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Value of Agricultural Production in Idaho

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The value of many resource inputs into our economy is often difficult to obtain because the basic resources simply do not pass through the market place where they can be counted and valued. Agriculture is fortunate because the Department of Commerce periodically conducts a Census of Agriculture that helps establish the contributions of agricultural resources to our economy. These values, however, are not always obvious even from the Census of Agriculture. Some inputs are difficult or nearly impossible to evaluate in dollar terms and others are not given adequate attention in the Census.

Market value of all agricultural products sold is one general basis for making judgments and policy decisions concerning allocation of resources within agriculture. Market value data can result in sharp distortions, however, as this paper will show.

Crop enterprises represented \$295.9 million or 45.6 percent of the market value for all agricultural products sold in Idaho in 1969 (Table 1).^{*} Forest products represented \$1.6 million or 0.2 percent of total sales, and livestock products represented \$352.6 million or 54.2 percent of total sales. The total value of all sales of agricultural products was nearly \$650 million.

Unfortunately, the total sales figures hide more information than they reveal. Worst of all, it actually misrepresents the various components that make up Idaho agriculture.

Two things are immediately apparent from the data in Table 1. First, many crops are used on the farms where they are produced and never enter the market place. Therefore, they never show up in figures on the value of agricultural products sold. Probably the most obvious of these crops are hay and feed grains that may be fed on the farm where they are produced and hence are never marketed.

The second problem concerns double counting. Livestock are probably the best example of this. For example, a rancher may sell feeders to a farmer who feeds them 5 to 7

Table 1. Market value of all agricultural products sold — Idaho, 1969.

Source of sales	Value of sales	Percent
All crops	\$295,922,016	45.6
Forest products	1,577,020	0.2
Livestock	352,071,808	54.2
Total	\$649,570,844	100.0

Source: 1969 Census of Agriculture

months and then sells them again for slaughter. These sales would be counted twice and would cause an upward bias in the value of agricultural products sold.

Value of Production

The only way to get around these problems is to determine the actual amounts of crops produced and the pounds of beef produced and then assign current prices to these products to determine the actual total value of each enterprise or agricultural product. Such production figures are shown in Table 2 for the 28 leading agricultural enterprises in Idaho during 1969. The table also shows the resource base used to produce these products, the yield, average price, return per unit of resource base, and total value.

The results based on *value of production* present a picture of agriculture quite different from that in Table 1, based only on *value of products sold*. The three leading enterprises are cattle and calves with production valued at \$168.2 million; potatoes, \$141.1 million, and wheat, \$89.3 million.

Distortions are apparent even in Table 2, however, because dairy animals that ultimately go to slaughter — cull dairy cows and dairy calves — are included in the value of production of "cattle and calves".

Value of production data from Table 2 are summarized in Table 3 in the same form we began with in Table 1. Note that in Table 3, using total production data and average prices, the *value of crops produced* in Idaho becomes \$497.2 million, over \$200 million higher than indicated by *value of all*

^{*} This work uses 1969 data because of the availability of information from that Census year. Though actual dollar values may not apply, the comparisons can be used as a benchmark.

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Table 2. Resource use, total production, yield per acre, price, return per acre, and total value of production for Idaho agricultural products, 1969.

