


<p>Farm Business Management Reports</p>		<p>EB1883</p>
	<p>1999 ENTERPRISE BUDGETS SUMMER FALLOW - WINTER WHEAT ROTATION AND HARD RED SPRING WHEAT ANNUAL CROPPING ADAMS 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 and size 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 an estimate of the costs and returns for growing wheat under dryland conditions in Adams County, Washington. To avoid drawing unwarranted conclusions for any particular farm or group of farms, the reader must closely examine the assumptions used. If they are not appropriate for the situation under consideration, adjustments in the costs and/or returns should be made.

CONTENTS

INTRODUCTION	1
SOURCES OF INFORMATION	2
BUDGET ASSUMPTIONS	2
DISCUSSION OF BUDGET INFORMATION	3
Tables 1A-1D and Tables 4A-4D: Schedule of Operations and Costs Per Acre for Summer Fallow - Winter Wheat	3
Tables 2A-2D and Tables 5A-5D: Materials and Services by Operation For Summer Fallow - Winter Wheat	5
Tables 3A-3D and Tables 6A-5D: Itemized Cost Per Acre for Summer Fallow - Winter Wheat	5
Tables 7A-7D: Break-Even Selling Price Per Unit for Summer Fallow - Winter Wheat	6
Tables 8A-8D: Summary of Receipts, Costs, and Profitability Per Acre for Summer Fallow - Winter Wheat	6
Tables 1E-5E: Budget Information for Annual Cropping of Hard Red Spring Wheat	7
Table 9: Equipment and Building Data	7
Table 10: Hourly or Per Acre Equipment and Building Costs	7
SUMMARY OF RESULTS AND CONCLUDING NOTE	8
APPENDIX: BUDGET TABLES	9

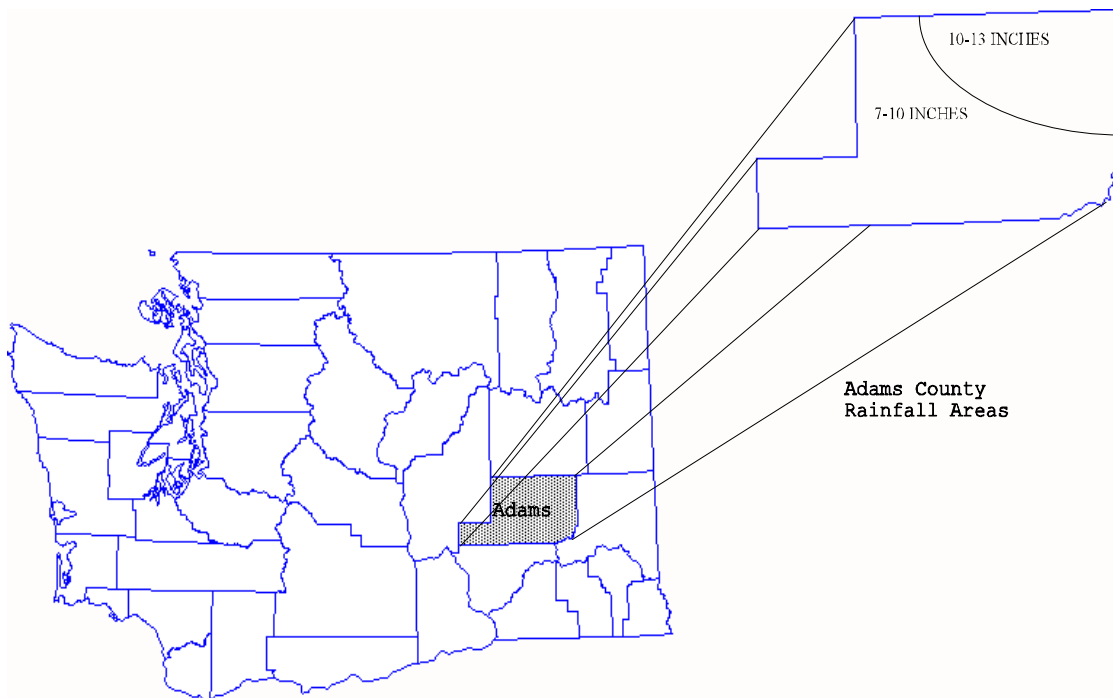
**1999 CROP ENTERPRISE BUDGETS
SUMMER FALLOW - WINTER WHEAT ROTATIONS
AND HARD RED SPRING WHEAT ANNUAL CROPPING
ADAMS COUNTY, WASHINGTON STATE**

Herbert Hinman and Aaron Esser¹

INTRODUCTION

This publication presents projected costs and returns for summer fallow - winter wheat crop rotations in the 7- to 10-inch and the 10- to 13-inch annual rainfall region of Adams County. A budget for annual hard red spring wheat is also presented in the 10- to 13-inch annual rainfall region. Spring wheat is often used as a replant crop when winter wheat has sustained severe winter damage, but some area farmers in the 10- to 13-inch annual rainfall region have annual cropped spring wheat instead of the traditional summer fallow - winter wheat when adequate soil moisture conditions exist. Producers, agricultural lenders, and others should find this information helpful in identifying enterprise strengths and weaknesses, planning production adjustments, determining financial requirements, formulating marketing decisions, and resolving other business management problems.

The enterprise data does not represent a particular farm. Instead, the budgets represent cost and returns under the



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specific assumptions adopted for the study. We recommend individual growers use the blanks provided on the right-hand side of these budget estimates to make adjustments for their own costs and returns. Additional help is available through local Cooperative Extension agents and field persons for questions and/or suggestions on field operations and operating inputs.

SOURCES OF INFORMATION

A committee of experienced Adams County wheat producers was assembled at the request of the county agent. They identified the machinery complement, field operations, and inputs commonly used on well-managed operations. These producers believed there were enough differences in the production systems, in each of the two different rainfall areas under investigation, that two different production systems for summer fallow - winter wheat enterprises were developed for each rainfall area. The producers also determined the cost of labor, including social security tax, labor and industrial insurance, and any benefits such as housing, vehicles, and gasoline. The cost of labor also represents what the owner-operator calculates as a fair return to his/her labor. Local farm suppliers were contacted to obtain current prices on materials and services. Machinery costs were based on current replacement prices and on hours of annual use considered typical for a 4,000-acre farm.

BUDGET ASSUMPTIONS

The following assumptions were made in developing the data:

1. The representative farm for the 7- to 10- inch rainfall area of Adams County includes 4,000 acres, with 2,000 acres in summer fallow and 2,000 acres in winter wheat, annually. The 4,000-acre representative farm for the 10- to 13-inch rainfall area has one-third of the land in summer fallow, one-third in winter wheat, and one-third in hard red spring wheat.

Two different production systems were developed in each of the two rainfall regions. Production system 1 primarily uses a tillage operation with lower rates of fertilizer. Production system 2 uses an aerial application of Roundup-RT and higher rates of fertilizer.

2. Winter wheat is assumed to yield 35 bushels per acre in the 7- to 10-inch rainfall area and 52 bushels per acre in the 10- to 13-inch rainfall area of Adams County. Spring wheat in the 10- to 13-inch rainfall area is assumed to yield 35 bushels per acre. It should be realized, however, that yields vary by year and location in Adams County, and

variable yields have a substantial impact on break-even prices.

3. The farm gate price to the grower for soft white winter wheat, net of transportation and marketing costs, is \$3.50 per bushel. The assumed price for hard red spring wheat is \$3.80 per bushel.
4. Machinery is valued at current "average" replacement prices. Machinery on Adams County farms of the representative size are replaced both new and used depending on what is available at the time. While valuing machinery at average 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 understate 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 replacement cost basis.
5. The prevailing interest rate for both operating and capital asset investments is 9%.
6. The farm is owned, managed, and operated by the same person.

These budgets should be viewed as "typical" or "representative," rather than a mathematical average of a large number of producers. Quite different enterprise costs and returns may result if farm size, machinery complement and use, cultural practices, and yield differ from those assumed. Also, these budgets include only production costs and do not include storage, handling, transportation, and interest costs faced by the farmer in marketing wheat.

DISCUSSION OF BUDGET INFORMATION

For each rainfall area, two production systems for the summer fallow - winter wheat enterprises were developed. Thus, the budget information for the summer fallow and winter wheat enterprise budgets are presented in the appendix in four separate sets (A through D) of eight tables each.

Tables 1A - 1D and Tables 4A - 4D: Schedule of Operations and Costs Per Acre for Summer Fallow - Winter Wheat

Tables 1 and 4 outline the schedule of field operations by calendar month, the type of machinery used, and the hours used per acre for summer fallow and winter wheat, respectively. The

costs are divided into two categories. The first is machinery and land fixed costs. The second, 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, and insurance. 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. The per-hour fixed costs are determined by dividing the total annual fixed cost by the annual hours of machinery use for the representative farm. Machinery fixed costs for a specific field operation are determined by multiplying the machine hours per acre times the per-hour fixed cost (Table 10).

Land fixed costs include taxes and net rent. Net rent 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, one-third of the crop insurance, and one-third of the chemical cost for weed control. The tenant covers all other production expenses.

Thus, net rent per acre for summer fallow - winter wheat in the 7- to 10-inch rainfall area, production system 1, is calculated as follows:

\$40.83	(one-third gross receipts from production)
- \$ 7.50	(land tax; summer fallow and winter wheat)
- \$ 1.07	(one-third chemical costs for weed control; summer fallow and winter wheat)
- \$ 4.50	(one-third fertilizer)
- \$ <u>.37</u>	(one-third crop insurance costs)
\$27.39	Net Rent per Acre

The net rent per acre for summer fallow - winter wheat produced under the other production system in the 7- to 10-inch rainfall area and the two production systems in the 10- to 13-inch rainfall area of Adams County are calculated in a similar manner.

While the owner-operator does not actually experience a land rental cost, the cost represents the minimum returns the owner-operator must have to justify growing this crop. This net rent return represents the income the owner-operator foregoes by producing this crop rather than renting to a tenant who produces the crop. Thus, the appropriate land charge for the owner-operator growing the crop is equal to the net rent lost. As used in this publication, land cost is an opportunity cost rather than an out-of-pocket expense. 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. Of course, for the individual producer, any land costs that are actual cash costs, such as interest payments on loans outstanding or land rent payments, must be identified and treated as cash costs. Changes in land value are not considered as part of this enterprise.

In Table 4, the previous year's summer fallow costs, plus interest, are included as part of the fixed cost of raising winter wheat. These are costs that must be covered by wheat sales 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 2A - 2D and Tables 5A - 5D: Materials and Services Provided by Operation for Summer Fallow - Winter Wheat

Tables 1 and 4, "Schedule of Operations and Estimated Cost Per Acre..." for both summer fallow and winter wheat list under the "Service" and "Materials" columns dollar figures for services and materials used by different operations. Tables 2 and 5 list by operation specific services and/or materials used, quantities used, and prices paid for summer fallow and winter wheat, respectively.

Tables 3A - 3D and Tables 6A - 6D: Itemized Cost Per Acre for Summer Fallow - Winter Wheat

Tables 3 and 6 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 previously explained. Two entries, "Interest on Tractors" and "Interest on Machinery," warrant additional explanation.

Tractor and machinery interest costs are calculated on the average annual investment in the machine:

$$\text{Interest cost} = (9\%) \left(\frac{\text{Purchase cost} + \text{Salvage value}}{2} \right)$$

The interest cost represents either an opportunity cost (returns foregone by investing in the given machine rather than in an alternative investment) or interest paid on money borrowed

to finance machine purchases, or both. Interest cost for one acre of summer fallow or winter wheat is determined by multiplying the respective machine and/or tractor hours per acre times the per hour interest costs (Table 10).

Tables 7A - 7D: Break-Even Selling Price Per Unit for Summer Fallow - Winter Wheat

Table 7 presents four selling price levels needed for different levels of cost recovery for summer fallow - winter wheat, over the two-year production period.

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 is below this level, the crop is uneconomic to produce, even in the short run, because the added costs of production are greater than the added returns.

The second break-even price is that price necessary to cover total cash costs, assuming no out-of-pocket land rent. If other cash costs do exist on an individual's farm, such as cash 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 survive in the short run.

The third break-even price is the price required to cover total cash cost plus depreciation on machinery. This price allows the producer to stay in business over the long run. However, when farmers fail to include the opportunity costs they forego from their investment in land and machinery to find their total cost break-even price, they are overlooking the profitability of farming relative to alternative uses of their own resources.

