Large Herd Management in the South and Southwest

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Because of inflation, decreasing profit per unit, and specialization there has arisen a need for large herd management in the South and Southwest. The manager of the large herd is faced with a multitude of problems encompassing labor, feed, disease, climate and, above all, profit.

Today in this area, the problem of labor—quality and quantity—is foremost in the mind of management. More and more time is being spent dealing with the different aspects of labor management. Total pounds of milk per man and number of animals per man are some of the common denominators used in labor management decisions. More capital is required to utilize labor effectively. Like all large agricultural businesses, the dairies in the South and Southwest have been affected by the Federal Wage and Hour Law. There appears to have been little change in labor costs, because managers of most of the large herds pay substantially more than the one dollar an hour. In the Knolle operation, the minimum wage law has made us realize more fully the costs of equipment breakdowns and employee tardiness and has made us more efficient in labor usage.

Feed requirements. The second major concern to management is the herd feed requirement. In much of the South and, especially in the Southwest, drought conditions exist much of the time. The average rainfall varies in different regions between 6 and 40 inches. The old saying, “When it rains, it pours,” applies to the Gulf Coast, where most of the rain is unevenly distributed. Irrigation is used where underground or river water is available. This increases the cost per ton of feed, but is partially offset by the availability of a green crop much of the year. Cotton and milo are predominant crops in the region and provide a cheap source of protein and roughage through cottonseed meal and hulls, milo grain, and gluten feed. Roughages grown include the hybrid sorghum Sudans, corn (mainly in the South), and alfalfa (in the upper Southwest). Coastal Bermuda and Midland Bermuda comprise the pasture land because they make excellent permanent pasture when skilled management is employed. In addition to the common feeds, most large herds utilize carrots and citrus pulp when available. These products constitute an inexpensive source of roughage and increase the pounds of milk per cow. A new feed on the market is alfalfa cubes from New Mexico. Cubes decrease labor costs and lower waste by eliminating grinding. Irrigation, longer growing season, and the availability of feed by-products give this area a great advantage in total feed costs per pound of milk.

Weather effects. Changeable weather conditions in the Southwest hinder milk production. Hot, humid conditions characterize the Coastal Bend section. Dry, semi-arid conditions prevail in the upper Southwest, where irrigation is necessary to produce a crop. In both of these areas rapid weather changes occur which affect both production and labor. In Texas the morning may be beautiful, the afternoon dusty, and the evening may bring a snow storm. The temperature seldom goes above 105 F along the Coast, but rises to 110 F further inland. Because of short winters, few free stall housing installations are being built in the region and the cost of housing per cow is kept at a minimum. Shade, windbreaks, and warm and cool drinking water are aids in coping with effects of climate on cattle.

Disease problems. Due to the larger herds’ using dry lot dairying, diseases are a major concern to management. Cows are subjected to more confinement and receive less individual attention. In the Southern region where hot, humid conditions prevail, brucellosis, leptospirosis, internal parasites, and flies exist. As numbers of cattle increase, hazards of disease and the importance of immunization are increased. Immunization increases costs, but is essential. Diseases are not as prevalent in the semi-arid regions.

Profits and management. Profit is the chief factor in any dairy enterprise. The successful manager must have a good business background and some practical experience. Breeding decisions, such as whether to raise replacements relying on proven sires or to buy them, are of most importance. The large herd manager in the South and Southwest must plan for the future and try to stay three years ahead of problems. As one authority said, “If you are doing things today like you did just five years ago, then there is a 50-50 chance that you are doing them wrong.” As a good businessman
would do, the manager must be susceptible to change and plan flexibly. Nothing can be accomplished without enthusiasm and optimism.

A reasonable profit can be gained through good management. Though labor is not stable in the region, neither is it stable in any other region. Feed is the chief asset, due to its availability, good quality, and price. Short winters also cut costs, although high temperatures decrease production. Disease costs vary from region to region. Because the investment per cow is less than in other sections of the country, dairying in the South and Southwest will continue to grow.

Development. These attributes of the area have led to the development of Knolle Jersey Farms. Having been thoroughly convinced in the early days of our dairy operation that it did not take any more time or money to care for a good animal than a poor one, the owners of Knolle Jersey Farms planned to breed and develop the best herd they thought possible. In 1937, 75 choice females and two herd sires were acquired from the famous Taft Ranch. Other registered Jerseys purchased were of the Ed Lasater and King Ranch breeding, and a very few selected Jerseys from various parts of the United States, Canada, and the Isle of Jersey were included for the foundation of what is now the world's largest Jersey herd.

Today, Knolle Jersey Farms, a complex of nine milking barns, 15,000 acres of land, and 168 employees, is owned and operated by Henry P. and C. E. Knolle. Its purpose is to supply South Texas with wholesome Jersey milk and to raise efficient, well-bred Jersey cattle.

The office, built in 1960, contains all registration papers, cow card information, and accounting data. It also furnishes office space for all foremen. Personnel include a general manager, who is directly responsible for feeding and maintenance; a calf and heifer supervisor; a farming supervisor; three milking supervisors, each of whom is responsible for three barns and approximately 1,000 cattle; and a breeding and veterinary supervisor. The office is equipped with a modern laboratory for artificial insemination use, as well as quality control of raw milk.

