Carole Patrick Earns National Ayrshire Youth Recognition

BY SHARON SCHUSTER
Maryland Correspondent

WOODBINE, Md. — Carole Patrick says she "loves Ayrshires," and that's evident upon meeting this bright, jubilant 19-year-old Maryland youth at her family's Maple Dell Farm in Woodbine. Carole has just received honorable mention for her efforts in the competition for National Outstanding Ayrshire Girl and Boy Awards.

"It was fun," said Carole of the experience. She was also selected as an alternate to attend the National Ayrshire Convention in New Hampshire. "I had to go back far in my records – back to my 4-H record books to look at all my animals," she explained. She submitted herd summaries, information on each individual heifer and cow she has owned, information about her involvement in dairying with Ayrshires, and a scrapbook for the competition. "It was interesting because you only know so much about your animals," she added.

Carole became involved with Ayrshires at an early age with her parents, Dave and Ann, registering animals in her name. "SuSu was one of the first given to me," said Carole. She enjoyed success with her first endeavor. SuSu went on to become one of the cows selected to be purchased by Saudi Arabia.

The success didn't wane. Another cow, Lu Le, a gift from her sister, produced Luby who was chosen as the grand champion at the National Ayrshire Show. But Carole didn't stop there. With Patches, she captured first place in the fitting and showing sweepstakes at the Howard County fair and went on to become the Total Performance Winner at the Maryland State Fair. Patches is registered in the Ayrshire Breeders' Association's 20,000 Pound Club.

Carole leads an active life at home and away from the daily chores that go with maintaining a herd of 180 dairy cows. She has just finished her last year in the Howard County 4-H Dairy Club, and is completing her second year at Howard Community College.

Carole has made application to Towson State College to continue her studies. She said she may pursue a course of study in early childhood education. Carole comes by her love of children naturally. That huge conference table in their country kitchen isn't just for business meetings. It accommodates Carole, her parents and her three brothers and three sisters at meal times. "I come from a large family. I really love children, especially my two nieces," she explained.

With past successes to look back on and a promising future to look forward to, it is evident that Carole Patrick will succeed in whatever career she chooses. She is yet another fine product of Maryland's Dairy Community.

Carole Patrick of Woodbine, Md., was chosen as a semifinalist in the National Outstanding Ayrshire Youth Contest. Here she works with one of the calves on her family's Maple Dell Farm.

Caution: Feeding High Nitrate Forages Can Be Hazardous To A Cow's Lactation And Gestation

BY DR. GEORGE F.W. HAENLEIN
Extension Dairy Specialist
University of Delaware

NEWARK, Del. — So you're stuck with some high nitrate forage and want to feed it to your cows. If they're in early pregnancy or you're trying to get them bred, don't do it!

Every spring dairy farmers are confronted with the same problem. We're running low on forage to feed from the silo and haymow. We have spring pastures of rye and the like for grazing, but must wait until they have grown out of the winter stage enough to lower the nitrate content to a safe level. And last summer's drought left us with some high nitrate silage.

Recent analyses in this area have shown 50,000 parts per million nitrate content in some forages, and cows have died from eating them. Some corn silage tested 6,000 ppm. Cows eating this were reported to suffer a drop in milk production and to be coming back into heat after confirmed pregnancy checks.

A recent University of Georgia study of two groups of 20 cows each involved feeding a total mixed ration containing either 350 ppm or 1,600 ppm nitrate. Weekly blood samples from each cow revealed that those fed the high nitrate ration had significantly less blood progesterone than those on the low nitrate ration.

This difference showed up only in cows with active estrus cycles or in those less than 120 days pregnant. But it means that nitrate feeding lowers the important protection of blood progesterone levels, which in turn means failure to establish or maintain early pregnancy. Progesterone is produced by the corpus luteum of the ovaries, and less progesterone means interference with the corpus luteum which is required for maintenance of pregnancy. The result is more days-open, more repeat-breeders, more cows-not-bred after 100 days and an increase in early embryonic loss in the herd.

So, if you have a current nitrate problem in your total ration, dilute the high nitrate source with low nitrate feeds so that the total ration tests less than 1,600 ppm nitrate. And to avoid losses in reproduction and subsequently in milk production, if you must feed this to cows and heifers in early pregnancy or while trying to get them bred, make sure the total ration tests below 1,000 ppm — the lower the better. Such hidden losses can cumulatively cost you much more money than what you might spend on supplemental safe feeds and forages.

