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The role of part-time farming in the overall agricultural production pattern and its place in the interdependent rural-urban economy were recently investigated by the Texas for Agricultural Experiment Station. The study, I a portion of a larger research project, examines part-time farming in a 24-county northeast Texas region and compares the relative productivity of farm and nonfarm activities of people living on farms.

Thirty-seven percent of all farmers in the area were classified as part-time operators. These operators controlled 40 percent of the farm and land resources, produced 28 percent of all farm commodities, and obtained 16 percent of the total net money returns from farming.

Of the part-time farmers in the area, 43 percent had full-time nonfarm jobs. Twenty-three percent did not work off the farm, but income earned from off-farm work by other members of the family or income of a nonwork nature improved family incomes significantly. Nonwork income was derived from property rentals, including mineral leases and royalty payments, and from pensions and similar types of payments. Part-time farmers in the area generally can be divided into two groups those who work full-time off the farm and those who do no work off the farm and depend mainly on nonwork income.

Part-time farm operators and family members devoted a considerable amount of time to farming, averaging nearly 1,100 hours annually. In view of the prevalence of aged family workers with limited off-farm employment opportunities, farming is important for family members. If the rental value of farm housing, farm-produced food, etc., were included, income from family labor, management, and capital in farming accounted for a large percentage of the total income received from all sources.

According to the Texas A. & M. study, a wide difference existed in returns from the time spent in farming and that spent at off-farm work. The net money return from farming averaged 19 cents an hour. The total farm return to family labor and management, including farm perquisites, rental allowance of the farm home, and appreciation in land value, minus a charge for the use of farm resources, was 39 cents per hour. This compared with an average of \$1.39 an hour for labor in nonfarm work.

On the average, efficiency of farm operations in the area was low in terms of total output or sales in relation to costs and labor expended. Under the present organization and level of management on most part-time farms, the addition of substantial resources to the existing farms to enable family workers to be fully employed probably would not yield sufficient returns to justify the additional resources, reports the experiment station.

With these points in mind, the question frequently arises as to the place of part-time farming and why operators continue to farm



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when they receive such low returns for their labor. Much of the reason for the existence of part-time farming, despite the low labor returns, is associated with values and goals of the family. Many of these families want to live in the country, desire to farm as a hobby, wish to avoid urban living problems, and prefer to rear children on the farm.

In addition to these considerations, the reasons for part-time farming in northeast Texas may also be economic in nature. The first factor involved is that farm returns of a nonmonetary nature exceed monetary returns. For example, farm-grown products consumed in the home can substantially reduce food expenses. In the study, the annual value of homeuse commodities averaged about \$350. If their quality and freshness also were considered, the value of these home-grown products probably was greater than reported.

Another nonmonetary return is the rental value of the home. Although many of these rural homes probably would rent for \$75 or more per month, a conservative rental value estimate of \$30 a month was assumed for purposes of the study.

A third nonmonetary return is the appreciation in the value of land held by the average operator (83 percent owned land resources). Based on land-value trends, the appreciation on a net basis has amounted to more than 3 percent annually over a period of approximately 25 years. Thus, the average annual land-appreciation value per operator has amounted to about \$384. The upward trend in land values, together with the resulting improved asset position, has encouraged families to maintain investments in land, even though they have quit farming.

The second factor involved in the economic consideration of part-time farming is the farm background of operators and the feeling that returns to farm resources are adequate, according to the Texas Agricultural Experiment Station. This factor is partly associated with the rather rigid character of resource investment in agriculture. Funds once committed by farm families to agricultural resources do not flow freely to other investments, even though the returns from such investments might be larger than those from farming.

Incomes from investments with assured returns probably are too low to attract funds that could be obtained by selling farm resources, and people with farm backgrounds generally feel that they are not qualified to make speculative investments that might realize high returns. The operators often expressed the feeling that there is no better investment available to them than land. This attitude is strengthened by the fact that most of the farmers in the study hold their land debt-free.

## Starr in the Peanut World



The 1961 performance of Starr, a true peanut variety (not a hybrid), has put it into orbit, says Ben Spears, Agronomist with the Texas Agricultural Extension Service. In 18 experiment station tests with

three other peanut varieties — Spantex, Argentine, and Dixie Spanish — Starr yielded 72 more pounds of shelled kernels per acre than the next best producer, Spantex. In 14 tests, the per acre value of Starr amounted to \$131.45, compared with \$117.89 for Argentine, its closest competitor. Moreover, Starr has desirable kernel characteristics.

In 63 farm demonstration comparisons, which included all peanut areas of Texas, Starr again showed its superiority by outyielding all comparison varieties by an average of approximately 20 percent. The average difference in value per acre was as much as \$30.

Limited quantities of certified Starr peanut seed are available for planting this year.

## **Disposal Pit for Poultry**

To the poultryman, every hen is an investment that will pay off only if she is healthy and is laying at a consistently high rate. According to Bill Cawley, Assistant Poultry Husbandman with the Texas Agricultural Extension Service, one of the best ways to keep the flock healthy is to keep the premises clean and maintain strict sanitation. The disposition of dead birds is a serious problem often faced by poultrymen. The use of a disposal pit is the most satisfactory method of disposal, says Mr. Cawley.

A disposal pit saves labor and time since it is unnecessary to dig a hole or start a fire every time a chicken dies. A pit presents no fire hazard; therefore, it can be constructed near the poultry house. Chickens which are placed in a pit decompose rapidly, and a tightly covered pit has no noticeable odor. In addition, the pit can be used the year round, and animals cannot dig up the dead birds.

A pit space of 100 cubic feet usually will be sufficient for a 1,000-hen flock for several years, according to Mr. Cawley. However, if the pit becomes full as a result of substantial mortality of birds, it should be covered with dirt and a new pit constructed. If possible, the pit should be located in porous soil.

