

# Agricultural

## NEWS LETTER

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### *Labor Requirements for Dairying*

Anyone who has worked in a dairy barn is well aware of the fact that dairying requires considerable labor, but few dairymen have taken the time to study the efficiency of their operations with the aim of reducing labor requirements. Since labor expense represents about 20 percent of the cost of producing milk, any reduction in labor needed to care for the dairy herd can be an important factor in increasing profits.

A recent progress report by Texas A. & M. College gives some interesting facts on labor requirements for a dairy operation and furnishes some guides for dairymen in evaluating their labor efficiency. This information was compiled at the Texas Agricultural Experiment Substation in Tyler, Texas, under the direction of S. E. Carpenter, associate dairy husbandman.

The study included all labor required to care for a Jersey herd of 36 adult cows, 38 baby calves, and 2 bulls. Records were kept of the time required by each of the principal operations involved.

As might be expected, the greatest time-consuming chore was milking the cows. This operation averaged 340 minutes each day. The next most time-consuming job was cleaning the equipment and lots, which used up 112 minutes daily. According to the study, it took a total of 636 minutes each day to care for the milk herd of around 36 adult animals. This is equivalent to 10.6 hours.

While this would be a normal workday for a laborer on the farm, obviously the work could not be stretched over the 10.6 hours.

At the substation, two men using two milking machines milked the cows; from two to four men did other chores in connection with the dairy herd. Hence, the total time charged to the dairy herd each day is the cumulative time of all the men helping with the dairy herd.

On an annual basis, this study shows that it took 108 man-hours to care for each adult cow. It also took 9 man-hours to care for each head of young cattle. This labor requirement per cow is substantially below that in many dairy herds. Studies in other states have indicated that many dairymen spend up to 140 or 150 man-hours per cow per year. The use of walk-through, milking parlor-type barns usually reduces labor requirements, and some studies in Kentucky have shown that with such facilities the labor per cow can be reduced to around 85 man-hours per year and, with unusually efficient operations, to as low as 55 or 60.

Dairymen in some of the older dairy areas of the Nation are now making extensive studies of their labor requirements, even to the extent of conducting detailed studies of the procedures followed in milking and other dairy chores. A little study and planning have proved to be profitable in many cases, usually resulting in the ability of the dairyman to reduce

his labor force or to increase the number of cows handled without hiring additional men. Moreover, such studies sometimes have resulted in practices and procedures that enabled the men to do the dairy chores more easily, thus making for fewer labor problems in connection with the dairy herd.

It would be profitable for most southwestern dairymen to keep at least approximate records of the time used in their dairy operations. The data developed at the Tyler substation can be a useful guide in appraising the labor efficiency of individual herds.

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*Laying hens need 12 to 14 hours of light daily in order to maintain maximum egg production. Early morning lights are recommended; however, all-night lights are satisfactory. One 40-watt bulb for each 200 square feet of floor space is sufficient.*

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### ***Irrigation for Texas***

Interest in irrigation is at a new high in Texas because of the drought of the past 3 years and the fact that yields frequently are increased 50 to 100 percent, even in humid areas, through proper use of irrigation.

Robert V. Thurmond, irrigation specialist with the Texas Agricultural Extension Service, reminds farmers that irrigation is relatively expensive and may not be successful on all farms. Careful consideration should be given to such factors as availability, quality, and depth of water; trend of the water table; ground water laws; and the amount and suitability of land for irrigation.

This information, as well as other important factors concerning irrigation in Texas, is discussed in the Texas Agricultural Extension Service's Bulletin 215, entitled "Ground Water Development for Pump Irrigation." Copies of the publication may be obtained, without cost, from the offices of local county agricultural agents or by writing to the Texas Extension Service, College Station, Texas.

### ***Broiler By-Product***

Poultry manure is rich in nitrogen, contains substantial quantities of phosphate and potash, and is an excellent source of organic matter. The value of this by-product of the poultry industry frequently is overlooked in broiler, egg, and turkey production.

Pennsylvania State College estimates that the manure from 1,000 broilers will contain 256 pounds of nitrogen, 182 pounds of phosphate, and 80 pounds of potash. This quantity of plant food in commercial fertilizer would cost about \$60. Thus, a broiler producer raising 80,000 birds a year has a by-product valued at around \$480. Some loss is incurred in moving the manure to fields, but probably about 70 percent can be utilized—or about 4 cents per broiler.

It is estimated that a turkey raised to marketable age will produce manure valued up to 45 cents as fertilizer and a laying hen at 8 months will have produced fertilizer worth 25 cents.

Poultry raisers can make efficient use of this by-product of the industry by spreading the manure on fields as soon as the poultry houses are cleaned. If the poultryman does not have land on which to utilize the manure, it may be possible to sell this valuable fertilizer to nearby farmers.

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*Farmers should order and take delivery now on the amount of fertilizer they will need for producing 1954 crops. Fertilizer can be stored successfully on the farm if it is kept in a dry, well-ventilated building.*

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### ***New Flax Variety***

A new flax variety adapted to the central Texas Blacklands has been developed by the Texas Agricultural Experiment Station and the United States Department of Agriculture.

The variety is called Newturk and, because of its resistance to cold, will extend the Texas flax belt northward.

Newturk flaxseed will be increased by certified seed growers during the coming season and will be available to farmers for planting in the fall of 1954.

