


<p>Farm Business Management Reports</p>		<p>EB1608</p>
	<p>1991 ENTERPRISE BUDGETS SUMMER FALLOW - WINTER WHEAT ROTATION LINCOLN COUNTY, WASHINGTON STATE</p>	
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## PREFACE

Enterprise costs and returns vary from one location to the next and over time for any particular farming operation. Variability stems from differences in the following:

- . Capital, labor, and natural resources.
- . Type, size, and age of machinery complement.
- . Cultural practices.
- . Size of farm enterprise.
- . Crop yields.
- . Input prices.
- . Commodity prices.
- . Management skill.

Costs can also be calculated differently depending on the intended use of the cost estimate. The information in this publication serves as a general guide for producing wheat under dryland conditions in the 12- to 14-inch rainfall area of Lincoln County, Washington. To avoid drawing unwarranted conclusions for any particular farm or group of farms, the reader must closely examine the underlying assumptions. If inappropriate for the situation under consideration, adjustments in the costs and/or returns should be made.

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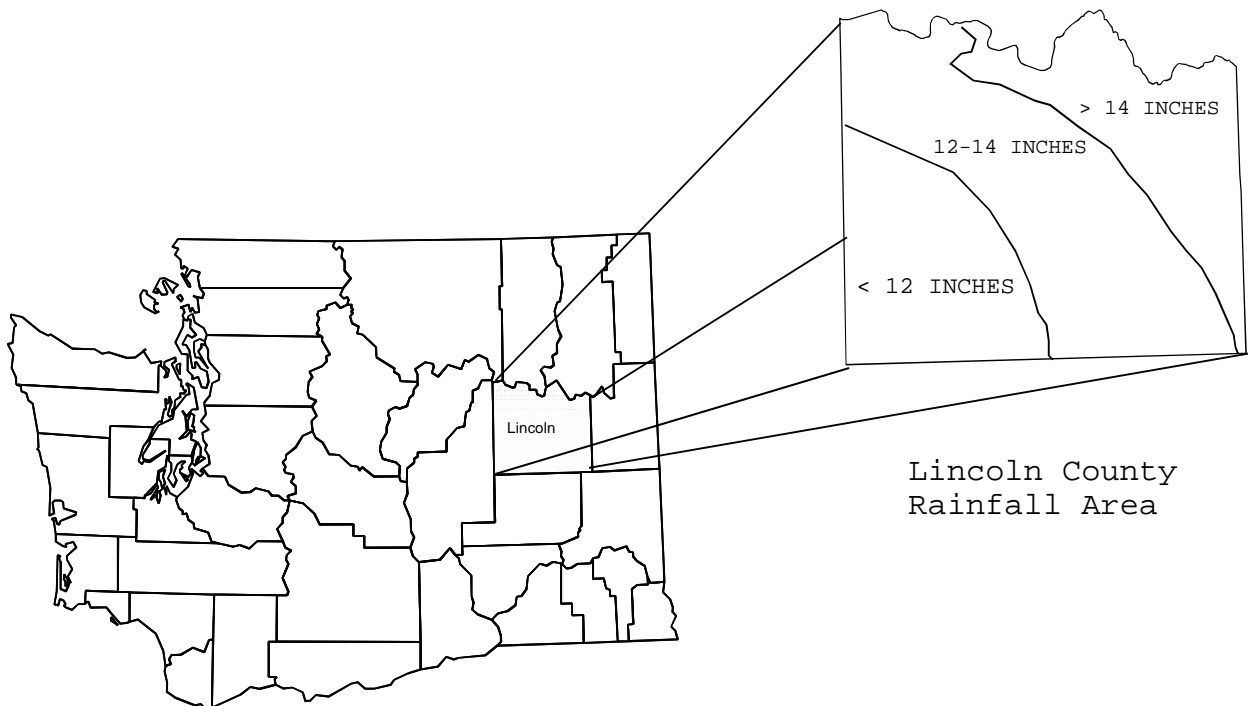
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**1991 CROP ENTERPRISE BUDGETS  
SUMMER FALLOW - WINTER WHEAT ROTATION  
LINCOLN COUNTY, WASHINGTON**

Herbert Hinman, Tom Hoffmann, and Alexandra Phelps\*

**INTRODUCTION**

This publication presents projected costs and returns for winter wheat after summer fallow, the common crop rotation in the 12- to 14-inch rainfall area of Lincoln County. Producers, agricultural lenders, and others should find this information helpful in identifying enterprise strengths and weaknesses, planning production adjustments, determining financial requirements, making marketing decisions, and resolving other business management problems.



