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Production Costs and Expected Returns; Alternative Crop and Livestock Enterprises; Clay Soils in the Northern Portion of the Rolling Plains of Texas

Data given are applicable to:
Wheeler, Donley, Collingsworth, Hall, Childress, Hardeman, Motley, Cottle, Foard, Wilbarger, and Wichita counties

TEXAS AGRICULTURAL EXPERIMENT STATION
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IN COOPERATION WITH THE U. S. DEPARTMENT OF AGRICULTURE

PREFACE

The results presented in this publication are from Texas Agricultural Experiment Station Project 1181, "An Economic Appraisal of Farming Adjustment Opportunities in Selected Areas of Texas to Meet Changing Conditions." This project is in cooperation with the Farm Economics Research Division, Agricultural Research Service, United States Department of Agriculture, contributing to Regional Project S-42, "An Economic Appraisal of Farming Adjustment Opportunities to Meet Changing Conditions in Southern Agriculture."

A major contribution to the development of the Rolling Plains phase of the study, as presented in this publication, was developed by Oklahoma personnel under their Experiment Station Project 1040. In both States, helpful cooperation was given by persons in the Soil Conservation Service, Agricultural Stabilization and Conservation Service, Extension Service, and Experiment Station. The cooperation and assistance of the members of the technical committee for S-42 are acknowledged.

It is hoped that the analysis provided will serve the needs of farmers and professional agricultural workers for current farm planning information. In addition, these results are being used in further research aimed at evaluating the economic consequences of alternative farming systems in the area.

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List of Enterprise Budget Tables[1]

[1]Each budget is identified with a number referring to the table in which the budget appears, a decimal, then another number referring to the budget's position in the table. Thus, budget number 3.3 refers to the third budget of Table 3.

PRODUCTION COSTS AND EXPECTED RETURNS, ALTERNATIVE CROP AND LIVESTOCK ENTERPRISES, CLAY SOILS IN THE NORTHERN PORTION OF THE ROLLING PLAINS OF TEXAS

This publication was developed by a sub-committee of the regional research project. Committee members are: D. S. Moore and K. R. Tefertiller, Department of Agricultural Economics and Sociology, Texas A. and M. College; James S. Plaxico and John W. Goodwin, Department of Agricultural Economics, Oklahoma State University; and Ralph H. Rogers, James R. Martin, William F. Lagrone and Larry J. Connor, Farm Economics Research Division, Agricultural Research Service, U. S. Department of Agriculture.

Farm managers periodically find it necessary to evaluate their farm organizations in light of changing technical and economic conditions. This publication contains information which will prove helpful in evaluating alternative enterprises and alternative production practices on farms with claypan soils in the northern part of the Rolling Plains of Texas and the Rolling Plains of Southwestern Oklahoma (see Figure 1). The estimates presented are not necessarily applicable to an individual farm or an individual year. However, the information can be adjusted easily to fit specific farm situations.

Sources of Data

The estimates presented are based on results obtained from experiments, personal interviews with farmers, estimates by scientists and from other primary and secondary sources. Published literature referred to in determining the estimates is listed in the bibliography.

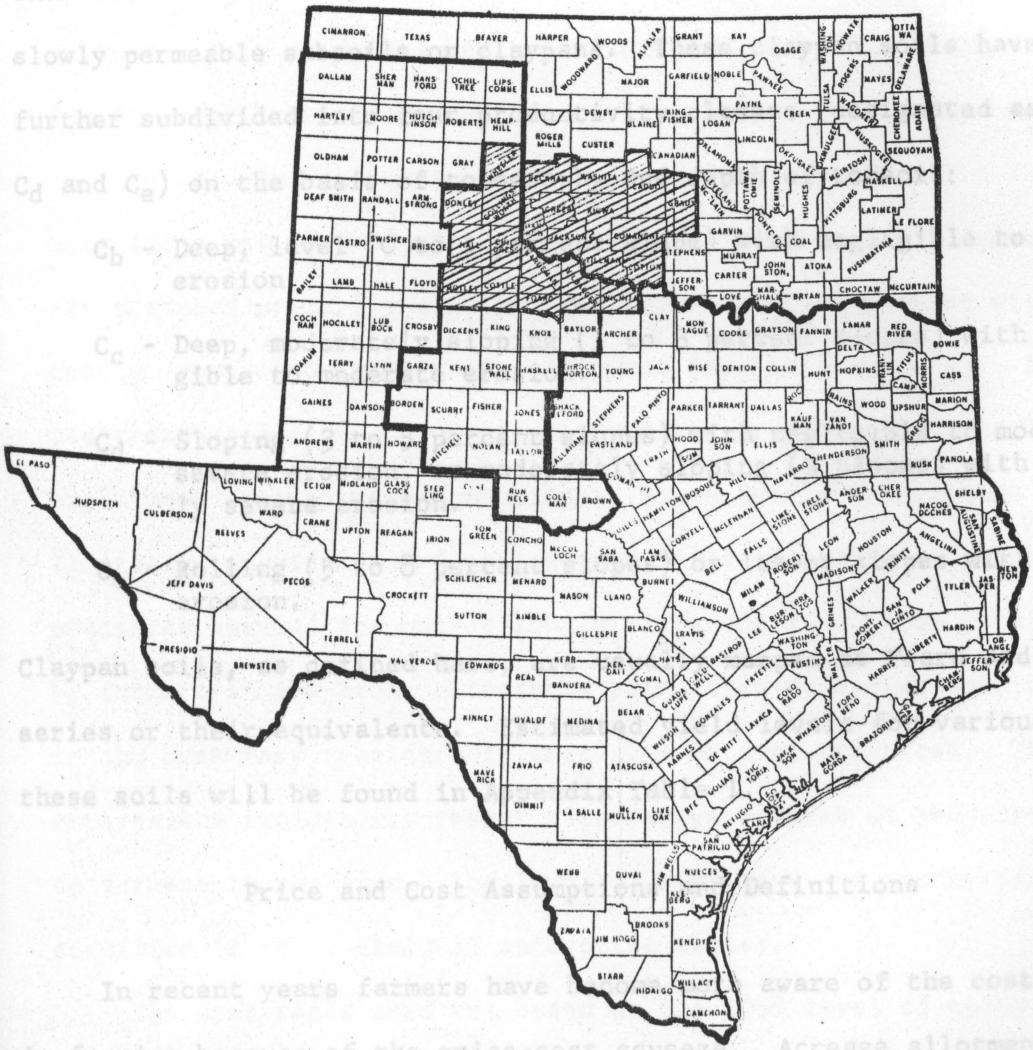

Figure 1. Map of Oklahoma and Texas outlining counties of the Low Rolling Plains. Shaded Counties contain claypan soils.

Cropland and Soil Resource Specifications

The classification of clay (or claypan) soils for purposes of this analysis is based on a grouping of soils according to major physical soil characteristics. Clay soils are both fine and medium textured with very slowly permeable subsoils or claypans. These claypan soils have been further subdivided into four productivity classes (designated as C_b, C_c, C_d and C_e) on the basis of topography and depth of topsoil:

C_b - Deep, level (0 to 1 percent slope) with negligible to moderate erosion.

C_c - Deep, moderately sloping (1 to 3 percent slopes) with negligible to moderate erosion.

C_d - Sloping (3 to 5 percent slopes) with negligible to moderately severe erosion, or moderately sloping (B slopes) with moderately severe erosion.

C_e - Rolling (5 to 8 percent slopes) or lesser slopes with severe erosion.

Claypan soils, as defined here, are usually mapped as Foard and Tillman series or their equivalents. Estimated yield levels for various crops on these soils will be found in Appendix Table 1.

Price and Cost Assumptions and Definitions

In recent years farmers have become more aware of the costs involved in farming because of the price-cost squeeze. Acreage allotment restrictions on basic cash crops have emphasized the need for alternative enterprises. The cost and return estimates in this publication are presented for use in studying these problems and to assist farmers in making decisions with respect to choice of enterprises. The price assumptions are presented in Appendix Tables 2 and 3 and used throughout the budgets.

These are estimates of current prices paid and received and are not to be interpreted as predictions of prospective prices in any future year. The assumed prices received for cotton lint and wheat are approximately the 1960 support prices for those products, while other prices have been derived from survey data and price information published by the United States Department of Agriculture.

In calculating costs of producing a farm enterprise, a level of equipment and a set of production practices must be assumed. Crops in this area are produced primarily with two-row and four-row equipment with appropriate tractor power and small grain equipment (Appendix Table 4). Production requirements and practices assume improved or advanced technology based on experiment station recommendations. Since available moisture is the major limitation on yields on fine-textured soils in the area, production practices assumed are only slightly different from those usually followed by farmers in the area. Livestock production practices used by farmers in the area vary considerably more than do crop practices. The livestock enterprises included represent alternative systems of production available to farmers in the area. The level of equipment and production system is specified in the individual enterprise tables.

The cost rates used are based on the 1958 level of costs prevailing in the area. The 1958 costs have been adjusted slightly, based on the assumption of rapid population growth, national prosperity, and a trend toward world peace. Farm wage rates are assumed to be $1.00 per hour. The cost of capital is assumed to be 6 percent per annum for both operating and investment capital.

In the calculations presented in this publication, costs are allocated to individual enterprises insofar as is feasible. These costs are divided

into three major categories: (1) annual enterprise operating expenses; (2) overhead costs; and (3) value of operator's labor.

Annual enterprise operating expenses include costs such as seed, fertilizer, hired contract labor or custom operations, tractor operating costs, and machinery repairs which occur each year. These costs are directly associated with an enterprise. Wear depreciation per hour of tractor and machinery use is calculated by subtracting salvage value from new price and dividing by the estimated hours of use to wear out.[1] The charge for depreciation estimated on this basis will be less than the required allowance for replacement if tractors and machinery items are used less than a specified minimum number of hours per year, because obsolescence would be expected to reduce the original value of a machine to its salvage value within a specified number of years.

Overhead costs include such fixed costs as depreciation due to obsolescence, interest, and taxes on buildings and machinery. As pointed out in the preceding paragraph, wear depreciation is computed by subtracting salvage value from new price and dividing by the estimated hours of use to wear out. If the machine is used less than the specified minimum hours of use per year, there is a fixed obsolescence depreciation charge which must be charged against the entire farm business.

Total capital requirements are computed as an indication of over-all requirements, while annual capital is computed for the purpose of calculating interest charges for each enterprise. An example of total and

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[1]Based on C. B. Richey, "Crop Machine Use," in Agricultural Engineers Yearbook, 1959 Edition, American Society of Agricultural Engineers.

annual capital might be helpful. Cows represent a 12-month investment and interest would therefore be charged at the full rate. In the case of cows, total and annual capital requirements for investment in livestock would be identical, but suppose steers were to be kept for only three months. In this case, annual capital required for livestock investment would be only 25 percent of the total capital requirement. Thus, total capital must always be greater than (or equal to) annual capital.

Interest on investment in tractors and machinery per hour of use is calculated by: (1) dividing new price by 2 to obtain average investment; (2) dividing average investment by the estimated average hours of use per year to obtain capital required per hour of use; and (3) multiplying capital required per hour of use by 6 percent. Interest costs per hour of use of tractors and machinery items presented in enterprise tables are approximations because estimated annual hours of use are secured by dividing the total number of hours to wear out by the number of years required to become obsolete (for the new price to be reduced to salvage value). Interest on an acreage basis will be undercharged if actual yearly hours of use are less than the average hours of use obtained by the computations presented.

Determining capital requirements for livestock budgets presents a unique problem. Permanent fencing, hay storage, and corrals are required for all livestock enterprises, but electric fencing is generally required only for those utilizing small grain grazing. Thus capital requirements are different for the different livestock budgets. In like manner, for those enterprises requiring large quantities of hay, capital requirements will be greater due to the investment in hay storage facilities.

Available data indicate that hay storage requires $17.00 of total capital per ton. (Construction costs for a pole-type barn with 12-foot ceiling are about $1.50 per square foot. One ton of baled hay would require approximately 11.25 square feet of floor space in such a barn. 11.25 x $1.50 = $16.88 capital per ton of hay.) On an annual basis, this figure would be reduced to $8.50, since a straight line depreciation schedule is assumed for this type of structure. Annual repair costs are assumed to be 5 percent of the construction costs or $.85 per ton. The total and annual capital charges for hay storage in any enterprise budget would be the tonnage of hay required for that enterprise multiplied by the corresponding per-ton capital requirement. Annual repair costs would be computed in the same manner.

