\$11.50		
Quest	gal			\$17.00	\$18.45

* Northern Idaho (NI), Southwestern Idaho (SWI), Southcentral Idaho (SCI), and Eastern Idaho (EI).

Table 7. Fungicide prices by region, 2006.

<u>Product</u>	<u>Unit</u>	<u>NI*</u>	<u>WI*</u>	<u>SCI*</u>	<u>EI*</u>
Acrobat 50WP	lb		\$19.35	\$21.75	
Amistar	lb	\$95.00	\$88.50	\$97.00	\$89.75
Blocker 4F	gal		\$25.80	\$29.70	\$30.00
Bravo Zn	gal				\$35.95
Bravo Ultrex WDG	lb			\$7.20	\$7.30
Bravo Weather Stik (6 lb)	gal		\$44.60	\$51.05	\$51.45
Curzate 60 DF	lb			\$27.15	\$39.35
Dithane 75DF Rainshield	lb		\$2.90	\$2.90	\$2.45
Dithane F45 Rainshield	gal		\$15.50	\$15.50	\$16.35
Echo DF	lb			\$5.70	\$5.50
Endura	oz		\$4.00	\$4.85	\$4.10
Equus DF	lb			\$5.60	\$4.90
Equus 720	gal				\$30.80
Gavel DF	lb				\$4.75
Gem 25WG	oz		\$3.40	\$3.90	
Headline	gal	\$266	\$216	\$245	\$219
Kocide 2000	lb		\$3.00		
Kocide 4.5 LF	gal		\$32.35		\$29.95
Manzate 200DF	lb		\$3.50		\$2.50
Manzate Pro Stick	Lb			\$2.80	
Maxim MZ	lb			\$3.40	\$3.40
Mertect 340F	gal		\$243.50		
Microthiol Disperss	lb		\$0.80		
Moncoat MZ	lb				\$2.05
Moncut 70DF	lb		\$28.00	\$28.25	\$24.65
Omega 500 DF	gal		\$346	\$412	\$354
Penncozeb 75DF	lb				\$2.65
Pristine	oz		\$1.90	\$2.20	
Quilt	gal	\$146.00	\$123.00	\$127.40	\$124.00
Rally WP	oz		\$4.75		
Raxil Thiram	gal			\$52.25	\$52.50
Raxil XT	lb				
Ridomil Gold EC	gal		\$744	\$812	\$752
Ridomil Gold MZ	lb		\$11.90	\$12.70	\$12.45
Ridomil Gold/Bravo 81 WP	lb		\$18.00	\$16.40	\$18.00
Ridomil Gold/Copper 70 WP	lb		\$13.80	\$14.50	\$14.85
Rovral 4L	gal		\$183	\$181	
Super Tin 80WP	lb		\$34.25	\$34.60	\$36.30
Tanos DF	lb			\$26.00	\$21.00

* Northern Idaho (NI), Southwestern Idaho (SWI), Southcentral Idaho (SCI), and Eastern Idaho (EI).

Table 7. Fungicide prices by region, 2006 (cont.).

<u>Product</u>	<u>Unit</u>	<u>NI*</u>	<u>SWI*</u>	<u>SCI*</u>	<u>EI*</u>
Tilt	gal	\$354	\$366		\$390
Tilt Plus	oz	\$1.26			
Tops 2.5	lb				\$2.50
Tops MZ	lb				\$2.55
Topsin MWSP	lb	\$19.65			
Ultra Flourish	gal				\$300
Vitavax	gal				\$47.15

* Northern Idaho (NI), Southwestern Idaho (SWI), Southcentral Idaho (SCI), and Eastern Idaho (EI).

Table 8. Fumigant prices by region, 2006.

<u>FUMIGANTS:</u>	<u>Unit</u>	<u>NI*</u>	<u>SWI*</u>	<u>SCI*</u>	<u>EI*</u>
Metam Sodium	gal		\$3.25	\$3.65	\$3.50
Telone II	gal		\$10.45	\$11.00	\$10.30
Vapam 42%	gal		\$3.60	\$3.50	\$3.90
K-Pam	gal		\$4.90	\$4.85	\$5.25

* Northern Idaho (NI), Southwestern Idaho (SWI), Southcentral Idaho (SCI) and Eastern Idaho (EI).

Table 9. Insecticide and nematicide prices by region, 2006.