The enterprise data do not represent a particular farm. Instead, they represent costs and returns under the specific assumptions adopted for the study. We recommend that individual growers use the blanks

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provided on the right-hand side of these budgets to estimate their own costs and returns. Also, consult local Cooperative Extension agents and fieldpersons for suggestions or recommendations on field operations and production inputs.

### SOURCES OF INFORMATION

A committee of experienced Lincoln County wheat growers was assembled at the request of the area agent. They identified the machinery complement, field operations, and inputs commonly used on well-managed operations. Local farm suppliers were contacted to obtain current price information on materials and services. Machinery costs were based on replacement prices and on hours of annual use considered typical for a 2,000 acre farm.

### BUDGET ASSUMPTIONS

The following assumptions were assumed in developing the data:

1. The representative farm includes 1,000 acres in winter wheat and 1,000 acres in summer fallow annually.
2. Wheat yield is assumed to be 50 bushels per acre. It should be realized, however, that yields are variable in Lincoln County and that variable yields can have a substantial impact on break-even costs or prices.
3. The assumed price for wheat is \$3.82 per bushel.<sup>1</sup>
4. Machinery is valued at costs incurred if the item was to be replaced. Machine items on farms of the representative size in Lincoln County are typically replaced used. While valuing

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<sup>1</sup>The assumed wheat price includes payments from participation in government subsidy programs. The 1990 Farm Bill allows planting on 85% of base acres and limits deficiency payments to 70% of this base. Farmers are free to plant other program crops and certain non-program crops on these non-payment "flex" acres. In Lincoln County, farmers lack profitable alternatives for these flex acres, so it is assumed that wheat is planted on all the allowable acres. In calculating the average expected price we assumed the local market price to be \$3.00 per bushel. With the target price at \$4.00 per bushel, the deficiency payment is \$1.00 per bushel on 82.35% of the production (70/85). It is also assumed that the proven yield (the basis of government payment) is equal to the expected yield. Therefore, the calculation for the average expected price is:

Average Expected Price = Market Price + (.8235) Deficiency Payment

Average Expected Price = \$3.00 + (.8235) (1.00) = \$3.82

machinery at replacement cost may overstate current production costs, it provides an indication of the enterprise's ability to generate the earnings needed to replace depreciable assets. Increases in prices mean that depreciation claimed on assets purchased prior to price advances understates the amount of capital required for asset replacement. When an enterprise is evaluated to determine its long-run viability, it is important to consider its ability to replace depreciable assets on a replaceable cost basis.

5. The prevailing interest rate is 11.5%.
6. The farm is owned, managed, and operated by the same person.

The budget should be viewed as "typical" or "representative," rather than a mathematical average of a large number of producers. Where such factors as farm size, machinery complement and use, cultural practices, and yield differ from those assumed in this publication, quite different enterprise costs and returns may result. Also, this budget includes only production costs and does not include storage, handling, transportation, and interest costs faced by the farmer in marketing his wheat.

#### **DISCUSSION OF BUDGET INFORMATION**

The budget information for the summer fallow and winter wheat enterprises is reported in eight separate tables.

#### Tables 1 and 3: Schedule of Operations and Costs per Acre

Tables 1 and 3 outline the schedule of field operations by calendar month, the type of machinery used, and the hours used per acre for summer fallow after winter wheat and winter wheat after summer fallow, respectively. The costs are divided into two categories. The first is machinery and land fixed costs. The second category, variable costs, is associated with operating machinery, labor, and purchasing services and materials. Total cost is the sum of fixed and variable costs.

Machinery fixed costs include depreciation, interest on the investment, property taxes, insurance, and housing. These costs do not vary with the crops produced, given the ownership of a specific machinery complement, and are incurred whether or not a crop is grown.

Machinery fixed costs for a specific field operation are determined by multiplying the machine hours per acre times the per hour fixed cost (Table 8). The per hour fixed costs are determined by dividing the total fixed cost by the annual hours of machinery use for the representative firm.