Capital requirements for electric fencing are computed in much the same manner as hay storage. Data indicate that approximately three acres of small grain pasture are required for each animal unit month of grazing. A 160-acre field of small grain will therefore produce approximately 53 AUM of winter grazing. Appendix Table 5 indicates that the capital cost of electrically fencing a quarter section of land is $333.19 or $6.22 per AUM of grazing produced. Total capital required would be $6.22 per AUM and annual capital would be half this figure, as in hay storage capital requirements computations. Repairs and depreciation are assumed to be eight percent of new cost. (Capital costs of permanently fencing a quarter section of land are shown in Appendix Table 6.)

A third capital item attributed directly to livestock is corrals. Substantial corrals for handling a 25-cow herd can be built for approximately $100. Therefore the total capital requirement for this item is

$4.00 per cow and $3.00 per steer (since more steers than cows may be handled in a given set of corrals and since steers are not a year-round operation). The annual capital requirement, assuming straight line depreciation, would be half this figure. Annual repairs and depreciation are assumed to be 10 percent of new cost.

Monthly labor is charged at $1.00 per hour. Monthly labor is defined as labor required for a particular enterprise other than labor hired on a custom or contract basis. This is labor customarily performed by farm operators but which may be hired by the hour or performed by a full-time hired worker.

General overhead costs such as pick-up truck expense, bookkeeping, and taxes and interest on investment in land are not allocated to enterprises but do represent expenses against the total farm business.

Since these estimates of costs are based on average input-output data, and specific computational procedures are used, they are most useful for comparative purposes. Estimates of annual enterprise operating costs have a wider range of applicability than estimates of fixed costs.

Interpretation of Returns Estimates

Characteristically, farm resources are used jointly by two or more farm enterprises. In addition, many farm products are intermediate goods to be used by other enterprises. Consequently the allocation of returns to a specific enterprise is necessarily somewhat arbitrary. For purposes of this report the following guides have been used:

(1) In the case of products produced for the market, two returns estimates are presented. These are: (a) returns to land, labor, management and risk, (b) returns to land, management and risk.

(2) For intermediate products, such as feed or grazing crops, two cost of production computations are given. These are: (a) costs other than land, labor, management and risk, (b) costs other than land, management and risk.

Where labor was considered in computing returns and costs, all hourly labor including operator and family labor is charged at $1.00 per hour. Contract labor, such as cotton chopping and pulling, or labor involved in custom hired operations such as cotton stripping, is not included in labor requirements but is included in costs in all cases.

In effect, the returns estimates for products produced for the market is a residual return for resources for which no charge has been estimated. Since the amounts of the non-charged resources are different for the various enterprises, the returns per acre and per animal are not entirely comparable.

In evaluating the returns estimates the reader should bear in mind the fact that these returns are based on a single set of price assumptions. Obviously, different price assumptions would generate a different set of estimates.

The Enterprise Budgets

In the following budgets, all cost and return estimates have been computed on the basis of four-row farm machinery. Labor has been estimated as an annual figure. In Appendix Table 7, costs and returns estimates as well as labor, power and machinery requirements are listed for each budget assuming two-row farm machinery. In Appendix Tables 8, 9, and 10, the monthly distribution of labor requirements for each budget

is summarized for both two-row and four-row equipment. In Appendix Table 11, the total and annual capital requirements for each crop budget are listed for both two-row and four-row equipment. It must be pointed out that economies of scale may alter these capital figures since they assume that no depreciation due to obsolescence occurs. If the farm is not large enough to fully utilize four-row equipment, an additional capital charge must be made to cover the fixed cost of obsolescence. Capital requirements are the same for livestock, regardless of size of farm equipment.

An explanation of the system of budget identification will be helpful in using the Appendix Tables. The number to the left of the decimal refers to the table in which the budget appears. The number to the right refers to the budget number on the table. Hence, budget 3.3 would be the third budget on Table 3.

In those budgets which require or produce hay, oat hay has been assumed. However, any small grain or combination of small grains is adaptable to small grain hay production and may be substituted for oat hay. The term "AUMG", used throughout the budgets as a measure of grazing requirements or production refers to "animal unit months grazing." An animal unit month grazing is the grazing required to feed a 1,000-pound cow and her calf for one month. Thus, in some of the cow-calf budgets (e.g. Table 18) the herd requirements for a 25-cow herd would be greater than 12 AUM per cow, in order to allow grazing for the bull and replacement heifers. In the feeder animal budgets, an animal is assumed to require 0.1 AUM's for each 100 pounds of body weight. Hence, a 450-pound calf would require .45 AUM of grazing each month, assuming that no

supplemental forage is fed. In Table 26, a 450-pound steer bought September 10 and sold off grass July 10 at a weight of 725 pounds would require 6.0 AUMG of grazing. The average weight of the steer is the initial weight plus the selling weight divided by two ($\frac{450 + 725}{2} = 587.5$ or approximately 600 pounds). Since this animal is on pasture for a period of ten months, the AUM grazing requirement would be (.6 x 10 = 6 AUMG).

The costs of hay and sudan grazing are included in all the livestock budgets requiring these two feed crops. Hay produced on the farm would normally be used in the livestock enterprises, but an assumed value has been assigned to hay in order to give a more realistic picture of the livestock enterprises. Since sudan grazing must be used on the farm, no value has been assigned to sudan production and it is included in the livestock budgets simply as a cost of production.

In the case of the cow-calf budgets, it will be noted that there are four replacement heifers produced, while only three brood cows are culled. The reason for this is the assumed heifer and cow death loss of approximately 3.25 percent.

Hauling, ginning and wrapping of cotton is included in the enterprise budgets as a single cost of $1.10 per hundredweight of seed cotton. This may be separated into two costs of .25 per hundredweight for hauling cotton and .85 for ginning and wrapping.

Table 1: Estimated Per Acre Requirements, Costs and Returns for Cotton,[1] Contract Hauling, Cb Land

Item	Unit	Price or Cost Per Unit	(1.1) Hand Harvest, Hourly Labor		(1.2) Hand and Mechanical Harvest, Contract Hoeing, Snapping, Stripping		(1.3) Mechanical Harvest, Contract Hoeing, Stripping	
			Quantity	Value or Cost	Quantity	Value or Cost	Quantity	Value or Cost
		(dollars)		(dollars)		(dollars)		(dollars)
(1) Production:								
Lint	cwt.	28.17	1.40	39.44	1.40	39.44	1.40	39.44
Seed	ton	50.00	.117	5.85	.117	5.85	.117	5.85
Total				45.29		45.29		45.29
(2) Inputs:								
Seed	lb.	.08	24	1.92	24	1.92	24	1.92
Power	hr.	1.27	2.0	2.54	2.0	2.54	2.0	2.54
Other machinery	hr.	.396	1.82	.72	1.82	.72	1.82	.72
Hoeing	acre	2.50	--	--	.8	2.00	.8	2.00
Insecticide	acre	2.00	.8	1.60	.8	1.60	.8	1.60
Dessicant	acre	2.00	--	--	--	--	.8	1.60
Specified Preharvest Cost				(6.78)		(8.78)		(10.38)
Snapping	cwt seed cotton	2.00	--	--	3.3	6.60	--	--
Stripping	cwt. seed cotton	.75	--	--	2.64	1.98	6.6	4.95
Haul and gin	cwt seed cotton	1.10	5.5	6.05	5.94	6.53	6.6	7.26
Grade loss	lb. lint	.01	--	--	--	--	140	1.40
Capital:								
Total	dollars	--	17.07	--	18.60	--	20.47	--
Annual	dollars	.06	14.16	.85	14.81	.89	16.14	.97
(3) Specified Costs				13.68		24.78		24.96
(4) Returns to Land, Labor, Risk and Management[6]				31.61		20.51		20.33
(5) Hourly labor	hr.	1.00	18.26	18.26	2.18	2.18	2.18	2.18
(6) Returns to Land, Risk and Management[7]				13.35		18.33		18.15

1, 6, 7 For these footnotes and footnotes in subsequent tables, see page 13.

[1]The budget unit is 1.0 acre of land. Each budget involves 0.8 acre of cotton because of the restriction of one year of fallow in five to control disease. The cropping system is C-C-C-C-F (4 years cotton, 1 year fallow).

[2]The budget unit is 1.0 acres of land. Each budget involves 0.67 acre of cotton and 0.167 acre of small grain, and 0.167 acre of fallow. This restriction is necessary to control soil borne diseases. The cropping system is C-C-C-C-SG-F (4 years cotton, 1 year small grain, 1 year fallow).

[3]It is assumed that hay production may either be used on the farm in the production of livestock or sold at $20.00 per ton.

[4]Blue panic grass for grazing is assumed to require an equal acreage of sudan grass (or some other summer grazing crop) in order that the blue panic may be fully utilized. Blue panic must be heavily pastured, then allowed to rest, then heavily pastured, etc., in order to maintain palatability. Sudan grazing is used for the interim periods. The budgets in Tables 16 and 17 include 1/5 the establishment costs plus maintenance costs for 1/2 acre of blue panic and the establishment costs for 1/2 acre sudan.

[5]Sufficient seed will be harvested to pay harvesting and reseeding costs.

[6]Gross income less specified costs (includes returns to unallotted overhead costs).

[7]Gross income less specified costs and hourly labor at $1.00 per hour (includes returns to unallotted overhead costs).

[8]Total specified costs plus hourly labor at $1.00 per hour.

[9]These figures assume a death loss among cows and heifers of approximately 3.25 percent.

[10]Small grain grazing required after March 1 must come from unharvested small grain. For this reason, the livestock enterprise is charged with the cost of small grain grazed after March 1 (see Tables 12 and 13).

Table 2. Estimated Per Acre Requirements, Costs and Returns for Cotton,[1] Contract Hauling, C_c Land

Item	Unit	Price or Cost Per Unit (dollars)	(2.1) Hand Harvest, Hourly Labor		(2.2) Hand and Mechanical Harvest, Contract Hoeing, Snapping and Stripping		(2.3) Mechanical Harvest, Contract Hoeing, Stripping	
			Quantity	Value or Cost (dollars)	Quantity	Value or Cost (dollars)	Quantity	Value or Cost (dollars)
(1) Production:								
Lint	cwt.	28.17	1.00	28.17	1.00	28.17	1.00	28.17
Seed	ton	50.00	.083	4.15	.083	4.15	.083	4.15
Total				32.32		32.32		32.32
(2) Inputs:								
Seed	lb.	.08	24	1.92	24	1.92	24	1.92
Power	hr.	1.27	2.0	2.54	2.0	2.54	2.0	2.54
Other machinery	hr.	.396	1.82	.72	1.82	.72	1.82	.72
Hoeing	acre	2.50	--	--	.8	2.00	.8	2.00
Insecticide	acre	2.00	.8	1.60	.8	1.60	.8	1.60
Dessicant	acre	2.00	--	--	--	--	.8	1.60
Specified Preharvest Cost				(6.78)		(8.78)		(10.38)
Snapping	cwt seed cotton	2.00	--	--	2.30	4.6	--	--
Stripping	cwt seed cotton	.75	--	--	1.84	1.38	4.6	3.45
Haul and gin	cwt seed cotton	1.10	3.84	4.22	4.14	4.55	4.6	5.06
Grade loss	lb. lint	.01	--	--	--	--	100	1.00
Capital:								
Total	dollars	--	17.07	--	18.60	--	20.47	--
Annual	dollars	.06	14.16	.85	14.81	.89	16.14	.97
(3) Specified Costs				11.85		20.20		20.86
(4) Returns to Land, Labor, Risk and Management[6]				20.47		12.12		11.46
(5) Hourly labor	hr.	1.00	18.26	18.26	2.18	2.18	2.18	2.18
(6) Returns to Land, Risk, and Management[7]				2.21		9.94		9.28

1, 6, 7
See page 13.

Table 3: Estimated Per Acre Requirements, Costs and Returns for Wheat Enterprise, Hourly Labor, Contract Combining and Hauling

Item	Unit	Price or Cost Per Unit (dollars)	(3.1) C_b Land Quantity	(3.1) C_b Land Value or Cost (dollars)	(3.2) C_c Land Quantity	(3.2) C_c Land Value or Cost (dollars)	(3.3) C_d Land Quantity	(3.3) C_d Land Value or Cost (dollars)
(1) Production:								
Wheat	bu.	1.62	14	22.68	12	19.44	10	16.20
Grazing	AUM	--	.4	--	.343	--	.285	--
Total				22.68		19.44		16.20
(2) Inputs:								
Wheat seed	bu.	2.05	.75	1.54	.75	1.54	.75	1.54
Power	hr.	1.27	1.69	2.15	1.69	2.15	1.69	2.15
Other machinery	hr.	.416	1.54	.64	1.54	.64	1.54	.64
Specified Preharvest cost				(4.33)		(4.33)		(4.33)
Combining	acre	3.00	1.0	3.00	1.0	3.00	1.0	3.00
Hauling	bu.	.07	14	.98	12	.84	10	.70
Capital:								
Total	dollars	--	13.76	--	13.76	--	13.76	--
Annual	dollars	.06	13.36	.80	13.36	.80	13.36	.80
(3) Specified Costs				9.11		8.97		8.83
(4) Returns to Land, Labor, Risk and Management[6]				13.57		10.47		7.37
(5) Hourly labor	hr.	1.00	1.85	1.85	1.85	1.85	1.85	1.85
(6) Returns to Land, Risk and Management[7]				11.72		8.62		5.52

6, 7 See page 13.

