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STANDARDS OF PRODUCTION, LABOR, MATERIAL, AND OTHER COSTS FOR SELECTED CROP AND LIVESTOCK ENTERPRISES

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Introduction

These standards are presented for use in preparing budgets, in testing or planning changes in farm organization or grouping of enterprises in a farm business, and to make available for many uses quantitative and cost material gleaned from the study of farm enterprises over a long period of years. The basic information used in the preparation of this material was all originally obtained from Enterprise Efficiency Studies conducted by the Agricultural Extension Service in cooperation with interested groups of growers in certain districts since 1925.

It is not the purpose of these tables to show or reflect average cost of production but to present costs as they would occur with all labor costing 30 cents an hour and with a fairly high standard of efficiency in management and with material and other costs as they are or will probably be for the next few years. Production per acre or per animal in all cases is assumed at levels that are known to be above the average for the area to which the table applies but not above that obtainable by efficient growers who perform in an adequate manner the operations listed and who furnish the materials and facilities provided for in these tables. They are presented as a goal or standard to which results on individual farms may be compared. Costs are based on an adequate commercial size of producing unit which is usually stated at the bottom of each table. The quantities of labor, field power, and materials used are given in most cases along with the assumed prices so changes or corrections to different conditions may be easily made. These tables may be used as guides for computing probable costs for other cost or production levels. They are not actual cost presentations but are rather sample compilations of cost built up from the observed requirements and methods of production.

Costs of production contain the following subdivisions and significant subtotals:

Hired Man Labor - assumed to cost 30 cents an hour.
Operator's and Family Labor - included at 30 cents an hour.
Horse Work - assumed to have a total cost as shown including year around feed and maintenance including depreciation and interest on investment. Rates vary from 7½ cents an hour up to 15 cents, depending on the hours of use and prevailing feed and other costs in the locality.
Tractor Work - Rate per hour covers all costs of ownership and operation of the tractor without the driver. Rates vary from $.75 to $1.50 an hour for tractors of different sizes or for varying amounts of annual use.
Truck Work - Rate computed on same basis as tractor.
Contract Work - Where work is customarily hired on a contract basis it is included at the going prices for such work.
TOTAL LABOR COST - The sum of the above costs. Total Cultural Labor is usually the sum of the costs up to harvesting.
MATERIAL COSTS - Water, seed and supplies used in the production of a crop, or feed, etc., for livestock. Costs estimated at present levels for the assumed conditions.
CASH OVERHEAD COSTS - General overhead expense, taxes, etc.
TOTAL CASH COSTS - Includes all the above costs as though family labor, home grown feeds, etc., were cash expenditures.
DEPRECIATION - That part of the original cost of trees, buildings and equipment which should be charged to each year of production in order to spread the cost of such facilities over the time they are used.
TOTAL CASH AND DEPRECIATION COSTS - All above costs - all costs except interest.
INTEREST ON INVESTMENT - Computed at 5% of the average investment shown and included to cover the cost of invested capital or to represent a part of the earning of capital required to induce its employment in the enterprise.
TOTAL COST OF PRODUCTION - All above costs.

SCHEDULE OF COST PER HOUR OF OPERATION - FARM FIELD POWER UNITS

Kind of field power unit	2-horse team	Automobiles		Wheel tractors				Track type tractors				
		Pick-up	Truck	Gasoline		Steel wheels		Gasoline, etc.			Diesel	
Capacity or D.B.H.P.	2*	½ ton	1½ tons	9	13	18	24	20	26	33	26	34
Group no. and no. plows	2H	A½	A 1½	W 1½	W2	W3	W4	T3	T4	T5	TD 4	TD 5
Cost new	$250	$700	$850	$800	$1000	$1200	$1400	$1575	$2175	$2850	$2700	$3650
Annual fixed charges												
Housing	11	5	6	5	5	5	5	5	6	7	6	7
Insurance		25	30	2	3	3	4	4	6	7	7	9
Taxes and license	4	9	19	4	5	6	7	8	12	14	14	18
Maintenance feed and labor	110											
Interest on ½ cost at 5%	6	18	21	20	25	30	35	39	54	71	68	91
Total fixed overhead	131	57	76	31	38	44	51	56	78	99	95	125
Minimum annual depreciation	25	70	85	67	83	100	117	131	181	237	234	304
Min. annual overhead	156	127	161	98	121	144	168	187	259	336	329	429
Additional costs per hour of operation - automobiles 10 miles for 1 hour of farm use												
Fuel, gas 17¢, 13¢, diesel 5¢ gal.	.02	.16	.20	.22	.26	.39	.52	.39	.52	.65	.12	.15
Crank case oil at 60¢ gal.		.02	.02	.05	.06	.07	.08	.06	.07	.08	.08	.10
Other oils, greases, etc.		.01	.01	.02	.02	.03	.04	.05	.06	.07	.06	.07
Repairs, parts, tires, etc.		.12	.18	.05	.06	.07	.08	.15	.20	.25	.30	.40
Servicing labor	.02	.02	.02	.02	.03	.03	.03	.04	.05	.06	.07	.08
Operating cost per hour	.04	.33	.43	.36	.43	.59	.75	.69	.90	1.11	.63	.80
Total cost per hour of operation for varying amounts of annual use												
Hours of annual use: 100	1.60	1.60	2.04	1.34	1.64	2.03	2.42	2.56	3.49	4.47	3.92	5.09
200	.82	.96	1.24	.85	1.04	1.32	1.59	1.64	2.20	2.79	2.28	2.95
300	.56	.75	.97	.69	.83	1.07	1.31	1.31	1.76	2.23	1.73	2.23
400	.43	.65	.83	.61	.73	.95	1.17	1.16	1.55	1.95	1.45	1.87
500	.35	.58	.75	.56	.67	.88	1.09	1.06	1.42	1.78	1.29	1.65
600	.30	.54	.70	.52	.63	.83	1.03	1.00	1.33	1.67	1.18	1.52
800	.24	.49	.63	.48	.58	.77	.96	.92	1.22	1.53	1.04	1.34
1000	.20	.46	.59	.46	.55	.73	.92	.88	1.16	1.45	.96	1.23
1200	.17	.45	.58	.45	.53	.71	.89	.85	1.12	1.39	.91	1.16
1400	.16	.44	.57	.44	.53	.70	.89	.84	1.11	1.38	.90	1.15

Farm field power units have two classes of costs; fixed or overhead costs and operating costs. The more the hours of use per year, the lower will be the overhead cost per hour of operation, although operating cost will remain about the same. Depreciation is computed at an annual minimum except where auto use exceeds 1,000 hours a year and tractor use, 1,200 hours, in which case it is based on a maximum life of 10,000 hours (100,000 miles) for trucks and 12,000 hours for tractors. Above costs may be adjusted for different initial costs, fuel consumption and cost, etc.

*Costs per 2-horse team per hour may be divided by two to get cost per horse hour.