The fourth break-even price is the price the owner-operator must receive to cover all out-of-pocket expenses, plus realize a fair return to labor, operating capital, and equity capital invested in land and machinery. At prices below this level the owner-operator will not earn a return on labor and capital contributions equivalent to that assumed for this study. Realization of a price above this break-even level means that in addition to covering all cash and opportunity costs, the operator will get a return to management and risk.

Tables 8A - 8D: Summary of Receipts, Costs, and Profitability Per Acre for Summer Fallow - Winter Wheat

Table 8 summarizes per-acre returns, costs, and profitability for summer fallow - winter wheat, over the two-year production period. The first profit measure is gross returns which was calculated by multiplying total production by the price received by the producer. The second profit measure is returns

over variable costs, which was calculated by subtracting total variable costs from total receipts. The third profit measure, returns to land and management, was calculated by subtracting the machinery fixed expenses, interest on summer fallow costs, and real estate taxes from returns over variable cost. This is the return the owner-operator realizes to the investment in land and management after he/she has accounted for all costs including \$12.50 per hour for any labor contributed to the production of the crop.

Tables 1E - 5E: Budget Information for Annual Cropping of Hard Red Spring Wheat

Some producers in the 10- to 13-inch rainfall area of Adams County produce hard red spring wheat following winter wheat when moisture conditions allow. Table 1E outlines the schedule of operations and costs per acre for spring wheat. Table 2E lists, by operation, the specific services and/or materials used, quantities used, and prices paid for producing spring wheat. Table 3E itemizes the cost appearing in Table 1E, "Schedule of Operations and Estimated Costs Per Acre for Spring Wheat in the 10- to 13-Inch Rainfall Area of Adams County." Table 4E presents the four selling price levels needed for different levels of cost recovery for spring wheat. Table 5E summarizes per acre returns, costs, and profitability for hard red spring wheat annual cropping.

Table 9: Equipment and Building Data

This table identifies the equipment and building complement used to derive these budgets. Typically, most pieces of machinery on Adams County farms of the representative size are purchased both new and used depending on what is available at the time of needed machinery replacement. Table 9 presents the types of machines used on the representative farm, their current "average" replacement price (new and used), years of use before trade-in, salvage value at trade-in, annual repair cost, and annual hours of use.

Table 10: Hourly or Per Acre Equipment and Building Costs

The data in Table 10 are used to estimate the per-hour fixed and variable costs. Equipment and building fixed costs include depreciation and interest on investment, property taxes, and insurance; these are costs that do not vary with crop grown or number of acres produced. Current "average" replacement costs are used for all equipment and buildings. Note that interest on investment represents a 9% opportunity cost to the enterprise. These are earnings foregone by investing money in the equipment and buildings rather than the next best alternative. This may also represent the interest paid on funds borrowed to purchase

equipment.

Equipment variable costs include repair, fuel, and lubrication--costs that vary with the crop grown or the number of acres produced.

SUMMARY OF RESULTS AND CONCLUDING NOTE

This publication presents estimated production costs of wheat grown in the 7- to 10-inch rainfall area and the 10- to 13-inch rainfall area of Adams County. The variable, fixed and total cost, and the break-even prices for summer fallow - winter wheat and spring wheat under the given assumptions are the following:

	7- to 10-Inch Rainfall		10- to 13-Inch Rainfall		
	Sum. Fal.- Win. Wht. (Prod. System 1)	Sum. Fal.- Win. Wht. (Prod. System 2)	Sum. Fal.- Win. Wht. (Prod. System 1)	Sum. Fal.- Win. Wht. (Prod. System 2)	Hard Red Spring Wheat
Variable Cost	\$61.39	\$71.42	\$77.51	\$88.52	\$76.01
Fixed Cost	\$61.39	\$59.04	\$81.91	\$81.10	\$49.49
Total Cost	\$122.78	\$130.46	\$159.42	\$169.62	\$125.50
Estimated Yield	35 bu.	35 bu.	52 bu.	52 bu.	35 bu.
Break-even Price/Bushel	\$3.51	\$3.73	\$3.07	\$3.26	\$3.59

These budgets are representative of the costs producers in the 7- to 10-inch and the 10- to 13-inch rainfall areas of Adams County are currently facing when producing wheat under the assumed conditions. During times in which returns do not cover total costs, producers remain in business by postponing equipment replacement and by accepting a lower return for their labor and equity.

Users of these budgets should fully comprehend the procedures and assumptions used in this study and interpret the results accordingly. The budgets do not represent any particular operation. Therefore, the budgets should be used as a general guide to help derive budgets for a particular operation. Moreover, this publication is not intended as a guide to recommend production practices. Rather, it represents production practices used in the area, as defined by the committee of area producers who participated in this study.

APPENDIX

BUDGET TABLES

	<u>Page(s)</u>
Tables 1A - 8A: Summer Fallow - Winter Wheat, 7- to 10- Inch Rainfall Area, Production System 1 . .	10-17
Tables 1B - 8B: Summer Fallow - Winter Wheat, 7- to 10- Inch Rainfall Area, Production System 2 . .	18-25
Tables 1C - 8C: Summer Fallow - Winter Wheat, 10- to 13- Inch Rainfall Area, Production System 1 . .	26-33
Tables 1D - 8D: Summer Fallow - Winter Wheat, 10- to 13- Inch Rainfall Area, Production System 2 . .	34-41
Tables 1E - 5E: Hard Red Spring Wheat, 10- to 13- Inch Rainfall Area	42-46
Table 9: Equipment and Building Data	47
Table 10: Hourly or Per Acre Equipment and Building Costs	48

[Back to Table of Contents](#)

TABLE 1A: SCHEDULE OF OPERATIONS AND ESTIMATED COSTS PER ACRE FOR SUMMER FALLOW IN THE 7- TO 10-INCH RAINFALL AREA OF ADAMS COUNTY
 - PRODUCTION SYSTEM 1

OPERATION	TOOLING	MTH	YEAR	MACH HOURS	LABOR HOURS	TOTAL FIXED COST	VARIABLE COST					TOTAL VARIABLE COST	TOTAL COST
							FUEL, LUBE, & REPAIRS	MACH LABOR	SERVICE	MATER.	INTER.		
						\$	\$	\$	\$	\$	\$	\$	
UNDERCUT	300HP-CH, 33' UNDERCUTTER	SEP	1998	.04	.05	.85	1.17	.57	.00	.00	.14	1.88	2.73
DISK	300HP-CH, 40' OFFSET DISK	APR	1999	.06	.07	.98	.96	.86	.00	.00	.05	1.87	2.85
CULTIVATE/FERT	300HP-CH, 58' CULT W/BACK PACK	APR	1999	.05	.06	1.53	1.10	.75	.00	13.49	.46	15.80	17.34
RODWEED	300HP-CH, 72' RODWEEDER	MAY	1999	.03	.04	.46	.51	.46	.00	.00	.02	.99	1.45
RODWEED	300HP-CH, 72' RODWEEDER	JUL	1999	.03	.04	.46	.51	.46	.00	.00	.01	.98	1.43
WEED CONTROL	\$ COST OF PERENNIAL WEED CONT.	ANN	1999	.00	.00	.00	.00	.00	.00	.40	.02	.42	.42
MISC USE	PICKUP	ANN	1999	.10	.11	.90	.49	1.38	.00	.00	.08	1.95	2.85
MISC USE	FARM TRUCK	ANN	1999	.05	.06	.92	.19	.69	.00	.00	.04	.92	1.84
MISC USE	50HP-WT W/BUCKET	ANN	1999	.06	.07	.58	.15	.86	.00	.00	.05	1.06	1.63
MISC USE	4-WHEEL ATV	ANN	1999	.06	.07	.18	.08	.86	.00	.00	.04	.98	1.16
MISC USE	FARM BUILDINGS	ANN	1999	.00	.00	1.83	.25	.00	.00	.00	.01	.26	2.09
MISC USE	SHOP TOOLS	ANN	1999	.00	.00	.92	.13	.00	.00	.00	.01	.13	1.05
MISC USE	FUEL & MISCELLANEOUS TANKS	ANN	1999	.00	.00	.56	.03	.00	.00	.00	.00	.03	.59
TAXES	LAND TAXES	ANN	1999	.00	.00	3.75	.00	.00	.00	.00	.00	.00	3.75
OVERHEAD	UTILITIES, LEGAL, ACCT, ETC.	ANN	1999	.00	.00	.00	.00	.00	1.36	.00	.00	1.36	1.36
TOTAL PER ACRE				.50	.55	13.92	5.56	6.88	1.36	13.89	.93	28.63	42.55

TABLE 2A: MATERIALS AND SERVICES USED BY OPERATION FOR SUMMER FALLOW IN THE 7-
TO 10-INCH RAINFALL AREA OF ADAMS COUNTY - PRODUCTION SYSTEM 1

OPERATION	MONTH	MATERIALS AND/OR SERVICES
CULTIVATE/FERTILIZE	APRIL	35 LBS. ACTUAL N (AQUA) @ 27¢/ACTUAL N 12.25 LBS. ACTUAL SULFUR (LIQ. SULFUR) @ 33¢/ACTUAL SULFUR
WEED CONTROL	ANNUAL	PERENNIAL WEED CONTROL @ 40¢/ACRE
OVERHEAD	ANNUAL	5% OF VARIABLE COST

TABLE 3A: ITEMIZED COST PER ACRE FOR SUMMER FALLOW IN THE 7- TO 10-
INCH RAINFALL AREA OF ADAMS COUNTY - PRODUCTION SYSTEM 1

		PRICE OR		VALUE OR	YOUR
		UNIT COST/UNIT	QUANTITY	COST	FARM

VARIABLE COSTS		\$		\$	
AQUA (ACTUAL N)	LB.	.27	35.00	9.45	_____
LIQ SULFUR (ACTUAL S)	LB.	.33	12.25	4.04	_____
PERENNIAL WEED CONTL.	ACRE	.40	1.00	.40	_____
TRACTOR REPAIR	ACRE	1.26	1.00	1.26	_____
TRACTOR FUEL/LUBE	ACRE	2.16	1.00	2.16	_____
MACHINERY REPAIRS	ACRE	1.60	1.00	1.60	_____
MACHINE FUEL/LUBE	ACRE	.53	1.00	.53	_____
LABOR (TRAC/MACH)	ACRE	6.88	1.00	6.88	_____
OVERHEAD	ACRE	1.36	1.00	1.36	_____
INTEREST ON OP. CAP.	ACRE	.93	1.00	.93	_____

TOTAL VARIABLE COST				28.63	_____
FIXED COSTS		\$		\$	
TRACTOR DEPRECIATION	ACRE	1.27	1.00	1.27	_____
TRACTOR INTEREST	ACRE	1.43	1.00	1.43	_____
TRACTOR INSURANCE	ACRE	.10	1.00	.10	_____
TRACTOR TAXES	ACRE	.29	1.00	.29	_____
MACHINE DEPRECIATION*	ACRE	3.06	1.00	3.06	_____
MACHINE INTEREST*	ACRE	3.18	1.00	3.18	_____
MACHINE INSURANCE*	ACRE	.21	1.00	.21	_____
MACHINE TAXES*	ACRE	.64	1.00	.64	_____
LAND TAXES	ACRE	3.75	1.00	3.75	_____

TOTAL FIXED COST				13.92	_____
TOTAL COST				42.55	_____

* INCLUDES BUILDINGS, TOOLS AND TANKS.