# Care of Sows at Farrowing Time

Farrowing time is harvesttime for the swine producer, says Fred Hale, Swine Husbandman with the Texas Agricultural Experiment Station. Proper care of the sow at that time can result in the saving of an extra pig or two and, in some cases, an entire litter. The number of pigs saved is an important factor in determining the profitableness of the swine enterprise.

The brood sow should be kept in good smooth condition but not fat. A fat sow usually has more difficulty farrowing, and her pigs may be less vigorous at birth. Young sows farrowing for the first time are more likely to have delivery trouble than are older animals. The swine husbandman says that help should be given the sow as soon as labor becomes prolonged.

After farrowing, the sow often is feverish and should not be fed the first day; however, she should have plenty of clean warm water to drink. Mr. Hale recommends including about 20 percent wheat bran in the sow's ration for 3 or 4 days both before and after farrowing.

The sow and young pigs should be protected from cold, wet floors and drafty sleeping quarters. Strong and vigorous pigs will stand within 1 to 2 minutes after birth and will suckle without assistance within 10 minutes. The pigs should weigh about 3 pounds each. Under favorable weather conditions, the sow and her litter can be turned onto clean pasture lots when the pigs are 7 to 10 days of age.

# 3-T Formula for Buying Hay

Visual inspection does not always reveal what is inside a bale of hay, according to Shannon Carpenter, Area Dairy Specialist with the Texas Agricultural Extension Service. He points out that the true feeding value of hay is determined by several factors and suggests that hay buyers become 3-T purchasers.

Mr. Carpenter explains the 3-T formula in this manner. The first "T" is for test. If a ton of hay testing only 4 percent crude protein is purchased, 300 pounds of cottonseed meal will have to be fed with it to equal the protein in a ton of hay testing 10 percent protein. The specialist says that it is good business to ask the hay seller for an analysis of his product.

The second "T" is for time — the time the hay was cut, the time since the last application of fertilizer to the crop, and the time since the last cutting. Of major importance, says Mr. Carpenter, is the time the hay will be fed.

The third "T" stands for ton — the usual weight basis on which hay is bought. A dollar for a 60-pound bale of hay equals \$33 a ton, but a dollar for a 40-pound bale equals \$50 per ton. Thus, the weight of the individual bale of hay is very important. The dairy specialist suggests that hay be bought by weight instead of by the bale.

### Aerial Mesquite Control

Aerial application of 2,4,5-T is one of the most economical and practical methods for controlling mesquite in Texas, according to G. O. Hoffman, Range Specialist with the Texas Agricultural Extension Service. This method generally is used on relatively pure stands of mesquite.

Several factors must be present in order for the aerial application of 2,4,5-T to produce the desired results. Soil moisture should be sufficient to enable the mesquite to grow vigorously and to produce a dense foliage. The foliage should be dark green at the time of spraying. Mesquite foliage is currently in the best condition in several years, and good results should be obtained from aerial applications of 2,4,5-T, provided the moisture situation remains favorable, according to Mr. Hoffman.

The chemical mixture to use for aerial control of mesquite is comprised of  $\frac{1}{2}$  pound of 2,4,5-T, 1 gallon of diesel oil, and enough water to make 4 gallons of the solution. The mixture should be applied at the rate of 4 gallons per acre of mesquite, and the foliage should be covered completely.

Under ideal conditions, the chemical root kill of mesquite is 25 to 35 percent. The initial control will last from 5 to 7 years before spraying of the regrowth is necessary.

After the mesquite is sprayed, a deferred pasture grazing program should be followed in order to allow the grass to re-establish. The pasture should be grazed during the winter and deferred the second growing season; then, a good pasture management program should be followed.

## New Oat Seed Available for Fall Planting



Seed of Alamo-X, a new oat variety developed by the Texas Agricultural Experiment Station, will be available for planting this fall. The new seed

is being distributed to replace the Alamo variety because Alamo-X has greater resistance to Helminthosporium blights and to certain races of crown rust. In addition, it is more tolerant to low temperatures.

The cold tolerance of Alamo-X proved considerably superior to that of the older oat variety during the severe January temperatures this year. Average data for four locations in Texas show that the survival of the new oat variety was 92 percent, compared with 54 percent for Alamo, 72 percent for New Nortex, and 94 percent for Mustang. This hardiness will permit fall seeding of Alamo-X as far north as northcentral Texas.

Based on the rather limited performance data available, indications are that Alamo-X produces yields equal to those of Alamo. Where blight conditions are a problem, the new oats should prove considerably superior for winter pasture or grain production.

Alamo-X is similar to Alamo in many respects. The seed of the new variety differs in that it has a moderately heavy black awn, but maturity, plant height, and general appearance are similar. Alamo-X has a strong straw and stands well for combine harvesting under favorable conditions.

## Treadless Tire Outpulls Regular Tractor Tire

An experimental treadless tractor tire outpulled a regular tractor tire by 40 percent, under average operating conditions, in tests conducted by United States Department of Agriculture engineers. The smooth tire was also 14 percent more efficient in converting axle power to drawbar power. Except for the absence of treads (lugs), the appearance of the treadless tire is like that of any other tractor tire; however, the smooth tire is constructed differently.

The USDA engineers believe that one reason the experimental tire outperformed the conventional tire is that it has a more stable casing and, therefore, makes more uniform contact with the soil. They also believe that the flattened tread base and narrow rim of the treadless tire improve performance through better distribution of the weight over the soil.

Feed costs account for between one-half and two-thirds of the total cost of producing a dozen eggs. Therefore, the poultryman should obtain the best possible feed conversion from his laying flock, states Ben Wormeli, Poultry Husbandman with the Texas Agricultural Extension Service.