<u>Product</u>	<u>Uni</u> <u>t</u>	<u>NI*</u>	<u>SWI*</u>	<u>SCI*</u>	<u>EI*</u>
Admire 2 F	gal				\$557
Admire Pro	oz		\$8.50	\$7.75	\$6.30
Agrimec EC	oz		\$704		
Ambush	lb			\$9.40	
Asana XL	gal	\$111.00	\$89.20	\$105.00	\$95.00
Assail 70WP	lb		\$15.75		
Avaunt	lb				
Capture 2 EC	gal	\$406	\$350		\$367
Comite (6.5 lb)	gal		\$81.00		
Counter 15G L-N-L	lb		\$1.70	\$1.85	\$1.70
Cruiser 5 FS	gal			\$2,300	\$2,070
Dibrom 8 E	gal		\$76.15	\$83.00	
Dimethoate	gal	\$38.40	\$36.65	\$38.00	
Di-Syston L 8E	gal		\$96.90	\$86.00	
Fulfill WDG	oz		\$5.95	\$6.25	\$6.05
Furadan 4F	gal		\$71.55	\$81.05	\$79.00
Gaucho	lb			\$4.50	\$4.30
Genesis FL	gal			\$532	\$681
Guthion 2 L	lb				
Guthion Solupak	lb		\$10.75		
Imidan 70WP	lb	\$8.45	\$8.45	\$9.75	
Lannate LV	gal		\$52.90		
Leverage 2.7	gal			\$401	\$392
Lorsban 4 E	gal	\$42.50	\$33.85	\$45.40	\$36.25
Lorsban 15G	lb		\$1.70	\$1.90	
Malathion 5 EC	gal		\$27.80	\$32.00	\$27.00
Malathion 8 EC	gal		\$34.10		
Malathion 6% Grain Dust	lb		\$1.00	\$1.10	\$1.00
Malathion 57 EC	gal				\$33.00
Metasystox R	gal		\$81.55		
Methyl Parathion 4 EC	gal	\$40.40			
Mocap 15G	gal		\$2.25	\$2.45	\$2.60
Mocap 6 EC	gal		\$74.30	\$81.00	\$81.00

* Northern Idaho (NI), Southwestern Idaho (SWI), Southcentral Idaho (SCI), and Eastern Idaho (EI).

Table 9. Insecticide and nematicide prices by region, 2006. (cont.)

<u>Product</u>	<u>Uni t</u>	<u>NI*</u>	<u>SWI*</u>	<u>SCI*</u>	<u>EI*</u>
Monitor 4	gal			\$94.20	\$110.10
Mustang 1.5 EC	gal			\$221.00	
Mustang Max	gal	\$268.50	\$216.65	\$243.50	\$216.00
Orthene 75S	lb		\$12.70		
PennCap-M	gal		\$28.90		
Perm-Up	gal				\$80.00
Phaser 3 EC	gal				
Phorate 20G	lb				\$2.10
Platinum	oz			\$10.60	\$11.05
Pounce 3.2 EC	gal				\$82.50
Provado 1.6 F	gal		\$429		\$479
Reldan 4 E	gal				
Rimon 0.83 EC	gal		\$182.35		
Sevin 4F	gal		\$30.85		
Sevin XLR	gal		\$30.80	\$32.80	\$34.00
Success (2 lb)	gal		\$160.00		
Supracide 2 E	gal		\$50.50		
Temik 15G (L-N-L)	lb		\$3.15	\$3.45	\$3.20
Tempo SC Ultra	gal	\$52.35			
Thimet 20G (L-N-L)	lb		\$2.40	\$2.35	\$2.55
Thiodan 2 EC	gal		\$28.00		
Vydate C-L-V (3.77 lb)	gal			\$75.60	\$70.65
Vydate L (2 lb)	gal		\$65.70		
Warrior T	gal	\$332.50	\$319.40	\$295.00	\$336.00

* Northern Idaho (NI), Southwestern Idaho (SWI), Southcentral Idaho (SCI), and Eastern Idaho (EI).

Table 10. Seed prices, mostly with treatment, by region, 2006.