Table 4: Estimated Per Acre Requirements, Costs and Returns for Oats for Grain Enterprise, Hourly Labor, Contract Combining and Hauling

Item	Unit	Price or Cost (dollars)	(4.1) C_b Land Quantity	(4.1) C_b Land Value or Cost (dollars)	(4.2) C_c Land Quantity	(4.2) C_c Land Value or Cost (dollars)	(4.3) Cd Land Quantity	(4.3) Cd Land Value or Cost (dollars)
(1) Production:								
Oats	bu.	.72	28	20.16	20	14.40	15	10.80
Grazing	AUM	--	.4	--	.343	--	.285	--
Total				20.16		14.40		10.80
(2) Inputs:								
Oat seed	bu.	1.10	1.5	1.65	1.5	1.65	1.5	1.65
Power	hr.	1.27	1.69	2.15	1.69	2.15	1.69	2.15
Other machinery	hr.	.394	1.54	.61	1.54	.61	1.54	.61
Specified Preharvest Cost				(4.41)		(4.41)		(4.41)
Combining	acre	3.00	1	3.00	1	3.00	1	3.00
Hauling	bu.	.03	28	.84	20	.60	15	.45
Capital:								
Total	dollars	--	14.21	--	14.21	--	14.21	--
Annual	dollars	.06	13.77	.83	13.77	.83	13.77	.83
(3) Specified Costs				9.08		8.84		8.69
(4) Returns to Land, Labor, Risk and Management[6]				11.08		5.56		2.11
(5) Hourly labor	hr.	1.00	1.85	1.85	1.85	1.85	1.85	1.85
(6) Returns to Land, Risk and Management[7]				9.23		3.71		0.26

6, 7 See page 13.

Table 5. Estimated Per Acre Requirements, Costs and Returns for Oats for Hay Enterprise, Hourly Labor, Contract Hauling and Baling

Item	Unit	Price or Cost	(5.1) Cb Land		(5.2) Cc Land		(5.3) Cd Land	
			Quantity	Value or Cost	Quantity	Value or Cost	Quantity	Value or Cost
		(dollars)		(dollars)		(dollars)		(dollars)
(1) Production:								
Oat hay	ton	20.00[3]	1.6	32.00[3]	1.5	30.00[3]	1.4	28.00[3]
Grazing	AUM	--	.4	--	.343	--	.285	--
Total				32.00		30.00		28.00
(2) Inputs:								
Oat seed	bu.	1.10	1.5	1.65	1.5	1.65	1.5	1.65
Power	hr.	1.27	2.79	3.54	2.79	3.54	2.79	3.54
Other machinery	hr.	.374	2.54	.95	2.54	.95	2.54	.95
Specified Preharvest Cost				(6.14)		(6.14)		(6.14)
Hay baling	60 lb bale	.16	53	8.48	50	8.00	47	7.52
Hay hauling	60 lb bale	.06	53	3.18	50	3.00	47	2.82
Capital:								
Total	dollars	--	29.49	--	28.83	--	28.17	--
Annual	dollars	.06	29.49	1.77	28.83	1.73	28.17	1.69
(3) Specified Costs				19.57		18.87		18.17
(4) Returns to Land, Labor, Risk and Management[6]				12.43		11.13		9.83
(5) Hourly Labor	hr.	1.00	3.05	3.05	3.05	3.05	3.05	3.05
(6) Returns to Land, Risk and Management[7]				9.38		8.08		6.78

3, 6, 7 See page 13.

Table 6: Estimated Per Acre Requirements, Costs and Returns, Cotton-Wheat Cropping System,[2] Contract Hauling and Combining on C_b Land

Item	Unit	Price or Cost (dollars)	(6.1) Hand Harvest, Hourly Labor		(6.2) Hand and Mechanical Harvest, Contract Hoeing, Snapping, Stripping		(6.3) Mechanical Harvest, Contract Hoeing, Stripping	
			Quantity	Value or Cost (dollars)	Quantity	Value or Cost (dollars)	Quantity	Value or Cost (dollars)
(1) Production:								
Lint	cwt.	28.17	1.16	32.68	1.16	32.68	1.16	32.68
Cotton seed	ton	50.00	.0965	4.82	.0965	4.82	.0965	4.82
Wheat seed	bu.	1.62	2.833	4.59	2.833	4.59	2.833	4.59
Grazing	AUM	--	.067	--	.067	--	.067	--
Total				42.09		42.09		42.09
(2) Inputs:								
Cotton seed	lb.	.08	20	1.60	20	1.60	20	1.60
Wheat seed	bu.	2.05	.125	.26	.125	.26	.125	.26
Power	hr.	1.27	1.87	2.37	1.87	2.37	1.87	2.37
Other machinery	hr.	.394	1.70	.67	1.70	.67	1.70	.67
Hoeing	acre	2.50	--	--	.667	1.67	.667	1.67
Insecticide	acre	2.00	.667	1.33	.667	1.33	.667	1.33
Dessicant	acre	2.00	--	--	--	--	.667	1.33
Specified Preharvest Cost				(6.23)		(7.90)		(9.23)
Snapping	cwt seed cotton	2.00	--	--	2.690	5.38	--	--
Stripping	cwt seed cotton	.75	--	--	2.18	1.64	5.445	4.08
Haul and gin	cwt seed cotton	1.10	4.49	4.94	4.87	5.36	5.445	5.99
Grade loss	lb. lint	.01	--	--	--	--	116	1.16
Combining	acre	3.00	.167	.50	.167	.50	.167	.50
Wheat hauling	bu.	.07	2.833	.20	2.833	.20	2.833	.20
Capital: Total	dollars	--	15.82	--	17.50	--	18.83	--
Annual	dollars	.06	13.47	.81	14.60	.88	15.22	.91
(3) Specified Costs				12.68		21.86		22.07
(4) Returns to Land, Labor, Risk and Management[6]				29.41		20.23		20.02
(5) Hourly labor	hr.	1.00	15.31	15.31	2.04	2.04	2.04	2.04
(6) Returns to Land, Risk and Management[7]				14.10		18.19		17.98

2, 6, 7 See page 13.

Table 7. Estimated Per Acre Requirements, Costs and Returns, Cotton-Wheat Cropping System,[2] Contract Hauling and Combining on C_c Land

Item	Unit	Price or Cost	(7.1) Hand Harvest, Hourly Labor		(7.2) Hand and Mechanical Harvest, Contract Hoeing, Snapping, Stripping		(7.3) Mechanical Harvest, Contract Hoeing, Stripping	
			Quantity	Value or Cost	Quantity	Value or Cost	Quantity	Value or Cost
		(dollars)		(dollars)		(dollars)		(dollars)
(1) Production:								
Lint	cwt.	28.17	.84	23.66	.84	23.66	.84	23.66
Cotton seed	ton	50.00	.07	3.50	.07	3.50	.07	3.50
Wheat seed	bu.	1.62	2.333	3.78	2.333	3.78	2.333	3.78
Grazing	AUM	--	.057	--	.057	--	.057	--
Total				30.94		30.94		30.94
(2) Inputs:								
Cotton seed	lb.	.08	20	1.60	20	1.60	20	1.60
Wheat	bu.	2.05	.125	.26	.125	.26	.125	.26
Power	hr.	1.27	1.87	2.37	1.87	2.37	1.87	2.37
Other machinery	hr.	.394	1.70	.67	1.70	.67	1.70	.67
Hoeing	acre	2.50	--	--	.667	1.67	.667	1.67
Insecticide	acre	2.00	.667	1.33	.667	1.33	.667	1.33
Dessicant	acre	2.00	--	--	--	--	.667	1.33
Specified Preharvest Cost				(6.23)		(7.90)		(9.23)
Snapping	cwt seed cotton	2.00	--	--	1.95	3.90	--	--
Stripping	cwt seed cotton	.75	--	--	1.56	1.17	3.9	2.93
Haul and gin	cwt seed cotton	1.10	3.25	3.58	3.51	3.86	3.9	4.29
Grade loss	lb lint	.01	--	--	--	--	84	.84
Combining	acre	3.00	.167	.50	.167	.50	.167	.50
Wheat hauling	bu.	.07	2.333	.16	2.333	.16	2.333	.16
Capital: Total	dollars	--	15.82	--	17.50	--	18.83	--
Annual	dollars	.06	13.47	.81	14.60	.88	15.22	.91
(3) Specified Costs				11.28		18.37		18.86
(4) Returns to Land, Labor, Risk, and Management[6]				19.66		12.57		12.08
(5) Hourly labor	hr.	1.00	15.31	15.31	2.04	2.04	2.04	2.04
(6) Returns to Land, Risk and Management[7]				4.35		10.53		10.04

2, 6, 7 See page 13.

Table 8: Estimated Per Acre Requirements, Costs and Returns, Cotton-Oats for Grain Cropping System,[2] Contract Hauling and Combining on C_b Land

Item	Unit	Price or Cost	(8.1) Hand Harvest, Hourly Labor		(8.2) Hand and Mechanical Harvest, Contract Hoeing, Snapping, Stripping		(8.3) Mechanical Harvest, Contract Hoeing, and Stripping	
			Quantity	Value or Cost	Quantity	Value or Cost	Quantity	Value or Cost
		(dollars)		(dollars)		(dollars)		(dollars)
(1) Production:								
Lint	cwt.	28.17	1.16	32.68	1.16	32.68	1.16	32.68
Cotton seed	ton	50.00	.0965	4.83	.0965	4.83	.0965	4.83
Oats	bu.	.72	4.667	3.36	4.667	3.36	4.667	3.36
Grazing	AUM	--	.067	--	.067	--	.067	--
Total				40.87		40.87		40.87
(2) Inputs:								
Cotton seed	lb.	.08	20	1.60	20	1.60	20	1.60
Oat seed	bu.	1.10	.26	.29	.26	.29	.26	.29
Power	hr.	1.27	1.87	2.37	1.87	2.37	1.87	2.37
Other machinery	hr.	.394	1.70	.67	1.70	.67	1.70	.67
Hoeing	acre	2.50	--	--	.667	1.67	.667	1.67
Insecticide	acre	2.00	.667	1.33	.667	1.33	.667	1.33
Dessicant	acre	2.00	--	--	--	--	.667	1.33
Specified Preharvest Cost				(6.26)		(7.93)		(9.26)
Snapping	cwt seed cotton	2.00	--	--	2.690	5.38	--	--
Stripping	cwt seed cotton	.75	--	--	2.18	1.64	5.445	4.08
Haul and gin	cwt seed cotton	1.10	4.49	4.94	4.87	5.36	5.445	5.99
Grade loss	lb. lint	.01	--	--	--	--	116	1.16
Combining	acre	3.00	.167	.50	.167	.50	.167	.50
Oat hauling	bu.	.03	4.667	.14	4.667	.14	4.667	.14
Capital: Total	dollars	--	15.85	--	17.53	--	18.86	--
Annual	dollars	.06	13.39	.80	14.12	.85	15.15	.91
(3) Specified Costs				12.64		21.80		22.04
(4) Returns to Land, Labor, Risk and Management[6]				28.23		19.07		18.83
(5) Hourly labor	hr.	1.00	15.31	15.31	2.04	2.04	2.04	2.04
(6) Returns to Land, Risk and Management[7]				12.92		17.03		16.79

2, 6, 7 See page 13.