TABLE 4A: SCHEDULE OF OPERATIONS AND ESTIMATED COSTS PER ACRE FOR WINTER WHEAT IN THE 7- TO 10-INCH RAINFALL AREA OF ADAMS COUNTY
- PRODUCTION SYSTEM 1

OPERATION	TOOLING	MTH	YEAR	MACH HOURS	LABOR HOURS	TOTAL FIXED COST	VARIABLE COST					TOTAL VARIABLE COST	TOTAL COST
							FUEL, LUBE, & REPAIRS	MACH LABOR	SERVICE	MATER.	INTER.		
						\$	\$	\$	\$	\$	\$	\$	
PLANT (1.2X)	180HP-CT, 60' DRILL	SEP	1998	.06	.07	.66	1.07	.90	.00	8.58	.87	11.42	12.08
SPRAY	CUSTOM AERIAL	APR	1999	.00	.00	.00	.00	.00	3.30	2.40	.17	5.87	5.87
CROP INSURANCE	FIRE & HAIL	MAY	1999	.00	.00	.00	.00	.00	1.10	.00	.02	1.12	1.12
HARVEST (35 BU.)	25' LEVEL LAND COMBINE	JUL	1999	.05	.05	2.64	1.30	.63	.00	.00	.01	1.94	4.59
HARVEST (35 BU.)	25' HILLSIDE COMBINE	JUL	1999	.05	.05	3.29	1.30	.63	.00	.00	.01	1.94	5.23
HARVEST (35 BU.)	CUSTOM HAULING	JUL	1999	.00	.00	.00	.00	.00	3.15	.00	.02	3.17	3.17
WEED CONTROL	\$ COST OF PERENNIAL WEED CONT.	ANN	1999	.00	.00	.00	.00	.00	.00	.40	.02	.42	.42
MISC USE	PICKUP	ANN	1999	.10	.11	.90	.49	1.38	.00	.00	.08	1.95	2.85
MISC USE	FARM TRUCK	ANN	1999	.05	.06	.92	.19	.69	.00	.00	.04	.92	1.84
MISC USE	50HP-WT W/BUCKET	ANN	1999	.06	.07	.58	.15	.86	.00	.00	.05	1.06	1.63
MISC USE	4-WHEEL ATV	ANN	1999	.06	.07	.18	.08	.86	.00	.00	.04	.98	1.16
MISC USE	FARM BUILDINGS	ANN	1999	.00	.00	1.83	.25	.00	.00	.00	.01	.26	2.09
MISC USE	SHOP TOOLS	ANN	1999	.00	.00	.92	.13	.00	.00	.00	.01	.13	1.05
MISC USE	FUEL & MISCELLANEOUS TANKS	ANN	1999	.00	.00	.56	.03	.00	.00	.00	.00	.03	.59
TAXES	LAND TAXES	ANN	1999	.00	.00	3.75	.00	.00	.00	.00	.00	.00	3.75
OVERHEAD	UTILITIES, LEGAL, ACCT, ETC.	ANN	1999	.00	.00	.00	.00	.00	1.56	.00	.00	1.56	1.56
SUM FALLOW COST	SUMMER FALLOW COST + INTEREST	ANN	1999	.00	.00	46.38	.00	.00	.00	.00	.00	.00	46.38
LAND COST	NET RENT	ANN	1999	.00	.00	27.39	.00	.00	.00	.00	.00	.00	27.39
TOTAL PER ACRE				.43	.47	90.02	4.98	5.93	9.11	11.36	1.38	32.76	122.78

TABLE 5A: MATERIALS AND SERVICES USED BY OPERATION FOR WINTER WHEAT IN THE 7-
TO 10-INCH RAINFALL AREA OF ADAMS COUNTY - PRODUCTION SYSTEM 1

OPERATION	MONTH	MATERIALS AND/OR SERVICES
PLANT (1.2X)	SEPTEMBER	66 LBS. OF WHEAT SEED (55 LBS./ACRE X 1.2) @ 13¢/LB.
SPRAY	APRIL	0.6 PINT OF SALVO @ \$4.00/PINT CUSTOM AERIAL @ \$3.30/ACRE
CROP INSURANCE	MAY	FIRE & HAIL @ \$1.10/ACRE
HARVEST	JULY	CUSTOM HAULING 35 BUSHELLS @ 9¢/BU.
WEED CONTROL	ANNUAL	PERENNIAL WEED CONTROL @ 40¢/ACRE
OVERHEAD	ANNUAL	5% OF VARIABLE COST

TABLE 6A: ITEMIZED COST PER ACRE FOR WINTER WHEAT IN THE 7- TO 10-
INCH RAINFALL AREA OF ADAMS COUNTY - PRODUCTION SYSTEM 1

		PRICE OR		VALUE OR	YOUR
		UNIT COST/UNIT	QUANTITY	COST	FARM

VARIABLE COSTS		\$		\$	
WINTER WHEAT SEED	LB.	.13	66.00	8.58	_____
SALVO	PINT	4.00	.60	2.40	_____
CUSTOM HAULING	BU.	.09	35.00	3.15	_____
CUSTOM AERIAL	ACRE	3.30	1.00	3.30	_____
PERENNIAL WEED CONTL.	ACRE	.40	1.00	.40	_____
CROP INSURANCE	ACRE	1.10	1.00	1.10	_____
TRACTOR REPAIR	ACRE	.62	1.00	.62	_____
TRACTOR FUEL/LUBE	ACRE	.45	1.00	.45	_____
MACHINERY REPAIRS	ACRE	2.59	1.00	2.59	_____
MACHINE FUEL/LUBE	ACRE	1.31	1.00	1.31	_____
LABOR (TRAC/MACH)	ACRE	5.93	1.00	5.93	_____
OVERHEAD	ACRE	1.56	1.00	1.56	_____
INTEREST ON OP. CAP.	ACRE	1.38	1.00	1.38	_____

TOTAL VARIABLE COST				32.76	_____
FIXED COSTS		\$		\$	
TRACTOR DEPRECIATION	ACRE	.28	1.00	.28	_____
TRACTOR INTEREST	ACRE	.37	1.00	.37	_____
TRACTOR INSURANCE	ACRE	.02	1.00	.02	_____
TRACTOR TAXES	ACRE	.07	1.00	.07	_____
MACHINE DEPRECIATION*	ACRE	4.54	1.00	4.54	_____
MACHINE INTEREST*	ACRE	5.69	1.00	5.69	_____
MACHINE INSURANCE*	ACRE	.38	1.00	.38	_____
MACHINE TAXES*	ACRE	1.14	1.00	1.14	_____
SUMMER FALLOW COST	ACRE	42.55	1.09	46.38	_____
LAND TAXES	ACRE	3.75	1.00	3.75	_____
NET RENT**	ACRE	27.39	1.00	27.39	_____

TOTAL FIXED COST				90.02	_____
TOTAL COST				122.78	_____

* INCLUDES BUILDINGS, TOOLS AND TANKS.

**1/3 WHEAT CROP - 1/3 FERTILIZER COST - 1/3 CHEMICAL COST - 1/3
CROP INSURANCE - LAND TAXES

WHEAT YIELD ASSUMED TO BE 35 BUSHEL.

PRICE OF WHEAT TO PRODUCER ASSUMED TO BE \$3.50/BUSHEL.

Table 7A: BREAK-EVEN SELLING PRICE PER BUSHEL FOR SUMMER FALLOW-WINTER WHEAT, ADAMS COUNTY, WASHINGTON, 7- TO 10-INCH RAINFALL AREA, PRODUCTION SYSTEM 1 (TWO-YEAR PERIOD)

	COST PER ACRE	YOUR FARM	BREAK-EVEN PRICE (\$/BU.)	YOUR FARM
	\$	\$	(35 BU./AC)	\$
1. TOTAL VARIABLE COST	61.39	_____	1.75	_____
PLUS: TRACTOR, MACHINERY & BUILDING INSURANCE	.71	_____		
TRACTOR, MACHINERY & BUILDING TAXES	2.14	_____		
LAND TAXES	7.50	_____		
2. TOTAL CASH COST	71.74	_____	2.05	_____
PLUS: TRACTOR, MACHINERY & BUILDING DEPRECIATION	9.15	_____		
3. TOTAL CASH COST & DEPRECIATION	80.89	_____	2.31	_____
PLUS: TRACTOR, MACHINERY & BUILDING INTEREST	10.67	_____		
INTEREST ON SUMMER FALLOW COST	3.83	_____		
LAND (NET RENT)	27.39	_____		
4. TOTAL COST	122.78	_____	3.51	_____

TABLE 8A: SUMMARY OF RECEIPTS, COSTS, AND PROFITABILITY PER ACRE FOR SUMMER FALLOW-WINTER WHEAT, ADAMS COUNTY, WASHINGTON, 7- TO 10-INCH RAINFALL AREA, PRODUCTION SYSTEM 1 (TWO-YEAR PERIOD)

	YIELD PER ACRE	PRICE PER BUSHEL	VALUE OR COST	YOUR FARM
	BU.	\$	\$	
GROSS RECEIPTS WHEAT	35	3.50	<u>122.50</u>	_____
1. TOTAL RECEIPTS			122.50	_____
LESS: TOTAL VARIABLE COST			61.39	_____
2. RETURNS OVER VARIABLE COST			61.11	_____
LESS: TRACTOR, MACHINERY & BUILDING FIXED COST			22.61	_____
INTEREST ON SUMMER FALLOW			3.83	_____
LAND TAXES			7.50	_____
3. NET RETURNS TO LAND AND MANAGEMENT			27.17	_____

TABLE 1B: SCHEDULE OF OPERATIONS AND ESTIMATED COSTS PER ACRE FOR SUMMER FALLOW IN THE 7- TO 10-INCH RAINFALL AREA OF ADAMS COUNTY
 - PRODUCTION SYSTEM 2

		VARIABLE COST											
OPERATION	TOOLING	MTH YEAR	MACH HOURS	LABOR HOURS	TOTAL FIXED COST	FUEL, LUBE, & REPAIRS	MACH LABOR	SERVICE	MATER.	INTER.	TOTAL VARIABLE COST	TOTAL COST	
												\$	\$
UNDERCUT	300HP-CH, 33' UNDERCUTTER	SEP 1998	.04	.05	.85	1.17	.57	.00	.00	.14	1.88	2.73	
SPRAY	CUSTOM AERIAL	APR 1999	.00	.00	.00	.00	.00	3.30	2.86	.18	6.34	6.34	
CULTIVATE/PACK	300HP-CH, 42' CULTIVATOR/PACK	APR 1999	.05	.06	.94	.75	.69	.00	.00	.04	1.48	2.43	
FERTILIZE	300HP-CH, 58' BACK PACK	APR 1999	.04	.05	.63	.83	.65	.00	17.35	.56	19.39	20.03	
RODWEED	300HP-CH, 72' RODWEEDER	MAY 1999	.03	.04	.46	.51	.46	.00	.00	.02	.99	1.45	
RODWEED	300HP-CH, 72' RODWEEDER	JUL 1999	.03	.04	.46	.51	.46	.00	.00	.01	.98	1.43	
WEED CONTROL	\$ COST OF PERENNIAL WEED CONT.	ANN 1999	.00	.00	.00	.00	.00	.00	.40	.02	.42	.42	
MISC USE	PICKUP	ANN 1999	.10	.11	.90	.49	1.38	.00	.00	.08	1.95	2.85	
MISC USE	FARM TRUCK	ANN 1999	.05	.06	.92	.19	.69	.00	.00	.04	.92	1.84	
MISC USE	50HP-WT W/BUCKET	ANN 1999	.06	.07	.58	.15	.86	.00	.00	.05	1.06	1.63	
MISC USE	4-WHEEL ATV	ANN 1999	.06	.07	.18	.08	.86	.00	.00	.04	.98	1.16	
MISC USE	FARM BUILDINGS	ANN 1999	.00	.00	1.83	.25	.00	.00	.00	.01	.26	2.09	
MISC USE	SHOP TOOLS	ANN 1999	.00	.00	.92	.13	.00	.00	.00	.01	.13	1.05	
MISC USE	FUEL & MISCELLANEOUS TANKS	ANN 1999	.00	.00	.56	.03	.00	.00	.00	.00	.03	.59	
TAXES	LAND TAXES	ANN 1999	.00	.00	3.75	.00	.00	.00	.00	.00	.00	3.75	
OVERHEAD	UTILITIES, LEGAL, ACCT, ETC.	ANN 1999	.00	.00	.00	.00	.00	1.84	.00	.00	1.84	1.84	
TOTAL PER ACRE			.48	.53	12.99	5.08	6.61	5.14	20.61	1.21	38.65	51.64	

TABLE 2B: MATERIALS AND SERVICES USED BY OPERATION FOR SUMMER FALLOW IN THE 7-
TO 10-INCH RAINFALL AREA OF ADAMS COUNTY - PRODUCTION SYSTEM 2

OPERATION	MONTH	MATERIALS AND/OR SERVICES
SPRAY	APRIL	11 OZS. OF ROUNDUP-RT @ 26¢/OZ. CUSTOM AERIAL @ \$3.30/ACRE
FERTILIZE	APRIL	45 LBS. ACTUAL N (AQUA) @ 27¢/ACTUAL N 15.75 LBS. ACTUAL SULFUR (LIQ. SULFUR) @ 33¢/ACTUAL SULFUR
WEED CONTROL	ANNUAL	PERENNIAL WEED CONTROL @ 40¢/ACRE
OVERHEAD	ANNUAL	5% OF VARIABLE COST

