

# Agricultural

## NEWS LETTER

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### *Balancing Livestock with Forage Pays*

Adjusting the stocking rates on pastures to the amount of feed available has been one of the principal range conservation practices recommended for several years. Such a practice permits the more desirable grasses to reseed and to build up a more protective cover on the pastures and ranges.

Actual results also prove that the dollar returns per acre of land are increased when the number of animals does not exceed the normal carrying capacity of the pasture.

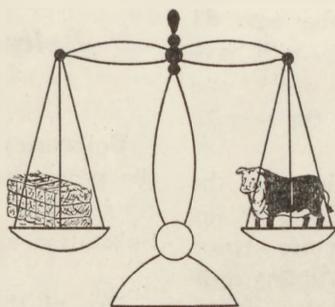
For example, a McMullen County, Texas, ranchman increased the sale value of his calf crop more than \$2,500 by reducing the stocking rate on a 1,250-acre pasture. In 1949, this pasture was stocked with 100 cows, which produced 60 calves that averaged 300 pounds at selling time. In 1950 the same pasture was stocked with 65 cows, and the 65 cows raised 62 calves that averaged 425 pounds at selling time.

This represents an increase of more than 8,000 pounds of beef produced on the 1,250 acres. Moreover, the pasture was in much better condition at the end of the second year and was able to provide feed for 74 cows and their calves during 1951, even though the area experienced a severe drought.

Lower stocking rates also mean a smaller investment in breeding stock, a lower winter feed bill, and steady improvement of the grasses in the pasture.

Dairymen of the Southwest also have found it profitable to balance the number of cows with the quantity of feed available. Reducing the number of cows in the herd is sometimes necessary. But dairymen located in the more humid areas of the Southwest frequently can make use of supplemental forage crops, such as sudan and forage sorghums, to provide additional summer pasture, hay, or silage, while small grains are excellent for additional fall and winter grazing.

Production of an adequate supply of roughage to maintain top production is a major problem of the dairyman, and A. W. Crain, Extension pasture specialist of the Texas A. & M. College, points out that proper fertilization can go a long way toward solving this problem.



Most forage crops suffer from the lack of nitrogen, and Mr. Crain says that the application of a nitrogen fertilizer whenever adequate moisture is available usually will pay

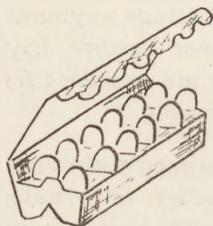
off in increased yield and quality of feed. It is frequently said that \$1 spent for fertilizer will return from \$3 to \$7 in increased feed.

Phosphate and potash are also required on the lighter soils of the Southwest, and in some areas lime is also needed. Sweet sudan and Chinese red peas that follow a fertilized winter legume usually need only nitrogen. Local fertilizer dealers or the county agricultural agent should be consulted for the most profitable rate and method of fertilizing each area.

Another suggestion to dairymen for increasing forage production is to rotate pastures frequently. More pasturage can be obtained when the pastures are permitted to recover after having been grazed moderately heavy. Use of the supplemental pastures mentioned above frequently makes it possible to rotate the perennial grass and legume pastures.

### *Keep the Hens Laying*

Many poultrymen have difficulty maintaining egg production during the hot summer months, and poultry specialists at Texas A. & M. College suggest several steps for preventing this drop in production.



One of the more important causes of low production is a slump in the hen's appetite during the hot weather. A 4-pound hen requires about 56 pounds of feed per year to maintain her body weight. Thus, if

she eats only 56 pounds of feed she will not likely lay many eggs. But if she eats 81 pounds of a well-balanced feed she will have enough feed to maintain her body weight and to lay well over 200 eggs during the year.

One way to avoid this slow-down in the hen's appetite and the resultant loss of egg production is to make the feed more attractive during the summer months. Adding milk or water to the mash and reducing the amount of grain is one way of increasing feed consumption. The moist feed is more palatable, and the birds usually will respond to increased quantities of this type of feed.

Providing clean, cool water in sufficient quantities and also in an adequate number of waterers aids in maintaining high feed consumption.

Another reason for low production and one that contributes to the loss of appetite is the lack of ventilation in the laying house. E. D.

Parnell, professor of poultry husbandry at Texas A. & M. College, suggests that from  $\frac{1}{3}$  to  $\frac{1}{2}$  of the total sidewall area in the laying house be converted into ventilators. There should be openings on all sides of the house so that there will be ample circulation.

### *Clean Wool Brings Higher Price*

Wool that is free from foreign matter, such as burs, dirt, and trash, commands a higher price. J. A. Gray, Extension specialist for Texas A. & M. College, offers the following suggestions for keeping fleeces clean:

- ◆ Use only a scourable branding paint for marking sheep.
- ◆ Keep wool as free from dirt and trash as possible while shearing and tie only with regular paper twine.
- ◆ Do not shear the sheep unless the wool is dry.
- ◆ Pack black wool separately.
- ◆ Store fleeces in a dry place.

### *Bollworms Controlled by Insecticides*

Bollworms were controlled effectively by the proper application of insecticides during tests at the Texas Agricultural Experiment Substation at Lubbock in 1951.

Use of these control measures increased cotton yields substantially over yields in check plots, and net profits were increased from \$60 to \$83 per acre.

On a large-scale experiment covering 145 irrigated acres, gamma benzene hexachloride-DDT dust (2-10-40) was used and resulted in an increase of 453 pounds of seed cotton per acre over the untreated area.