Land fixed costs include taxes and net rent which is based on rental agreements typical for the area minus expenditures typically covered by the landlord. The typical lease agreement is a one-third

landlord and two-third tenant crop share, with the landlord paying land taxes, one-third of the fertilizer cost, and one-third of the crop insurance, and all the herbicide costs for perennial weed control. The tenant covers all other production expenses.

Thus, net rent for winter wheat is calculated as follows:

\$63.67	(one-third gross receipts from production)
- \$ 6.00	(land tax; summer fallow and winter wheat)
- \$ 1.50	(herbicide cost for perennial weed control; summer fallow and winter wheat)
- <u>\$ 7.71</u>	(one-third fertilizer, and crop insurance costs)
\$48.46	Net Rent per Acre

While the owner-operator will not actually experience a land rental cost, the cost represents the minimum returns the owner-operator must realize to justify growing the crop him/herself. This net rent return represents the income the owner-operator forgoes by producing the crop rather than renting to a tenant who produces the crop. As a result of owning land, the farmer receives both current returns from the farming operation and any long-term appreciation in land value. However, the farmer would continue to realize land value appreciation even if the land is rented out. Consequently, the appropriate land charge for growing the crop is only the foregone net rent. As used in this publication, land cost is termed an opportunity cost to indicate that it is not an out-of-pocket expense, but rather a return that is foregone as a result of choosing to use the land to grow this crop. To determine the profitability of crop production relative to other activities, the owner-operator may want to consider these foregone returns, or opportunity costs, along with the usual production expenses.

In Table 3, the previous year's summer fallow costs, plus interest, are included as part of the fixed cost of producing winter wheat. These are costs that must ultimately be covered by wheat returns if the enterprise is to remain profitable.

Variable costs vary directly with the crop grown and the number of acres produced. Variable costs include fuel, oil, repairs, fertilizer, chemicals, custom work, overhead, and interest on operating capital. Machine operating labor, including that provided by the owner-operator, is also included as a variable cost.

#### Tables 2 and 4: Summary of Production Cost Per Acre

Tables 2 and 4 itemize the costs appearing in the "Schedule of Operations and Costs per Acre" for summer fallow and winter wheat, respectively. Most of the items are self-explanatory or have been explained previously. Two entries, "Interest on Tractors" and "Interest on Machinery," warrant additional explanation.

Tractor and machinery interest costs were calculated on the average annual investment in the machine. The formula used to calculate the average machine investment is:

$$\frac{\text{Purchase cost} + \text{Salvage value}}{2}$$

The 11.5% interest charge made against this average investment represents an opportunity cost (returns foregone by investing in a given machine implement rather than in an alternative investment) or interest paid on money borrowed to finance machine purchases, or both. Machinery interest cost for one acre of summer fallow or winter wheat is determined by multiplying the respective machine hours per acre times the per hour interest costs (Table 8).

Table 5: Material and Services Provided by Operation to Produce Winter Wheat

Tables 1 and 3, "Schedule of Operations and Estimated Cost Per Acre..." for both summer fallow and the production year lists under the "Service" column and "Materials" column dollar figures for services and materials used by different operations. Table 5 lists, by operation, the specific services and/or materials used, the quantities used, and the prices paid for both the summer fallow year and the winter wheat production year.

Table 6: Break-Even Selling Price Per Unit

Table 6 presents break-even selling prices for different levels of costs for summer fallow-winter wheat.

The first break-even price is that necessary to cover total variable costs--those costs that occur only if the crop is produced. If the price received does not equal or exceed the variable cost break-even price, the crop becomes uneconomical to produce, even in the short run, for the added costs of production are greater than the added returns.

The second break-even price is that necessary to cover total cash costs, assuming no interest on outstanding loans and no out-of-pocket land rent. If other cash costs do exist on an individual's farm, such as interest payments, or land rent, these costs must be identified and included in the cash cost break-even price calculation. This price may be viewed as that price necessary to economically produce in the short run.

The third break-even price is that of total cash cost plus depreciation on machinery. This must be realized to stay in business over the long run. However, if farmers do not include the opportunity costs they forego from their investment in land and machinery to find their total cost break-even price (the fourth break-even price in Table 6), they are overlooking the profitability of farming relative to alternative uses of their own resources.

Only if the break-even price required to cover total cost is received will the owner-operator be able to cover all of the out-of-pocket expenses, plus realize the assumed necessary return to labor, equity capital invested in land and machinery, and operating capital. Failure to realize the break-even price means that the owner-operator will not earn a return on labor and capital contributions equivalent to that assumed in this budget. Realization of a price above the break-even level means that in addition to covering all cash and opportunity costs, the operator will realize a return to the management and risk initially assumed in producing the enterprise.