Table 9. Estimated Per Acre Requirements, Costs and Returns, Cotton-Oats for Grain Cropping System,[2] Contract Combining and Hauling on C_c Land

Item	Unit	Price or Cost (dollars)	(9.1) Hand Harvest, Hourly Labor		(9.2) Hand and Mechanical Harvest, Contract Hoeing, Snapping and Stripping		(9.3) Mechanical Harvest, Contract Hoeing, Stripping	
			Quantity	Value or Cost (dollars)	Quantity	Value or Cost (dollars)	Quantity	Value or Cost (dollars)
1) Production:								
Lint	cwt.	28.17	.84	23.66	.84	23.66	.84	23.66
Cotton seed	ton	50.00	.07	3.50	.07	3.50	.07	3.50
Oats	bu.	.72	3.333	2.40	3.333	2.40	3.333	2.40
Grazing	AUM	--	.057	--	.057	--	.057	--
Total				29.56		29.56		29.56
2) Inputs:								
Cotton seed	lb.	.08	20	1.60	20	1.60	20	1.60
Oat seed	bu.	1.10	.26	.29	.26	.29	.26	.29
Power	hr.	1.27	1.87	2.37	1.87	2.37	1.87	2.37
Other machinery	hr.	.394	1.70	.67	1.70	.67	1.70	.67
Hoeing	acre	2.50	--	--	.667	1.68	.667	1.68
Insecticide	acre	2.00	.667	1.33	.667	1.33	.667	1.33
Dessicant	acre	2.00	--	--	--	--	.667	1.33
Specified Preharvest Cost				(6.26)		(7.94)		(9.27)
Snapping	cwt seed cotton	2.00	--	--	1.95	3.90	--	--
Stripping	cwt seed cotton	.75	--	--	1.56	1.17	3.9	2.93
Haul and gin	cwt seed cotton	1.10	3.25	3.58	3.51	3.86	3.9	4.29
Grade loss	lb. lint	.01	--	--	--	--	84	.84
Combining	acre	3.00	.167	.50	.167	.50	.167	.50
Oat hauling	bu.	.03	3.333	.10	3.333	.10	3.333	.10
Capital: Total	dollars	--	15.85	--	17.53	--	18.86	--
Annual	dollars	.06	13.39	.80	14.12	.85	15.15	.91
3) Specified Costs				11.24		18.32		18.84
4) Returns to Land, Labor, Risk and Management[6]				18.32		11.24		10.72
5) Hourly labor	hr.	1.00	15.31	15.31	2.04	2.04	2.04	2.04
6) Returns to Land, Risk and Management[7]				3.01		9.20		8.68

2, 6, 7 See page 13.

Table 10. Estimated Per Acre Requirements, Costs and Returns, Cotton-Fallow-Oats for Hay Cropping System,[2] Contract Hauling and Baling on C_b Land

Item	Unit	Price or Cost Per Unit	(10.1) Hand Harvest, Hourly Labor		(10.2) Hand and Mechanical Harvest, Contract Hoeing, Snapping and Stripping		(10.3) Mechanical Harvest, Contract Hoeing, and Stripping	
			Quantity	Value or Cost	Quantity	Value or Cost	Quantity	Value or Cost
		(dollars)		(dollars)		(dollars)		(dollars)
(1) Production:								
Lint	cwt.	28.17	1.16	32.68	1.16	32.68	1.16	32.68
Cotton seed	ton	50.00	.0965	4.83	.0965	4.83	.0965	4.83
Hay	ton	20.00[3]	.267	5.34[3]	.267	5.34[3]	.267	5.34[3]
Grazing	AUM	--	.067	--	.067	--	.067	--
Total				42.85		42.85		42.85
(2) Inputs:								
Cotton seed	lb.	.08	20	1.60	20	1.60	20	1.60
Oat seed	bu.	1.10	.26	.29	.26	.29	.26	.29
Power	hr.	1.27	2.12	2.69	2.12	2.69	2.12	2.69
Other machinery	hr.	.39	1.93	.75	1.93	.75	1.93	.75
Hoeing	acre	2.50	--	--	.667	1.67	.667	1.67
Insecticide	acre	2.00	.67	1.34	.67	1.34	.67	1.34
Dessicant	acre	2.00	--	--	--	--	.67	1.34
Specified Preharvest Cost				(6.67)		(8.34)		(9.68)
Snapping	cwt seed cotton	2.00	--	--	2.690	5.38	--	--
Stripping	cwt seed cotton	.75	--	--	2.18	1.64	5.445	4.08
Haul and gin	cwt seed cotton	1.10	4.49	4.94	4.87	5.36	5.445	5.99
Grade loss	lb. lint	.01	--	--	--	--	116	1.16
Hay baling	60 lb. bale	.16	9.0	1.44	9.0	1.44	9.0	1.44
Hay hauling	60 lb. bale	.06	9.0	.54	9.0	.54	9.0	.54
Capital: Total	dollars	--	18.97	--	20.89	--	21.97	--
Annual	dollars	.06	16.68	1.00	18.05	1.08	19.43	1.17
(3) Specified Costs				14.59		23.78		24.06
(4) Returns to Land, Labor, Risk and Management[6]				28.26		19.07		18.79
(5) Hourly labor	hr.	1.00	15.59	15.59	2.32	2.32	2.32	2.32
(6) Returns to Land, Risk and Management[7]				12.67		16.75		16.47

2, 3, 6, 7 See page 13.

Table 11. Estimated Per Acre Requirements, Costs and Returns, Cotton-Fallow-Oats for Hay,[2] Contract Hauling and Baling, Cropping System on C_c Land

Item	Unit	Price or Cost	(11.1) Hand Harvest, Hourly Labor		(11.2) Hand and Mechanical Harvest, Contract Hoeing, Snapping, Stripping		(11.3) Mechanical Harvest, Contract Hoeing, Stripping	
			Quantity	Value or Cost	Quantity	Value or Cost	Quantity	Value or Cost
		(dollars)		(dollars)		(dollars)		(dollars)
(1) Production:								
Lint	cwt.	28.17	.84	23.66	.84	23.66	.84	23.66
Cotton seed	ton	50.00	.070	3.50	.070	3.50	.070	3.50
Hay	ton	20.00[3]	.25	5.00[3]	.25	5.00[3]	.25	5.00[3]
Grazing	AUM	--	.057	--	.057	--	.057	--
Total				32.16		32.16		32.16
(2) Inputs:								
Cotton seed	lb.	.08	20	1.60	20	1.60	20	1.60
Oat seed	bu.	1.10	.26	.29	.26	.29	.26	.29
Power	hr.	1.27	2.12	2.69	2.12	2.69	2.12	2.69
Other machinery	hr.	.39	1.93	.75	1.93	.75	1.93	.75
Hoeing	acre	2.50	--	--	.667	1.67	.667	1.67
Insecticide	acre	2.00	.667	1.33	.667	1.33	.667	1.33
Dessicant	acre	2.00	--	--	--	--	.667	1.33
Specified Preharvest Cost				(6.66)		(8.33)		(9.66)
Snapping	cwt seed cotton	2.00	--	--	1.95	3.90	--	--
Stripping	cwt seed cotton	.75	--	--	1.56	1.17	3.9	2.93
Haul and gin	cwt seed cotton	1.10	3.25	3.58	3.51	3.86	3.9	4.29
Grade loss	lb. lint	.01	--	--	--	--	84	.84
Hay baling	60 lb bale	.16	8.33	1.33	8.33	1.33	8.33	1.33
Hay hauling	60 lb bale	.06	8.33	.50	8.33	.50	8.33	.50
Capital: Total	dollars	--	18.82	--	20.46	--	21.82	--
Annual	dollars	.06	16.52	.99	17.62	1.06	18.28	1.10
(3) Specified Costs				13.06		20.15		20.65
(4) Returns to Land, Labor, Risk and Management[6]				19.10		12.01		11.51
(5) Hourly labor	hr.	1.00	15.59	15.59	2.32	2.32	2.32	2.32
(6) Returns to Land, Risk and Management[7]				3.51		9.69		9.19

2, 3, 6, 7

See page 13.

Table 12: Estimated Per Acre Requirements, Costs and Returns, Grazed Out Small Grain Enterprise; Hourly Labor

Item	Unit	Price or Cost	(12.1) C_b Land Quantity	(12.1) C_b Land Value or Cost	(12.2) C_c Land Quantity	(12.2) C_c Land Value or Cost
		(dollars)		(dollars)		(dollars)
(1) Production:						
Grazing	AUM	--	3.1	--	2.943	--
(2) Inputs:						
Wheat seed	bu.	--	--	1.54	--	1.54
Power	hr.	1.27	1.69	2.15	1.69	2.15
Other machinery	hr.	.416	1.54	.64	1.54	.64
Specified Preharvest cost				(4.33)		(4.33)
Capital:						
Total	dollars	--	13.76	--	13.76	--
Annual	dollars	.06	13.36	.80	13.36	.80
(3) Specified Costs				5.13		5.13
(4) Hourly labor	hr.	1.00	1.85	1.85	1.85	1.85
(5) Specified Costs Above Land, Risk and Management[8]				6.98		6.98

[8] See page 13.

Table 13: Estimated Per Acre Requirements, Costs and Returns, Grazed Out Small Grain Enterprise, Hourly Labor

Item	Unit	Price or Cost	(13.1) C_d Land Quantity	(13.1) C_d Land Value or Cost	(13.2) C_e Land Quantity	(13.2) C_e Land Value or Cost
		(dollars)		(dollars)		(dollars)
(1) Production:						
Grazing	AUM	--	2.79	--	1.93	--
(2) Inputs:						
Wheat seed	bu.	--	--	1.54	--	1.54
Power	hr.	1.27	1.69	2.15	1.69	2.15
Other machinery	hr.	.416	1.54	.64	1.54	.64
Specified Preharvest Cost				(4.33)		(4.33)
Capital:						
Total	dollars	--	13.76	--	13.76	--
Annual	dollars	.06	13.36	.80	13.36	.80
(3) Specified Costs				5.13		5.13
(4) Hourly labor	hr.	1.00	1.85	1.85	1.85	1.85
(5) Specified Costs above Land, Risk, and Management[8]				6.98		6.98

[8] See page 13.

Table 14: Estimated Per Acre Requirements, Costs and Returns, Sudan Grazing Enterprise, Hourly Labor

Item	Unit	Price or Cost	(14.1) C_b Land		(14.2) C_c Land	
			Quantity	Value or Cost	Quantity	Value or Cost
		(dollars)		(dollars)		(dollars)
(1) Production:						
Grazing	AUM	--	3.0	--	2.8	--
(2) Inputs:						
Sudan seed	lb.	.06	10	.60	10	.60
Power	hr.	1.27	1.84	2.34	1.84	2.34
Other machinery	hr.	.395	1.67	.66	1.67	.66
Specified Preharvest Cost				(3.60)		(3.60)
Capital:						
Total	dollars	--	15.27	--	15.27	--
Annual	dollars	.06	11.46	.69	11.46	.69
(3) Specified Costs				4.29		4.29
(4) Hourly labor	hr.	1.00	2.00	2.00	2.00	2.00
(5) Specified Costs above Land, Risk and Management[8]				6.29		6.29

[8]See page 13

Table 15: Estimated Per Acre Requirements, Costs and Returns, Sudan Grazing Enterprise, Hourly Labor

Item	Unit	Price or Cost	(15.1) C_d Land		(15.2) C_e Land	
			Quantity	Value or Cost	Quantity	Value or Cost
		(dollars)		(dollars)		(dollars)
(1) Production:						
Grazing	AUM	--	2.6	--	1.9	--
(2) Inputs:						
Sudan seed	lb.	.06	10	.60	10	.60
Power	hr.	1.27	1.84	2.34	1.84	2.34
Other machinery	hr.	.395	1.67	.66	1.67	.66
Specified Preharvest Cost				(3.60)		(3.60)
Capital:						
Total	dollars	--	15.27	--	15.27	--
Annual	dollars	.06	11.46	.69	11.46	.69
(3) Specified Costs				4.29		4.29
(4) Hourly labor	hr.	1.00	2.00	2.00		2.00
(5) Specified Costs above Land, Risk and Management[8]				6.29		6.29

[8]See page 13

Table 16: Estimated Per Acre Requirements, Costs and Returns, Blue Panic-Sudan[4] Grazing Enterprise, Hourly Labor

Item	Unit	Price or Cost (dollars)	(16.1) C_b Land Quantity	(16.1) C_b Land Value or Cost (dollars)	(16.2) C_c Land Quantity	(16.2) C_c Land Value or Cost (dollars)
(1) Production:						
Grazing	AUM	--	3.2	--	3.0	--
Blue Panic seed[5]	lb.	.55	--	--	--	--
(2) Inputs:						
Blue panic seed[5]	lb.	.75	--	--	--	--
Sudan seed	lb.	.06	5	.30	5	.30
Power	hr.	1.27	1.40	1.78	1.40	1.78
Other machinery	hr.	.419	1.24	.52	1.24	.52
Fertilizer for blue panic (Ammonium nitrate)	cwt.	4.50	.5	2.25	.5	2.25
Specified Preharvest Cost				(4.85)		(4.85)
Capital:						
Total	dollars	--	14.03	--	14.03	--
Annual	dollars	.06	10.62	.64	10.62	.64
(3) Specified Costs				5.49		5.49
(4) Hourly labor	hr.	1.00	1.42	1.42	1.42	1.42
(5) Specified Costs above Land, Risk and Management[8]				6.91		6.91

4, 5, 8 See page 13.