TABLE 3B: ITEMIZED COST PER ACRE FOR SUMMER FALLOW IN THE 7- TO 10-
INCH RAINFALL AREA OF ADAMS COUNTY - PRODUCTION SYSTEM 2

		PRICE OR UNIT COST/UNIT	QUANTITY	VALUE OR COST	YOUR FARM

VARIABLE COSTS		\$		\$	
ROUNDUP-RT	OZ.	.26	11.00	2.86	_____
AQUA (ACTUAL N)	LB.	.27	45.00	12.15	_____
LIQ SULFUR (ACTUAL S)	LB.	.33	15.75	5.20	_____
CUSTOM AERIAL	ACRE	3.30	1.00	3.30	_____
PERENNIAL WEED CONTL.	ACRE	.40	1.00	.40	_____
TRACTOR REPAIR	ACRE	1.16	1.00	1.16	_____
TRACTOR FUEL/LUBE	ACRE	1.95	1.00	1.95	_____
MACHINERY REPAIRS	ACRE	1.44	1.00	1.44	_____
MACHINE FUEL/LUBE	ACRE	.53	1.00	.53	_____
LABOR (TRAC/MACH)	ACRE	6.61	1.00	6.61	_____
OVERHEAD	ACRE	1.84	1.00	1.84	_____
INTEREST ON OP. CAP.	ACRE	1.21	1.00	1.21	_____

TOTAL VARIABLE COST				38.65	_____
FIXED COSTS		\$		\$	
TRACTOR DEPRECIATION	ACRE	1.18	1.00	1.18	_____
TRACTOR INTEREST	ACRE	1.33	1.00	1.33	_____
TRACTOR INSURANCE	ACRE	.09	1.00	.09	_____
TRACTOR TAXES	ACRE	.27	1.00	.27	_____
MACHINE DEPRECIATION*	ACRE	2.74	1.00	2.74	_____
MACHINE INTEREST*	ACRE	2.87	1.00	2.87	_____
MACHINE INSURANCE*	ACRE	.19	1.00	.19	_____
MACHINE TAXES*	ACRE	.57	1.00	.57	_____
LAND TAXES	ACRE	3.75	1.00	3.75	_____

TOTAL FIXED COST				12.99	_____
TOTAL COST				51.64	_____

* INCLUDES BUILDINGS, TOOLS AND TANKS.

TABLE 4B: SCHEDULE OF OPERATIONS AND ESTIMATED COSTS PER ACRE FOR WINTER WHEAT IN THE 7- TO 10-INCH RAINFALL AREA OF ADAMS COUNTY
 - PRODUCTION SYSTEM 2

OPERATION	TOOLING	MTH	YEAR	MACH HOURS	LABOR HOURS	TOTAL FIXED COST	VARIABLE COST					TOTAL VARIABLE COST	TOTAL COST
							FUEL, LUBE, & REPAIRS	MACH LABOR	SERVICE	MATER.	INTER.		
						\$	\$	\$	\$	\$	\$	\$	
PLANT (1.2X)	180HP-CT, 60' DRILL	SEP	1998	.06	.07	.66	1.07	.90	.00	8.58	.87	11.42	12.08
SPRAY	CUSTOM AERIAL	APR	1999	.00	.00	.00	.00	.00	3.30	2.40	.17	5.87	5.87
CROP INSURANCE	FIRE & HAIL	MAY	1999	.00	.00	.00	.00	.00	1.10	.00	.02	1.12	1.12
HARVEST (35 BU.)	25' LEVEL LAND COMBINE	JUL	1999	.05	.05	2.64	1.30	.63	.00	.00	.01	1.94	4.59
HARVEST (35 BU.)	25' HILLSIDE COMBINE	JUL	1999	.05	.05	3.29	1.30	.63	.00	.00	.01	1.94	5.23
HARVEST (35 BU.)	CUSTOM HAULING	JUL	1999	.00	.00	.00	.00	.00	3.15	.00	.02	3.17	3.17
WEED CONTROL	\$ COST OF PERENNIAL WEED CONT.	ANN	1999	.00	.00	.00	.00	.00	.00	.40	.02	.42	.42
MISC USE	PICKUP	ANN	1999	.10	.11	.90	.49	1.38	.00	.00	.08	1.95	2.85
MISC USE	FARM TRUCK	ANN	1999	.05	.06	.92	.19	.69	.00	.00	.04	.92	1.84
MISC USE	50HP-WT W/BUCKET	ANN	1999	.06	.07	.58	.15	.86	.00	.00	.05	1.06	1.63
MISC USE	4-WHEEL ATV	ANN	1999	.06	.07	.18	.08	.86	.00	.00	.04	.98	1.16
MISC USE	FARM BUILDINGS	ANN	1999	.00	.00	1.83	.25	.00	.00	.00	.01	.26	2.09
MISC USE	SHOP TOOLS	ANN	1999	.00	.00	.92	.13	.00	.00	.00	.01	.13	1.05
MISC USE	FUEL & MISCELLANEOUS TANKS	ANN	1999	.00	.00	.56	.03	.00	.00	.00	.00	.03	.59
TAXES	LAND TAXES	ANN	1999	.00	.00	3.75	.00	.00	.00	.00	.00	.00	3.75
OVERHEAD	UTILITIES, LEGAL, ACCT, ETC.	ANN	1999	.00	.00	.00	.00	.00	1.56	.00	.00	1.56	1.56
SUM FALLOW COST	SUMMER FALLOW COST + INTEREST	ANN	1999	.00	.00	56.29	.00	.00	.00	.00	.00	.00	56.29
LAND COST	NET RENT	ANN	1999	.00	.00	25.16	.00	.00	.00	.00	.00	.00	25.16
TOTAL PER ACRE				.43	.47	97.69	4.98	5.93	9.11	11.38	1.37	32.77	130.46

TABLE 5B: MATERIALS AND SERVICES USED BY OPERATION FOR WINTER WHEAT IN THE 7-
TO 10-INCH RAINFALL AREA OF ADAMS COUNTY - PRODUCTION SYSTEM 2

OPERATION	MONTH	MATERIALS AND/OR SERVICES
PLANT (1.2X)	SEPTEMBER	66 LBS. OF WHEAT SEED (55 LBS./ACRE X 1.2) @ 13¢/LB.
SPRAY	APRIL	0.6 PINT OF SALVO @ \$4.00/PINT CUSTOM AERIAL @ \$3.30/ACRE
CROP INSURANCE	MAY	FIRE & HAIL @ \$1.10/ACRE
HARVEST	JULY	CUSTOM HAULING 35 BUSHELS @ 9¢/BU.
WEED CONTROL	ANNUAL	PERENNIAL WEED CONTROL @ 40¢/ACRE
OVERHEAD	ANNUAL	5% OF VARIABLE COST

TABLE 6B: ITEMIZED COST PER ACRE FOR WINTER WHEAT IN THE 7- TO 10-
INCH RAINFALL AREA OF ADAMS COUNTY - PRODUCTION SYSTEM 2

		PRICE OR		VALUE OR	YOUR
		UNIT COST/UNIT	QUANTITY	COST	FARM

VARIABLE COSTS		\$		\$	
WINTER WHEAT SEED	LB.	.13	66.00	8.58	_____
SALVO	PINT	4.00	.60	2.40	_____
CUSTOM HAULING	BU.	.09	35.00	3.15	_____
CUSTOM AERIAL	ACRE	3.30	1.00	3.30	_____
PERENNIAL WEED CONTL.	ACRE	.40	1.00	.40	_____
CROP INSURANCE	ACRE	1.10	1.00	1.10	_____
TRACTOR REPAIR	ACRE	.62	1.00	.62	_____
TRACTOR FUEL/LUBE	ACRE	.45	1.00	.45	_____
MACHINERY REPAIRS	ACRE	2.59	1.00	2.59	_____
MACHINE FUEL/LUBE	ACRE	1.31	1.00	1.31	_____
LABOR (TRAC/MACH)	ACRE	5.93	1.00	5.93	_____
OVERHEAD	ACRE	1.56	1.00	1.56	_____
INTEREST ON OP. CAP.	ACRE	1.37	1.00	1.37	_____

TOTAL VARIABLE COST				32.77	_____
FIXED COSTS		\$		\$	
TRACTOR DEPRECIATION	ACRE	.28	1.00	.28	_____
TRACTOR INTEREST	ACRE	.37	1.00	.37	_____
TRACTOR INSURANCE	ACRE	.02	1.00	.02	_____
TRACTOR TAXES	ACRE	.07	1.00	.07	_____
MACHINE DEPRECIATION*	ACRE	4.54	1.00	4.54	_____
MACHINE INTEREST*	ACRE	5.69	1.00	5.69	_____
MACHINE INSURANCE*	ACRE	.38	1.00	.38	_____
MACHINE TAXES*	ACRE	1.14	1.00	1.14	_____
SUMMER FALLOW COST	ACRE	51.64	1.09	56.29	_____
LAND TAXES	ACRE	3.75	1.00	3.75	_____
NET RENT**	ACRE	25.16	1.00	25.16	_____

TOTAL FIXED COST				97.69	_____
TOTAL COST				130.46	_____

* INCLUDES BUILDINGS, TOOLS AND TANKS.

**1/3 WHEAT CROP - 1/3 FERTILIZER COST - 1/3 CHEMICAL COST - 1/3
CROP INSURANCE - LAND TAXES

WHEAT YIELD ASSUMED TO BE 35 BUSHEL.

PRICE OF WHEAT TO PRODUCER ASSUMED TO BE \$3.50/BUSHEL.

Table 7B: BREAK-EVEN SELLING PRICE PER BUSHEL FOR SUMMER FALLOW-WINTER WHEAT, ADAMS COUNTY, WASHINGTON, 7- TO 10-INCH RAINFALL AREA, PRODUCTION SYSTEM 2 (TWO-YEAR PERIOD)

	COST PER ACRE	YOUR FARM	BREAK-EVEN PRICE (\$/BU.)	YOUR FARM
	\$	\$	(35 BU./AC)	\$
1. TOTAL VARIABLE COST	71.42	_____	2.04	_____
PLUS: TRACTOR, MACHINERY & BUILDING INSURANCE	.68	_____		
TRACTOR, MACHINERY & BUILDING TAXES	2.05	_____		
LAND TAXES	7.50	_____		
2. TOTAL CASH COST	81.65	_____	2.33	_____
PLUS: TRACTOR, MACHINERY & BUILDING DEPRECIATION	8.74	_____		
3. TOTAL CASH COST & DEPRECIATION	90.39	_____	2.58	_____
PLUS: TRACTOR, MACHINERY & BUILDING INTEREST	10.26	_____		
INTEREST ON SUMMER FALLOW COST	4.65	_____		
LAND (NET RENT)	25.16	_____		
4. TOTAL COST	130.46	_____	3.73	_____

TABLE 8B: SUMMARY OF RECEIPTS, COSTS, AND PROFITABILITY PER ACRE FOR SUMMER FALLOW-WINTER WHEAT, ADAMS COUNTY, WASHINGTON, 7- TO 10-INCH RAINFALL AREA, PRODUCTION SYSTEM 2 (TWO-YEAR PERIOD)

	YIELD PER ACRE	PRICE PER BUSHEL	VALUE OR COST	YOUR FARM
	BU.	\$	\$	
GROSS RECEIPTS WHEAT	35	3.50	<u>122.50</u>	_____
1. TOTAL RECEIPTS			122.50	_____
LESS: TOTAL VARIABLE COST			71.42	_____
2. RETURNS OVER VARIABLE COST			51.08	_____
LESS: TRACTOR, MACHINERY & BUILDING FIXED COST			21.73	_____
INTEREST ON SUMMER FALLOW			4.65	_____
LAND TAXES			7.50	_____
3. NET RETURNS TO LAND AND MANAGEMENT			17.20	_____

TABLE 1C: SCHEDULE OF OPERATIONS AND ESTIMATED COSTS PER ACRE FOR SUMMER FALLOW IN THE 10- TO 13-INCH RAINFALL AREA OF ADAMS COUNTY
 - PRODUCTION SYSTEM 1