Replacements and management. Utilizing our herd sires, we raise all replacements, numbering some 1,500 a year. Our barns are designed for maximum comfort through the use of large side doors that can be raised or lowered. Calves are kept inside the barns in individual 4 by 7 ft pens. The calf barns are equipped with heaters which provide warmth and dryness during the damp winter months and thus decrease calf mortality. Twice daily, the calves are fed a milk replacer which consists of powdered buttermilk from our butter plant and whey from our cheese plant. In addition, they receive two pounds of grain, Coastal Bermuda hay, and water ad lib. One man takes care of 100 calves in the large barns. At three to four months of age, the calves are moved out of the barns, but are fed milk once daily for an additional 30 days. At six months of age, they are moved to larger pens, where cottonseed hulls and grain are fed. To cut labor costs, we have begun feeding some groups from self-feeders. Their ration is initially composed of 70% cottonseed hulls and 30% grain. As grass becomes more plentiful, the grain is slowly decreased. At 14 months the heifers are moved to one of our seven breeding pens, where they are bred twice artificially and then turned out with a young bull. A strict breeding program is followed on heifers and on cows. Periodically, the heifers undergo a visual inspection which reveals their rate of gain and over-all type. This information is used in our sire analysis. After being verified by our technician as bred, the heifers are moved to sparse pasture. This period is an all-important time for the animal. While on pasture they are trained to go through a mock milking parlor, where they receive grain and silage on alternate days. Mineral and salt block are always available. At certain times, there is available crop land for the heifers, but most of the time Coastal Bermuda hay or native grasses make up the ration. As the heifers near their calving dates, they are sent to the springer unit to be observed closely. In this unit they are placed with dry cows that have also been brought in from dry pasture. We place special emphasis on the often-neglected dry cows and try to keep them in top condition. While in the springer unit, the cows and heifers are fed large amounts of cane hay. After calving, the dam is kept with her calf from three to five days. When all identification tags have been placed on the calves, and a card made for each, the calf is sent to the calf barn and the cow to the milking barn.

Of the nine milking barns, eight are of the walk-through parlor design. Most of the barns were built some time ago and were of the stanchion type. They have been easily and inexpensively converted to parlors because of the increase in labor costs. All of the construction work was done by farm labor. Used pipe plays an important role in this construction. Feed is stored in the ceilings of the dairy barns and flows by gravity through plywood hoppers to the troughs. Since the cows are in the pit such a short time, they are fed ad lib. and not ac-
cording to production. In one of our barns there is an area where 30,000 visitors a year have observed the milking.

The dairy cows are on Coastal Bermuda pasture in the summer months and oats in the winter. Coastal Bermuda requires proper management, for it to be profitable pasture. We supplement the cows' feed with silage or green chop, except when large amounts of carrots and citrus are available. Troughs are located in the fence line for easier feeding from self-unloading wagons. Natural shade and brush thickets play an important role in our South Texas climate. The thickets act as an excellent windbreak in the winter months when the north wind reaches 34 to 45 miles per hour. An effort is made to utilize all the natural resources of our area.

Milk is picked up once daily at each barn by a fleet of tankers and is hauled 35 miles to Corpus Christi, where it is processed, packaged, and sold to the public as Knolle All-Jersey Milk. The pickup truck is owned and operated by the Farm and handles only Farm milk.

Feed is purchased in bulk and processed in our feed mill. The feed mill with a crew of four men can process 50 tons of feed a day. Due to the presence of gravity-flow bins, we have been able to keep a minimum of labor working at the mill.

Irrigation plays an important role in our permanent pasture. We use submersible pumps and dirt ditches to flood-irrigate. Our land is level enough in most places to do this. The wells pump between 375 to 420 gallons per minute. Although irrigation requires much labor, it pays off during drought periods. Tractors are used to make borders and ditches which control the water.

In our desire to raise and promote the Jersey breed, we enter many of our cattle in Jersey shows. In 1961, Mike's Draconis Rose, one of our cows, was awarded National Grand Champion. Her son, Rose's Ring Man, is one of our more recent bulls to have moved to the artificial insemination stud service. Top cattle such as these are the results of a competent breeding program. Each of our sires is evaluated according to his ability to transmit to his daughters high production consistently through a lactation and type to support this high production. Components of these two factors are pounds of milk, milk fat test, consistency of production, fast and complete milk-out, longevity, constitutional vitality and disease resistance, regularity of breeding, ability to transmit qualities of individual or family, disposition and handling qualities, and over-all type score. To enable us to evaluate sires accurately, our cattle are regularly tested for production and classified for type. A production report and a classification average on the sire with 50 or more daughters at two or three years is of much benefit, but a much better test is to see the report on the same 50 daughters after they have passed six years, and to get the accurate information on why they are not all there.

Public relations. Public relations plays an important role at Knolle Jersey Farms. Visitors are welcome to view our trophy room and tour the Farm. For the past 20 years, we have had as our guests the Boy Scouts for their annual weekend camporee. This year, 4,000 boys participated in the event. The river bottom is the scene of many group picnics as well as our yearly picnic for the personnel of Knolle Milk Plant.

We at Knolle Jersey Farms anticipate a bright future. After observing and seeing many dairy herds of several breeds throughout the United States and Canada, and giving special study to the various family strains within the Jersey breed, we are today breeding and using the kind of dairy cow we think is most suited to produce at a profit under practical and economical environments, especially in our section of the country. Continuing to grow and improve our present operations, we feel that as long as there are people on earth there will be a need for natural dairy products in their diets.