Table 7: Summary of Receipts, Costs, and Profitability Per Acre

Table 7 summarizes per acre returns, costs, and profitability. The first profit measure is return over variable costs, calculated by subtracting total variable costs from total receipts. An important use for return over variable costs is selecting the most profitable crop mix. By selecting the crop with the greatest return over variable costs, farm profits are maximized (or losses minimized). The second profit measure, returns to land and management, was calculated by subtracting the machinery fixed expenses, summer fallow costs, and real estate taxes from returns over variable cost. This is the return the owner-operator realizes to an investment in land and management after accounting for all costs including \$10.00 per hour for any labor contributed to the production of the crop.

Table 8: Machinery Complement Table

This table identifies the machine complement used to derive the operational portion of the budget. Typically, most pieces of machinery on Lincoln County farms of the representative size are purchased used. Pickups are generally replaced new. Table 8 presents the types of machines used on the representative farm, their current replacement price, if replaced new or used, annual hours of use, and estimated per-hour fixed and variable costs.

Table 9: Prices for Selected Inputs

The prices used for fuel, chemicals, and other inputs are listed in Table 9.

TABLE 1: SCHEDULE OF OPERATIONS AND ESTIMATED COSTS PER ACRE FOR SUMMER FALLOW FOLLOWING WINTER WHEAT, LINCOLN COUNTY, WASHINGTON, 12- TO 14-INCH ANNUAL RAINFALL AREA.\*

OPERATION	TOOLING	MTH	YEAR	MACH HOURS	LABOR HOURS	VARIABLE COST					TOTAL VARIABLE COST	TOTAL COST	
						TOTAL FIXED COST	FUEL, LUBE, & REPAIRS	MACH LABOR	SERVICE	MATER. INTER.			
						\$	\$	\$	\$	\$	\$	\$	
HARROW	250HP-WT, 70' TINE HARROW	SEP	1990	.033	.036	.87	.59	.36	.00	.00	.10	1.06	1.93
CHISEL	250HP-WT, 24' CHISEL	OCT	1990	.083	.092	1.57	1.76	.92	.00	.00	.26	2.93	4.50
HARROW	250HP-WT, 70' TINE HARROW	APR	1991	.033	.036	.87	.59	.36	.00	.00	.04	.99	1.87
APPLY HERBICIDE	250HP-WT, 90' RENTAL SPRAYER	APR	1991	.025	.027	.25	.36	.27	1.50	3.20	.20	5.53	5.78
HAUL WATER	2 TON TRUCK	APR	1991	.010	.011	.18	.13	.10	.00	.00	.01	.24	.42
CULTIVATE	250HP-WT, 40' CULT W/HARROW	APR	1991	.067	.073	2.32	1.33	.73	.00	.00	.08	2.14	4.46
FERTILIZE	250HP-WT, 50' APPLICATOR	MAY	1991	.050	.055	.50	.71	.55	.00	18.24	.56	20.06	20.56
RODWEED	250HP-WT, 60' RODWEED W/HARROW	JUN	1991	.040	.044	1.10	.86	.44	.00	.00	.02	1.32	2.42
RODWEED	250HP-WT, 60' RODWEED W/HARROW	JUL	1991	.040	.044	1.10	.86	.44	.00	.00	.01	1.31	2.40
WEED CONTROL	\$ COST OF PERRENIAL WEED CONT.	ANN	1991	.000	.000	.00	.00	.00	.00	.75	.04	.79	.79
MACHINE TRANSPT	2 TON TRUCK	ANN	1991	.010	.011	.18	.13	.10	.00	.00	.01	.25	.43
MISC USE	3/4 TON PICKUP	ANN	1991	.250	.275	1.60	2.16	2.75	.00	.00	.28	5.19	6.79
MISC USE	52HP-WT W/BUCKET	ANN	1991	.050	.055	.50	.16	.55	.00	.00	.04	.75	1.25
MISC USE	4WD ALL TERRAIN VEHICLE	ANN	1991	.075	.083	.47	.17	.82	.00	.00	.06	1.05	1.51
OVERHEAD	UTILITIES, LEGAL, ACCT, ETC.	ANN	1991	.000	.000	.00	.00	.00	.00	2.18	.00	2.18	2.18
TAXES	LAND TAXES	ANN	1991	.000	.000	3.00	.00	.00	.00	.00	.00	.00	3.00
TOTAL PER ACRE				.766	.840	14.51	9.80	8.40	1.50	24.37	1.72	45.79	60.30

\* ASSUMES 2.000 ACRES WITH 1.000 ACRES IN SUMMER FALLOW AND 1.000 ACRES IN WINTER WHEAT, ANNUALLY.