Table 17: Estimated Per Acre Requirements, Costs and Returns, Blue Panic-Sudan[4] Grazing Enterprise, Hourly Labor

Item	Unit	Price or Cost	(17.1) C_d Land		(17.2) C_e Land	
			Quantity	Value or Cost	Quantity	Value or Cost
		(dollars)		(dollars)		(dollars)
(1) Production:						
Grazing	AUM	--	2.8	--	2.0	--
Blue panic seed[5]	lb.	.55	--	--	--	--
(2) Inputs:						
Blue Panic seed[5]	lb.	.75	--	--	--	--
Sudan seed	lb.	.60	5	.30	5	.30
Power	hr.	1.27	1.40	1.78	1.40	1.78
Other machinery	hr.	.419	1.24	.52	1.24	.52
Fertilizer for blue panic (ammonium nitrate)	cwt.	4.50	.5	2.25	.5	2.25
Specified Preharvest Cost				(4.85)		(4.85)
Capital:						
Total	dollars	--	14.03	--	14.03	--
Annual	dollars	.06	10.62	.64	10.62	.64
(3) Specified Costs				5.49		5.49
(4) Hourly labor	hr.	1.00	1.42	1.42	1.42	1.42
(5) Specified Costs above Land, Risk, and Management[8]				6.91		6.91

[4], [5], [8] See page 13.

Table 18: (18.1) Estimated Production Requirements and Income for Beef Cow Herd (25-Cow Unit) Fall Calving; Not Creep Fed; Calves Born October 30; Winter Ration C.S.C., and Range; Selling Good-Choice Feeder Calves July 20

Capital Item	Number	Total A.U.	Estimated Value	Total Value
Hay storage, fencing, etc.				$110.75
Brood cows	25	25	$ 160.00	4,000.00
Bulls	1	1	300.00	300.00
Heifers over 1 yr.[9]	4	2	125.00	500.00
Calves weaned	21	-	--	--
Investment		28		$4,910.75
Operating capital				679.81
Total capital				$5,590.56
Annual capital				$5,202.17

(1) Production

Item	Number	Weight	Price	Value Each	Total Value
Cull cows[9]	3	987	$14.00	$138.18	$ 414.54
Heifer calves[9]	7	450	21.00	94.50	661.50
Steer calves	10	490	23.00	112.70	1,127.00
Total receipts					$2,203.04

(2) Annual Inputs

Item	Unit	Rate	Number	Total	Price	Cost
Interest on annual capital	$			5,202.17	.06	312.13
Miscellaneous costs	herd					92.40
Range	AUM		28	336.00		
CSC (3.00 lb/day)	cwt.	4.38	28	122.64	3.80	466.03
Hay (oat)	ton	.025	28	.70	20.00	14.00
Minerals	lb.	30.0	28	840.00	.03	25.20
Vet. and med.	$	3.00	28	84.00		84.00
Bull depr.	$	35.00	1	35.00		35.00
Hauling and marketing cost	cwt.			110.00	.50	55.00
(3) Specified Costs						$1,083.76
(4) Returns to Land, Risk, Management and Labor[6]						1,119.28
(5) Hourly labor	hr.	16.35	25	408.50	1.00	408.50
(6) Returns to Land, Risk and Management[7]						$710.78

Labor Requirements

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Man hr./cow	.96	1.74	1.20	1.38	.30	.24	1.02	.24	1.26	2.55	3.30	2.16	16.35

6; 7, 9 See page 13.

Table 19: (19.1) Estimated Production Requirements and Income for Beef Cow Herd (25-Cow Unit) Fall Calving; Not Creep Fed; Calves Born October 30; **Winter Ration CSC, Oat Hay and Range; Selling Good-Choice Feeder Calves July 20**

Capital Items	Number	Total A.U.	Estimated Value	Total Value
Hay storage, fencing, etc.				$ 435.75
Brood cows	25	25	$160.00	4,000.00
Bulls	1	1	300.00	300.00
Heifers over 1 yr.[9]	4	2	125.00	500.00
Calves weaned	21	-	--	--
Investment		28		$5,235.75
Operating capital				732.67
Total				5,968.42
Annual				5,395.16

(1) Production Item	Number	Weight	Price	Value Each	Total Value
Cull cows[9]	3	987	$14.00	$138.18	$414.54
Heifer calves[9]	7	460	21.00	96.60	676.20
Steer calves	10	500	23.00	115.00	1,150.00
Total Receipts					$2,240.74

(2) Annual Inputs Item	Unit	Rate	Number	Total	Price	Cost
Interest on annual capital	$			$5,395.16	.06	323.71
Miscellaneous costs	herd					103.40
Range	AUM			276.00		
CSC, (.5 lb/day)	cwt.	.73	28	20.44	3.80	77.67
Hay (oat 12 lb/day)	ton	.79	28	22.12	20.00	442.40
Minerals	lbs.	30.0	28	840.00	.03	25.20
Vet. and Med.	$	3.00	28	84.00		84.00
Bull depr.	$	35.00	1	35.00		35.00
Hauling and marketing cost	cwt.			111.81	.50	55.91
(3) Specified Costs						$1,147.29
(4) Returns to Land, Risk, Management and Labor[6]						1,093.45
(5) Hourly Labor	hr.	19.14	25	478.5	1.00	478.50
(6) Returns to Land, Risk and Management[7]						$614.95

Labor Requirements

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Man hr./cow	1.56	2.40	1.86	1.59	.30	.24	1.02	.24	1.26	2.55	3.30	2.82	19.14

6, 7, 9 See page 13.

Table 20. (20.1) Estimated Production Requirements and Income for Beef Cow Herd (25-Cow Unit) Fall Calving; Not Creep Fed; Calves Born October 30; Winter Ration Small Grain Grazing and 1/3 Ration CSC, Hay and Range; Selling Good-Choice Feeder and Slaughter Calves, June 15

Capital Item	Number	Total A.U.	Estimated Value	Total Value
Hay storage, fencing, etc.				$ 869.20
Brood cows	25	25	$160.00	4,000.00
Bulls	1	1	300.00	300.00
Heifers over 1 yr.	4	2	125.00	500.00
Heifers under 1 yr.[9]	4	--	--	--
Calves weaned	21	--	--	--
Investment		28		$5,669.20
Operating capital				484.82
Total				$6,154.02
Annual				$5,550.31

(1) Production Item	Number	Weight	Price	Value Each	Total Value
Cull cows[9]	3	987	$14.25	$140.65	$421.95
Heifer calves[9]	7	430	21.50	92.45	647.15
Steer calves	10	460	23.50	108.10	1,081.00
Total receipts					$2,150.10

(2) Annual Inputs Item	Unit	Rate	Number	Total	Price	Cost
Interest on annual capital	$			$5,550.31	$ .06	$ 333.02
Miscellaneous costs	herd					151.15
Small grain grazing	AUM			110.00		
Range	AUM			226.00		
CSC, (.5 lb/day)	cwt.	0.73	28	20.44	3.80	77.67
Hay (oat 4 lb/day)	ton	.26	28	7.28	20.00	145.60
Minerals	lbs.	30.0	28	840.00	.03	25.20
Vet. and med.	$	3.00	28	84.00		84.00
Bull depr.	$	35.00	1	35.00		35.00
Hauling and marketing cost	cwt.			105.71	.50	52.86
(3) Specified Costs						$ 904.50
(4) Returns to Land, Risk, Management and Labor[6]						$1,245.60
(5) Hourly labor	hr.	19.14	25	478.5	1.00	478.50
(6) Returns to Land, Risk and Management[7]						$767.10

Labor Requirements

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Man hr./cow	1.56	2.40	1.86	1.59	.30	.96	.30	.24	1.26	2.55	3.30	2.82	19.14

6, 7, 9 See page 13.

Table 21: (21.1) Estimated Production Requirements and Income for Beef Cow Herd (25 Cow Unit) Fall Calving; Creep Fed; Calves Born October 30, Winter Ration CSC, and Range; Selling Good-Choice Feeder Calves July 20

Capital Item	Number	Total A.U.	Estimated Value	Total Value
Hay storage, fencing, etc.				$ 110.75
Brood cows	25	25	$ 160.00	4,000.00
Bulls	1	1	300.00	300.00
Heifers over 1 year[9]	4	2	125.00	500.00
Calves weaned	21	-	--	--
Investment		28		$4,910.75
Operating capital				1,241.41
Total				$6,152.16
Annual				$5,483.30

(1) Production Item	Number	Weight	Price	Value Each	Total Value
Cull cows[9]	3	987	$14.00	$ 138.18	$ 414.54
Heifer calves[9]	7	520	21.00	109.20	764.40
Steer calves	10	560	23.00	128.80	1,288.00
Total receipts					$2,466.94

(2) Annual Inputs Item	Unit	Rate	Number	Total	Price	Cost
Interest on annual capital	$			$5,483.30	$ .06	$ 329.00
Miscellaneous costs	herd					92.40
Range	AUM	12	28	336.00		
CSC, (3.00 lb/day)	cwt.	4.38	28	122.64	3.80	466.03
Hay (oat)	ton	.025	28	.70	20.00	14.00
Creep feed	cwt.	8.5	21	178.50	3.08	549.78
Minerals	lbs.	30.0	28	840.00	.03	25.20
Vet. and med.	$	3.00	28	84.00		84.00
Bull depr.	$	35.00	1	35.00		35.00
Hauling and marketing cost	cwt.			122.01	.50	61.01
(3) Specified Costs						$1,656.42
(4) Returns to Land, Risk, Management and Labor[6]						$ 810.52
(5) Hourly labor	hr.	22.08	25	552.0	1.00	552.00
(6) Returns to Land, Risk, and Management[7]						$258.52

Labor Requirements

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Man hr./cow	2.16	3.00	2.40	2.19	.60	.54	1.02	.24	1.26	2.55	3.30	2.82	22.08

6, 7, 9 See page 13.

Table 22: (22.1) Estimated Production Requirements and Income for Beef Cow Herd (25-Cow Unit) Spring Calving; Not Creep Fed; Calves Born February 5; **Winter Ration C.S.C., and Range; Selling Good-Choice Feeder Calves, September 10**

Capital Item	Number	Total A.U.	Estimated Value	Total Value
Hay storage, fencing, etc.				$ 110.75
Brood cows	25	25	$ 160.00	4,000.00
Bulls	1	1	300.00	300.00
Heifers over 1 year[9]	4	2	125.00	500.00
Calves weaned	22	--	--	--
Investment		28		$4,910.75
Operating capital				448.62
Total				$5,359.37
Annual				$5,086.81

(1) Production Item	Number	Weight	Price	Value Each	Total Value
Cull cows[9]	3	987	$13.50	$ 133.24	$ 399.72
Heifer calves[9]	7	460	21.00	96.60	676.20
Steer calves	11	485	23.00	111.55	1,227.05
Total receipts					$2,302.97

(2) Annual Inputs Item	Unit	Rate	Number	Total	Price	Cost
Interest on annual capital	$			$5,086.81	$ .06	$ 305.21
Miscellaneous costs	herd					92.40
Range	AUM			336.00		
CSC (1.5 lb./day)	cwt.	2.19	28	61.32	3.80	233.02
Hay (oat)	ton	.025	28	0.70	20.00	14.00
Minerals	lbs.	30.00	28	840.00	.03	25.20
Vet. and med.	$	3.00	28	84.00		84.00
Bull depr.	$	35.00	1	35.00		35.00
Hauling and marketing cost	cwt.			115.20	.50	57.60
(3) Specified Costs						$846.43
(4) Returns to Land, Risk, Management and Labor[6]						$1,456.54
(5) Hourly labor	hr.	16.74	25	418.50		418.50
(6) Returns to Land, Risk and Management[7]						$1,038.04

Labor Requirements

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Man hr./cow	2.16	3.45	3.69	2.85	.30	1.08	.30	.24	.30	.72	.75	.90	16.74

6, 7, 9 See page 13.

