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LABOR REQUIREMENTS FOR DAIRYING

The dairy enterprise requires large amounts of farm labor, and dairymen are interested in finding ways of reducing these needs.

In 1954, a study of dairy operations in east Texas was conducted by A. C. Magee and Bob H. Stone of Texas A. & M. College and Ralph H. Rogers of the United States Department of Agriculture to determine the relationship between the size of the dairy business and the amount of farm labor used. The results indicate that labor efficiency increases as the size of the milking herd increases.

Although total labor requirements rose as the size of the herd increased, dairymen with small herds used more labor per cow and per 100 pounds of milk produced than did those with relatively large herds.

Dairymen who milked an average of 16 cows throughout the year used 94 hours of labor per cow annually in caring for the dairy herd; the labor requirements for operators milking twice as many cows were 20 percent smaller. Among the dairymen surveyed who were milking an average of 64 cows during 1954, the labor requirement per cow was 45

percent less than that for farmers with only one-fourth as many cows.

Because of the increased labor efficiency associated with the larger herds in the study, total labor requirements did not rise proportionately as the size of milking herd increased. For example, farmers who milked only 16 cows reported nearly as much time used in cleaning the milking barn and premises as did those who milked twice as many cows. Consequently, the time required per cow for milking and caring for the barn and milkroom declined as the number of cows milked increased. Likewise, the time required to feed hay and silage per cow decreased as the size of the herd increased.

A high proportion of the 106 dairies studied hired their milk hauled; consequently, labor requirements for transporting the milk are not included in this study.

Most of the dairymen kept a herd bull and raised replacement heifers. On the average, about three-fourths of an hour per day was required during the year in caring for the animals. Although a few operators fed hay throughout 1954, most of the herds were fed hay only for 7 or 8 months of the year.

AVERAGE LABOR REQUIREMENTS FOR DAIRY HERDS, 1954

East Texas

Item	FARMS GROUPED ACCORDING TO NUMBER OF COWS MILKED					
	All farms	Fewer than 20 cows	20-29 cows	30-39 cows	40-49 cows	50 or more cows
Number of farms studied.....	106	28	43	15	10	10
Average number of cows milked per farm.....	29	16	25	34	45	64
Hours of dairy labor annually, per cow.....	80	94	88	75	68	51
Hours of dairy labor annually, per 100 pounds of milk.....	1.5	1.9	1.7	1.5	1.3	1.0
Pounds of milk produced annually, per hour of labor.....	68	53	58	66	77	96

Approximately 30 minutes a day was required for this chore.

More labor was spent by those farmers who fed silage to their cows. Hauling silage was usually a one-man job; and although the time used varied from farm to farm, 1.5 to 2 hours daily ordinarily was spent — or about 6 hours more work per cow annually than was spent by those farmers not feeding silage. Some dairymen practically eliminated the extra labor in feeding silage by equipping trench silos for self-feeding.

Dairying in east Texas is largely a family enterprise. About 90 percent of the 106 Grade A dairies studied indicated that the operator and his family did all the milking, feeding, caring for the herd, and other work directly associated with dairying. In two-thirds of the dairies studied, two persons — frequently the operator and his wife — did the work. On almost a fourth of the farms, one person did the milking and other work at the dairy barn.

On farms where fewer than 30 cows were milked, about half of the operator's time was available for pasture improvements, growing feed or cash crops, or for other purposes. Operators of dairies with an average of 64 cows in production worked 8 or more hours per day on the dairy enterprise, in addition to using the help of one or more persons at milking time. Thus, without hired help or the assistance of family labor, operators of dairies with 50 or more cows had relatively little time for growing feed or for work other than milking and caring for the dairy herd.

Farmers to Get Gas Tax Refund

Some farmers will soon have money coming to them in the form of a gasoline tax refund. Legislation signed by the President on April 2 allows farmers to obtain a refund of 2 cents per gallon for the Federal excise taxes paid on gasoline used for farming purposes. The law will save farmers an estimated \$60,000,000 in operating costs this year and more in future years.

The first refunds will be made after June 30 and will cover gasoline used on farms during the first 6 months of 1956. In subsequent years, refunds will be made annually for the period July 1 through June 30.

Farmers eligible for gasoline tax refunds must file claims on Form 2240 between June 30 and October 1. The forms will be available after June 1 from county agents, post offices, banks, and Internal Revenue offices.

The tax refund applies only to gasoline used on the farm for farming purposes. No refunds are allowed on gasoline used in cars or trucks on highways — even though on farming business — or on gasoline used in processing, freezing, and canning operations. The recently enacted law also applies to diesel and other motor fuels used in farming operations.

Gasoline receipts should be saved and accurate records kept of gasoline used so that the Internal Revenue Service can check the amounts claimed.

According to the Commissioner of Internal Revenue, regulations relating to the new law will be issued as soon as possible.

Are Cattle Grubs on the Way Out?

The United States Department of Agriculture recently announced that it has been demonstrated experimentally for the first time that the common cattle grub can be prevented from developing within cattle. The feat — which has long been a goal of agricultural science — was accomplished by feeding an organic phosphate chemical to grub-infested animals.

The chemical, designated for experimental purposes as Dow ET-57, is systemic. It moves through the bodies of cattle to destroy grubs wherever they may occur in the animal's flesh. Research is currently under way to determine the suitability of ET-57 for grub control, toxic effects on the animals, and chemical residues in milk or flesh.

Entomologists G. W. Eddy and A. R. Roth of the Agricultural Research Service laboratory at Corvallis, Oregon, and W. S. McGregor and R. C. Bushland of the ARS station at Kerrville, Texas, are responsible for the research with ET-57. Veterinarian R. D. Radeleff, also of Kerrville, has carried on research to determine the toxicity of ET-57.