TABLE 2: ITEMIZED COST PER ACRE FOR SUMMER FALLOW FOLLOWING WINTER WHEAT, LINCOLN COUNTY, WASHINGTON, 12- TO 14-INCH RAINFALL AREA.

		PRICE OR	VALUE OR	YOUR
		UNIT COST/UNIT	COST	FARM
-----				
VARIABLE COSTS		\$	\$	
SPRAYER RENTAL	ACRE	1.50	1.00	1.50
ROUNDUP	OZ.	.32	10.00	3.20
NITROGEN	LB.	.25	60.00	15.00
SULFUR	LB.	.27	12.00	3.24
PERENNIAL WEED CONTROL	ACRE	.75	1.00	.75
TRACTOR REPAIR	ACRE	2.14	1.00	2.14
TRACTOR FUEL/LUBE	ACRE	3.85	1.00	3.85
MACHINERY REPAIRS	ACRE	2.79	1.00	2.79
MACHINE FUEL/LUBE	ACRE	1.02	1.00	1.02
LABOR(TRAC/MACH)	ACRE	8.40	1.00	8.40
OVERHEAD	ACRE	2.18	1.00	2.18
INTEREST ON OP. CAP.	DOL.	.115	14.96	1.72
-----				
TOTAL VARIABLE COST				45.79
FIXED COSTS		\$	\$	
TRACTOR DEPRECIATION	ACRE	1.97	1.00	1.97
TRACTOR INTEREST*	ACRE	2.11	1.00	2.11
TRACTOR INSURANCE	ACRE	.11	1.00	.11
TRACTOR TAXES	ACRE	.33	1.00	.33
TRACTOR HOUSING	ACRE	.18	1.00	.18
MACHINE DEPRECIATION	ACRE	3.13	1.00	3.13
MACHINE INTEREST*	ACRE	2.84	1.00	2.84
MACHINE INSURANCE	ACRE	.15	1.00	.15
MACHINE TAXES	ACRE	.44	1.00	.44
MACHINE HOUSING	ACRE	.25	1.00	.25
LAND TAX	ACRE	3.00	1.00	3.00
-----				
TOTAL FIXED COST				14.51
TOTAL COST				60.30
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\* 11.5% OPPORTUNITY COST ON THE AVERAGE VALUE OF MACHINERY INVESTMENT OVER THE USEFUL LIFE.

TABLE 3: SCHEDULE OF OPERATIONS AND ESTIMATED COSTS PER ACRE FOR WINTER WHEAT FOLLOWING SUMMER FALLOW, LINCOLN COUNTY, WASHINGTON, 12- TO 14-INCH ANNUAL RAINFALL AREA.\*