Table 23: (23.1) Estimated Production Requirements and Income for Beef Cow Herd (25-Cow Unit) Spring Calving; Creep Fed; Calves Born March 5; Winter Ration CSC, and Range; Selling Good-Choice Feeder Calves October 10

Capital Item	Number	Total A.U.	Estimated Value	Total Value
Hay storage, fencing, etc.				$ 110.75
Brood cows	25	25	$ 160.00	4,000.00
Bulls	1	1	300.00	300.00
Heifers over 1 yr.[9]	4	2	125.00	500.00
Calves weaned	22	-	--	--
Investment		28		$ 4,910.75
Operating capital				731.10
Total				$ 5,641.85
Annual				$ 5,229.05

(1) Production Item	Number	Weight	Price	Value Each	Total Value
Cull cows[9]	3	987	$13.00	$ 128.31	$ 384.93
Heifer calves[9]	7	495	20.50	101.48	710.36
Steer calves	11	520	22.50	117.00	1,287.00
Total receipts					$ 2,382.29

(2) Annual Inputs Item	Unit	Rate	Number	Total	Price	Cost
Interest on annual capital	$			$5,229.05	$ .06	$ 313.74
Miscellaneous costs	herd					92.40
Range	AUM	12	28	336.00		
CSC (1.5 lb./day)	cwt.	2.19	28	61.32	3.80	233.02
Hay (oat)	ton	.025	28	.70	20.00	14.00
Creep feed (3 lb./day)	cwt.	4.20	22	92.40	3.08	284.59
Minerals	lbs.	30.0	28	840.00	.03	25.20
Vet. and med.	$	3.00	28	84.00		84.00
Bull depr.	$	35.00	1	35.00		35.00
Hauling and marketing cost	cwt.			121.45	.50	60.73
(3) Specified Costs						$1,141.68
(4) Returns to Land, Risk, Management and Labor[6]						1,240.61
(5) Hourly labor	hr.	21.78	25	544.5		544.50
(6) Returns to Land, Risk and Management[7]						$696.11

Labor Requirements

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Man hr./cow	2.82	4.11	4.35	2.85	.60	1.68	.60	.84	.60	1.02	.75	1.56	21.78

6, 7, 9 See page 13.

Table 24: (24.1) Estimated Per Unit Production Requirements and Income for Producing Good Feeders, Fall Buy-September 10; Late Summer Sell-July 10; Winter Ration, CSC and Oat Hay; Sold Off Grass

(2) Process Inputs

Item	Unit	Quantity	Price	Value
Miscellaneous costs	animal	1	$ 3.29	$ 3.29
Calf	lbs.	450	23.00	103.50
Native range	AUM	3.0		
CSC (.4 lb/day)	cwt.	.69	3.80	2.62
Oat hay (12 lb/day)	ton	1.0	20.00	20.00
Vet. and med.	$	1.45		1.45
Mineral	lbs.	16.3	.03	.49
Hauling and marketing cost	cwt.	12.10	0.50	6.05
Capital investment	$	137.41		
Operating capital	$	27.85		
Total		$165.26		
Annual		$150.68		
Interest on annual capital	$	$150.68	.06	9.04
(3) Specified Costs				$146.44
Returns	cwt.	7.60	21.00	$159.60
Less 1 percent				$158.00
(4) Returns to Land, Risk, Management and Labor[6]				11.56
(5) Hourly labor	hr.	9.03	1.00	9.03
(6) Returns to Land, Risk and Management[7]				$2.53

Labor Requirements

Man hrs/ animal	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	1.23	1.23	1.23	.60	.54	.30	.54	.00	.36	.54	1.23	1.23	9.03

6, 7 See page 13.

Table 25: (25.1) Estimated Per Unit Production Requirements and Income for Producing Good Feeders; Fall Buy-September 10; Winter Ration, CSC, Range, Oat Hay; Sudan Grazing in Summer; Sold Off Pasture in Late Summer, August 1

(2) Process Inputs Item	Unit	Quantity	Price	Value
Miscellaneous costs	animal	1	$ 3.29	$ 3.29
Calf	lb.	450	23.00	103.50
Native range	AUM	1.2		
CSC (.4 lb/day)	cwt.	.69	3.80	2.62
Oat hay (12 lb/day)	ton	1.0	20.00	20.00
Sudan grazing	AUM	2.0	2.14	4.29
Vet. and med.	$	1.45		1.45
Minerals	lbs.	16.3	.03	.49
Hauling and marketing cost	cwt.	12.50	0.50	6.25
Capital investment	$	140.28		
Operating capital	$	43.12		
Total	$	$183.40		
Annual	$	$179.59		
Interest on annual capital	$	$179.59	.06	10.78
(3) Specified Costs				$152.67
Returns	cwt.	8.00	20.75	$166.00
Less 1 percent				$164.34
(4) Returns to Land, Risk, Management and Labor[6]				$11.67
(5) Hourly labor	hr.	9.69	1.00	9.69
(6) Returns to Land, Risk and Management[7]				$ 1.98

Labor Requirements

Man hrs/	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
animal	1.23	1.23	1.23	.60	.54	.30	.54	.00	1.02	.54	1.23	1.23	9.69

6, 7 See page 13.

Table 26: (26.1) Estimated Per Unit Production Requirements and Income for Producing Good Feeders; Fall-Buy September 10; Roughed Through Winter on Range, CSC Supplement; Sold Off Grass July 10

(2) Process Inputs Item	Unit	Quantity	Price	Value
Miscellaneous costs	animal	1	$ 2.38	$ 2.38
Calf	lbs.	450	23.00	103.50
Native range	AUM	6.0		
CSC (1.5 lb/day)	cwt.	2.50	3.80	9.50
Oat hay	ton	0.050	20.00	1.00
Vet. and med.	$	1.45		1.45
Mineral	lbs.	16.3	0.03	0.49
Hauling and marketing cost	cwt.	11.75	0.50	5.88
Capital investment	$	127.05		
Operating capital	$	14.82		
Total	$	$141.87		
Annual	$	$131.88		
Interest on annual capital	$	131.88	.06	7.91
(3) Specified Costs				$132.11
Returns	cwt.	7.25	21.00	$152.25
Less 1 percent loss				$150.73
(4) Returns to Land, Risk, Management and Labor[6]				$ 18.62
(5) Hourly labor	hr.	6.78	1.00	6.78
(6) Returns to Land, Risk and Management[7]				$ 11.84

Labor Requirements

Man hrs/ animal	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	.75	.75	.75	.75	.54	.30	.54	.00	.36	.54	.75	.75	6.78

6, 7 See page 13.

Table 27: (27.1) Estimated Production Requirements and Income for Producing Good Feeders; Fall Buy-October 10; Winter Ration, Small Grain Winter Pasture, Oat Hay in Bad Weather; Sold Off Small Grain Pasture, March 10

(2) Process Inputs

Item	Unit	Quantity	Price	Value
Miscellaneous costs	animal	1.0	$ 4.03	$ 4.03
Calf	lbs.	450	22.50	101.25
Winter pasture	AUM	2.7		
Hay (oat)	ton	.4	20.00	8.00
Minerals	lbs.	8.0	.03	.24
Vet. and med.	$	1.45		1.45
Hauling and marketing cost	cwt.	10.64	.50	5.32
Capital Investment	$	132.09		
Operating capital	$	13.72		
Total	$	$145.81		
Annual	$	$131.39		
Interest on annual capital	$	131.39	.06	7.88
(3) Specified Costs				$128.17
Returns	cwt.	6.14	22.25	$136.62
Less 1 percent loss				$135.25
(4) Returns to Land, Risk, Management and Labor[6]				7.08
(5) Hourly labor	hr.	3.06	1.00	3.06
(6) Returns to Land, Risk and Management[7]				$ 4.02

Labor Requirements

Man hrs/ animal	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	.45	.45	1.02	.00	.00	.00	.00	.00	.00	.54	.30	.30	3.06

[6] [7] See page 13.

Table 28: (28.1) Estimated Per Unit Production Requirements and Income for Producing Good Feeders; Fall Buy-October 10; Winter Ration, Small Grain and Oat Hay; Spring Sell-May 10

(2) Process Inputs Item	Unit	Quantity	Price	Value
Miscellaneous costs	animal	1	$ 4.02	$ 4.02
Calf	lbs.	450	22.50	101.25
Native range	AUM	.5		
Small grain grazing				
Before March 1	AUM	1.4		
After March 1[10]	AUM	1.4	2.64	3.70
Oat hay	ton	.434	20.00	8.68
CSC	cwt	.69		2.62
Vet. and med.	$	1.45		1.45
Mineral	lbs.	16.3	.03	.49
Hauling and marketing cost	cwt.	11.66	.50	5.83
Capital investment	$	141.68		
Operating capital	$	47.19		
Total	$	$188.87		
Annual	$	$168.96		
Interest on annual capital	$	168.96	.06	10.14
(3) Specified Costs				$138.18
Returns	cwt.	7.16	22.50	$161.10
Less 1 percent				$159.49
(4) Returns to Land, Risk, Management and Labor[6]				$ 21.31
(5) Hourly labor	hr.	3.66	1.00	3.66
(6) Returns to Land, Risk, and Management[7]				$ 17.65

Labor Requirements

Man hrs/ Animal	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	.45	.45	.30	.30	1.02	.00	.00	.00	.00	.54	.30	.30	3.66

6, 7, 10 See page 13.

APPENDIX

Appendix Table 1: Definition of Land Resource Situations and Yield Levels by Land Class; Low Rolling Plains, Claypan Soils

Dry Land

C_b - Land capability class IIs, Soil Units 1 and 5 (Foard-Tillman equivalents)

C_c - Land capability class IIIe, Soil Units 1 and 5 (Foard, Tillman and equivalents)

C_d - Land capability class IVe, Soil Units 1 and 5 (Foard, Tillman and equivalents)

C_e - All other crop land classes (not adapted to harvested crops)

Crop	Unit	Land Type C_b	C_c	C_d	C_e
		(yield per acre)			
Wheat (continuous)	bu.	14	12	10	6
after row crop (6 mo. fallow)	bu.	17	14	11	7
(12 mo. fallow)	bu.	19	16	12	8
Cotton	lb. lint	175	125		
Oats (continuous)	bu.	28	20	15	
Small grain hay	ton	1.6	1.5	1.4	
Grazing[1]					
Sudan	AUM	3.0	2.8	2.6	1.9
Grazed out small grain	AUM	3.1	2.9	2.8	1.9
Native pasture	AUM	1.6	1.5	1.4	1.0
Harvested small grain	AUM	.4	.35	.3	.2
Blue panic	AUM	3.4	3.2	3.0	2.1

[1]Grazing yields are basically expected values since moisture is the limiting factor in forage production. The monthly distribution of grazing is not specified because of seasonal uncertainties.

Appendix Table 1: Definition of Land Resource Situations and Yield Levels by Land Class; Low Rolling Plains, Claypan Soils

Dry Land

C_b - Land capability class IIs, Soil Units 1 and 5 (Foard-Tillman equivalents)

C_c - Land capability class IIIe, Soil Units 1 and 5 (Foard, Tillman and equivalents)

C_d - Land capability class IVe, Soil Units 1 and 5 (Foard, Tillman and equivalents)

C_e - All other crop land classes (not adapted to harvested crops)

Crop	Unit	Land Type			
		C_b	C_c	C_d	C_e
		(yield per acre)			
Wheat (continuous)	bu.	14	12	10	6
after row crop (6 mo. fallow)	bu.	17	14	11	7
(12 mo. fallow)	bu.	19	16	12	8
Cotton	lb. lint	175	125		
Oats (continuous)	bu.	28	20	15	
Small grain hay	ton	1.6	1.5	1.4	
Grazing[1]					
Sudan	AUM	3.0	2.8	2.6	1.9
Grazed out small grain	AUM	3.1	2.9	2.8	1.9
Native pasture	AUM	1.6	1.5	1.4	1.0
Harvested small grain	AUM	.4	.35	.3	.2
Blue panic	AUM	3.4	3.2	3.0	2.1

[1]Grazing yields are basically expected values since moisture is the limiting factor in forage production. The monthly distribution of grazing is not specified because of seasonal uncertainties.

Appendix Table 2. Assumed[1] Prices Paid and Received by Farmers, Low Rolling Plains, Claypan Soils

Item	Unit	Price
Prices Paid		
Seed and Feed		
Seed wheat	bu.	$ 2.05
Cottonseed	cwt.	8.00
Seed oats	bu.	1.10
Sudan, sweet	cwt.	6.00
Cottonseed cake	ton	76.00
Fertilizer		
Ammonium nitrate	ton	86.00
Custom Rates		
Combining wheat and oats	acre	3.00
Cotton stripping	cwt seed cotton	.75
Cotton snapping (hand)	cwt seed cotton	2.00
Hauling		
Cotton	cwt seed cotton	.25
Wheat	bu.	.07
Oats	bu.	.03
Cotton defoliation	acre	2.00
Cotton insecticide spraying	acre	2.00
Cotton chopping	acre	2.50
Cotton ginning	cwt seed cotton	.65 + 4.00 per bale for bagging and ties
Hay baling	bale	.16
Load, haul and store hay	bale	.08
Fuel and lubricant		
Gasoline	gal.	.20
L.P. gas	gal.	.09
Diesel oil	gal.	.16
Kerosene	gal.	.15
Motor oil	gal.	1.00
Lubricant	lb.	.20
Prices Received		
Wheat	bu.	1.62[2]
Cotton lint (SLM 15/16)	lb.	.28[2]
Cotton seed	ton	50.00
Oats	bu.	.72
Beef	cwt.	[3]

[1] These price assumptions are based on approximate 1958 rates and are not to be interpreted as predictions of prospective prices in 1960 or any future year.