OPERATION	TOOLING	MTH	YEAR	MACH HOURS	LABOR HOURS	TOTAL FIXED COST	VARIABLE COST					TOTAL VARIABLE COST	TOTAL COST
							FUEL, LUBE, & REPAIRS	MACH LABOR	SERVICE	MATER.	INTER.		
						\$	\$	\$	\$	\$	\$	\$	
DISK	300HP-CH, 25' OFFSET DISK	SEP	1998	.10	.11	1.55	1.59	1.38	.00	.00	.24	3.21	4.76
CHISEL	300HP-CH, 25' CHISEL	SEP	1998	.07	.07	.92	1.21	.92	.00	.00	.18	2.30	3.22
CULTIVATE/HARROW	300HP-CH, 58' CULTIVATOR/HARROW	MAR	1999	.04	.04	1.10	.64	.55	.00	.00	.04	1.24	2.33
CULT/FERTILIZE	300HP-CH, 58' CULT/BACK PACK	MAY	1999	.05	.06	1.53	1.10	.75	.00	18.84	.47	21.15	22.69
SKEWTREAD	300HP-CH, 32' SKEWTREADER	JUN	1999	.04	.04	.66	.66	.55	.00	.00	.02	1.23	1.89
RODWEED	300HP-CH, 72' RODWEEDER	JUN	1999	.03	.04	.46	.51	.46	.00	.00	.01	.98	1.44
RODWEED	300HP-CH, 72' RODWEEDER	AUG	1999	.03	.04	.46	.51	.46	.00	.00	.00	.97	1.43
WEED CONTROL	\$ COST OF PERENNIAL WEED CONT.	ANN	1999	.00	.00	.00	.00	.00	.00	.40	.02	.42	.42
MISC USE	PICKUP	ANN	1999	.10	.11	.90	.49	1.38	.00	.00	.08	1.95	2.85
MISC USE	FARM TRUCK	ANN	1999	.05	.06	.92	.19	.69	.00	.00	.04	.92	1.84
MISC USE	50HP-WT W/BUCKET	ANN	1999	.06	.07	.58	.15	.86	.00	.00	.05	1.06	1.63
MISC USE	4-WHEEL ATV	ANN	1999	.06	.07	.18	.08	.86	.00	.00	.04	.98	1.16
MISC USE	FARM BUILDINGS	ANN	1999	.00	.00	1.83	.25	.00	.00	.00	.01	.26	2.09
MISC USE	SHOP TOOLS	ANN	1999	.00	.00	.92	.13	.00	.00	.00	.01	.13	1.05
MISC USE	FUEL & MISCELLANEOUS TANKS	ANN	1999	.00	.00	.56	.03	.00	.00	.00	.00	.03	.59
TAXES	LAND TAXES	ANN	1999	.00	.00	3.75	.00	.00	.00	.00	.00	.00	3.75
OVERHEAD	UTILITIES, LEGAL, ACCT, ETC.	ANN	1999	.00	.00	.00	.00	.00	1.84	.00	.00	1.84	1.84
TOTAL PER ACRE				.64	.71	16.32	7.53	8.84	1.84	19.24	1.21	38.66	54.98

TABLE 2C: MATERIALS AND SERVICES USED BY OPERATION FOR SUMMER FALLOW IN THE
 10- TO 13-INCH RAINFALL AREA OF ADAMS COUNTY - PRODUCTION SYSTEM 1

OPERATION	MONTH	MATERIALS AND/OR SERVICES
CULTIVATE/FERTILIZE	MAY	60 LBS. ACTUAL N (AQUA) @ 27¢/ACTUAL N 8 LBS. ACTUAL SULFUR (LIQ. SULFUR) @ 33¢/ACTUAL SULFUR
WEED CONTROL	ANNUAL	PERENNIAL WEED CONTROL @ 40¢/ACRE
OVERHEAD	ANNUAL	5% OF VARIABLE COST

TABLE 3C: ITEMIZED COST PER ACRE FOR SUMMER FALLOW IN THE 10- TO 13-
INCH RAINFALL AREA OF ADAMS COUNTY - PRODUCTION SYSTEM 1

		PRICE OR		VALUE OR	YOUR
		UNIT COST/UNIT	QUANTITY	COST	FARM

VARIABLE COSTS		\$		\$	
AQUA (ACTUAL N)	LB.	.27	60.00	16.20	_____
LIQ SULFUR (ACTUAL S)	LB.	.33	8.00	2.64	_____
PERENNIAL WEED CONTL.	ACRE	.40	1.00	.40	_____
TRACTOR REPAIR	ACRE	2.05	1.00	2.05	_____
TRACTOR FUEL/LUBE	ACRE	3.58	1.00	3.58	_____
MACHINERY REPAIRS	ACRE	1.37	1.00	1.37	_____
MACHINE FUEL/LUBE	ACRE	.53	1.00	.53	_____
LABOR (TRAC/MACH)	ACRE	8.84	1.00	8.84	_____
OVERHEAD	ACRE	1.84	1.00	1.84	_____
INTEREST ON OP. CAP.	ACRE	1.21	1.00	1.21	_____

TOTAL VARIABLE COST				38.66	_____
FIXED COSTS		\$		\$	
TRACTOR DEPRECIATION	ACRE	1.95	1.00	1.95	_____
TRACTOR INTEREST	ACRE	2.17	1.00	2.17	_____
TRACTOR INSURANCE	ACRE	.14	1.00	.14	_____
TRACTOR TAXES	ACRE	.43	1.00	.43	_____
MACHINE DEPRECIATION*	ACRE	3.49	1.00	3.49	_____
MACHINE INTEREST*	ACRE	3.46	1.00	3.46	_____
MACHINE INSURANCE*	ACRE	.23	1.00	.23	_____
MACHINE TAXES*	ACRE	.69	1.00	.69	_____
LAND TAXES	ACRE	3.75	1.00	3.75	_____

TOTAL FIXED COST				16.32	_____
TOTAL COST				54.98	_____

* INCLUDES BUILDINGS, TOOLS AND TANKS.

TABLE 4C: SCHEDULE OF OPERATIONS AND ESTIMATED COSTS PER ACRE FOR WINTER WHEAT IN THE 10- TO 13-INCH RAINFALL AREA OF ADAMS COUNTY
 - PRODUCTION SYSTEM 1

OPERATION	TOOLING	MTH	YEAR	MACH HOURS	LABOR HOURS	TOTAL FIXED COST	VARIABLE COST					TOTAL VARIABLE COST	TOTAL COST
							FUEL, LUBE, & REPAIRS	MACH LABOR	SERVICE	MATER.	INTER.		
						\$	\$	\$	\$	\$	\$	\$	
PLANT (1.2X)	180HP-CT, 60' DRILL	SEP	1998	.06	.07	.66	1.07	.90	.00	11.96	1.15	15.08	15.74
SPRAY	CUSTOM AERIAL	APR	1999	.00	.00	.00	.00	.00	3.30	2.40	.17	5.87	5.87
CROP INSURANCE	FIRE & HAIL	MAY	1999	.00	.00	.00	.00	.00	1.69	.00	.04	1.73	1.73
HARVEST (52 BU.)	25' LEVEL LAND COMBINE	JUL	1999	.05	.05	2.64	1.30	.63	.00	.00	.01	1.94	4.59
HARVEST (52 BU.)	25' HILLSIDE COMBINE	JUL	1999	.05	.05	3.29	1.30	.63	.00	.00	.01	1.94	5.23
HARVEST (52 BU.)	CUSTOM HAULING	JUL	1999	.00	.00	.00	.00	.00	4.68	.00	.04	4.72	4.72
WEED CONTROL	\$ COST OF PERENNIAL WEED CONT.	ANN	1999	.00	.00	.00	.00	.00	.00	.40	.02	.42	.42
MISC USE	PICKUP	ANN	1999	.10	.11	.90	.49	1.38	.00	.00	.08	1.95	2.85
MISC USE	FARM TRUCK	ANN	1999	.05	.06	.92	.19	.69	.00	.00	.04	.92	1.84
MISC USE	50HP-WT W/BUCKET	ANN	1999	.06	.07	.58	.15	.86	.00	.00	.05	1.06	1.63
MISC USE	4-WHEEL ATV	ANN	1999	.06	.07	.18	.08	.86	.00	.00	.04	.98	1.16
MISC USE	FARM BUILDINGS	ANN	1999	.00	.00	1.83	.25	.00	.00	.00	.01	.26	2.09
MISC USE	SHOP TOOLS	ANN	1999	.00	.00	.92	.13	.00	.00	.00	.01	.13	1.05
MISC USE	FUEL & MISCELLANEOUS TANKS	ANN	1999	.00	.00	.56	.03	.00	.00	.00	.00	.03	.59
TAXES	LAND TAXES	ANN	1999	.00	.00	3.75	.00	.00	.00	.00	.00	.00	3.75
OVERHEAD	UTILITIES, LEGAL, ACCT, ETC.	ANN	1999	.00	.00	.00	.00	.00	1.85	.00	.00	1.85	1.85
SUM FALLOW COST	SUMMER FALLOW COST + INTEREST	ANN	1999	.00	.00	59.93	.00	.00	.00	.00	.00	.00	59.93
LAND COST	NET RENT	ANN	1999	.00	.00	44.40	.00	.00	.00	.00	.00	.00	44.40
TOTAL PER ACRE				.43	.47	120.57	4.98	5.93	11.52	14.76	1.66	38.85	159.42

TABLE 5C: MATERIALS AND SERVICES USED BY OPERATION FOR WINTER WHEAT IN THE 10-
TO 13-INCH RAINFALL AREA OF ADAMS COUNTY - PRODUCTION SYSTEM 1

OPERATION	MONTH	MATERIALS AND/OR SERVICES
PLANT (1.2X)	SEPTEMBER	72 LBS. OF WHEAT SEED (60 LBS./ACRE X 1.2) @ 13¢/LB. 10 LBS. OF PHOSPHATE (DRY) @ 26¢/LB.
SPRAY	APRIL	0.6 PINT OF SALVO @ \$4.00/PINT CUSTOM AERIAL @ \$3.30/ACRE
CROP INSURANCE	MAY	FIRE & HAIL @ \$1.69 ACRE
HARVEST	JULY	CUSTOM HAULING 52 BUSHEL @ 9¢/BU.
WEED CONTROL	ANNUAL	PERENNIAL WEED CONTROL @ 40¢/ACRE
OVERHEAD	ANNUAL	5% OF VARIABLE COST

TABLE 6C: ITEMIZED COST PER ACRE FOR WINTER WHEAT IN THE 10- TO 13-
INCH RAINFALL AREA OF ADAMS COUNTY - PRODUCTION SYSTEM 1

		PRICE OR		VALUE OR	YOUR
		UNIT COST/UNIT	QUANTITY	COST	FARM

VARIABLE COSTS		\$		\$	
WINTER WHEAT SEED	LB.	.13	72.00	9.36	_____
DRY PHOSPHATE	LB.	.26	10.00	2.60	_____
SALVO	PINT	4.00	.60	2.40	_____
CUSTOM HAULING	BU.	.09	52.00	4.68	_____
CUSTOM AERIAL	ACRE	3.30	1.00	3.30	_____
PERENNIAL WEED CONTL.	ACRE	.40	1.00	.40	_____
CROP INSURANCE	ACRE	1.69	1.00	1.69	_____
TRACTOR REPAIR	ACRE	.62	1.00	.62	_____
TRACTOR FUEL/LUBE	ACRE	.45	1.00	.45	_____
MACHINERY REPAIRS	ACRE	2.59	1.00	2.59	_____
MACHINE FUEL/LUBE	ACRE	1.31	1.00	1.31	_____
LABOR (TRAC/MACH)	ACRE	5.93	1.00	5.93	_____
OVERHEAD	ACRE	1.85	1.00	1.85	_____
INTEREST ON OP. CAP.	ACRE	1.67	1.00	1.67	_____

TOTAL VARIABLE COST				38.85	_____
FIXED COSTS		\$		\$	
TRACTOR DEPRECIATION	ACRE	.28	1.00	.28	_____
TRACTOR INTEREST	ACRE	.37	1.00	.37	_____
TRACTOR INSURANCE	ACRE	.02	1.00	.02	_____
TRACTOR TAXES	ACRE	.07	1.00	.07	_____
MACHINE DEPRECIATION*	ACRE	4.54	1.00	4.54	_____
MACHINE INTEREST*	ACRE	5.69	1.00	5.69	_____
MACHINE INSURANCE*	ACRE	.38	1.00	.38	_____
MACHINE TAXES*	ACRE	1.14	1.00	1.14	_____
SUMMER FALLOW COST	ACRE	54.98	1.09	59.93	_____
LAND TAXES	ACRE	3.75	1.00	3.75	_____
NET RENT**	ACRE	44.40	1.00	44.40	_____

TOTAL FIXED COST				120.57	_____
TOTAL COST				159.42	_____

* INCLUDES BUILDINGS, TOOLS AND TANKS.

