

## Good breeding, feeding are keys to DVC dairy herds

By Ann Miller

DOYLESTOWN — In 1973, under the supervision of James McCaffree, the Delaware Valley College registered Holstein herd mixed with a few Brown Swiss climbed to the top of the Bucks Co. DHIA with a herd average of 16,665 pounds of milk and 680 pounds of fat. Their registered Holstein herd has remained number one in the county since that time.

In the years that followed, the college added registered Ayrshires and began testing the three breeds separately, laying the groundwork for even better within-breed herd management.

Remarkably, in 1981, not only was the DVC Holstein herd number one in milk and fat with 20,579 pounds of milk and 742 pounds of fat but their Brown Swiss herd was second in fat in the county and the top small Brown Swiss DHIA herd in the state in both milk and fat with 17,073 pounds of milk and 740 pounds of fat.

The DVC herd was started on DHIA testing before 1945. Richard Smith, a DVC 1968 graduate, took over as superintendent of the herd in the late 1960s. He conquered mastitis, breeding, and feeding problems and laid the ground work for excellence in the breeding and feeding programs. Smith heavily used Osbornedale Ivanhoe and Greyview Skyliner in the Holstein herd. Later, under the management of James McCaffree, Round Oak Rag Apple Elevation had a big impact when used on the Ivanhoe daughters and granddaughters.

Presently, the DVC herds are being managed by James Harner who has continued the breeding program with selected sires. Holstein first-calf heifers are coming to milk with good type and production sired by Marvex, Jet Stream, and Jerry.

Student participation on breeding program research influences the selection of service sires. The DVC breeding program objectives include using top bulls in the country to improve butterfat, production and sound, functional type. The present new herd replacements are offspring of Gemini, Creek, Milestone, Sooner, Elmer, and Valiant.

In April 1981, the Ayrshire herd was awarded a trophy by the National Ayrshire Breeders Ass'n. for having the highest milk production for Ayrshire herds of 5-14 cows. The DVC Ayrshire herd average 16,828 pounds of 4 percent milk in 305 days and was the third highest Ayrshire herd in the nation regardless of herd size.

The foundation Ayrshire cows were donated in the early 1970s from Rolling Hill Farm, Laneway Farm, Va., Pine Lake Farm, N.Y., Reidina Farm, Ardrossan Farm,

Crystal Spring Farm, N.H., Delchester Farm, and Meredith Farm, Ma. Albi, Hi-Kick, and Commander Star have been the dominant sires used in recent years.

Approximately 60 percent of the A.I. duties are shared by herdsmen David Douglass and Larry Queripel. The remaining 40 percent is handled by local A.I. technicians. The younger cows are bred back about 60 days after calving, however the older, heavier producing cows are bred closer to 90 days post calving.

Harner contributes much of the DVC dairy herd's success to the feeding program. All forage is tested to provide a balanced ration for each individual cow. Each cow gets separately weighed amounts of Agway 32 percent Pro-Right grain and high moisture corn in accordance to the cow's stage of lactation and production needs. Grain is fed three times daily. Corn silage is fed in the morning, alfalfa haylage is fed at noon and hay is fed in the evening. Harner attributes the successful production of the herds to the production of quality forages, managed by Larry Hepner and George Gross.

The DVC dairy is maintained for the purpose of teaching with the philosophy that the students should work with the best quality dairy cattle. The success of the dairy program depends on the input of many people. The daily tasks could not be completed satisfactorily without the help of the students, many of whom arrive with no dairy experience.

Freshmen and sophomores at the college have courses in basic sciences. The dairy science juniors learn management with emphasis on dairy techniques for success, which stresses skills in animal health including injections, dehorning, calving assistance, and culture work to determine types of mastitis. Students also learn the basics of feeding, milking and proper record keeping.

Each Senior has the opportunity to select a recently fresh cow and develop her individual feeding program by balancing the amount of grain, forages and supplements for three months of her lactation to maximize income over feed costs. This year, the Senior class has been experimenting with amounts of buffers (magnesiumoxide and sodium bicarbonate) to add to the grain and will be recording its effects on butterfat yield.

DVC has an excellent calf raising record with a 95 percent success rate. Someone always tries to be in attendance at calving time.

The calf is fed two quarts of the dam's colostrum immediately and is maintained on colostrum milk

for 5 to 6 feedings. Calves are raised from day one to three-months in individual calf hutches. They are fed whole fresh milk in the quantity of 10 percent of their body weight per day until they are weaned at 8 to 12 weeks.

