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COSTS and RETURNS

Southwest Cattle Ranches

1971

FARM COSTS AND RETURNS STUDIES

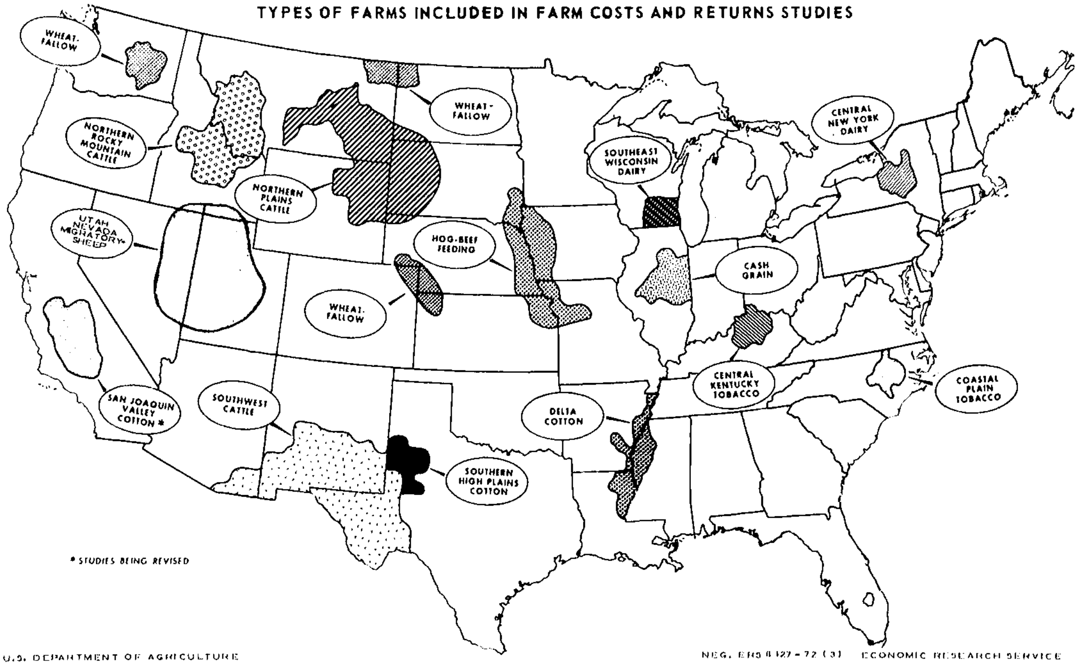
This report is part of a continuing nationwide study of costs and returns on commercial farms and ranches in selected farming regions. The study is conducted under the general supervision of Wylie D. Goodsell, Farm Production Economics Division, Economic Research Service. Objectives, methodology, procedure, and terms are uniform for all areas studied.

The costs and returns studies cover the following commercial farms and ranches by type and size:

Dairy Farms, Southeastern Wisconsin and Central New York
Cash Grain Farms, Corn Belt
Hog Beef-Feeding Farms, Corn Belt
Cotton Farms, Mississippi Delta
Cotton Farms, Southern High Plains, Texas
Tobacco Farms, Coastal Plain, North Carolina
Tobacco-Livestock Farms, Bluegrass Area, Kentucky
Wheat-Fallow Farms, Pacific Northwest, Northern Plains and Southern Plains
Northwest Cattle Ranches
Migratory-Sheep Ranches, Utah-Nevada
Southwest Cattle Ranches

Information on the studies can be obtained from Farm Production Economics Division, Economic Research Service, U.S. Department of Agriculture, Washington, D.C. 20250.

TYPES OF FARMS INCLUDED IN FARM COSTS AND RETURNS STUDIES



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COSTS AND RETURNS

SOUTHWEST CATTLE RANCHES, 1971

By

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Abstract: Net returns on Southwestern cattle ranches in 1971 continued a decline which began in 1970 as the drought of 1970 continued past mid-1971. Net ranch production declined to 74 percent of 1965-67. Production expenses were 13 percent higher than in 1970. Feed costs and grazing fees increased a fourth over 1970 and were over a half again as large as the 1965-67 average. Ranchers received a record average of $39.40 per hundredweight for steer calves. Investment per ranch increased in 1971, mainly because of higher livestock values.

Key Words: Southwest, costs, returns, production, investment, beef cattle, ranches.

INTRODUCTION

Cattle ranching is the predominant farming enterprise in a 34-county area spanning west Texas, southern New Mexico, and Southeastern Arizona (fig. 1). These ranches produce feeder calves for further conditioning and finishing in feedlots located in central Arizona, the Texas Panhandle, and the Midwest.

