Ask a Farmer

Q: What role do hormones play in a dairy herd and milk production?

A: Like other animals (and humans), dairy cattle depend on natural hormones for health, reproduction and milk production.

Let's start at the beginning of a cow's reproductive cycle. A cow has to have a baby, called a calf, to produce milk. The dairy cow's hormones allow her to be bred at about 15 months of age. Most dairy farmers take that opportunity to breed the animal so that she will have her first calf at two years old, after a nine-month gestation.

From that point on, the cow's reproductive cycle will repeat every 21 days, and a farmer will likely want to rebreed her after about three months so that she will have another calf in about a year. The natural cycle for a dairy cow is to have a calf once a year. She will produce milk for about the first 10 months after she gives birth, and then get a two-month rest period, called the dry period, before having her next calf.

Like humans who sometimes use hormones for reproductive needs, dairy farmers occasionally will treat a cow with hormones to help her to cycle and be bred on schedule. For example, if a dairy cow is having difficulty conceiving, a dairyman may treat the cow with a hormone, just as a woman may use a hormone to aid in conception.

The reproductive hormones used for cows are protein hormones that are just like those the cow produces naturally in her reproductive cycle. They are water-soluble and excreted by the cow very quickly.

In addition to reproductive hormones, cows naturally produce bovine growth hormones (BGH) or bovine somatotropin (BST). All milk contains small amounts of these natural hormones.

Some dairy farmers may administer synthetic hormones (rBGH, rBST), an identical version of BGH and BST because it helps improve milk production in under-producing cows. Again, these are protein hormones (not steroid hormones).

Numerous studies have shown that milk from cows who receive supplemental hormones is the same, safe whole product we've enjoyed for generations. Neither natural or synthetic hormones used in dairy herds have an effect on humans. Any traces of hormones in milk are simply digested like other proteins. ■

Bill Deutsch is a fifth generation dairy and grain farmer from Sycamore. He milks cows and grows corn, soybeans, wheat and alfalfa, with his brother, Pat. Bill and his wife, Chris, reside on the family farm. They have four adult children: Sarah, Mary, Rachel and Paul.

Got a question for a farmer?

Submit your farm and food questions to **connections@dekalbfarmbureau.org.** We will share questions with our local farmers and publish their answers as space allows in upcoming issues of *Connections*.