OPERATION	TOOLING	MTH	YEAR	MACH HOURS	LABOR HOURS	VARIABLE COST					TOTAL VARIABLE COST	TOTAL COST	
						TOTAL FIXED COST	FUEL, LUBE, & REPAIRS	MACH LABOR	SERVICE MATER.	INTER.			
						\$	\$	\$	\$	\$	\$	\$	
RODWEED	250HP-WT, 60' RODWEED W/HARROW	SEP	1990	.040	.044	1.10	.86	.44	.00	.00	.14	1.43	2.53
PLANT (1.15X)**	250HP-WT, 40' DRILL W/BACKPACK	SEP	1990	.058	.063	2.99	1.78	.63	1.50	9.90	1.46	15.26	18.25
HAUL SEED	2 TON TRUCK	SEP	1990	.020	.022	.37	.26	.20	.00	.00	.05	.51	.88
APPLY HERBICIDE	250HP-WT, 90' RENTAL SPRAYER	APR	1991	.025	.027	.25	.36	.27	1.50	10.00	.46	12.59	12.84
HAUL WATER	2 TON TRUCK	APR	1991	.010	.011	.18	.13	.10	.00	.00	.01	.24	.42
CROP INSURANCE	HAIL AND FIRE INSURANCE	MAY	1991	.000	.000	.00	.00	.00	1.90	.00	.05	1.95	1.95
APPLY HERB (.5X)***	AERIAL SPRAY	JUL	1991	.000	.000	.00	.00	.00	2.25	5.10	.07	7.42	7.42
COMBINE	24' COMBINE	AUG	1991	.110	.121	8.48	2.81	1.20	.00	.00	.00	4.01	12.50
HAUL	2 TON TRUCK (> 10 YRS. OLD)	AUG	1991	.110	.121	1.56	1.68	1.20	.00	.00	.00	2.88	4.44
HAUL	2 TON TRUCK (< 7 YRS. OLD)	AUG	1991	.110	.121	2.01	1.45	1.20	.00	.00	.00	2.65	4.66
WEED CONTROL	\$ COST OF PERRENIAL WEED CONT.	ANN	1991	.000	.000	.00	.00	.00	.00	.75	.04	.79	.79
MACHINE TRANSPT	2 TON TRUCK	ANN	1991	.010	.011	.18	.13	.10	.00	.00	.01	.25	.43
MISC USE	3/4 TON PICKUP	ANN	1991	.250	.275	1.60	2.16	2.75	.00	.00	.28	5.19	6.79
MISC USE	52HP-WT W/BUCKET	ANN	1991	.050	.055	.50	.16	.55	.00	.00	.04	.75	1.25
MISC USE	4WD ALL TERRAIN VEHICLE	ANN	1991	.075	.083	.47	.17	.82	.00	.00	.06	1.05	1.51
OVERHEAD	UTILITIES, LEGAL, ACCT, ETC.	ANN	1991	.000	.000	.00	.00	.00	.00	2.85	.00	2.85	2.85
SUM FALLOW COST	SUM FALLOW COST + INTEREST	ANN	1991	.000	.000	67.23	.00	.00	.00	.00	.00	.00	67.23
LAND COST	NET RENT	ANN	1991	.000	.000	48.46	.00	.00	.00	.00	.00	.00	48.46
TAXES	LAND TAXES	ANN	1991	.000	.000	3.00	.00	.00	.00	.00	.00	.00	3.00
TOTAL PER ACRE				.87	.95	138.38	11.94	9.47	7.15	28.60	2.68	59.83	198.21

\* ASSUMES 2,000 ACRES WITH 1,000 ACRES IN SUMMER FALLOW AND 1,000 ACRES IN WINTER WHEAT, ANNUALLY.

\*\* REPLANT 15% OF THE ACREAGE.

\*\*\* APPLIED TO THE TOTAL WHEAT ACREAGE AN AVERAGE OF EVERY OTHER YEAR.

TABLE 4: ITEMIZED COST PER ACRE FOR WINTER WHEAT FOLLOWING  
SUMMER FALLOW, LINCOLN COUNTY, WASHINGTON, 12- TO  
14-INCH RAINFALL AREA.

		PRICE OR	VALUE OR	YOUR
		UNIT COST/UNIT	QUANTITY	FARM
VARIABLE COSTS		\$		\$
WHEAT SEED	LB.	.10	69.00	6.90
11-52-0 FERT	LB.	.15	20.00	3.00
BACKPACK RENTAL	ACRE	1.50	1.00	1.50
HERBICIDE	ACRE	10.00	1.00	10.00
TILT	OZ.	2.55	2.00	5.10
SPRAYER RENTAL	ACRE	1.50	1.00	1.50
CUSTOM AERIAL	ACRE	4.50	.50	2.25
PERRENIAL WEED CONTROL	ACRE	.75	1.00	.75
CROP INSURANCE	ACRE	1.90	1.00	1.90
TRACTOR REPAIR	ACRE	2.82	1.00	2.82
TRACTOR FUEL/LUBE	ACRE	2.44	1.00	2.44
MACHINERY REPAIRS	ACRE	5.11	1.00	5.11
MACHINE FUEL/LUBE	ACRE	1.58	1.00	1.58
LABOR(TRAC/MACH)	ACRE	9.47	1.00	9.47
OVERHEAD	ACRE	2.85	1.00	2.85
INTEREST ON OP. CAP.	DOL.	.115	23.27	2.68
TOTAL VARIABLE COST				59.83
FIXED COSTS		\$		\$
TRACTOR DEPRECIATION	ACRE	5.04	1.00	5.04
TRACTOR INTEREST*	ACRE	4.50	1.00	4.50
TRACTOR INSURANCE	ACRE	.23	1.00	.23
TRACTOR TAXES	ACRE	.70	1.00	.70
TRACTOR HOUSING	ACRE	.39	1.00	.39
MACHINE DEPRECIATION	ACRE	4.03	1.00	4.03
MACHINE INTEREST*	ACRE	3.70	1.00	3.70
MACHINE INSURANCE	ACRE	.19	1.00	.19
MACHINE TAXES	ACRE	.58	1.00	.58
MACHINE HOUSING	ACRE	.32	1.00	.32
NET RENT**	ACRE	3.00	1.00	3.00
LAND COST	ACRE	48.46	1.00	48.46
SUM FAL COST	ACRE	60.30	1.12	67.23
TOTAL FIXED COST				138.38
TOTAL COST				198.21