Cattle graze all year long on the sparse grasses and browse species of the area, requiring about 60 acres per animal unit (cow and suckling calf). In years when abundant precipitation occurs in the late spring, summer, and early fall, brood cows produce large, high-quality calves. In drought years such as 1971, range forage supplies are inadequate to support grazing livestock through the winter. Also, when precipitation is delayed until fall, ranchers are forced to feed supplements to their herds. Fewer breeding animals, lower calving rates, lighter calves, and larger feed costs are typical of drought periods in the Southwest.

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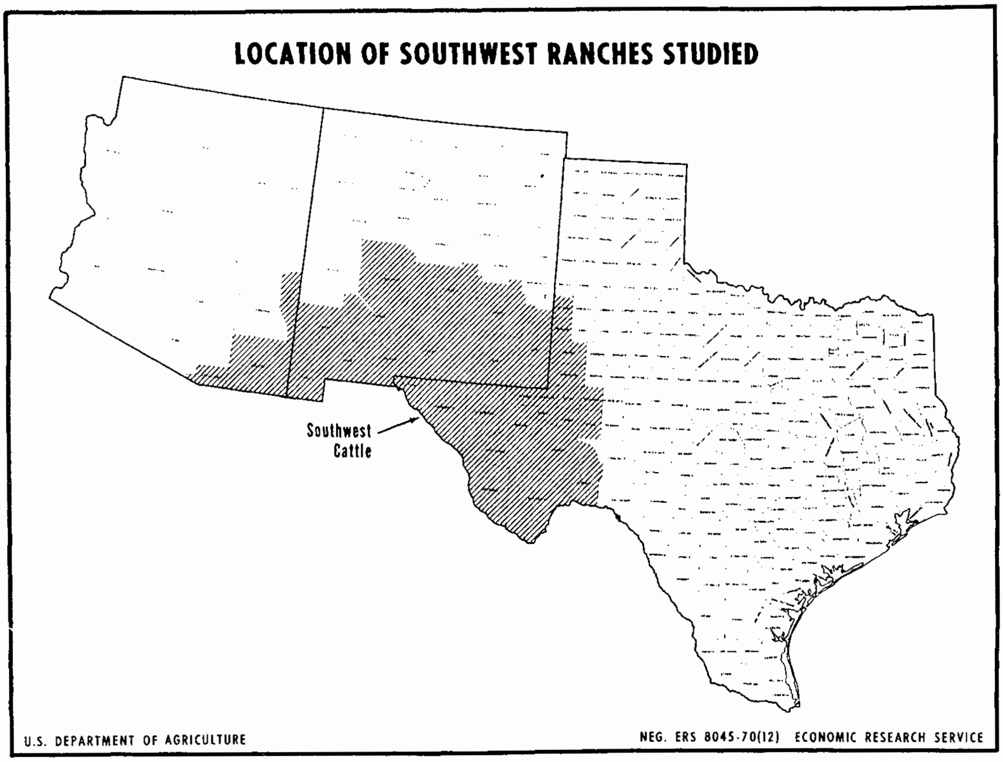

Figure 1

Large areas of Federally-owned grazing land are common in western New Mexico and Arizona, whereas most lands in Texas and eastern New Mexico are privately or State owned.

The major source of income for these ranches is the sale of calves. About 260 high-quality calves are produced each year from the typical herd of 300 brood animals. Calving percentages are usually in the mid-80's, which is lower than in most Western livestock producing areas. Death losses vary from 2 to 4 percent, depending on the severity of early spring weather conditions and the frequency and gravity of drought. In 1971, typical ranch herds were reduced to 280 brood animals and produced about 230 calves. Calving percentages were in the low 80's, while death loss was about 4 percent. Some forced selling of brood animals occurred in the spring because of the severe drought.

The typical ranch reported here is based on a survey of ranches with 200-500 head of brood cows, averaging about 300 head. Ranches with 200-500 head of cows and heifers produce nearly two-fifths of the area's calves. Most operators with less than 200 cows and heifers are either employed part-time off the ranch or have a major farming enterprise in combination with livestock. Operators with more than 500 head often have hired managers and combine enterprises such as crop farming, registered cattle, and cattle conditioning or feeding.

COSTS AND RETURNS OF SOUTHWEST CATTLE RANCHES

Net returns to ranch operator labor and management and total capital in 1971 averaged nearly $7,700 per ranch, a fourth less than the 1970 level and 37 percent less than the record high in 1969 (table 1). In other major Western cattle producing areas, ranch returns increased from 1970 to 1971.

Prices received by Southwestern ranchers in 1971, about 8 percent above a year earlier and 40 percent above the 1965-67 average, were more than offset by lower production, sharply increased expenditures for feed, and higher prices paid for production items and services.