[2] Approximate 1960 [illegible]

Appendix Table 3. Assumed[1] Prices for Stocker and Feeder Steers, and Cull Cows by Months, Low Rolling Plains, Claypan Soils

Class and Grade	Monthly												Yearly Average
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
	(price per cwt.)												
Slaughter Calves													
Prime and Choice													
500 lbs and less	$22.25	$22.75	$23.00	$23.75	$24.00	$23.00	$22.50	$21.75	$21.00	$20.50	$21.00	$21.50	$22.25
Good and Commercial													
500 lbs.	19.50	20.00	20.25	20.75	20.75	19.25	19.25	18.75	18.25	17.50	17.75	18.50	19.25
Slaughter Bulls													
Commercial													
all weights	17.75	18.00	18.50	18.50	18.50	17.75	17.75	16.75	16.50	16.25	15.50	16.75	17.25
Utility and Cutter													
all weights	15.25	15.50	16.25	16.25	16.25	15.00	15.00	14.00	14.00	13.75	13.75	14.50	15.00
Slaughter Cows													
Utility													
all weights	14.00	14.50	15.00	15.00	15.00	14.25	14.00	13.50	13.50	13.00	13.25	13.25	14.00
Canners and Cutters													
all weights	11.75	12.25	12.50	12.50	12.25	11.25	11.00	11.00	10.75	10.25	10.25	10.75	11.25
Stocker and Feeder Steers													
Choice and Good													
500 lbs and less	23.25	24.50	25.00	25.25	24.50	23.50	23.00	23.25	23.00	22.50	22.50	22.50	23.50
Good													
500-800 lbs.	21.50	22.25	22.25	22.25	22.75	21.50	21.00	20.75	20.50	20.00	20.25	20.50	21.25
800-1050 lbs.	20.75	21.50	21.75	22.25	22.00	21.00	20.75	20.75	20.25	19.75	20.00	20.25	21.00
Medium													
500-1000 lbs.	18.25	19.00	19.00	19.25	19.50	18.25	18.00	17.75	17.50	16.75	17.50	17.25	18.25
Common													
500-900 lbs.	15.00	16.25	16.25	16.25	16.25	14.75	14.75	14.50	13.75	13.75	14.00	14.25	15.00

[1] The seasonal pattern as well as the class and grade differentials are based on data from Jackson L. James and James S. Plaxico, Beef Cattle Prices; Seasonal Movements and Price Differentials on the Oklahoma City Market, Oklahoma Agricultural Experiment Station Bulletin B-486, February, 1957.

Appendix Table 4: Estimated Cost Per Hour of Use, Selected Machinery, "C" Claypan Soils, Low Rolling Plains, Two and Four Row Equipment

Item	Specifications	Cost per Hour of Use[1] (dollars)
	Two Row Equipment	
Tractor	3 or 2-16 tricycle, L.P., P.S., PTO, hydraulic system, 3 point hitch, 43 hp	1.00
Moldboard plow	2-16 integral	.25
One-way	8 foot	.33
Spike tooth harrow	3 section (18 foot)	.05
Planter	2 row wheel, for cotton and corn	.33
Cultivator	2 row	.15
Tool bar	8 foot (with plows and integral)	.27
Grain drill	16-8, plain, drag chain	.58
Power mower	integral	.27
Side delivery rake	Power take off	.34
	Four Row Equipment	
Tractor	4 or 3-16 tricycle, L.P., P.S., hydraulic system, PTO 3 point hitch, 51 hp	1.27
Moldboard plow	3-16 integral	.36
One-way	12 foot	.57
Spike tooth harrow	24 foot (4 section)	.07
Planter[2]	4 row wheel, plain, for cotton and corn	.67
Cultivator	4 row	.32
Tool bar	12 foot (with plows and integral)	.34
Grain drill[2]	16-8, plain, drag chain	.58
Power mower	integral	.27
Side delivery rake	Power take off	.34

[1]These figures include per-hour costs of lubrication, repair, depreciation due to wear, and in the case of the tractor, the per-hour cost of fuel and oil. In all estimates, it is assumed that the equipment is used at an annual rate such that it would wear out before it becomes obsolete. If annual use were less than the assumed rate, costs would be higher. Thus, these estimates represent essentially minimum cost rates.

[2]In the event that cotton or wheat occupy a large proportion of cropland, two of these items might be required.

Appendix Table 5 . Estimated Capital Requirements and Annual Costs for Electrically Fencing a Quarter-Section of Small Grain Pasture; Low Rolling Plains, Claypan Soils

Specification	Item	Unit	Cost/ Unit	Quantity	Cost/ Rod	Total Investment	Annual Cost[1]
Domestic 4 pt barb	wire	80 rod roll	$11.00	8	.13	$88.00	$7.04
6 1/2' x 3 1/2" creosote	posts	each	.64	320	.32	204.80	16.38
	insulators	each	.03	320	.015	9.60	.77
8' x 5" creosote	corner posts	each	1.55	4	--	6.20	.50
	staples	lb.	.16	4	--	.64	.05
	charger					23.95	1.92
TOTAL						$333.19	$26.66

[1] Repairs and depreciation. Assumed to be 8 percent of total investment.

Appendix Table 6. Estimated capital Requirements and Annual Costs for Permanently Fencing a Quarter-Section of Native Pasture; Low Rolling Plains, Claypan Soils (4 wire Fence)[1]

Specification	Item	Unit	Cost/ Unit	Quantity	Cost/ Rod	Total Investment[2]	Annual Cost[3]
Domestic 4 pt barb	wire	80 rod roll	$11.00	32	.52	$352.00	$28.16
6 1/2' x 3 1/2" creosote	posts	each	.64	640	.64	409.60	32.77
8' x 6" creosote	corner posts	each	2.35	4		9.40	.75
8' x 5" creosote	brace posts	each	1.55	8		12.40	.99
	anchor lumber	corner	.50	4		2.00	.16
	staples	lb.	.16	32		5.12	.41
TOTAL						$790.52	$63.24

[1]For a 3-wire fence, subtract $88.64 from total investment or add $88.64 for a five-wire fence.

[2]Does not include a labor cost.

[3]Repairs and depreciation. Assumed to be 8 percent of total investment.

Appendix Table 7: Estimated Labor, Power and Machinery Requirements, Cost or Returns Estimates for Cropping Enterprises Using Two-Row Equipment, Low Rolling Plains, Claypan Soils, 1960

Enterprise	Budget number	Labor (2-row equipment)	Power (2-row)	Power cost/hr.	Power cost	Other machinery	Cost/hr.	Machinery cost	Total 2-row power and machinery cost	Specified cost above land, risk, management and labor	Returns to land, risk, management labor	Specified cost above land, risk and management	Returns to land risk and management
		(hrs)	(hrs)	(dol)	(dol)	(hrs)	(dol)	(dol)	(dol)		(dol)		(dol)
Cotton	1.1	19.88	3.49	1.00	3.49	3.17	.22	.69	4.18	--	30.68	--	10.80
"	1.2	3.80	3.49	1.00	3.49	3.17	.22	.69	4.18	--	19.59	--	15.79
"	1.3	3.80	3.49	1.00	3.49	3.17	.22	.69	4.18	--	19.41	--	15.61
"	2.1	19.88	3.49	1.00	3.49	3.17	.22	.69	4.18	--	19.55	--	.33
"	2.2	3.80	3.49	1.00	3.49	3.17	.22	.69	4.18	--	11.19	--	7.39
"	2.3	3.80	3.49	1.00	3.49	3.17	.22	.69	4.18	--	10.54	--	6.74
Wheat	3.1	2.62	2.40	1.00	2.40	2.18	.30	.66	3.06	--	13.28	--	10.66
"	3.2	2.62	2.40	1.00	2.40	2.18	.30	.66	3.06	--	10.18	--	7.56
"	3.3	2.62	2.40	1.00	2.40	2.18	.30	.66	3.06	--	7.08	--	4.46
Oats	4.1	2.62	2.40	1.00	2.40	2.18	.30	.66	3.06	--	10.78	--	8.16
"	4.2	2.62	2.40	1.00	2.40	2.18	.30	.66	3.06	--	5.26	--	2.64
"	4.3	2.62	2.40	1.00	2.40	2.18	.30	.66	3.06	--	1.81	--	.81
Oat hay	5.1	3.82	3.50	1.00	3.50	3.18	.31	.97	4.47	--	12.45	--	8.63
"	5.2	3.82	3.50	1.00	3.50	3.18	.31	.97	4.47	--	11.15	--	7.33
"	5.3	3.82	3.50	1.00	3.50	3.18	.31	.97	4.47	--	9.85	--	6.03
Cotton wheat	6.1	16.75	3.19	1.00	3.19	2.90	.23	.66	3.85	--	28.63	--	11.88
" "	6.2	3.48	3.19	1.00	3.19	2.90	.23	.66	3.85	--	19.43	--	15.95
" "	6.3	3.48	3.19	1.00	3.19	2.90	.23	.66	3.85	--	19.22	--	15.74
" "	7.1	16.75	3.19	1.00	3.19	2.90	.23	.66	3.85	--	18.86	--	2.11
" "	7.2	3.48	3.19	1.00	3.19	2.90	.23	.66	3.85	--	11.75	--	8.27
" "	7.3	3.48	3.19	1.00	3.19	2.90	.23	.66	3.85	--	11.26	--	7.78

Appendix Table 7: (Continued)

Enterprise	Budget Number	Labor (2-row equipment)	Power (2-row)	Power (cost/hr)	Power cost	Other machinery	Cost/hr.	Machinery cost	Total 2-row power and machinery cost	Specified cost above land, risk, management and labor	Returns to land, risk, management and labor	Specified cost above land, risk and management	Returns to land, risk, and management
		(hrs)	(hrs)	(dol)	(dol)	(hrs)	(dol)	(dol)	(dol)		(dol)		(dol)
Cotton-oats	8.1	16.75	3.19	1.00	3.19	2.90	.23	.66	3.85	--	27.42	--	10.67
" "	8.2	3.48	3.19	1.00	3.19	2.90	.23	.66	3.85	--	18.25	--	14.77
" "	8.3	3.48	3.19	1.00	3.19	2.90	.23	.66	3.85	--	18.02	--	14.54
" "	9.1	16.75	3.19	1.00	3.19	2.90	.23	.66	3.85	--	17.52	--	.77
" "	9.2	3.48	3.19	1.00	3.19	2.90	.23	.66	3.85	--	10.43	--	6.95
" "	9.3	3.48	3.19	1.00	3.19	2.90	.23	.66	3.85	--	9.91	--	6.43
Cotton-oat hay	10.1	17.07	3.49	1.00	3.49	3.17	.23	.74	4.23	--	22.10	--	5.03
" " "	10.2	3.80	3.49	1.00	3.49	3.17	.23	.74	4.23	--	12.94	--	9.14
" " "	10.3	3.80	3.49	1.00	3.49	3.17	.23	.74	4.23	--	12.73	--	8.93
" " "	11.1	17.07	3.49	1.00	3.49	3.17	.23	.74	4.23	--	13.32	--	-3.75
" " "	11.2	3.80	3.49	1.00	3.49	3.17	.23	.74	4.23	--	6.21	--	2.41
" " "	11.3	3.80	3.49	1.00	3.49	3.17	.23	.74	4.23	--	5.71	--	1.91
Grazed out SG	12.1	2.62	2.40	1.00	2.40	2.18	.30	.66	3.06	5.42	--	8.04	--
" " "	12.2	2.62	2.40	1.00	2.40	2.18	.30	.66	3.06	5.42	--	8.04	--
" " "	13.1	2.62	2.40	1.00	2.40	2.18	.30	.66	3.06	5.42	--	8.04	--
" " "	13.2	2.62	2.40	1.00	2.40	2.18	.30	.66	3.06	5.42	--	8.04	--
Sudan	14.1	3.30	3.02	1.00	3.02	2.75	.25	.68	3.70	4.99	--	8.29	--
"	14.2	3.30	3.02	1.00	3.02	2.75	.25	.68	3.70	4.99	--	8.29	--
"	15.1	3.30	3.02	1.00	3.02	2.75	.25	.68	3.70	4.99	--	8.29	--
"	15.2	3.30	3.02	1.00	3.02	2.75	.25	.68	3.70	4.99	--	8.29	--
Bl.Panic-Sudan	16.1	2.60	2.39	1.00	2.39	2.12	.24	.51	2.90	6.09	--	8.69	--
" "	16.2	2.60	2.39	1.00	2.39	2.12	.24	.51	2.90	6.09	--	8.69	--
" "	17.1	2.60	2.39	1.00	2.39	2.12	.24	.51	2.90	6.09	--	8.69	--
" "	17.2	2.60	2.39	1.00	2.39	2.12	.24	.51	2.90	6.09	--	8.69	--