\* 11.5% OPPORTUNITY COST ON THE AVERAGE VALUE OF MACHINERY INVESTMENT OVER THE USEFUL LIFE.

\*\* 1/3 TOTAL VALUE OF PRODUCTION - 1/3 FERTILIZER COST - 1/3 CROP INSURANCE COST - PERENNIAL WEED CONTROL COST - REAL ESTATE TAXES.

TABLE 5: MATERIALS AND SERVICES PROVIDED BY OPERATION TO PRODUCE WINTER WHEAT IN LINCOLN COUNTY, WASHINGTON, 12- TO 14-INCH RAINFALL AREA.

OPERATION	MONTH	MATERIAL AND/OR SERVICE
Summer Fallow Year:		
Apply Herbicide	April	10 Oz. Roundup @ \$10.25/Qt. Rented applicator @ \$1.50/Acre
Fertilize	May	60 Lbs. of nitrogen @ 25¢/Lb. 12 Lbs. of sulfur @ 27¢/Lb.
Weed Control	Annual	Dollar cost of perennial weed control @ 75¢/Acre
Overhead	Annual	5% Variable cost
Production Year:		
Plant (1.15X)	Sept.	60 Lbs. of wheat seed @ 10¢/Lb.* 20 Lbs. of 11-52-0 fertilizer @ 15¢/Lb. Backpack rental @ \$1.50/Acre
Apply Herbicide	April	Spring herbicide @ \$10.00/Acre Rented applicator @ \$1.50/Acre
Crop Insurance	May	Hail and fire crop insurance @ \$1.90/Acre
Apply Herbicide (.5x)*	July	4 Oz. of Tilt @ \$2.55/Oz.** Aerial application @ \$4.50/Acre**
Weed Control	Annual	Dollar cost of perennial weed control @ 75¢/Acre
Overhead	Annual	5% Of variable cost

\* Applied to the total wheat acreage an average of every other year.

\*\* Per actual acre applied

TABLE 6: BREAK-EVEN SELLING PRICE PER BUSHEL FOR SUMMER FALLOW-WINTER WHEAT; LINCOLN COUNTY, WASHINGTON, 12- to 14-INCH RAINFALL AREA. (TWO-YEAR PERIOD)

	COST PER ACRE	YOUR FARM	BREAK-EVEN PRICE (\$/BU.) (50 BU./AC.)	YOUR FARM
	\$	\$		
1. TOTAL VARIABLE COST	105.62	_____	2.11	_____
PLUS: TRACTOR & MACHINERY INSURANCE	.68	_____		
TRACTOR & MACHINERY TAXES	2.05	_____		
LAND TAXES	6.00	_____		
2. TOTAL CASH COSTS	114.35	_____	2.29	_____
PLUS: TRACTOR & MACHINERY DEPRECIATION	14.17	_____		
3. TOTAL CASH COST & DEPRECIATION	128.52	_____	2.57	_____
PLUS: TRACTOR & MACHINERY INTEREST	13.15	_____		
TRACTOR & MACHINERY HOUSING	1.14	_____		
INTEREST ON SUMMER FALLOW COST	6.94	_____		
LAND (NET RENT)	48.46	_____		
4. TOTAL COST	198.21	_____	3.96	_____

TABLE 7: SUMMARY OF RECEIPTS, COSTS, AND PROFITABILITY PER ACRE OF SUMMER FALLOW-WINTER WHEAT; LINCOLN COUNTY, WASHINGTON, 12- TO 14-INCH RAINFALL AREA (TWO-YEAR PERIOD).

