RESOURCES NEEDED FOR FULL-TIME FARMING IN EAST TEXAS

Two out of every three full-time farmers in northeast Texas have difficulty in making ends meet with their present farming operations. This fact was revealed in a recent survey, by the Agricultural Research Service and the Texas Agricultural Experiment Station, of 15,000 full-time farmers in 24 typical counties in northeast Texas, the area shaded in the map below. The families average a little less than $2,000 net money income annually. Families living in the country and working in town have higher incomes.

Since 1950, approximately 20,000 farm families in the 24 east Texas counties have either moved to the city or become part-time farmers, mainly because of the small size of business or the low volume of sales. Gross sales per farm in the area average only $2,200 per year, and nearly two-thirds of all the farmers have annual sales of less than $1,200. Less than half of the farmers have as much as $15,000 invested in their farm businesses.

The survey results, released by the Texas Agricultural Extension Service, point out that, even with careful planning and by using the very best production practices, an east Texas family, under present conditions, cannot produce enough from an 80-acre general farm to meet expenses and provide for family needs.

Both farming and living costs continue to rise. Machinery, fertilizers, and chemicals are needed to produce quality products in order to meet competition. All of these items cost money. In addition, cash costs for family living are increasing all the time.

Most of the east Texas families have time to manage larger farms or to care for more livestock or crops. Thus, many farmers seek to utilize their time more fully by leaving the farm to find jobs in the city or by becoming part-time farmers. However, there is a good future in farming for those who can secure enough land, equipment, and working capital. A dollar invested in farming in east Texas will yield returns that are just as high as — if not higher than — those in other parts of the State, provided the total investment is enough, according to the study.

Economists, farm management specialists, and others with the Texas A. & M. College System have provided guidelines to help answer the question of how much land, equipment, and livestock will be enough. They assume an average level of prices that would prevail over a period of time. After considering income tax advantages and the rental value of the farm home as a place to live and after making a mini-
mum estimate for family needs, the study assumes that a farmer should plan to make at least $2,500 a year over and above all expenses, including a 4-percent return for investment in land and a 6-percent return for investments in machinery and livestock.

With special marketing arrangements, various specialty enterprises — such as growing roses, raising Shetland ponies, and similar activities — offer a chance for some farmers to make a good living. However, these special crop and livestock enterprises provide little opportunity for the majority of the farmers in the area.

Some of the enterprises which seem to offer the best long-range promise for wide-scale use in east Texas include slaughter hogs, turkeys, eggs, broilers, dairying, sheep raising, beef production, and timber. The investment in land, equipment, and livestock that would be needed under the situations envisioned by the economists could range from $13,500 in the case of slaughter hogs up to $134,000 for a timber enterprise.

Some farmers probably would want to consider a combination of at least two enterprises — for example, timber and broilers, cattle and timber, or broilers and beef cattle. When labor requirements reach approximately 3,000 hours, the farmer will have to hire extra labor unless he has children old enough to help with the farm work.

The study points out that some farmers will be able to obtain credit for expanding their operations to the recommended sizes. Others may find it easier to become part-time farmers or even move to industrial centers.

Information on the investment and labor needed for various enterprises which would produce a satisfactory level of living in east Texas may be obtained from local county agricultural agents.

National Forest Recreation Study

A detailed review of the rapidly growing outdoor recreation in the national forests of this country has been announced by the Secretary of Agriculture. The purpose of the study — called the National Forest Recreation Resources Review — is to obtain a complete and factual inventory of the recreation resource potential of the national forests. The information gained on the 181 million acres of national forests will be the basis of programs for all recreation resource management activities of the National Forest System.

According to the Secretary of Agriculture, the American people are turning to national forests for recreation in ever-increasing numbers. In 1924, about 4 million recreation visits were made to national forests; by 1957 the figure had risen to 61 million annual visits; and in 1958 the number advanced to 68½ million. Indications are that this trend will continue.

Field work on the National Forest Recreation Resources Review is scheduled for completion in the fall of 1960, and the final report will be issued in the spring of 1961.

Cotton Fertilization in the Lower Rio Grande Valley

Cotton has become the leading crop in the Lower Rio Grande Valley since the disastrous freezes of 1949 and 1951 destroyed a major portion of the valley’s citrus industry, according to the Texas Agricultural Experiment Station. The cotton industry is now the principal source of agricultural income in the area, with an annual value of about $75 million.

Fertilizer tests conducted at the Lower Rio Grande Valley Experiment Station at Weslaco during 1955-58 indicate that irrigated cotton responds principally to nitrogen applications. Maximum yield increases resulted from the initial application of 60 pounds per acre. Smaller yield responses occasionally were obtained from an additional 60 pounds of nitrogen. Applications of phosphate and potash, either alone or in combination with other fertilizers, failed to raise yields significantly. The staple length and lint percentage of the cotton were not affected by fertilizer treatment.

In a test conducted on irrigated land in 1958, the addition of minor elements in conjunction with a fertilizer treatment of 120-120-60 resulted in significant increases in cotton yields. Investigation revealed that the response was from zinc. In a dry-land test, no response was obtained from fertilizer, even under favorable moisture conditions.
Results of experiments during 1955-57 show that subsoil fertilization does not increase yields under irrigation. Distribution of roots in the soil profile below 12 inches was better where subsoiling and deep fertilization were combined. More moisture removal from lower depths was obtained when deep fertilization was practiced. In 1958, nonsubsoiled plots with deep fertilization produced more cotton per acre-inch of water than did nonsubsoiled plots with conventional fertilization.