	<u>Unit</u>	<u>NI*</u>	<u>SWI*</u>	<u>SCI*</u>	<u>EI*</u>
Alfalfa (private)	lb	\$3.25	\$2.75	\$2.75	\$2.80
Alfalfa (public)	lb	\$1.75	\$1.70	\$1.75	\$1.80
Barley: Feed	lb	\$0.18	\$0.15	\$0.14	\$0.14
Barley: Malting (private)	lb			\$0.18	\$0.18
Dry Beans: Commercial, Pintos	lb		\$0.36	\$0.36	
Dry Beans: Garden Seed, Pintos	lb		\$0.38	\$0.38	
Chick Peas (Garbanzo)	lb	\$0.50			
Canola, Roundup Ready	lb	\$5.40			
Corn: Field & Silage	lb		\$1.65	\$1.65	
Corn: Field & Silage, Roundup Ready	lb		\$1.95	\$1.95	
Blue Grass (common)	lb	\$1.80			
Blue Grass (proprietary)	lb	\$5.50			
Brome (smooth)	lb	\$2.25			
Orchard Grass	lb	\$1.75			\$1.60
Timothy Grass	lb	\$0.95			
Lentils	lb	\$0.19			
Oats	lb	\$0.23		\$0.17	\$0.17
Dry Peas	lb	\$0.18			
Rapeseed Seed: spring variety	lb	\$1.20			
Rapeseed Seed: winter variety	lb	\$0.25			
Onions: 500,000 seeds/pail, 5 lbs	pail		\$775		
Sugarbeet: Raw 100,000 seeds	unit		\$87.50	\$84.00	\$85.00
Sugarbeet: Pelleted 100,000 seeds	unit		\$92.00	\$90.00	\$92.00
^{1/} Potatoes: Chipping G-3	cwt				\$9.00
^{1/} Potatoes: R. Burbank G-2 (\$9.00)	cwt				\$9.85
^{1/} Potatoes: R. Burbank G-3 (\$7.50)	cwt		\$10.00	\$9.50	\$8.70
^{1/} Potatoes: R. Norkotah G-3 (\$7.75)	cwt		\$10.25	\$9.75	\$8.95
^{1/} Potatoes: Shepody G-3 (\$8.00)	cwt		\$10.50	\$10.00	
Cut Potato Seed	cwt		\$1.20	\$1.20	\$1.20
Cut and Treat Potato Seed**	cwt		\$1.65	\$1.65	\$1.65
^{2/} Wheat: Hard Red Spring	lb	\$0.21		\$0.18	\$0.17
^{2/} Wheat: Hard Red Winter	lb	\$0.23		\$0.16	\$0.16
^{2/} Wheat: Soft White Spring	lb	\$0.16	\$0.14	\$0.14	\$0.14
^{2/} Wheat: Soft White Winter	lb	\$0.16	\$0.14	\$0.14	\$0.14

* Northern Idaho (NI), Southwestern Idaho (SWI), Southcentral Idaho (SCI), and Eastern Idaho (EI).

** Treatment is with Mancozeb and bark. Treatment can cost up to \$2.00 per cwt.

^{1/} Seed potato prices include a base price plus transportation. Transportation and handling costs for SWI, SCI, EI-South and EI-North are \$2.50, \$2.00, \$1.20 and \$0.85 respectively. The values shown in

here for EI seed potatoes are for the South District counties, except for G2 Russet Burbank, which is for the North District.

^{2/} Wheat and barley seed price includes treatment with fungicide. This adds 1-2 cents per pound.

Table 11. Fertilizer prices by region, 2006.

<u>Product</u>	<u>NI*</u>	<u>SWI*</u>	<u>SCI*</u>	<u>EI*</u>
Nitrogen: Price per ton				
Ammonium Nitrate (34-0-0-0)				\$380
Ammonium Sulfate (20-0-0-24)	\$241	\$262.50	\$230	\$229
Urea (46-0-0-0)	\$363	\$430	\$337	\$363
40-0-0-6	\$362			
37-5-0-5	\$367			
Anhydrous Ammonia (82%)	\$592		\$450	\$550
Solution 32 (32-0-0-0)	\$279	\$315	\$282	\$274
Thio Sul (12-0-0-26)	\$255	\$264	\$152	\$174
Phosphate: Price per ton				
16-20-0	\$310	\$320		\$298
11-52-0	\$389	\$370	\$375	\$348
10-34-0	\$375	\$342	\$340	\$288
18-46-0			\$365	
3-30-0-4				\$220
Phosphate: Price per gal				
10-34-0	\$2.28			
Potash: Price per ton				
Muriate of Potash (0-0-60-0)	\$290	\$285	\$295	\$280
Sulfate of Potash (0-0-50-17)		\$377		\$317
Liquid Potash		\$79		\$110
Trace: Price per ton.				
Boron (14%)	\$939	\$825	\$760	\$856
Copper (25%)			\$2	\$1,839
Iron (14%)				\$1,214
Manganese (30-32%)				\$887
Zinc (36%)		\$825	\$760	\$1,037
Zinc Sulfate (18%)	\$865			
Sulfur – Elemental (90%)			\$233	\$230
Gypsum – Granulated				
Gypsum – Borated	\$237			

* Northern Idaho (NI), Southwestern Idaho (SWI), Southcentral Idaho (SCI) and Eastern Idaho (EI).

Table 11. Fertilizer prices by region, 2006 (cont).

<u>Product</u>	<u>NI*</u>	<u>SWI*</u>	<u>SCI*</u>	<u>EI*</u>
Trace: Price per lb. of element, not product.				
Boron (14%)		\$3.90	\$2.71	\$3.10
Copper (25%)		\$5.20		\$4.00
Iron (14%)		\$		\$1.50
Manganese (30-32%)		\$0.95	\$1.50	\$1.50
Zinc (36%)		\$1.40	\$1.05	\$1.70
Sulfur – Elemental (90%)		\$0.13	\$0.11	\$0.11
Sulfur Dust			\$0.25	
Gypsum – Granulated			\$0.06	

* Northern Idaho (NI), Southwestern Idaho (SWI), Southcentral Idaho (SCI) and Eastern Idaho (EI).