Cattle grubs cost the livestock industry an estimated \$100,000,000 a year in losses of meat, milk, and damaged hides. The pest is currently controlled by the use of rotenone; however, this insecticide goes into effect only after the grub has spent some 7 months developing as a parasite within the body of the animal.

ET-57 — while not the first systemic to control cattle grubs — is the first to prevent their emergence. In the Kerrville tests last year, the systemic was fed to grub-infested cattle at the rate of 100 milligrams per kilogram of animal weight (a 1,000-pound animal received 1.6 ounces). Treatment was made 2 to 5 months before grubs normally appear in the backs of cattle. Only one grub appeared in the backs of four out of five treated cattle, while 98 grubs appeared in the backs of five similar but untreated cattle. In the Corvallis experiment, ET-57 was 88 percent effective in preventing grub development.

Buy Feeder Pigs Early



Farmers planning to hog-off corn later this year should buy good-quality feeder pigs early so that they will have them on hand when the grain is ready, according to A. D. Fitzgerald, associate animal husbandman with Louisiana State University.

Hogging-off corn continues to be one of the more profitable and faster growing farm operations in Louisiana, and farmers often realize twice as much from their corn by

allowing hogs to harvest it than by harvesting and selling the grain.

The proper time to turn the pigs into the corn is when it is in the stiff-dough stage, according to Mr. Fitzgerald. Feeder pigs should have plenty of shade, adequate drinking water, and a wallow. Growers will find it profitable to feed one-half to three-fourths of a pound of protein supplement — such as tankage or shrimp meal — per animal daily.

Quality Alfalfa Hay

The same care should be taken in planning for and producing a feed crop as for any cultivated crop — such as cotton, corn, or grain sorghums. The methods the farmer uses in the hay-making process determine, to a large measure, the quality of hay he will have for feeding to his livestock, according to Gordon Hoff, Extension agronomist at New Mexico A. & M. College.

Producing, harvesting, and feeding high-quality hay will pay dividends in healthier and better-quality livestock. Mr. Hoff lists the following as factors for producing high-quality alfalfa hay.

- *It is cut early* — that is, by or before the time it is one-fourth in bloom. Early cut hay has more leaves than late-cut hay and is greener, finer-stemmed, and more easily digested. Many of the leaves are lost from late-cut plants, even before mowing.
- *It is leafy*. Leaves are the richest part of the hay. Therefore, leafy hay is higher in minerals, protein, carotene, and dry matter. Good flavor and nutritiousness are related to these factors.
- *It is free from weeds and trash*. Odor is affected by weed content, and such weeds as mustard and ragweed materially affect the taste of the hay.
- *It is grown on fertile soil*. The nutritiousness and taste of legumes are affected by the fertility of the soil on which the crop is grown.

• *It is a healthy, bright green color.* Hay which is high in carotene is usually a bright green color, but that is not always the case. Rapid curing is necessary to preserve the carotene content. Carotene is converted by the animal into vitamin A, which is necessary for the health of the animals — particularly pregnant animals and young growing stock.

Raising Pullet Flocks

The confinement method of raising replacement laying flocks has certain advantages over the range method and has grown in favor with Texas poultry producers during recent years, reports Bob J. Griffin, assistant Extension poultry husbandman of Texas A. & M. College.

Research, experience, and observations show that poultrymen who use the confinement method —

- ✓ Have less money invested in land and buildings.
- ✓ Experience less trouble with both external and internal parasites in their flocks.
- ✓ Require less labor.
- ✓ Lose fewer birds to predatory animals.
- ✓ Eliminate the expense of planting and maintaining a good range.

Range shelters and the use of a considerable acreage for ranges are eliminated when the pullets are confined. Thus, the land can be used for cash crops or pastures.

According to Mr. Griffin, it is much easier to keep parasites under control when the pullets are confined. It is fairly easy to clean and spray a poultry house thoroughly to control external parasites, but it is almost impossible to clean up an infected range.

Labor requirements are reduced when the pullets are confined, as mechanical equipment can be used in the poultry house. Transporting feed and water to the range

requires considerable time and labor; both can be kept at a minimum through the use of the confinement method.

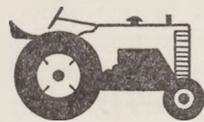
Predatory animals can be kept out of a poultry house without too much difficulty, but losses can be heavy on the range.

Feather picking may present a problem when pullets are raised in confinement; however, it can be controlled by having the chicks debeaked at the hatchery when they are only 1 day old, according to Mr. Griffin.

Another favorable factor in raising pullets on the range is that slightly less feed is required, since green forage is utilized by the birds. On the other hand, the cost of planting and maintaining a range often will offset this advantage.

Mr. Griffin suggests that the poultryman consider the facilities which are available and those which will have to be provided with either system before making a decision as to the best method of raising pullets. The system should be used which best fits the over-all plans for the farm and is the most profitable. Either method will be successful if good management is practiced.

Prevent Tractor Accidents



Farm tractor accidents claim more than 1,000 lives annually! W. L. Ulich, Extension agricultural engineer of Texas A. & M. College warns farmers to operate tractors with care and foresight to prevent the machines from becoming killers.

Excessive speed is the Number 1 cause of tractor accidents. Other dangers are carrying extra passengers and driving on highways or public roads after dark without proper lighting on the front and back of the tractors.

The *Agricultural News Letter* is prepared in the Research Department under the direction of J. Z. Rowe, Agricultural Economist.