Appendix Table 8: Estimated Monthly Distribution of Hourly Labor Requirements for Cropping Enterprises, Low Rolling Plains Claypan Soils, Two-Row Equipment, 1960

Enterprise	Budget Numbers	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
							(hours)							
Cotton	1.1	.24	.24	.24	.28	.56	1.60	2.40	.24	-	7.86	5.11	1.11	19.88
"	1.2-1.3	.24	.24	.24	.28	.56	1.60	.40	.24	-	-	-	-	3.80
"	2.1	.24	.24	.24	.28	.56	1.60	2.40	.24	-	7.86	5.11	1.11	19.88
"	2.2-2.3	.24	.24	.24	.28	.56	1.60	.40	.24	-	-	-	-	3.80
Wheat or oats	3.1-4.3	-	-	-	-	-	1.00	.87	-	.15	.45	.15	-	2.62
Oat-hay	5.1-5.3	-	-	-	-	.90	1.42	.90	-	.05	.35	.20	-	3.82
Cotton-wheat	6.1	.21	.21	.21	.23	.37	1.23	2.16	.18	.04	6.68	4.28	.95	16.75
" "	6.2-6.3	.21	.21	.21	.23	.37	1.23	.49	.18	.04	.18	.13	-	3.48
" "	7.1	.21	.21	.21	.23	.37	1.23	2.16	.18	.04	6.68	4.28	.95	16.75
" "	7.2-7.3	.21	.21	.21	.23	.37	1.23	.49	.18	.04	.18	.13	-	3.48
Cotton-oats	8.1	.21	.21	.21	.23	.37	1.23	2.16	.18	.04	6.68	4.28	.95	16.75
" "	8.2-8.3	.21	.21	.21	.23	.37	1.23	.49	.18	.04	.18	.13	-	3.48
" "	9.1	.21	.21	.21	.23	.37	1.23	2.16	.18	.04	6.68	4.28	.95	16.75
" "	9.2-9.3	.21	.21	.21	.23	.37	1.23	.49	.18	.04	.18	.13	-	3.48
Cotton-oat hay	10.1	.23	.23	.23	.25	.41	1.36	2.18	.19	.05	6.70	4.29	.95	17.07
" " "	10.2-10.3	.23	.23	.23	.25	.41	1.36	.51	.19	.05	.20	.14	-	3.80
" " "	11.1	.23	.23	.23	.25	.41	1.36	2.18	.19	.05	6.70	4.29	.95	17.07
" " "	11.2-11.3	.23	.23	.23	.25	.41	1.36	.51	.19	.05	.20	.14	-	3.80
Grazed out S.G.	12.1-13.2	-	-	-	-	-	1.00	.87	-	.15	.45	.15	-	2.62
Sudan	14.1-15.2	.33	.33	.44	.58	1.32	-	-	-	-	-	.30	-	3.30
Blue panic-sudan	16.1-17.2	.20	.20	.28	.62	1.13	-	-	-	-	-	.17	-	2.60

Appendix Table 9: Estimated Monthly Distribution of Hourly Labor Requirements for Cropping Enterprise, Low Rolling Plains Claypan Soils, Four-Row Equipment, 1960

Enterprise	Budget Numbers	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
							(hours)							
Cotton	1.1	.15	.15	.15	.19	.32	.88	2.19	.15	-	7.86	5.11	1.11	18.26
"	1.2-1.3	.15	.15	.15	.19	.32	.88	.19	.15	-	-	-	-	2.18
"	2.1	.15	.15	.15	.19	.32	.88	2.19	.15	-	7.86	5.11	1.11	18.26
"	2.2-2.3	.15	.15	.15	.19	.32	.88	.19	.15	-	-	-	-	2.18
Wheat or oats	3.1-4.3	-	-	-	-	-	.70	.62	-	.11	.34	.08	-	1.85
Oat hay	5.1-5.3	-	-	-	-	.74	1.14	.74	-	.05	.30	.08	-	3.05
Cotton-wheat	6.1	.12	.12	.12	.14	.21	.82	1.87	.10	.03	6.61	4.27	.90	15.31
Cotton-wheat	6.2-6.3	.12	.12	.12	.14	.21	.82	.20	.10	.03	.12	.06	-	2.07
Cotton-wheat	7.1	.12	.12	.12	.14	.21	.82	1.87	.10	.03	6.61	4.27	.90	15.31
Cotton-wheat	7.2-7.3	.12	.12	.12	.14	.21	.82	.20	.10	.03	.12	.06	-	2.04
Cotton-oats	8.1	.12	.12	.12	.14	.21	.82	1.87	.10	.03	6.61	4.27	.90	15.31
Cotton-oats	8.2-8.3	.12	.12	.12	.14	.21	.82	.20	.10	.03	.12	.06	-	2.04
Cotton-oats	9.1	.12	.12	.12	.14	.21	.82	1.87	.10	.03	6.61	4.27	.90	15.31
Cotton-oats	9.2-9.3	.12	.12	.12	.14	.21	.82	.20	.10	.03	.12	.06	-	2.04
Cotton-oat hay	10.1	.14	.14	.14	.15	.22	.82	2.02	.12	.03	6.61	4.27	.93	15.59
Cotton-oat hay	10.2-10.3	.14	.14	.14	.15	.22	.82	.35	.12	.03	.13	.08	-	2.32
Cotton-oat hay	11.1	.14	.14	.14	.15	.22	.82	2.02	.12	.03	6.61	4.27	.93	15.59
Cotton-oat hay	11.2-11.3	.14	.14	.14	.15	.22	.82	.35	.12	.03	.13	.08	-	2.32
Grazed out S.G.	12.1-13.2	-	-	-	-	-	.70	.62	-	.11	.34	.08	-	1.85
Sudan	14.1-15.2	.20	.20	.27	.33	.80	-	-	-	-	-	-	.20	2.00
Blue panic-sudan	16.1-17.2	.13	.13	.20	.20	.66	-	-	-	-	-	-	.10	1.42

Appendix Table 10: Estimated Monthly Distribution of Hourly Labor Requirements Per Animal[1] for Livestock Production Enterprises, Low Rolling Plains, Claypan Soils, 1960

Enterprise	Budget Numbers	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
							(hours)							
Cow-calf	18.1	.96	1.74	1.20	1.38	.30	.24	1.02	.24	1.26	2.55	3.30	2.16	16.35
Cow-calf	19.1	1.56	2.40	1.86	1.59	.30	.24	1.02	.24	1.26	2.55	3.30	2.82	19.14
Cow-calf	20.1	1.56	2.40	1.86	1.59	.30	.96	.30	.24	1.26	2.55	3.30	2.82	19.14
Cow-calf	21.1	2.16	3.00	2.40	2.19	.60	.54	1.02	.24	1.26	2.55	3.30	2.82	22.08
Cow-calf	22.1	2.16	3.45	3.69	2.85	.30	1.08	.30	.24	.30	.72	.75	.90	16.74
Cow-calf	23.1	2.82	4.11	4.35	2.85	.60	1.68	.60	.84	.60	1.02	.75	1.56	21.78
Steers	24.1	1.23	1.23	1.23	.60	.54	.30	.54	.36	-	.54	1.23	1.23	9.03
Steers	25.1	1.23	1.23	1.23	.60	.54	.30	.54	1.02	-	.54	1.23	1.23	9.69
Steers	26.1	.75	.75	.75	.75	.54	.30	.54	.36	-	.54	.75	.75	6.78
Steers	27.1	.45	.45	1.02	-	-	-	-	-	-	.54	.30	.30	3.06
Steers	28.1	.45	.45	.30	.30	1.02	-	-	-	-	.54	.30	.30	3.66

[1] The estimates used throughout the publication and in this table implicitly assume a small livestock operation (25-cow herds). With larger units, the labor requirement per animal is reduced substantially.

Appendix Table 11: Estimated Capital Requirements[1] for Enterprises Using Two-Row and Four-Row Equipment; Low Rolling Plains, Claypan Soils

Enterprise	Budget Number	4-Row Capital		2-Row Capital	
		Total	Annual	Total	Annual
Cotton	1.1	17.07	14.16	20.43	18.01
"	1.2	18.60	14.81	22.43	19.01
"	1.3	20.47	16.14	24.03	27.01
"	2.1	17.07	14.16	20.43	18.01
"	2.2	18.60	14.81	22.43	19.01
"	2.3	20.47	16.14	24.03	27.01
Wheat	3.1	13.76	13.36	14.83	14.19
"	3.2	13.76	13.36	14.83	14.19
"	3.3	13.76	13.36	14.83	14.19
Oats	4.1	14.21	13.77	14.94	14.52
"	4.2	14.21	13.77	14.94	14.52
"	4.3	14.21	13.77	14.94	14.52
Oat hay	5.1	29.49	29.49	31.19	31.19
"	5.2	28.83	28.83	30.53	30.53
"	5.3	28.17	28.17	29.87	29.87
Cotton-wheat	6.1	15.82	13.47	19.83	18.50
"	6.2	17.50	14.60	31.51	19.34
"	6.3	18.83	15.22	22.84	19.92
"	7.1	15.82	13.47	19.83	18.50
"	7.2	17.50	14.60	21.51	19.34
"	7.3	18.83	15.22	22.84	19.92
Cotton-oats	8.1	15.85	13.39	19.86	18.03
"	8.2	17.53	14.12	21.54	18.87
"	8.3	18.86	15.15	21.87	19.20
"	9.1	15.85	13.39	19.86	18.03
"	9.2	17.53	14.12	21.54	18.87
"	9.3	18.86	15.15	21.87	19.20
Cotton-oat hay	10.1	18.97	16.68	23.36	21.46
"	10.2	20.89	18.05	25.04	22.30
"	10.3	21.97	19.43	26.37	22.64
"	11.1	18.82	16.52	23.21	21.31
"	11.2	20.46	17.62	24.86	22.05
"	11.3	20.82	18.28	26.22	22.49
Grazed out small grain	12.1	13.76	13.67	14.73	14.14
"	12.2	13.76	13.67	14.73	14.14
"	13.1	13.76	13.67	14.73	14.14
"	13.2	13.76	13.67	14.73	14.14
Sudan	14.1	15.27	11.46	16.55	14.06
"	14.2	15.27	11.46	16.55	14.06
"	15.1	15.27	11.46	16.55	14.06
"	15.2	15.27	11.46	16.55	14.06
Sudan-blue panic	16.1	14.03	10.62	15.15	11.61
"	16.2	14.03	10.62	15.15	11.61
"	17.1	14.03	10.62	15.15	11.61
"	17.2	14.03	10.62	15.15	11.61

Appendix Table 11: (continued)

Enterprise	Budget Number	4-Row Capital		2-Row Capital	
		Total	Annual	Total	Annual
Beef	18.1	5,590.56	5,202.17	5,590.56	5,202.17
"	19.1	5,788.67	5,395.16	5,788.67	5,395.16
"	20.1	6,154.02	5,550.31	6,154.02	5,550.31
"	21.1	6,152.16	5,483.30	6,152.16	5,483.30
"	22.1	5,359.37	5,086.81	5,359.37	5,086.81
"	23.1	5,641.85	5,229.05	5,641.85	5,229.05
"	24.1	165.26	150.68	165.26	150.68
"	25.1	183.40	179.59	183.40	179.59
"	26.1	141.87	131.88	141.87	131.88
"	27.1	145.81	131.39	145.81	131.39
"	28.1	178.89	158.97	178.89	158.97

[1]The estimates in this table place 4-row equipment in a very favorable light. However, it must be pointed out that these estimates have been formulated under the assumption that equipment is used under optimum conditions. There are many small units which could not economically utilize 4-row equipment because of the terrifically expensive obsolescent depreciation which would occur as a result of underuse.

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