

Lancaster Holstein Families Gather For Annual Fun Day

EVERETT NEWSWANGER
Managing Editor

KINZERS (Lancaster Co.) — "Farmers are important people," said Heather Oberholtzer, Lancaster County dairy princess. "They each feed more than 120 other people. And dairy farmers are especially important because they produce milk that has the unique distinction of being both a food and a beverage."

Heather was speaking to the Lancaster County Holstein Field Day held Thursday at the farm of Dale and Deb Hershey and family.

A judging contest was held in the morning with Bob Knutzen from Rising Sun, Md. as the official judge. Glenn Shirk, Lancaster County dairy extension agent and Horace Backus, Mexico, N.Y. were also on the afternoon program.

Shirk said the goal in this hot weather is to keep the cows at home comfortable. He said when working with a ventilation system in the dairy barn, air is a lot like water.

"Air like water must come out the other end," Shirk said. "Ideally the air comes in one end of the barn and flows through the length of the stable and is discharged at the other end. The breeze through the barn should be as fast as you can walk, about three miles per hour. A good number of 40 to 60 cow barns get

two or three changes of air per minute with four 48-inch fans. To accomplish this, you need to have a 4' x 10' opening at the far end of the barn for each fan. And, like water, air is hard to turn (in a different direction) but if you place reflectors and openings at the proper place you can influence the air flow to go where you want it to go."

Shirk also recommended that cows in free stalls not be kept in the holding areas before milking any longer than necessary to make the cows more comfortable.

Backus didn't call his part on the program a speech because of his self-declared retirement from speech making after addressing the National Junior Holstein Convention in Pittsburgh in June. Horace has served the Holstein Industry for more than 40 years as a well-known reader of pedigrees at national sales and as a director of the National Holstein Association for the last eight years.

Therefore, on his way to the Virginia State Holstein Sale in Harrisonburg the next day, Backus answered questions from the group of local Holstein breeders.

He said the national association has set goals to make doing business with registered Holsteins as easy as possible. They have given breeders many different plans to register and classify their herds.



The group of dairy judges gather to hear Bob Knutzen's official reasons Thursday at the Lancaster County Holstein Field Day.

Instead of their field persons spending most of their time selling heifers, they now spend most of their time helping farmers bring registrations up to date and help with other educational projects.

The reduced fees put in place to register over-age animals has been well received. To date, 18,000 over-age animals have been registered this year.

To help increase the value of pedigrees of cows that do not have high index numbers, Backus said

the A-Plan (actual production and type) is being researched to recognize cows in this way. This new proposed plan to rate genetic transfer ability will be based on actual classification and production mostly on the lower side of the pedigree. Hopefully this can be developed to help both the cows that have index numbers and those that have actual records. This development on this new plan is expected to be completed in about a year.

But after you have such a plan, Backus said you need to convince the bull studs and buyers of embryos that they need to buy from this system also.

In the judging contest the top three winners in each class were:
Men: 1. John Kreider; 2. Roger Mills; 3. Lawrence Good.

Women: 1. Iva Lapp; 2. Evie Landis; 3. Lynette Eby.

Youth: 1. Galen Martin; 2. Trevor Ranck; 3. Delmar Oberholtzer.

Winebark Siblings Win Lead Line Competition



Lebanon Area Fair Queen Jennifer Bashore presents the girls' division first place award to Janine Winebark.


NORTH CORNWALL (Lebanon Co.) — The brother-sister team of Janine and Brandon Winebark, children of Kenneth and Janet Winebark, Myerstown, on Tuesday won their respective boy and girl divisions of the Lebanon Area Fair lead line competition.

The judges were Dorothy and Luke Brubaker. The contest is a wool promotion and display event. The participants wear and model outfits of wool while leading a sheep.

Designed somewhat as a fashion show, the contestants are judged on their abilities to attractively display the wool-produced articles of clothing and the ability to prepare an attractive outfit for modeling.



Lebanon Area Fair Queen Jennifer Bashore presents the boys' division first place sheep lead line award to Brandon Winebark.



PENN STATE

POULTRY ♦ POINTERS

POULTRY SCIENCE • CAPITAL REGION • VETERINARY SCIENCE
FOOD SCIENCE • AGRICULTURAL ECONOMICS • AGRICULTURAL
& BIOLOGICAL ENGINEERING • ENTOMOLOGY

WHAT IS IN
A FERTILE EGG?

Carol V. Gay, Ph.D.
Professor
Molecular And Cell
Biology And
Poultry Science

A fertile egg contains a life story that unfolds in just 21 days. In this short span of time, the fertilized ovum, floating on the surface of the yolk, divides into two cells, then four and on through many cell divisions to form an embryo with recognizable head, eyes, rudimentary backbone, and beating primi-

tive heart cells by 33 hours. By day 21, a completely feathered, peeping chick emerges from the eggshell.

Many discoveries have been made by embryologists, the individuals who become fascinated by developing embryos. The orderly sequence of rapidly occurring events in embryogenesis provides a near-ideal experimental setting: the embryo is big enough to perform microsurgery on, it grows rapidly, is self-contained, and is quite inexpensive.

Recently, while attending a conference on skeletal development, I found myself looking at a slide which showed a chick embryo experiment described in a textbook

from which I teach. At 2½ days of embryonic development, wings and legs begin to form as tiny swellings along the sides of the embryo. Appropriately, these structures are called limb buds. In a microscope, structure of the limb buds all look the same, but the cells comprising the buds contain genetic information (regions of reactive DNA) that will allow leg limb buds to become legs, not wings and, conversely, wing buds become wings, not legs. In the late fifties, one inquisitive embryologist decided to cut out a small cube of tissue that would become the thigh and place it at the tip of a wing bud. Would the transplanted tissue live? Would it become a misplaced

thigh? Would it become wing? The result was a surprise. A toe formed! Thus, leg tissue had acquired the genetic information that instructed it to become leg tissue. However, when positioned at the tip of another limb bud, even a wing bud, a new set of positional signals instructed the grafted tissue to react according to its new position. This experiment suggested that the signals received by the grafted thigh-to-become-toe must be soluble molecules in the wing tip that diffused into the graft.

It is now known that one of the important soluble signals is retinoic acid, a derivative of vitamin A. Experiments have been done by