"Short Wheats" Promising

"Short wheats" being developed under high fertility and irrigation in Texas show much promise, according to the State Agricultural Experiment Station. The new wheats result from crosses of a dwarf wheat from Japan with hard red winter wheat varieties. Short wheats grow only 25 to 35 inches tall, in contrast to the 35 to 45 inches — or even 50 inches — of present varieties.

In tests at the Southwestern Great Plains Field Station near Amarillo, the top strain of short wheat yielded 75 bushels per acre, compared with 54 bushels by two widely planted varieties, Concho and Wichita. At the Denton Station, the new strains lodged less than 5 percent while producing high yields; commercial varieties lodged up to 80 percent under the same growing conditions.

Production of short wheats is expected to offer many advantages for farmers. Higher levels of fertility may be used to produce more grain per acre without lodging. The short wheats appear to be more efficient in their use of fertilizer, increasing their yields without excessive output of straw. Quality tests are also promising; however, considerably more testing will be done before the seed is released to farmers.

Brackish Water for Crop Irrigation

Irrigating with brackish water can save many crops during drought periods, reports the United States Department of Agriculture. This type of water may be available in coastal areas where the sea has flooded into surface-water sources or infiltrated into wells used for irrigation.

When available, fresh water should be used for irrigation; however, investigations by the USDA's Agricultural Research Service show that many crops are tolerant and productive when irrigated with brackish water. Brackish water which is usable for crop output is one-eighth to one-tenth as salty as sea water.

Salt-tolerant crops include asparagus, spinach, garden beets, barley, sugar beets, and cotton. In the medium-tolerant range are tomatoes, many plants of the cabbage family, sweet corn, lettuce, onions, rye, wheat, oats, and soybeans. Nontolerant plants include celery, radishes, green beans, and field beans.

Brackish water should be used only after seeds have germinated since saline water causes a marked reduction in seed germination.

New Lettuce Variety Immune to Downy Mildew

Valverde is a new lettuce variety developed for the Lower Rio Grande Valley, where conditions are particularly favorable for downy mildew. The new variety — developed jointly by the Texas Agricultural Experiment Station and the United States Department of Agriculture — was immune to the fungus during 1957-59, while adjacent commercial varieties were destroyed.

Valverde has most of the desirable characteristics of the Great Lakes type of head lettuce now grown in Texas, without some of the undesirable ones. The plants have an attractive dark-green color, and the heads have dark-green, rather thick wrapper leaves and good butt appearance. The heads are firm, but not hard. The small leaves toward the center of the head have a pleasing yellowish color rather than white, which is typical of the Great Lakes varieties.

Valverde lettuce heads mature uniformly (a week to 10 days later than most of the Great Lakes types) and can be packed 24 to a crate. The new variety has outstanding vigor from the seedling stage through maturity. The plants show less wilting, less wind damage, and less tipburn than do the Great Lakes varieties.

Tests indicate that, under good management practices, Valverde will yield in excess of 700
cartons (containing 24 heads each) of lettuce per acre and has excellent shipping qualities.

Woollypod Vetches Provide More Winter Growth

Three comparatively new woollypod vetches—Lana, Auburn, and Oregon—produce a higher percentage of their total growth during the winter and early spring than does Hairy vetch, according to R. J. Hodges, Extension Agronomist with the Texas Agricultural Extension Service.

In north Texas, the earliness of the new woollypod varieties should result in more winter cover and green matter to turn under prior to planting of spring crops than is possible with Hairy vetch. However, the total green matter output of the new varieties is only equal to or slightly greater than that of Hairy vetch.

Tests have shown that all three of the new woollypod vetches have been at or near the top in yield and total nitrogen production per acre. Moreover, they have proved equal to Hairy vetch in winter hardiness and total forage output.

Common and Willamette vetches are recommended for south Texas; neither Hairy vetch nor the woollypod varieties show any advantages for that area.

Winterkill — and Unbalanced Fertilizers

If used over a period of years, high nitrogen levels without adequate potash will increase the hazards of winterkill of Coastal Bermuda grass and small grains, points out John Box, Agronomist with the Texas Agricultural Extension Service.

In tests conducted by scientists of the United States Department of Agriculture in cooperation with the Georgia Agricultural Experiment Station, winterkill of Coastal Bermuda grass was most severe on plots which had received combinations of high nitrogen fertilization and low potassium for the past 3 years. As the amounts of nitrogen increased, winterkill caused progressively more damage, especially on plots receiving no potash at all.

High rates of nitrogen stimulate vegetative growth, which subsequently drains the soil of natural phosphorus and potassium, even though it may contain a relatively large amount of these nutrients, says Mr. Box. Potash is effective in hardening plant material, thereby counteracting the effects of the nitrogen and making the crops harder.

The Georgia tests emphasize the need for keeping plant nutrients in balance. Damage to Coastal Bermuda grass stands ranged from 35 to 92 percent in the spring of 1958, following the severe winter in the Georgia area.

Treat Bossy Gently

Anything that scares or hurts a cow will cause an increase in the level of adrenalin in her bloodstream, according to the Louisiana Agricultural Extension Service. Adrenalin counteracts the effect of another substance, thereby causing milk letdown; therefore, when a cow is subjected to noises and mistreatment, she cannot let down milk properly. Anything that interferes with normal letdown reduces the amount of milk given, resulting in a smaller milk check.