This spring and summer remember that heavy nitrogen fertilization (including chicken manure) of your crops requires sufficient water and sunshine to convert nitrates to plant proteins. Otherwise, the unconverted plant nitrates will become feeding problems.

Feed analyses of from 0.0 percent to 0.44 percent nitrate ions in the dry matter equals 0.0 percent to 0.1 percent nitrate nitrogen or 0 to 1,000 ppm, which is considered the maximum safe range. Tests of 0.66 to 0.88 percent nitrate ions are equivalent to from 0.15 percent to 0.20 percent nitrate nitrogen or 1,500 to 2,000 ppm in the total ration. At this level, the feed is safe only after dilution. Feeds which test over 1.76 percent nitrogen ions or over 0.4 percent (4,000 ppm) nitrate nitrogen are potentially toxic and dangerous.

Always test if you suspect nitrates in your forage, or if your herd has reproduction problems. Avoid harvesting weather stunted forages for three to five days after drought-breaking rain or cold-breaking sunshine. And don't cut them too close to the ground — the stalks contain more nitrates than the rest of the plant. If you practice slow adaptation over two or three weeks, the cows will adjust somewhat, just as they do when feeding urea.

Additional levels of Vitamin A in the feed are needed with feed of a higher nitrate content. Also increase the energy supplementation from grains.

Ensiling will get rid of some nitrates, but remember — brown, heavier-than-air silo gas (nitrous oxide) is deadly to animals and people.

Take steps to prevent nitrate problems this spring and later this year rather than trying to cure them. It's cheaper and safer. For a free fact sheet on nitrates in livestock feed, if you live in Delaware call your county extension office. Or write me directly at the following address: Extension Dairy Specialist, 048 Townsend Hall, University of Delaware, Newark, DE 19717-1303.

Seagulls In A Lancaster County Field

Jim Musser took this photo while chiseling on the Penns Peaceful Meadow Farm at Mount Joy. Who says you only see seagulls at the ocean.

Beltsville Symposium To Explore Growth Regulation In Plants, Animals

BELTSVILLE, Md. — Whether it flows green, yellow, red or white, a bloodstream of a plant or animal is a complex transit system of life-regulating compounds.

Research to harness such systems to benefit agriculture is really just beginning, says George L. Steffens and Theron S. Rumsey, though commercial plant and animal growth regulators have been around for many years.

On May 3-7, 1987, the two U.S. Department of Agriculture scientists will chair an international symposium, "Biomechanisms Regulating Growth and Development: Keys to Progress" at the department's Beltsville Agricultural Research Center near Washington.

"New tools of biotechnology suddenly give scientists precise means of genetic manipulation of growth regulators, such as hormones and enzymes. It has opened some of the hottest areas of science," Rumsey said today.

New insights into the workings of growth regulators can help scientists make farm animals grow more efficiently and fight off parasites, get crops to mature quicker and turn more sunlight energy into food, and give farmers a new class of safe insecticides based on brain chemicals of insects, said Rumsey and Steffens. They are with the department's Agricultural Research Service at Beltsville.

At the Beltsville symposium, the twelfth in an annual series, leading scientists on growth regulation will explore questions such as:

- How do brief feed restrictions of chicks reset their enzymes to produce less fat for the remainder of their growth?
- Can scientists fit soybean plants with proper growth regulators to encourage soybean tissue to at last "cooperate" in genetic engineering?
- How can parasites of livestock be detected earlier before they severly stunt growth?
- Now that instruments can detect smidgens of insect brain chemicals that control growth and development, what will it take to harness those controls for on-farm use?
- For scientists inserting new genes into pig fetuses, what genetic signposts must be heeded for healthy expression of increased growth?
- How can hormone balance of livestock be improved so that farmers can be more cost-effective, while consumers keep getting high quality products?

EDITORS'S NOTE: For more information contact Steve Berberich, Nat. News Coordinator, Beltsville, (301) 344-2720 or Joanna Weirman, Beltsville, Symposia Secretary, (301) 344-2506.