Enterprise	Resource base	Total production	Yield	Price	Return	Total value
Livestock:						
Cattle and calves	735,000 cows	583,785,000 lbs	794.27 lbs/head	\$28.81/cwt	\$ 228.87/head	\$168,217,000
Hogs	13,000 sows	28,467,000 lbs	220 lbs/head	22.35/cwt	49.24/head	6,362,374
Sheep and lambs	585,000 ewes	65,570,000 lbs	112 lbs/head	25.95/cwt	29.09/head	17,018,000
Wool	682,000 sheep	7,281,000 lbs	10.7 lbs/head	42/lb	4.48/head	3,058,000
Dairy	155,000 cows	1,429,000,000 lbs	9,219 lbs/cow	4.36/cwt	401.96/cow	62,304,440
Chickens for meat	368,678 head	1,794,000 lbs	4.9 lbs/head	9.54/lb	.46/head	170,000
Chickens for eggs	852,000 hens	188,000,000 eggs	221 eggs/hen	.42/dozen	7.74/hen	6,580,000
Bees	218,000 colonies	11,772,000 lbs	54 lbs/colony	14.74/lb	8.45/colony	1,843,000
Subtotal						265,552,814
Crops:						
Potatoes	320,000 acres	69,870,000 cwt	218 cwt/ac	\$ 2.02/cwt	\$ 441.05/ac	\$141,137,400
Wheat	1,132,000	47,982,000 bu	42.4 bu/ac	1.86/bu	78.84/ac	89,252,000
Hay - all	1,339,000	3,761,000 tons	2.81 tons/ac	21.50/ton	60.39/ac	80,861,500
Sugar beets	207,500	3,373,000 tons	16.3 tons/ac	16.72/ton	271.79/ac	56,396,560
Barley, oats, rye, mixed grain	846,536	39,928,316 bu	53.75 bu/ac	1.03/bu	53.75/ac	41,126,166
Beans (dry and seed beans)	125,000	2,167,000 cwt	17.34 cwt/ac	8.89/cwt	154.18/ac	19,272,800
Corn and sorghum	90,298	NA	NA	NA	160.65/ac	14,506,289
Fruits	14,782	NA	NA	NA	779.69/ac	11,525,400
Dry peas	93,000	1,509,000 cwt	1,623 lbs/ac	5.90/cwt	78.20/ac	8,915,000
Onions	3,800	1,684,000 cwt	443 cwt/ac	4.25/cwt	1,936.00/ac	7,163,200
Alfalfa, red clover, white clover seed	48,000	17,203,000 lbs	358 lbs/ac	40.77/cwt	146.12/ac	7,013,828
Merion bluegrass seed	5,700	1,112,000 lbs	195 lbs/ac	4.93/lb	997.45/ac	5,486,000
Sweet corn	24,000	140,200 tons	5.84 tons/ac	24.70/ton	144.24/ac	3,461,705
Hops	3,200	5,952,000 lbs	1,860 lbs/ac	.53/lb	985.80/ac	3,154,560
Spearmint and peppermint	8,000	560,000 lbs	70 lbs/ac	4.61/lb	322.56/ac	2,580,480
Austrian winter peas	54,000	757,000 cwt	1,401.85 cwt/ac	2.79/cwt	52.80/ac	2,112,000
Green peas	16,300	15,850 tons	1,940 lbs/ac	90.90/ton	95.42/ac	1,440,765
Lentils	18,000	193,000 cwt	1,070 lbs/ac	6.50/cwt	69.69/ac	1,254,500
Greenhouse	7	NA	NA	NA	62,379 /ac	436,655
Berries	181	197,761 lbs	1,092 lbs	.41/lb	447.79/ac	81,082
Subtotal	4,349,304					\$497,177,890
Total						\$762,730,704

Sources: 1969 Census of Agriculture; 1970 Agricultural Statistics; 1972 Idaho Agricultural Statistics

crops sold. The difference comes about because value of production figures include all crops and portions of crops, even though they may not reach the market place, and do not double-count livestock products. Each of these agricultural categories is of vital importance to Idaho, but here their relative contributions to total agricultural production are better shown.

Table 3. Value of total production of agricultural products grown in Idaho, 1969.

Sources of value	Value of sales	Percent
All crops	\$497,177,890	65.1
Forest products	1,577,020	0.2
Livestock	265,552,814	34.7
Total	\$764,307,724	100.0

Summary

Unfortunately, the entire story of agriculture in Idaho is still not told in these figures. For example, we have not yet determined the income contributions of each enterprise in Table 2. Neither have we shown how basic agricultural products are used to help create additional income by processing and other manufacturing firms in Idaho, although we know that processing of agricultural products does make a substantial contribution to the state's economic base.

To determine these contributions would take considerable more research into costs of production and use of agricultural products by industry than we have presented here. However, the Department of Agricultural Economics at the University of Idaho is currently doing research to establish these economic relationships in our state.

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