Steer calf prices average $39.40 per hundredweight, 40 cents above the previous high in 1951. Prices received for yearlings, cows, and bulls were also record high. Slaughter cow prices at $22.10 per hundredweight were $2.55 more than in 1970 and rivaled 1965 calf prices. Slaughter bulls brought an average of $27.83 per hundredweight, $8.57 more than in 1970.

Southwestern ranchers were unable to realize as much benefit from favorable 1971 livestock market prices as ranchers in other Western livestock areas because they had to reduce breeding herds. In addition, large numbers of yearlings were sold early in the year because of the drought. Later, favorable ranch conditions after August encouraged some holdback of animals.

Large amounts of supplemental feeds, both roughages and concentrates, were fed from January through August. Hay prices averaged a record $43.80 per ton, up 17 percent from the 1970 level and 57 percent from the 1965-67 average.

Calving percentages decreased again in 1971 to 83 percent, 5 percentage points lower than the 1965-67 average. Because of favorable fall grazing conditions and heavy feeding of supplements early in the year, market weights of cattle and calves were comparable with those of both 1969 and 1965-67. Steer calves weighed 420 pounds and heifer calves, 408 pounds.

Gross ranch income rose 3 percent over 1970 but was 5 percent below the 1969 record. Prices received by ranchers played an important role in the gain. Despite favorable prices, cash receipts from yearlings accounted for only 15 percent of 1971 gross income, versus 29 percent of 1970's total. As weather improved later in 1971, ranchers held back 26 percent of the heifer calves in an attempt to build back breeding cow numbers. This compared with 17 percent withheld in 1970.

Capital per ranch reached $544,000 in 1971, 31 percent over the 1965-67 average and 3 percent more than in 1970. Unlike other years, the increase was mainly due to higher values of the livestock herd rather than higher land values. Total value of livestock increased 17 percent while total value of real estate increased only 1 percent. Per-acre values of land decreased in the Arizona portion of the study area, held constant in New Mexico, and increased slightly in the Texas portion, repeating the 1970 experience.

Table 1.--Costs and returns, Southwest cattle ranches

Item	Unit	Average 1965-67	1970	1971 1/
Total land operated 2/	Acre	17,720	17,720	17,720
Land owned	do.	10,160	10,320	10,320
Livestock on ranch:				
All cattle	Number	391	395	387
Cows and heifers, 2 years old and over	do.	297	277	280
Calf crop	Percent	88	84	83
Total ranch capital, Jan. 1 3/	Dollar	414,590	525,970	544,040
Land and buildings	do.	353,350	440,440	446,300
Livestock	do.	50,670	73,150	85,590
Machinery and equipment	do.	10,570	12,380	12,150
Crops	do.	0	0	0
Total cash receipts	do.	31,313	35,589	35,542
Calves	do.	17,972	18,126	19,350
Steers and heifers	do.	5,799	10,424	5,336
Other cattle	do.	7,542	7,039	10,856
Value of perquisites	do.	1,409	1,791	2,035
Inventory change:				
Livestock	do.	376	-788	10
Crops	do.	0	0	0
Gross ranch income	do.	33,098	36,592	37,587
Total operating expense	do.	23,659	26,562	29,899
Feed and grazing fees	do.	7,431	9,262	11,490
Livestock purchase	do.	3,140	1,750	2,076
Other livestock expense	do.	339	438	557
Crop expense	do.	0	0	0
Machinery purchase	do.	1,542	1,764	1,751
Other machinery expense	do.	2,557	2,950	2,999
Ranch buildings and fences	do.	1,866	2,065	2,073
Labor hired	do.	3,587	4,666	5,148
Taxes	do.	1,805	2,097	2,187
Other	do.	1,392	1,570	1,618
Return to operator labor and management, and capital 4/	do.	9,439	10,030	7,688
Interest paid	do.	---	7,644	7,361
Return to operator labor and management and equity capital	do.	---	2,386	327
Ranch production and price indexes (1965-67=100)				
Net ranch production	---	100	84	74
Range condition	---	100	96	91
Prices received for products sold	---	100	130	140
Prices paid, including wages to hired labor	---	100	115	121

1/ Preliminary. 2/ Land rented is grazing land. Some of it is rented on an animal unit month basis and some on an acre basis. These charges are included in expenditures for feed and grazing fees. Thus the value of this land rented is not included in ranch capital, and no real estate tax or related cost is included in ranch expenditures. 3/ Does not include estimated value of grazing permits or rented land. 4/ The information presented here assumes ranches are debt-free and producers are full owners, primarily for comparability between types of farms.

Investment in land and buildings including range structures accounted for 82 percent of total ranch capital. Livestock investment rose to 16 percent of the total from 14 percent in 1970 and machinery investment remained at 2 percent.

