

Researchers study model for production boost

COLUMBIA, Mo. — A tiny milking machine and an animal with unbelievable sexual resilience are helping a University of Missouri-Columbia dairy scientist find ways to boost milk production.

Ralph Anderson uses the little milking machine on guinea pigs, animals which have the ability to come into heat and be bred within 12 hours after they give birth.

"Because they are pregnant and lactating at the same time (like the cow) they are an excellent research model. Other research animals like the goat or sheep don't have the dual stress of pregnancy and lactation," Anderson said.

Ultimately, Anderson hopes to use what he's learned to produce "milk without motherhood." That means stimulating mammary growth and milk production in unbred heifers or in good milking cows which have fertility problems.

Infertility problems in dairy cows cost dairymen over \$500 million a year in lost milk production.

In his studies, Anderson has learned guinea pigs' mammary glands grow slowly in early pregnancy, accelerate in the last half of pregnancy, and then nearly double in size from birth to five days later.

"The growth is apparently in response to placental lactogen, the same hormone of the placenta that stimulates mammary growth in cows and humans. We're trying to collect enough of this to isolate the hormone, then put it through chemical procedures so it can be

assayed during pregnancy. Finally, we hope to inject it into rats, then cows."

Anderson said there is good evidence that the hormones that increase mammary growth will lead to more milk production per cow by increasing her capacity to produce milk.

"I'll make progress (on this effort to increase milk production)

in my lifetime, but it's slow going," Anderson said.

Still, he's enthusiastic about what he has learned so far and the helpfulness of the guinea pig in this learning process.

"In the guinea pig, as in many other mammals, the mammary gland grows at a faster and faster rate as pregnancy goes on," he said.

"But in the guinea pig, this

growth comes to a screeching halt five days after she gives birth.

"Preliminary studies indicate that growth of the mammary gland in the cow also stops at five days after she gives birth, but her milk production doesn't peak until 40 days."

Anderson also found that growth of the lobulo alveoli, the cell structures responsible for milk

production in the udder, declines as an animal nears the end of its lactation. But there is a carryover of the cells from one lactation to the next pregnancy when new cells are formed.

"If we once understand how this works, we can stimulate growth of mammary glands in cows and make them better producers," Anderson said.

Hay industry holds convention

JACKSON, Mi. — The 86th annual convention of the National Hay Association, Inc. was held at the Marriott/Airport Inn, Cleveland, Ohio. Delegates from all areas of the United States attended the three day meeting discussing production, surplus, and deficit areas and quality control.

Opening remarks were made by NHA President Glendon Everett, Oak Harbor, Ohio.

Program highlights were: Storage Buildings Available Funds, John W. Brown Farmers Home Administration, Columbus, Ohio; Research on Drying Hay with Chemicals; Dr. J.W. Thomas, Michigan State University, East Lansing, Michigan; The Fenn Rapid-Drying Process, George Fenn, Elkton, Oregon; Quality Seed Production, Dr. Vern Marble, University of California, Davis, California; New Equipment for Handling Hay, Stanley Steffen, Silverton, Oregon; Steps to Maximum Alfalfa Yields, Dr. Donald Meyers, Ohio State

University, Columbus, Ohio; Alfalfa Studies in Ohio, Dr. Robert W. Van Keuren, Ohio State University, Wooster, Ohio; and Equipment Leasing, Robert Paulson, Banc One Leasing, Columbus, Ohio.

Chairman of the NHA Statistical Committee, Lorne Niemann, Beecher, Illinois gave the Statistical report from NHA members throughout the U.S.

Fritz Schweitzer, Powell, Wyoming, was selected to serve as president during the coming year. Schweitzer is planning the 87th annual meeting at Cody, Wyoming in September 1982. Officers serving with Schweitzer are: First Vice President Karl Moser, Crawfordsville, Indiana; Second Vice President Neil Cousino, Erie, Michigan; directors: Donald R. Ast, San Jacinto, California; Kent Doke, Alachua, Florida; Glendon Everett, Oak Harbor, Ohio; Mort Ewing, Mansfield, Georgia; Duane Johnson, Chanute, Kansas; Dayton Lane, Tampa, Florida; William Martin, Olivet, Michigan;

Quentin Newland, Lakeville, Minnesota; Lorne Niemann, Beecher, Illinois; and Everett Va Drisse, Casco, Wisconsin.

The organization, founded in 1895, is composed of growers, dealers, retailers and related industry representatives. The Hay Association encourages communication, education and promotion of hay products throughout the world.

Two years ago an export com-

mittee was formed. Under the chairmanship of Ron T. Anderson, Ellensburg, Washington an all out advertising campaign and market development program of hay products throughout the Far East, Europe, Mexico and South America has begun.

For more information contact Harry D. Gates, Jr., P.O. Box 1059, Jackson, Michigan 49204, telephone 517/782-2688.

Country Outings

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print shop, a pottery shop, an old school, a settler's farm, a federal farm, the blacksmith shop, some old houses, a tin shop, a steam engine building, and a hotel and tavern. Depending upon the day you go, you will see actual demonstrations of several crafts such as pottery, spinning, weaving and tin work.

What makes this Museum unique is that you can walk at your own leisure from building to building and in the particular order you wish. But have patience. The Museum does not have guides in every building so you may want to pick up an information booklet in the gift shop before entering the grounds.

There's something for everyone at the village. I enjoyed it mainly because it reminded me of my grandfather. Parents and grandparents always seem knowledgeable in telling you how things used to be, but until you experience them yourself, you can't appreciate their stories. I could picture my grandfather and his father hard at work in the barn

while a passel of kids pretended to help him with the horses and the cows.

Well, folks tend to call the old days a simple way of life, but to me it seems much more confusing — imagine having to churn your own butter everyday, carrying your water from the nearest well, and living in log houses. That's simple? Where do you plug in your new 19-inch color television and your video cassette recorder? Now I know why Benjamin Franklin liked to go to bed early — there was nothing else to do.

And folks, if you do decide to visit the Museum, plan on spending a low \$2 for yourself and \$1.40 for senior citizens. Children under 11 pay no admission charge.

Visiting hours are 10 until 4:30, Tuesday through Saturday. On Sunday the hours are 12 until 4:30. The Museum is closed Mondays.

Remember to wear comfortable shoes and dress warmly.

Go now and see the Museum in its autumn beauty and maybe you'll plan another trip to experience it in winter. Have fun and happy traveling!



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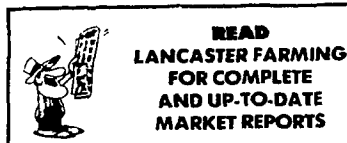
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