**1/3 WHEAT CROP - 1/3 FERTILIZER COST - 1/3 CHEMICAL COST - 1/3
CROP INSURANCE - LAND TAXES

WHEAT YIELD ASSUMED TO BE 52 BUSHEL.
PRICE OF WHEAT TO PRODUCER ASSUMED TO BE \$3.50/BUSHEL.

Table 7C: BREAK-EVEN SELLING PRICE PER BUSHEL FOR SUMMER FALLOW-WINTER WHEAT, ADAMS COUNTY, WASHINGTON, 10- TO 13-INCH RAINFALL AREA, PRODUCTION SYSTEM 1 (TWO-YEAR PERIOD)

	COST PER ACRE	YOUR FARM	BREAK-EVEN PRICE (\$/BU.)	YOUR FARM
	\$	\$	(52 BU./AC)	\$
1. TOTAL VARIABLE COST	77.52	_____	1.49	_____
PLUS: TRACTOR, MACHINERY & BUILDING INSURANCE	.77	_____		
TRACTOR, MACHINERY & BUILDING TAXES	2.33	_____		
LAND TAXES	7.50	_____		
2. TOTAL CASH COST	88.12	_____	1.69	_____
PLUS: TRACTOR, MACHINERY & BUILDING DEPRECIATION	10.26	_____		
3. TOTAL CASH COST & DEPRECIATION	98.38	_____	1.89	_____
PLUS: TRACTOR, MACHINERY & BUILDING INTEREST	11.69	_____		
INTEREST ON SUMMER FALLOW COST	4.95	_____		
LAND (NET RENT)	44.40	_____		
4. TOTAL COST	159.42	_____	3.07	_____

TABLE 8C: SUMMARY OF RECEIPTS, COSTS, AND PROFITABILITY PER ACRE FOR SUMMER FALLOW-WINTER WHEAT, ADAMS COUNTY, WASHINGTON, 10- TO 13-INCH RAINFALL AREA, PRODUCTION SYSTEM 1 (TWO-YEAR PERIOD)

	YIELD PER ACRE	PRICE PER BUSHEL	VALUE OR COST	YOUR FARM
	BU.	\$	\$	
GROSS RECEIPTS WHEAT	35	3.50	<u>182.00</u>	_____
1. TOTAL RECEIPTS			182.00	_____
LESS: TOTAL VARIABLE COST			77.52	_____
2. RETURNS OVER VARIABLE COST			104.48	_____
LESS: TRACTOR, MACHINERY & BUILDING FIXED COST			25.06	_____
INTEREST ON SUMMER FALLOW			4.95	_____
LAND TAXES			7.50	_____
3. NET RETURNS TO LAND AND MANAGEMENT			66.97	_____

TABLE 1D: SCHEDULE OF OPERATIONS AND ESTIMATED COSTS PER ACRE FOR SUMMER FALLOW IN THE 10- TO 13-INCH RAINFALL AREA OF ADAMS COUNTY
 - PRODUCTION SYSTEM 2

OPERATION	TOOLING	MTH	YEAR	MACH HOURS	LABOR HOURS	TOTAL FIXED COST	VARIABLE COST					TOTAL VARIABLE COST	TOTAL COST
							FUEL, LUBE, & REPAIRS	MACH LABOR	SERVICE	MATER.	INTER.		
						\$	\$	\$	\$	\$	\$	\$	
HARROW	300HP-CH, 70' TINE HARROW	SEP	1998	.03	.04	.63	.52	.46	.00	.00	.08	1.06	1.69
CHISEL	300HP-CH, 25' CHISEL	SEP	1998	.07	.07	.92	1.21	.92	.00	.00	.18	2.30	3.22
SPRAY	CUSTOM AERIAL	MAR	1999	.00	.00	.00	.00	.00	3.50	2.60	.23	6.33	6.33
SWEEP & MULCH	300HP-CH, 35' CHISEL/MUL TREAD	APR	1999	.08	.09	1.42	1.31	1.15	.00	.00	.07	2.53	3.95
CULTIWEED	300HP-CH, 58' CULTIWEEDER	JUN	1999	.04	.04	1.10	.68	.55	.00	.00	.02	1.25	2.35
SKEWTREAD	300HP-CH, 32' SKEWTREADER	JUN	1999	.04	.04	.66	.66	.55	.00	.00	.02	1.23	1.89
CULT/FERTILIZE	300HP-CH, 58' CULT/BACK PACK	JUL	1999	.05	.06	1.53	1.10	.75	.00	22.20	.18	24.23	25.76
CULTIWEED	300HP-CH, 58' CULTIWEEDER	AUG	1999	.04	.04	1.10	.68	.55	.00	.00	.00	1.23	2.33
WEED CONTROL	\$ COST OF PERENNIAL WEED CONT.	ANN	1999	.00	.00	.00	.00	.00	.00	.40	.02	.42	.42
MISC USE	PICKUP	ANN	1999	.10	.11	.90	.49	1.38	.00	.00	.08	1.95	2.85
MISC USE	FARM TRUCK	ANN	1999	.05	.06	.92	.19	.69	.00	.00	.04	.92	1.84
MISC USE	50HP-WT W/BUCKET	ANN	1999	.06	.07	.58	.15	.86	.00	.00	.05	1.06	1.63
MISC USE	4-WHEEL ATV	ANN	1999	.06	.07	.18	.08	.86	.00	.00	.04	.98	1.16
MISC USE	FARM BUILDINGS	ANN	1999	.00	.00	1.83	.25	.00	.00	.00	.01	.26	2.09
MISC USE	SHOP TOOLS	ANN	1999	.00	.00	.92	.13	.00	.00	.00	.01	.13	1.05
MISC USE	FUEL & MISCELLANEOUS TANKS	ANN	1999	.00	.00	.56	.03	.00	.00	.00	.00	.03	.59
TAXES	LAND TAXES	ANN	1999	.00	.00	3.75	.00	.00	.00	.00	.00	.00	3.75
OVERHEAD	UTILITIES, LEGAL, ACCT, ETC.	ANN	1999	.00	.00	.00	.00	.00	2.29	.00	.00	2.29	2.29
TOTAL PER ACRE				.63	.70	17.00	7.47	8.70	5.79	25.20	1.02	48.18	65.18

TABLE 2D: MATERIALS AND SERVICES USED BY OPERATION FOR SUMMER FALLOW IN THE
 10- TO 13-INCH RAINFALL AREA OF ADAMS COUNTY - PRODUCTION SYSTEM 2

OPERATION	MONTH	MATERIALS AND/OR SERVICES
SPRAY	APRIL	10 OZS. OF ROUNDUP-RT @ 26¢/OZ. CUSTOM AERIAL @ \$3.50/ACRE
CULTIVATE/FERTILIZE	APRIL	70 LBS. ACTUAL N (AQUA) @ 27¢/ACTUAL N 10 LBS. ACTUAL SULFUR (LIQ. SULFUR) @ 33¢/ACTUAL SULFUR
WEED CONTROL	ANNUAL	PERENNIAL WEED CONTROL @ 40¢/ACRE
OVERHEAD	ANNUAL	5% OF VARIABLE COST

TABLE 3D: ITEMIZED COST PER ACRE FOR SUMMER FALLOW IN THE 10- TO 13-
INCH RAINFALL AREA OF ADAMS COUNTY - PRODUCTION SYSTEM 2

		PRICE OR		VALUE OR	YOUR
		UNIT COST/UNIT	QUANTITY	COST	FARM

VARIABLE COSTS		\$		\$	
ROUNDUP-RT	OZ.	.26	10.00	2.60	_____
AQUA (ACTUAL N)	LB.	.27	70.00	18.90	_____
LIQ SULFUR (ACTUAL S)	LB.	.33	10.00	3.30	_____
CUSTOM AERIAL	ACRE	3.50	1.00	3.50	_____
PERENNIAL WEED CONTL.	ACRE	.40	1.00	.40	_____
TRACTOR REPAIR	ACRE	1.99	1.00	1.99	_____
TRACTOR FUEL/LUBE	ACRE	3.59	1.00	3.59	_____
MACHINERY REPAIRS	ACRE	1.37	1.00	1.37	_____
MACHINE FUEL/LUBE	ACRE	.53	1.00	.53	_____
LABOR (TRAC/MACH)	ACRE	8.70	1.00	8.70	_____
OVERHEAD	ACRE	2.29	1.00	2.29	_____
INTEREST ON OP. CAP.	ACRE	1.02	1.00	1.02	_____

TOTAL VARIABLE COST				48.18	_____
FIXED COSTS		\$		\$	
TRACTOR DEPRECIATION	ACRE	1.90	1.00	1.90	_____
TRACTOR INTEREST	ACRE	2.12	1.00	2.12	_____
TRACTOR INSURANCE	ACRE	.14	1.00	.14	_____
TRACTOR TAXES	ACRE	.42	1.00	.42	_____
MACHINE DEPRECIATION*	ACRE	3.78	1.00	3.78	_____
MACHINE INTEREST*	ACRE	3.86	1.00	3.86	_____
MACHINE INSURANCE*	ACRE	.26	1.00	.26	_____
MACHINE TAXES*	ACRE	.77	1.00	.77	_____
LAND TAXES	ACRE	3.75	1.00	3.75	_____

TOTAL FIXED COST				17.00	_____
TOTAL COST				65.18	_____

* INCLUDES BUILDINGS, TOOLS AND TANKS.

TABLE 4D: SCHEDULE OF OPERATIONS AND ESTIMATED COSTS PER ACRE FOR WINTER WHEAT IN THE 10- TO 13-INCH RAINFALL AREA OF ADAMS COUNTY
 - PRODUCTION SYSTEM 2

OPERATION	TOOLING	MTH	YEAR	MACH HOURS	LABOR HOURS	TOTAL FIXED COST	VARIABLE COST					TOTAL VARIABLE COST	TOTAL COST
							FUEL, LUBE, & REPAIRS	MACH LABOR	SERVICE	MATER.	INTER.		
						\$	\$	\$	\$	\$	\$	\$	
PLANT (1.2X)	180HP-CT, 60' DRILL	SEP	1998	.06	.07	.66	1.07	.90	.00	13.26	1.26	16.49	17.15
SPRAY	CUSTOM AERIAL	APR	1999	.00	.00	.00	.00	.00	3.30	2.40	.17	5.87	5.87
CROP INSURANCE	FIRE & HAIL	MAY	1999	.00	.00	.00	.00	.00	1.69	.00	.04	1.73	1.73
HARVEST (52 BU.)	25' LEVEL LAND COMBINE	JUL	1999	.05	.05	2.64	1.30	.63	.00	.00	.01	1.94	4.59
HARVEST (52 BU.)	25' HILLSIDE COMBINE	JUL	1999	.05	.05	3.29	1.30	.63	.00	.00	.01	1.94	5.23
HARVEST (52 BU.)	CUSTOM HAULING	JUL	1999	.00	.00	.00	.00	.00	4.68	.00	.04	4.72	4.72
WEED CONTROL	\$ COST OF PERENNIAL WEED CONT.	ANN	1999	.00	.00	.00	.00	.00	.00	.40	.02	.42	.42
MISC USE	PICKUP	ANN	1999	.10	.11	.90	.49	1.38	.00	.00	.08	1.95	2.85
MISC USE	FARM TRUCK	ANN	1999	.05	.06	.92	.19	.69	.00	.00	.04	.92	1.84
MISC USE	50HP-WT W/BUCKET	ANN	1999	.06	.07	.58	.15	.86	.00	.00	.05	1.06	1.63
MISC USE	4-WHEEL ATV	ANN	1999	.06	.07	.18	.08	.86	.00	.00	.04	.98	1.16
MISC USE	FARM BUILDINGS	ANN	1999	.00	.00	1.83	.25	.00	.00	.00	.01	.26	2.09
MISC USE	SHOP TOOLS	ANN	1999	.00	.00	.92	.13	.00	.00	.00	.01	.13	1.05
MISC USE	FUEL & MISCELLANEOUS TANKS	ANN	1999	.00	.00	.56	.03	.00	.00	.00	.00	.03	.59
TAXES	LAND TAXES	ANN	1999	.00	.00	3.75	.00	.00	.00	.00	.00	.00	3.75
OVERHEAD	UTILITIES, LEGAL, ACCT, ETC.	ANN	1999	.00	.00	.00	.00	.00	1.92	.00	.00	1.92	1.92
SUM FALLOW COST	SUMMER FALLOW COST + INTEREST	ANN	1999	.00	.00	71.05	.00	.00	.00	.00	.00	.00	71.05
LAND COST	NET RENT	ANN	1999	.00	.00	41.99	.00	.00	.00	.00	.00	.00	41.99
TOTAL PER ACRE				.43	.47	129.28	4.98	5.93	11.59	16.06	1.78	40.34	169.62