Each of the following insecticides applied at the recommended rates gave good control: toxaphene-DDT dust or spray, dieldrin-DDT

dust or spray, gamma benzene hexachloride-DDT dust or spray, aldrin-DDT spray, and DDT-parathion dust. Applications were made when the number of eggs and newly hatched worms reached 4 or 5 per 100 cotton terminals.

The specialists conducting these tests point out that the increased acreage of irrigated cotton in northwest Texas, together with a decline in the acreage of grain sorghums, probably means that control of the bollworm will be a major problem in cotton production in that area. They suggest that growers inexperienced in the use of insecticides follow directions carefully and make sure that applications are made at the proper time and with the recommended strength of the insecticide.

Most of the difficulty in controlling the bollworm on cotton during the past two or three seasons appears to have been due to a lack of thoroughness in applying the insecticide or failure to make such application at the proper time.

If any of the phosphorus compounds, such as parathion, are included in the insecticide mixture, care should be exercised to prevent breathing the vapors and to prevent direct contact of the insecticide with the skin. Manufacturers' precautions indicated on the containers should be observed strictly.

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*June is dairy month. The value of all milk produced in Texas last year is estimated at \$200,000,000. The top counties in milk production, according to Texas A. & M. College, are Harris, Parker, Hopkins, Bexar, Johnson, Tarrant, Wise, and Nacogdoches.*

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### **How Many Gallons Per Acre?**

Increased use of sprayers for the application of insecticides and weed killers has made it necessary for many farmers in the Southwest to devise a method of checking the num-

ber of gallons per acre that a sprayer is applying.

Mr. Ed Bush of the Agricultural Engineering Department of Texas A. & M. College suggests the following procedure: Use only clear water in the sprayer for this test. Set the pressure regulator on the sprayer at the required pressure, with all spray nozzles operating. Next, set the throttle on the tractor at the proper speed and spray a measured distance of 40 rods (660 feet).

Multiply the number of gallons sprayed during this measured run by 66 and divide the answer by the width (in feet) of the area covered by the sprayer. The answer to these calculations is the gallons applied per acre at the throttle and pressure settings used during the trial run.

### **Tomato Market Reports Available**

Daily market bulletins on the east Texas tomato crop are available from the Dallas office of the Production and Marketing Administration.



These daily bulletins contain information on the crop at shipping points and wholesale prices at the major terminal markets. They also show the volume of shipments by districts and states.

Producers and other persons interested in receiving these daily bulletins should write direct to the Production and Marketing Administration, Fruit and Vegetable Office, Room 553, Terminal Annex, Dallas, Texas. There is no charge for these reports.

### **The Cost of Water**

On the High Plains of Texas, the cost of developing and equipping a new irrigation well ranged from \$4,000 to \$5,000, according

to a recent report by the Texas Agricultural Experiment Station. These cost figures are based on a study of irrigation farming covering the 3-year period, 1947-49.

The major item of expense in developing a new well is the pump, which usually costs around \$2,000. The power unit is the other expensive item in equipping the well. The average cost of drilling and casing the well during this period was \$1,272.

The cost per acre-foot of water pumped ranged from \$4.36 to \$17.33. Many factors influenced this cost, with the higher figures being associated with wells with a low rate of yield. In general, wells yielding less than 500 gallons per minute had a per acre-foot cost of more than \$10.

Of the three major fuels generally used to operate the power units, natural gas gave the lowest average cost per acre-foot. Units operated with electricity had the second lowest cost, and butane was cheaper than gasoline.

The study emphasizes that a farmer should have the well drilled before purchasing a pump and power unit, in order that the equipment for pumping can be of the type and size best suited to the well. Until the well is completed, there is no way of determining the rate of yield or depth of setting that will be required for satisfactory pumping.

Additional details on this study are given in Bulletin 745, entitled "Cost of Water for Irrigation on the High Plains." Copies of this bulletin can be obtained from any county agricultural agent or from the Texas Agricultural Experiment Station at College Station.

### *Kill Those Flies*

It's an old story, but the No. 1 step in control of flies is sanitation.

A. C. Gunter, entomologist for the Texas Agricultural Extension Service, points out

that the use of DDT and other insecticides is of little value unless it is accompanied by a thorough clean-up of all fly-breeding places. Garbage containers should be covered tightly and all trash and other debris removed from the farmstead.

DDT is still the most common insecticide and is generally effective in controlling flies and other household insects. However, if this fails to give good results, Mr. Gunter recommends using a 2-percent chlordane household spray.

It is important to start early in the campaign against flies, but it is equally important to maintain control measures throughout the summer. Regular checks should be made to see that the premises are kept clean.

### *Markets Prefer Cattle Without Horns*

Cattle that are free of horns are preferred by most buyers, says A. L. Smith, animal husbandman for Texas A. & M. College.

Mr. Smith points out that cattle feeders are almost unanimous in their preference for polled or dehorned cattle. These cattle are easier to handle when they are rounded up and moved from one pasture to another. Horned cattle frequently injure each other while in shipment, and after slaughter the carcass often must be trimmed heavily as a result of bruises incurred during shipment.

There are several methods of dehorning the cattle when they are from 1 to 6 months of age. Among the more common are dehorning with a saw, spoon dehorner, or dehorning tubes and the use of caustic paste. For older calves or yearlings the dehorning saw and Barnes dehorner are most commonly used.

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