The major operating expense is feed including grazing fees. In 1971, this cost was a fourth higher than in 1970 and 55 percent more than in the 1965-67 period. Feed purchases in 1971 consisted of 107 tons of alfalfa hay at $43.80 per ton, 26 tons of protein concentrate at $98 per ton, and grains, salts, and minerals.

Costs to graze public land increased substantially in 1971, continuing the rapid up-trend of recent years. Grazing fees increased from 33 cents per animal unit month in 1969 to 44 cents in 1970 and 64 cents in 1971. State-owned lands were leased at an average fee of 30 cents per acre in 1971 and private lands were leased for 53 cents per acre, down 3 cents from 1970 because of lower grazing capacities.

In 1971, livestock replacements were again held to a minimum as ranchers attempted to control expenses. On the average only 4 bulls were purchased. Average bull replacement prices, along with other breeding cattle prices, increased sharply, with ranchers paying an average of $520 per bull.

Other livestock expenses consist of medicines, vaccines, and veterinary fees. Although the total quantities of medicines and veterinary services usually change little from year to year, expenses increased sharply in 1971 because of the Venezuelan equine encephalomylitis scare. Ranchers chose to vaccinate their horses, averaging 9 per ranch, even though effectiveness of the vaccine was unknown. Other livestock expenses jumped 27 percent from 1970 to 1971.

Hired labor expenses ranked second only to feed and grazing fees in 1971. Labor costs are mostly for a full-time man plus 3 to 4 months of day labor. Wage rates increased 9 percent and food costs 6.5 percent. About 18 percent more day labor was required to feed cattle in the first half of the year and to repair wear and tear and flood damage to range structures in the second half. Overall, labor costs increased 10 percent from 1970 to 1971.

Crop enterprises are negligible on Southwest cattle ranches, but substantial outlays are made each year for operation of pickup trucks, other trucks, automobiles, tractors, and related equipment. Despite higher prices in 1971, machinery expenses of $4,750 per ranch for repair, replacement, and operating costs were substantially the same as in 1970. Purchase of new equipment was again deferred as a result of the drought. However, after 3 years of deferment, much of the machinery on ranches (with the exception of the ranch pickup) needed replacement. Higher prices for machinery and equipment also discouraged replacement.

Real estate and personal property taxes were a relatively large expense. The property tax bill in 1971 increased 4 percent from a year earlier, and 21 percent from the 1965-67 period.

Other expenses included telephone service, electricity, business insurance, and other miscellaneous costs. Higher rates for some of these items increased their overall cost by 3 percent.

Total operating expenses increased 13 percent from the 1970 level, mainly because of the very large increase in feed costs. Had ranchers held 1971 feed outlays to the 1965-67 average level, their total operating expenses in 1971 would have been only 9 percent higher than the 1965-67 average. This indicates that ranchers have been doing an outstanding job of holding costs despite drought and inflation.

Some causes of major income changes are shown by the indexes of production and prices (table 1). Net production in 1971 was considerably below 1965-67 and the low level of 1969 and 1970, mainly because of poor range conditions. Record high livestock prices in 1971 averted a financial disaster for Southwestern ranchers. Prices received advanced another 10 points from the high 1970 level, while prices paid advanced 6 points.

RETURNS TO CAPITAL

The average net ranch income, about $7,700, was the return to operator labor and management and to total capital. Table 2 presents the return on investment and return on operator's equity. The return on total ranch capital was 0.5 percent in 1971, substantially below the rate of return on ranches in other Western areas.

Return to the rancher's equity (termed operator's capital) was lower than return to total ranch capital, because rates charged on borrowed money were higher than the rate earned in the ranching operation. In 1971, Southwest ranchers carried real estate mortgages and production loans of approximately $110,000 per ranch, leaving operator's capital at about $435,000.

The average rates charged by institutions servicing ranchers' loans were 6.1 percent for real estate mortgages and 7.6 percent for production loans. Since interest rates charged were well above the 0.5-percent return to total ranch capital, operators received no return in 1971 on their equity capital.

Table 2.--Net ranch income and returns to resources, Southwest cattle ranches, 1971

Item	Unit	1971
Net ranch income (return to operator labor and management and total capital)	Dollar	7,688
Interest paid on mortgages 1/	do.	7,361
Income available for family living	do.	327
Charge for operator's labor 2/	do.	5,130
Return to operator's capital	do.	-4,803
Total ranch capital	do.	3/544,040
Operator's capital	do.	3/434,560
Return on total ranch capital	Percent	3/0.5
Return on operator's capital	do.	3/-1.1

1/ Real estate mortgage of $64,600 at 6.1 percent and operating loans of $44,880 at 7.6 percent.
2/ Annual wage rate to a full-time hired hand x 1.25, plus perquisites.
3/ Excludes estimated value of grazing permits.