	UNIT	PRICE OR COST/UNIT	QUANTITY	VALUE OR COST	YOUR FARM
GROSS RECEIPTS					
WHEAT	BU.	\$3.82	50.00	\$191.00	_____
1. TOTAL RECEIPTS				\$191.00	_____
LESS: TOTAL VARIABLE COST				\$105.62	_____
2. RETURNS OVER VARIABLE COST				\$ 85.38	_____
LESS: TRACTOR & MACHINERY FIXED COST				\$ 31.19	_____
INTEREST ON SUMMER FALLOW COST				\$ 6.94	_____
LAND TAXES				\$ 6.00	_____
3. NET RETURNS TO LAND AND MANAGEMENT				\$ 41.25	_____

TABLE 8: MACHINERY COMPLEMENT AND HOURLY MACHINE COST

MACHINERY	PURCHASE PRICE	YEARS TO TRADE	ANNUAL HOURS	DEPREC-IATION	INTER-EST	INSUR-ANCE	TAXES	HOUSING	TOTAL FIXED COST	REPAIR	FUEL AND LUBE	TOTAL VARIABLE COST	TOTAL COST
	\$								-----COST PER HOUR-----				
250HP-WT, 8YR	30,000.00	10	500	4.23	4.47	.23	.70	.39	10.02	5.00	9.20	14.20	24.22
52HP-WT W/BUCKET	8,000.00	20	100	4.00	4.60	.24	.72	.40	9.96	.50	2.76	3.26	13.22
2TON TRUCK, 2YR	25,000.00	20	170	7.35	8.46	.44	1.32	.74	18.31	10.88	2.30	13.18	31.49
2TON TRUCK, 12YR	10,000.00	10	120	6.86	5.64	.29	.88	.49	14.17	12.50	2.76	15.26	29.43
3/4 TON PICKUP	16,000.00	7	500	3.41	2.31	.12	.36	.20	6.40	5.00	3.62	8.62	15.02
4WD ALL TERRAIN VEHICLE	4,000.00	5	150	3.59	2.03	.11	.32	.18	6.23	1.00	1.21	2.21	8.44
24' COMBINE, 5YR	50,000.00	10	110	36.86	31.08	1.62	4.86	2.70	77.13	16.36	9.20	25.56	102.69
70' TINE HAR 3YR	7,500.00	15	70	6.46	6.75	.35	1.06	.59	15.21	2.14	.00	2.14	17.35
24' CHISEL, 5YR	5,000.00	15	90	3.35	3.50	.18	.55	.30	7.88	5.56	.00	5.56	13.44
40' CULT W/HARROW	12,500.00	15	75	10.04	10.50	.55	1.64	.91	23.65	4.27	.00	4.27	27.92
60' RODWD W/HAR	15,000.00	15	130	6.95	7.27	.38	1.14	.63	16.38	5.77	.00	5.77	22.14
40' SPLIT PACK DRILL	20,000.00	15	70	17.22	18.01	.94	2.82	1.57	40.55	15.00	.00	15.00	55.55

TABLE 9: PRICES OF SELECTED INPUTS, LINCOLN COUNTY, WASHINGTON.

ITEM	UNIT	PRICE/UNIT
		\$
Fuel:		
Gasoline	Gal.	1.05
Diesel	Gal.	.80
Fertilizer:		
Nitrogen	Lb.	.25
Sulfur	Lb.	.27
11-52-0	Lb.	.15
Chemicals		
Roundup	Qt.	10.25
Tilt	Oz.	2.55
Spring Herbicide	Acre	10.00
Wheat Seed:	Lb.	.10
Rental and Custom Rates:		
Herbicide Applicator	Acre	1.50
Aerial Application	Acre	4.50
Labor:	Hour	10.00

Use pesticides with care. Apply them only to plants, animals, or sites listed on the label. When mixing and applying pesticides, follow all label precautions to protect yourself and others around you. It is violation of law to disregard label directions. If pesticides are spilled on skin or clothing, remove clothing and wash skin thoroughly. Store pesticides in their original containers and keep them out of the reach of children, pets, and livestock.

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Published 1991. Subject codes 274, 340.A.

EB1608