

Stornoway hosts ABS-Cattlemen's Field Day

BY DEBBIE-STILES RENZI
Staff Correspondent

LIGONIER--If there was anything else, we'd do it," says Jim Cairns, manager of Stornoway Farms, in Westmoreland county. This herdsman's confidence is not exaggerated. Cairns has covered all the bases in the registered Red Angus herd he manages, the result being a 45-day breeding/calving season in conjunction with a working AI system.

Cairns, and Mrs. Donald McLennan, the owner of Stornoway, place considerable emphasis on performance. The 110 registered Red Angus cows and 35 commercial cows at Stornoway are expected to conceive by AI in a 45 day period, as heifers to calve at 22-24 months of age, and all to wean one calf per year. Artificial insemination is the cornerstone of the operation, Cairns says, the ideal way for them to get calves by \$100,000 bulls without the expense and worry of buying and maintaining these sires.

First-calf heifers are bred the first week of May, cows the third. When breeding season starts, the animals are put in groups of about 50 each. Healthy amounts of both grain and corn silage are fed through the breeding season, along with pasture. Marker bulls are used for heat detection.

"I will breed for 16 days. Then Dr. Barnett (their herd veterinarian) will come and give any cows that are ready (right stage of estrus cycle) an injection of Lutalyse," said Cairns. He

commented they really didn't rely too much on drug-induced synchronization.

At a field day recently held on Stornoway Farms, Dr. Dan Deavers of Penn State talked on the importance of accurate estrus (heat) detection.

"If you want your AI program to be successful, you've got to pay a lot of attention to detection of heat," Deaver emphasized. Reminding those in attendance that the only sure sign of heat is an animal standing to be mounted by another, Deavers gave the following recommendations for easier, more accurate detection of heat:

1) Check early in a.m. and late (7-8 p.m.) in evening for animals in heat. 70 percent of mounting activity occurs between 6 p.m. and 6 a.m. Cows that stand in the afternoon generally have heats of less than 8 hours.

2) Devote half an hour morning and evening *exclusively* for checking heat.

3) Have cows well identified.

4) Keep good records. Bring along a pencil and notebook to write down the numbers of those observed in heat.

Two of the substances on the market that mimic the action of prostaglandin (manufactured naturally by the cow) and which can be used by beef producers for synchronization of estrus are Lutalyse and Estramate. Synchronate-B, used via an implant, is another substance used to synchronize estrus.



Stornoway relies exclusively on AI service for its herd of Red Angus.

"Checking heat is not a passive job," Deavers told producers at the field day, which was jointly co-sponsored by the Pennsylvania Cattlemen's Association Penn State, Stornoway Farms, and American Breeders Service. The best way to find out which cows are in heat, Deavers instructed, is to get the cows up, work them toward a corner, and get them close to each other, milling around together. Deavers attributed Cairns' success with AI to the herdsman's persistence in checking animals for heat.

Another part of the Stornoway success formula is found in owner McLennan and manager Cairns' refusal to accept anything less than complete adherence to a 45-day calving season. Any cows that fail to calve within that specified time frame are not given a second chance. "We sell those cows before the next calving starts," Cairns said.

When breeding is completed, the cows are turned out with the bulls. "Keep it as natural as possible," advised Cairns.

Cows are all given vitamins A and D and Nasalgen prior to calving. They also get Coli-Bac, which herd vet Dr. Barnett reports has eliminated calf scours.

Based on birth and weaning weights and other selected criteria, heifer calves at Stornoway are divided into three groups. Top calves are herd replacements or are sold to other breeders as such; the rest become feeder calves, or are auction-bound.

Elinor McLennan, who with husband Donald McLennan established Stornoway in 1972, credits the Farm's smooth-running operation to her manager Jim Cairns. She also has high praise for her Penn State University advisor.

"One of the best decisions we ever made was asking Dr. Erksine Cash to act as a consultant," says McLennan.

Cairns agrees with McLennan: "It's good to know you have someone with the skill and knowledge backing up your management decisions." Dr. Cash is Professor of Animal Science at Penn State.

Cairns' enthusiasm is obvious as he talks about the farm he's managed since its establishment by the McLennans 13 years ago.

"I've got good equipment, good animals, good facilities, good help—I have to do a good job!"



Manager Jim Cairns gives Field Day participants an overview of the Stornoway Farms operation.

Pre-conditioned calves: beef industry's 'sure thing'

LIGONIER — "If I know your cattle are going to gain, I'll pay more for your cattle." That was the word from Huntingdon county cattle feeder J. Paul Espy to beef producers at the May 18 ABS-Cattlemen's Spring Field Day held at Stornoway Farms in Ligonier.