TABLE 5D: MATERIALS AND SERVICES USED BY OPERATION FOR WINTER WHEAT IN THE 10-
TO 13-INCH RAINFALL AREA OF ADAMS COUNTY - PRODUCTION SYSTEM 2

OPERATION	MONTH	MATERIALS AND/OR SERVICES
PLANT (1.2X)	SEPTEMBER	72 LBS. OF WHEAT SEED (60 LBS./ACRE X 1.2) @ 13¢/LB. 15 LBS. OF PHOSPHATE (DRY) @ 26¢/LB.
SPRAY	APRIL	0.6 PINT OF SALVO @ \$4.00/PINT CUSTOM AERIAL @ \$3.30/ACRE
CROP INSURANCE	MAY	FIRE & HAIL @ \$1.69/ACRE
HARVEST	JULY	CUSTOM HAULING 52 BUSHELS @ 9¢/BU.
WEED CONTROL	ANNUAL	PERENNIAL WEED CONTROL @ 40¢/ACRE
OVERHEAD	ANNUAL	5% OF VARIABLE COST

TABLE 6D: ITEMIZED COST PER ACRE FOR WINTER WHEAT IN THE 10- TO 13-
INCH RAINFALL AREA OF ADAMS COUNTY - PRODUCTION SYSTEM 2

		PRICE OR		VALUE OR	YOUR
		UNIT COST/UNIT	QUANTITY	COST	FARM

VARIABLE COSTS		\$		\$	
WINTER WHEAT SEED	LB.	.13	72.00	9.36	_____
DRY PHOSPHATE	LB.	.26	15.00	3.90	_____
SALVO	PINT	4.00	.60	2.40	_____
CUSTOM HAULING	BU.	.09	52.00	4.68	_____
CUSTOM AERIAL	ACRE	3.30	1.00	3.30	_____
PERENNIAL WEED CONTL.	ACRE	.40	1.00	.40	_____
CROP INSURANCE	ACRE	1.69	1.00	1.69	_____
TRACTOR REPAIR	ACRE	.62	1.00	.62	_____
TRACTOR FUEL/LUBE	ACRE	.45	1.00	.45	_____
MACHINERY REPAIRS	ACRE	2.59	1.00	2.59	_____
MACHINE FUEL/LUBE	ACRE	1.31	1.00	1.31	_____
LABOR (TRAC/MACH)	ACRE	5.93	1.00	5.93	_____
OVERHEAD	ACRE	1.92	1.00	1.92	_____
INTEREST ON OP. CAP.	ACRE	1.78	1.00	1.78	_____

TOTAL VARIABLE COST				40.34	_____
FIXED COSTS		\$		\$	
TRACTOR DEPRECIATION	ACRE	.28	1.00	.28	_____
TRACTOR INTEREST	ACRE	.37	1.00	.37	_____
TRACTOR INSURANCE	ACRE	.02	1.00	.02	_____
TRACTOR TAXES	ACRE	.07	1.00	.07	_____
MACHINE DEPRECIATION*	ACRE	4.54	1.00	4.54	_____
MACHINE INTEREST*	ACRE	5.69	1.00	5.69	_____
MACHINE INSURANCE*	ACRE	.38	1.00	.38	_____
MACHINE TAXES*	ACRE	1.14	1.00	1.14	_____
SUMMER FALLOW COST	ACRE	65.18	1.09	71.05	_____
LAND TAXES	ACRE	3.75	1.00	3.75	_____
NET RENT**	ACRE	41.99	1.00	41.99	_____

TOTAL FIXED COST				129.28	_____
TOTAL COST				169.62	_____

* INCLUDES BUILDINGS, TOOLS AND TANKS.

**1/3 WHEAT CROP - 1/3 FERTILIZER COST - 1/3 CHEMICAL COST - 1/3
CROP INSURANCE - LAND TAXES

WHEAT YIELD ASSUMED TO BE 52 BUSHEL.
PRICE OF WHEAT TO PRODUCER ASSUMED TO BE \$3.50/BUSHEL.

Table 7D: BREAK-EVEN SELLING PRICE PER BUSHEL FOR SUMMER FALLOW-WINTER WHEAT, ADAMS COUNTY, WASHINGTON, 10- TO 13-INCH RAINFALL AREA, PRODUCTION SYSTEM 2 (TWO-YEAR PERIOD)

	COST PER ACRE	YOUR FARM	BREAK-EVEN PRICE (\$/BU.)	YOUR FARM
	\$	\$	(52 BU./AC)	\$
1. TOTAL VARIABLE COST	88.52	_____	1.70	_____
PLUS: TRACTOR, MACHINERY & BUILDING INSURANCE	.80	_____		
TRACTOR, MACHINERY & BUILDING TAXES	2.40	_____		
LAND TAXES	7.50	_____		
2. TOTAL CASH COST	99.22	_____	1.91	_____
PLUS: TRACTOR, MACHINERY & BUILDING DEPRECIATION	10.50	_____		
3. TOTAL CASH COST & DEPRECIATION	109.72	_____	2.11	_____
PLUS: TRACTOR, MACHINERY & BUILDING INTEREST	12.04	_____		
INTEREST ON SUMMER FALLOW COST	5.87	_____		
LAND (NET RENT)	41.99	_____		
4. TOTAL COST	169.62	_____	3.26	_____

TABLE 8D: SUMMARY OF RECEIPTS, COSTS, AND PROFITABILITY PER ACRE FOR SUMMER FALLOW-WINTER WHEAT, ADAMS COUNTY, WASHINGTON, 10- TO 13-INCH RAINFALL AREA, PRODUCTION SYSTEM 2 (TWO-YEAR PERIOD)

	YIELD PER ACRE	PRICE PER BUSHEL	VALUE OR COST	YOUR FARM
	BU.	\$	\$	
GROSS RECEIPTS WHEAT	52	3.50	<u>182.00</u>	_____
1. TOTAL RECEIPTS			182.00	_____
LESS: TOTAL VARIABLE COST			88.52	_____
2. RETURNS OVER VARIABLE COST			93.48	_____
LESS: TRACTOR, MACHINERY & BUILDING FIXED COST			25.74	_____
INTEREST ON SUMMER FALLOW			5.87	_____
LAND TAXES			7.50	_____
3. NET RETURNS TO LAND AND MANAGEMENT			54.37	_____

TABLE 1E: SCHEDULE OF OPERATIONS AND ESTIMATED COSTS PER ACRE FOR HARD RED SPRING WHEAT IN THE 10- TO 13-INCH RAINFALL AREA OF ADAMS COUNTY

OPERATION	TOOLING	MTH YEAR	MACH HOURS	LABOR HOURS	VARIABLE COST							TOTAL COST
					TOTAL FIXED COST	FUEL, LUBE, & REPAIRS	MACH LABOR	SERVICE	MATER.	INTER.	TOTAL VARIABLE COST	
					\$	\$	\$	\$	\$	\$	\$	\$
UNDERCUT	300HP-CH, 33' UNDERCUTTER	SEP 1998	.04	.05	.85	1.17	.60	.00	.00	.15	1.91	2.76
SPRAY	CUSTOM AERIAL	FEB 1999	.00	.00	.00	.00	.00	3.50	2.86	.29	6.65	6.65
CROP INSURANCE	FIRE & HAIL	MAY 1999	.00	.00	.00	.00	.00	1.20	.00	.03	1.23	1.23
DISC	300HP-CH, 40' OFFSET DISC	MAR 1999	.06	.07	.98	.96	.86	.00	.00	.07	1.89	2.87
PLANT	180HP-CT, 60' DRILL	MAR 1999	.06	.07	.66	1.07	.90	.00	14.90	.63	17.50	18.16
CULTIVATE/FERT	300HP-CH, 58' CULT W/BACKPACK	APR 1999	.05	.06	1.37	.85	.75	.00	19.50	.63	21.73	23.10
SPRAY	CUSTOM AIR	MAY 1999	.00	.00	.00	.00	.00	3.50	5.00	.19	8.69	8.69
HARVEST (35 BU.)	25' HILLSIDE COMBINE	JUL 1999	.05	.05	3.29	1.30	.63	.00	.00	.01	1.94	5.23
HARVEST (35 BU.)	25' LEVEL LAND COMBINE	JUL 1999	.05	.05	2.64	1.30	.63	.00	.00	.01	1.94	4.59
HARVEST (35 BU.)	CUSTOM HAULING	JUL 1999	.00	.00	.00	.00	.00	3.15	.00	.02	3.17	3.17
WEED CONTROL	\$ COST OF PERENNIAL WEED CONT.	ANN 1999	.00	.00	.00	.00	.00	.00	.40	.02	.42	.42
MISC USE	PICKUP	ANN 1999	.10	.11	.90	.49	1.38	.00	.00	.08	1.95	2.85
MISC USE	FARM TRUCK	ANN 1999	.05	.06	.92	.19	.69	.00	.00	.04	.92	1.84
MISC USE	50HP-WT W/BUCKET	ANN 1999	.06	.07	.58	.15	.86	.00	.00	.05	1.06	1.63
MISC USE	4-WHEEL ATV	ANN 1999	.06	.07	.18	.08	.86	.00	.00	.04	.98	1.16
MISC USE	FARM BUILDINGS	ANN 1999	.00	.00	1.83	.25	.00	.00	.00	.01	.26	2.09
MISC USE	SHOP TOOLS	ANN 1999	.00	.00	.92	.13	.00	.00	.00	.01	.13	1.05
MISC USE	FUEL & MISCELLANEOUS TANKS	ANN 1999	.00	.00	.56	.03	.00	.00	.00	.00	.03	.59
TAXES	LAND TAXES	ANN 1999	.00	.00	3.75	.00	.00	.00	.00	.00	.00	3.75
OVERHEAD	UTILITIES, LEGAL, ACCT, ETC.	ANN 1999	.00	.00	.00	.00	.00	3.62	.00	.00	3.62	3.62
LAND COST	NET RENT	ANN 1999	.00	.00	30.06	.00	.00	.00	.00	.00	.00	30.06
TOTAL PER ACRE			.58	.65	49.49	7.96	8.14	14.97	42.66	2.28	76.01	125.50

TABLE 2E: MATERIALS AND SERVICES USED BY OPERATION FOR HARD RED SPRING WHEAT
IN THE 10- TO 13-INCH RAINFALL AREA OF ADAMS COUNTY

OPERATION	MONTH	MATERIALS AND/OR SERVICES
SPRAY	FEBRUARY	11 OZS. OF ROUNDUP-RT @ 26¢/OZ. CUSTOM AERIAL @ \$3.50/ACRE
PLANT	MARCH	60 LBS. OF WHEAT SEED @ 15¢/LB. 10 LBS. OF NITROGEN (DRY) @ 33¢/LB. 10 LBS. OF PHOSPHATE (DRY) @ 26¢/LB.
CULTIVATE/FERTILIZE	APRIL	60 LBS. ACTUAL N (AQUA) @ 27¢/ACTUAL N 10 LBS. ACTUAL SULFUR (LIQ. SULFUR) @ 33¢/ACTUAL SULFUR
SPRAY	MAY	HERBICIDES @ \$5.00/ACRE CUSTOM AERIAL @ \$3.50/ACRE
CROP INSURANCE	MAY	FIRE & HAIL @ \$1.20/ACRE
HARVEST	JULY	CUSTOM HAULING 35 BUSHELS @ 9¢/BU.
WEED CONTROL	ANNUAL	PERENNIAL WEED CONTROL @ 40¢/ACRE
OVERHEAD	ANNUAL	5% OF VARIABLE COST