### *Electric Fence Safety*

Small children are involved in over half of the electric fence tragedies, according to W. L. Ulich, Extension agricultural engineer of Texas A. & M. College. Pointing out that only a few people realize a small current can cause death, he advises the farmer or rancher not to use an electric fence unless it has a controller that meets the requirements of a recognized testing agency, such as the Underwriters Laboratory.

Mr. Ulich also suggests that the following safeguards named by the National Safety Council be observed:

- ◆ Avoid locating an electric fence near a grounding device, such as a pipeline, pump, stock tank, pond, irrigation ditch, or other normally wet ground.
- ◆ Always prominently identify electric fences, especially those placed near buildings, property lines, and roads.
- ◆ Never depend on an electric fence to restrain bulls or other vicious animals.

### *Rio-Gold—New Cantaloupe Variety*

The Rio-Gold cantaloupe, which was developed at the Lower Rio Grande Valley Experiment Station in 1950, has several characteristics which make it superior to the Rio-Sweet variety, according to G. H. Godfrey, plant pathologist at the Weslaco Station.

The melon is attractive in appearance and has an excellent flavor, with a high sugar content. The vines are highly resistant to downy mildew and fairly resistant to powdery mildew and aphids.

Limited quantities of Rio-Gold seed for trial plantings and seed increase are available to growers and can be obtained from the Foundation Seed Section, Department of Agronomy, Texas A. & M. College, College Station, Texas.

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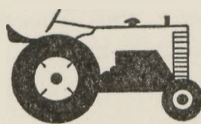
*Farming is a business and deserves the best managerial practices. Complete records should be kept on each farm or ranch unit in order to determine which operations are profitable and which should be expanded or curtailed.*

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### *Save That Machinery!*

Proper winter protection will prolong the life of farm machinery by as much as 35 percent, says W. L. Ulich, Extension agricultural engineer of Texas A. & M. College.

Machinery should be kept under shelter when not in use and the shed doors closed to prevent poultry and birds from roosting on the equipment.



Mr. Ulich points out that exposed metal parts of the farm machinery should be painted to help prevent corrosion. Cultivator shovels, plow moldboards, jointers, and rolling colters must be kept clean and greased since they are made of bare steel and have no protective coating against rust.

Winter is a good time to inspect all farm equipment before it goes back into service. It pays big dividends to make all needed repairs while the machinery is idle since costly breakdowns often can be prevented during the harvest season.



## Control Cattle Grubs

Cattlemen who are not controlling cattle grubs effectively are paying a penalty of \$3.50 to \$8.00 per head of cattle, says N. M. Randolph, Extension entomologist of Texas A. & M. College. Grubby cattle make inefficient use of feed and sell for less when marketed.

December is usually the month when cattle grubs appear, and the backs of the animals should be sprayed as soon as the pests are discovered. Three applications should be made at 30-day intervals.

A spray mixture of 7½ pounds of 5-percent rotenone to 100 gallons of water is recommended. A pressure of 400 pounds or more at the spray nozzle is best for fast, efficient grub control in large herds of cattle.

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*With good management, farm woodlands will furnish products for cash income and for fuel, fence posts, poles, and the construction and maintenance of buildings.*

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## Publications

New Mexico Agricultural Experiment Station, State College:

*Control of Insects on Alfalfa and Clover Grown for Seed*, Circular 242, by R. C. Dobson.

Oklahoma Agricultural Experiment Station, Stillwater:

*Redgold Sweet Potato—A New High-Yielding Wilt-Tolerant Variety*, Bulletin No. B-411, by H. B. Corder and others.

Texas Agricultural Experiment Station, College Station:

*Mechanization of Cotton Production*, Southern Cooperative Series, Bulletin No. 33.

*Weslaco Cantaloupe Variety Trial, Spring 1953*, Progress Report 1594, by G. H. Godfrey and others.

*Watermelon Variety and Strain Trials in the Lower Rio Grande Valley, 1953*, by R. T. Correa and W. R. Cowley.

*Pickling Cucumber Variety Test in the Lower Rio Grande Valley, 1953*, Progress Report 1596, by R. T. Correa.

*Cattle Feeding Studies at the Spur Station, 1952-53*, Progress Report 1599, by P. T. Marion and others.

*Demand for Citrus and Competing Products on a Selected Competitive Market*, Progress Report 1600, by H. B. Sorensen and E. R. Bulow.

*Influence of Row Widths and Seeding Rates on Yield and Survival of Tall Fescue Stands*, Progress Report 1601, by Ethan C. Holt.

*Effectiveness of Soil Fungicides in Controlling Cotton Seedling Diseases in the Lower Rio Grande Valley*, Progress Report 1602, by G. H. Godfrey.

*Effect of Fertilizers on the Yield and Grade of Onions*, Progress Report 1603, by H. W. Gausman and others.

*Pecos Valley Cotton Strain Tests, 1952*, Progress Report 1606, by Lee S. Stith and P. J. Lysterly.

*Effects of Irrigation Level on Cotton at Pecos, 1952*, Progress Report 1607, by Lee S. Stith and P. J. Lysterly.

*El Paso Valley Cotton Variety Test, 1952*, Progress Report 1608, by Lee S. Stith and P. J. Lysterly.

Copies of the bulletins may be obtained by request to the publishers.

The *Agricultural News Letter* is prepared in the Research Department under the direction of CARL H. MOORE, Agricultural Economist.