At three months, they are moved to inside group pens housing two to five calves each. They are fed Agway T.C.R. (Total Complete Ration) along with hay until 10 to 12 months of age, at which time they are taken off grain, moved to a different barn with an outside exercise lot and fed hay and silage. They are kept on this no grain feeding program until 2 weeks before they freshen at an age of 25 to 26 months.

The excellent calf raising record enables DVC to participate in selling of animals for breeding stock. Most animals sold go as bred heifers, but occasionally they will sell an open heifer or a milking cow.

Most animals culled are removed from the herd for breeding and health reasons. Other culling, Harner explains is necessary due to limited space available. Careful consideration is given to the value of the cow with respect to the depth of the pedigree, the cows production and functional type when determining those to be culled.

DVC consigns occasionally to sales. A DVC Astro Annabelle daughter sired by Monitor was sold in the 1979 Pennsylvania Holstein State Convention Sale for \$6,000.

One of the reasons DVC keeps topping the county DHIA is that 5 of their Holsteins produced over 30,000 pounds milk, 2 of these were



DVC barn complex is the home of the highest producing herd in Bucks Co., a title they have held for 9 consecutive years.

first and second in the county for milk during 1981. DVC Capsule Duchess produced at 6.3 years - 305 days - 31264M - 934F and in 365 days - 35040M - 1067F. Their second highest cow as DVC Astro Annabelle 2 E 91 who produced at 8.0

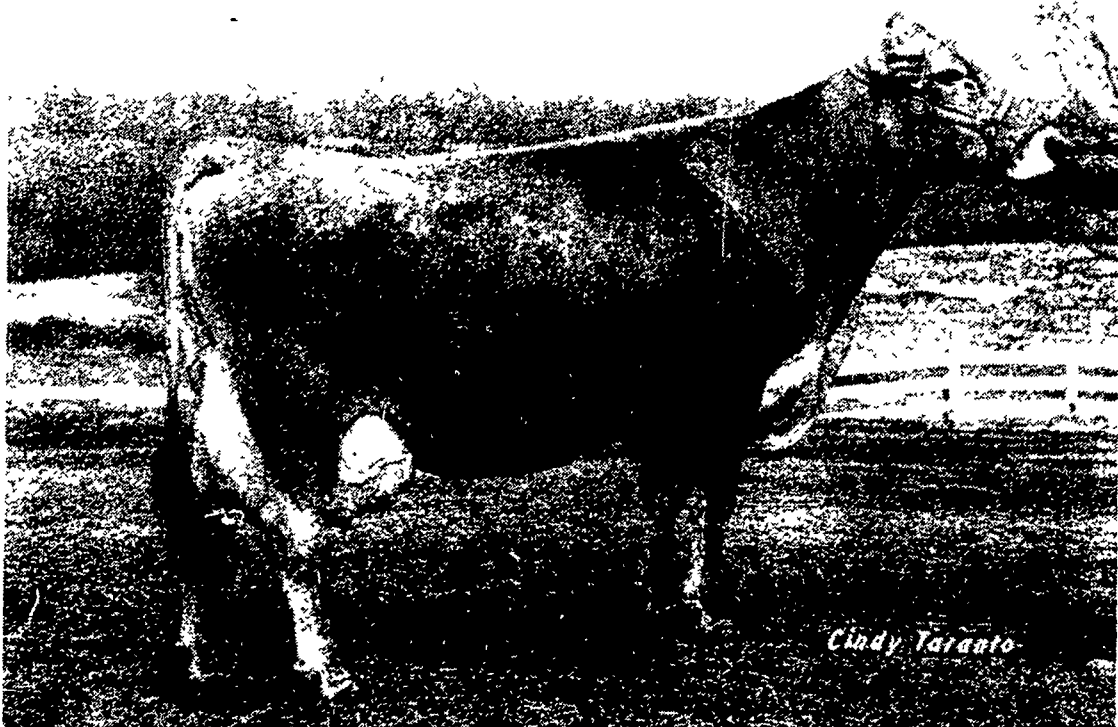
years - 305 days - 30332M - 1015F and in 365 days - 33877M - 1146F.

DVC's current highest producing Brown Swiss in DVC LOA Mickey, VG 88, who produced at 8.0 years - 305 days - 19596M - 922F and to date

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James Harner, superintendent, left, and John Plummer, chairman of Dairy Husbandry, right, point out the excellence in mammary of this EX aged Holstein. Both Harner and Plummer are also part of the dairy husbandry faculty at DVC.



Cindy Taranto

DVC's current highest producing Brown Swiss is DVC LOA Mickey, VG 88, who is producing her current lactation of 21,128 pounds of milk, 997 pounds of fat on 351 days.



Camille Lyden, a senior who hails from Rosedale, Md. weighs out the grain to feed the cow she is individually managing for a year.