TABLE 3E: ITEMIZED COST PER ACRE FOR HARD RED SPRING WHEAT IN THE
10- TO 13- INCH RAINFALL AREA OF ADAMS COUNTY

		PRICE OR		VALUE OR	YOUR
		UNIT COST/UNIT	QUANTITY	COST	FARM

VARIABLE COSTS		\$		\$	
ROUNDUP-RT	OZ.	.26	11.00	2.86	_____
SPRING WHEAT SEED	LB.	.15	60.00	9.00	_____
DRY NITROGEN	LB.	.33	10.00	3.30	_____
DRY PHOSPHATE	LB.	.26	10.00	2.60	_____
AQUA (ACTUAL N)	LB.	.27	60.00	16.20	_____
LIQ SULFUR (ACTUAL S)	LB.	.33	10.00	3.30	_____
HERBICIDE	ACRE	5.00	1.00	5.00	_____
PERENNIAL WEED CONTL.	ACRE	.40	1.00	.40	_____
CUSTOM AERIAL	ACRE	3.50	2.00	7.00	_____
CUSTOM HAULING	BU.	.09	35.00	3.15	_____
CROP INSURANCE	ACRE	1.20	1.00	1.20	_____
TRACTOR REPAIR	ACRE	1.47	1.00	1.47	_____
TRACTOR FUEL/LUBE	ACRE	1.93	1.00	1.93	_____
MACHINERY REPAIRS	ACRE	3.24	1.00	3.24	_____
MACHINE FUEL/LUBE	ACRE	1.31	1.00	1.31	_____
LABOR(TRAC/MACH)	ACRE	8.14	1.00	8.14	_____
OVERHEAD	ACRE	3.62	1.00	3.62	_____
INTEREST ON OP. CAP.	ACRE	2.28	1.00	2.28	_____

TOTAL VARIABLE COST				76.01	_____
FIXED COSTS		\$		\$	
TRACTOR DEPRECIATION	ACRE	1.02	1.00	1.02	_____
TRACTOR INTEREST	ACRE	1.17	1.00	1.17	_____
TRACTOR INSURANCE	ACRE	.08	1.00	.08	_____
TRACTOR TAXES	ACRE	.23	1.00	.23	_____
MACHINE DEPRECIATION*	ACRE	5.18	1.00	5.18	_____
MACHINE INTEREST*	ACRE	6.32	1.00	6.32	_____
MACHINE INSURANCE*	ACRE	.42	1.00	.42	_____
MACHINE TAXES*	ACRE	1.26	1.00	1.26	_____
LAND TAXES	ACRE	3.75	1.00	3.75	_____
NET RENT**	ACRE	30.06	1.00	30.06	_____

TOTAL FIXED COST				49.49	_____
TOTAL COST				125.50	_____

* INCLUDES BUILDINGS, TOOLS AND TANKS.

**1/3 WHEAT CROP - 1/3 FERTILIZER COST - 1/3 CHEMICAL COST - 1/3
CROP INSURANCE - LAND TAXES

WHEAT YIELD ASSUMED TO BE 35 BUSHEL.

PRICE OF WHEAT TO PRODUCER ASSUMED TO BE \$3.80/BUSHEL.

Table 4E: BREAK-EVEN SELLING PRICE PER BUSHEL FOR HARD RED SPRING WHEAT,
ADAMS COUNTY, WASHINGTON, 10- TO 13-INCH RAINFALL AREA

	COST PER ACRE	YOUR FARM	BREAK-EVEN PRICE (\$/BU.)	YOUR FARM
1. TOTAL VARIABLE COST	\$ 76.01	\$ _____	(35 BU./AC) 2.17	\$ _____
PLUS: TRACTOR, MACHINERY & BUILDING INSURANCE	.50	_____		
TRACTOR, MACHINERY & BUILDING TAXES	1.49	_____		
LAND TAXES	3.75	_____		
2. TOTAL CASH COST	81.75	_____	2.34	_____
PLUS: TRACTOR, MACHINERY & BUILDING DEPRECIATION	6.20	_____		
3. TOTAL CASH COST & DEPRECIATION	87.95	_____	2.51	_____
PLUS: TRACTOR, MACHINERY & BUILDING INTEREST	7.49	_____		
LAND (NET RENT)	30.06	_____		
4. TOTAL COST	125.50	_____	3.59	_____

TABLE 5E: SUMMARY OF RECEIPTS, COSTS, AND PROFITABILITY PER ACRE FOR HARD
 RED SPRING WHEAT; ADAMS COUNTY, WASHINGTON, 10- TO 13-INCH
 RAINFALL AREA

	YIELD PER ACRE	PRICE PER BUSHEL	VALUE OR COST	YOUR FARM
	BU.	\$	\$	
GROSS RECEIPTS WHEAT	35	3.80	<u>133.00</u>	_____
1. TOTAL RECEIPTS			133.00	_____
LESS: TOTAL VARIABLE COST			76.01	_____
2. RETURNS OVER VARIABLES COST			56.99	_____
LESS: TRACTOR, MACHINERY & BUILDING FIXED COST			15.68	_____
LAND TAXES			3.75	_____
3. NET RETURNS TO LAND AND MANAGEMENT			37.56	_____

TABLE 9: EQUIPMENT AND BUILDING DATA

MACHINE OR BUILDING NAME	PURCHASE PRICE (\$)	YEARS OF USE	SALVAGE VALUE (\$)	ANNUAL REPAIR COST (\$)	ANNUAL HOURS OF USE	GALLONS OF FUEL USE PER HOUR
300HP CHALLENGER	85,000	15	20,000	5,000	1000	9, 10, 12 DIESEL
180HP-CRAWLER	10,000	20	2,000	3,500	400	6 DIESEL
25' LEVEL LAND COMBINE	85,000	10	40,000	4,000	200	10 DIESEL
25' HILLSIDE COMBINE	110,000	10	65,000	4,000	200	10 DIESEL
PICKUP	25,000	10	7,500	500	400	3 GAS
FARM TRUCK	30,000	15	3,000	250	200	3 DIESEL
50HP-WHEEL TRACTOR W/BUCKET	8,500	20	1,500	75	100	2 DIESEL
4-WHEEL ATV	6,000	15	1,500	150	250	0.5 GAS
33' UNDERCUTTER	15,000	20	750	2,000	180	
58' CULT/HARROW	30,000	20	1,500	400	200	
42' CULT/PACKER	14,000	20	1,000	200	200	
72' RODWEEDER	9,000	20	450	500	400	
60' DRILL	15,000	20	750	500	200	
40' OFFSET DISK	6,000	20	300	200	150	
25' OFFSET DISK	6,000	20	300	200	225	
25' CHISEL	5,000	15	250	300	250	
70' TINE HARROW	16,000	10	5,000	200	300	
35' CHISEL & MULCH TREADER	21,000	20	1,050	300	400	
32' SKEW TREADER	13,000	20	560	450	275	
58' BACK PACK	6,000	20	300	1,000	200	
FARM BUILDINGS	80,000	30	4,000	1,000	4000 ac	
SHOP TOOLS	30,000	15	1,500	500	4000 ac	
FUEL & MISC. TANKS	25,000	30	0	100	4000 ac	

TABLE 10: HOURLY OR PER ACRE EQUIPMENT AND BUILDING COSTS

MACHINERY	PURCHASE PRICE	YEARS		DEPRECIATION	INTEREST	INSURANCE	TAXES	TOTAL FIXED COST	REPAIR	FUEL AND LUBE	TOTAL VARIABLE COST	TOTAL COST	
		TO TRADE	ANNUAL HOURS										
	\$							COST PER HOUR					
300HP-CHALLENGER	85,000.00	15	1000	4.33	4.73	.32	.95	10.32	5.00	10.35 ¹	15.35	25.67	
180HP-CRAWLER TRAC.	10,000.00	20	400	1.00	1.35	.09	.27	2.71	8.75	5.18	13.93	16.64	
25' LL COMBINE	85,000.00	10	200	22.50	28.13	1.88	5.63	58.13	20.00	8.63	28.63	86.75	
25' HS COMBINE	110,000.00	10	200	22.50	39.38	2.63	7.88	72.38	20.00	8.63	28.63	101.00	
PICKUP	25,000.00	10	400	4.38	3.66	.24	.73	9.01	1.25	3.62	4.87	13.88	
FARM TRUCK	30,000.00	15	200	9.00	7.43	.50	1.49	18.41	1.25	2.59	3.84	22.24	
50HP-WT W/BUCKET	8,500.00	20	100	3.50	4.50	.30	.90	9.20	.75	1.73	2.47	11.68	
4-WHEEL ATV	6,000.00	15	250	1.20	1.35	.09	.27	2.91	.60	.60	1.20	4.11	
33' UNDERCUTTER	15,000.00	20	180	3.96	3.94	.26	.79	8.95	11.11	.00	11.11	20.06	
58' CULTIVATOR/HAR	30,000.00	20	200	7.13	7.09	.47	1.42	16.10	2.00	.00	2.00	18.10	
42' CULT/PACK	14,000.00	20	200	3.25	3.38	.23	.68	7.53	1.00	.00	1.00	8.53	
72' RODWEEDER	9,000.00	20	400	1.07	1.06	.07	.21	2.42	1.25	.00	1.25	3.67	
60' DRILL	15,000.00	20	200	3.56	3.54	.24	.71	8.05	2.50	.00	2.50	10.55	
40' OFFSET DISK	6,000.00	20	150	1.90	1.89	.13	.38	4.29	1.33	.00	1.33	5.63	
25' OFFSET DISK	6,000.00	10	225	2.53	1.26	.08	.25	4.13	.89	.00	.89	5.02	
25' CHISEL	5,000.00	15	250	1.27	.95	.06	.19	2.46	1.20	.00	1.20	3.66	
70' TINE HARROW	16,000.00	10	300	3.67	3.15	.21	.63	7.66	.67	.00	.67	8.32	
35' CHISEL&MUL TR	21,000.00	20	400	2.49	2.48	.17	.50	5.64	.75	.00	.75	6.39	
32' SKEW TREADER	13,000.00	20	275	2.26	2.22	.15	.44	5.07	1.64	.00	1.64	6.71	
58' BACK PACK	6,000.00	20	200	1.43	1.42	.09	.28	3.22	5.00	.00	5.00	8.22	
								COST PER ACRE					
FARM BUILDINGS	80,000.00	30	-	.63	.95	.06	.19	1.83	.25	.00	.25	2.08	
SHOP TOOLS	30,000.00	15	-	.47	.35	.02	.07	.92	.13	.00	.13	1.05	
FUEL & MISC TANKS	25,000.00	30	-	.21	.28	.02	.06	.56	.03	.00	.03	.59	

¹Fuel and lube cost shown at a fuel consumption rate of 12 gallons per hour. At a fuel consumption rate of 10 gallons per hour the cost is \$8.63 and at 9 gallons per hour the cost is \$7.76.

Table 6: Machine Combinations and Acres per Hour by Operation

Operation	Tools	Acres/Hour When Machine is Running	Labor Hours Per Machine Hour
Undercut	300HP-Chal., 33' Undercutter	24	1.1
Chisel	300HP-Chal., 25' Chisel	15	1.1
Disk	300HP-Chal., 40' Offset Disk	16	1.1
Disk	300HP-Chal., 25' Offset Disk	10	1.1
Cultivate/Harrow	300HP-Chal., 58' Cultivator/Harrow	25	1.1
Cultivate/Pack	300HP-Chal., 42' Cultivator/Packer	20	1.1
Cultiweed	300HP-Chal., 58' Cultivator/Harrow	25	1.1
Cultivate/Fertilize	300HP-Chal., 58' Cultivator/Back Pack	20	1.2
Fertilize	300HP-Chal., 58' Back Pack	23	1.2
Skewtread	300HP-Chal., 32' Skewtreader	25	1.1
Rodweed	300HP-Chal., 72' Rodweeder	30	1.1
Harrow	300HP-Chal., 70' Tine Harrow	30	1.1
Sweep & Mulch	300HP-Chal., 35' Chisel & Mulch Treader	12	1.1
Plant	180HP-CT, 60' Drill	20	1.2
Harvest	Level Land Combine	11	1.1
Harvest	Hillside Combine	11	1.1

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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