"We used to have a little padding. Now we don't," said Espy, referring to the present cattle market situation. Because money is tighter, cattle feeders say they want more of a sure thing going into their feedlots. A "sure thing" means pre-conditioned feeder calves: feeders that will grow and gain without any setbacks due to disease, injury, internal or external parasite infestations.

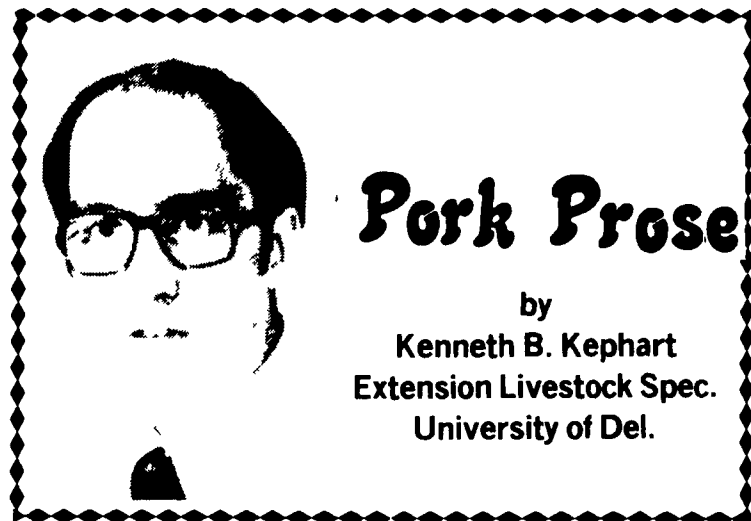
Put another way, feedlot managers want well-managed calves off the farm; which was why Espy joined Penn State Extension veterinarian Dr. Thomas Drake at the Field Day in endorsing the feeder calf certification

program. The program is seen by cattle feeders like Espy as a means to an end — the end result being access to better and faster-growing calves.

"I went into the cattle business to succeed," says Espy, who feeds out 2,000 head each year. Espy explained how he weeded out the slow-growers from his feedlot by weighing his feeders about every three weeks, once they'd reached 875 pounds. Those not gaining at least around 2½ pounds a day are sold right then, he told the group.

"Preventative health programs are very important for the small herd producer," says Stornoway herd veterinarian Albert Barnett. Lost pounds due to preventable causes could mean weaning at 400 pounds instead of the more profit-potential 600 pounds.

Espy admonished cow-calf producers to invest in a better breeding and pre-conditioning program, for their own financial well-being.



Pork Prose

by
Kenneth B. Kephart
Extension Livestock Spec.
University of Del.

As a protein source for hogs, soybean meal is tough to heat. Yes, you might find supplements like distillers grains or alfalfa meal that may be cheaper or good sources of vitamins. But their protein will be lower in quantity or quality or both. To get a source that's superior to soybean meal in digestibility or amino acid levels, you'll probably need to buy a milk by-product. And that's an expensive proposition.

This doesn't mean soybean meal is perfect. The protein level may be less than that claimed on the tag. Moisture and fiber can be too high. Or the meal can be overheated during processing. Any of these factors, under the right conditions, can affect hog performance.

Soybean Processing

Three methods exist to process soybean meal—the hydraulic process, the expeller process and the solvent process. Both the hydraulic and expeller methods use mechanical force to squeeze oil out of the beans before processing them into meal. Since the squeeze method is an inefficient one for getting the oil out, these processes are seldom used in this country.

In the solvent process, which is typically used today, the beans are cracked and heated slightly. The oil is extracted by a volatile solvent. The residue is then dried and subjected to a final toasting. If the heat (related to temperature, pressure, time and other factors) during this final stage is too low, the trypsin inhibitors will not be

destroyed, protein digestion in the hog will decrease and hog performance will suffer. If the heat is too high, amino acids could be tied up with the carbohydrates or, even worse, they could be destroyed. Unfortunately, the amino acid that seems to be affected most by heat is the one that's first limiting in a swine ration—lysine.

Checking for Quality

How can we test for some of these things? W.L. Vandergrift at the University of Georgia recently reviewed this subject. Trypsin inhibitor levels can be tested indirectly by checking for an enzyme called urease. If the urease activity falls between .05 and .20 pH, the soybean meal has been properly processed (.05 is over-processed, .20 is underprocessed).

Does it ever get out of this safe range? Reports from North Carolina State University show that from 1981 to 1983, when thousands of soybean meal samples were tested, urease activity was on the increase, but still within the acceptable range. The average urease value for these three years was about .08.

Although we should be concerned about the level of heat during processing, it appears that most processors maintain good quality control during this stage.

What about protein, fiber and moisture levels? Vandergrift points out that this is an area that's often overlooked. Listed below are the nutrient levels typically guaranteed for soybean meal.

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LIVESTOCK LATEST

