

## Leaner pork a reality with hormone injections

UNIVERSITY PARK — Leaner pork is a reality when pigs are injected with somatotropin, a naturally occurring protein hormone in swine, says a Penn State animal scientist.

"This leaner pork should be more acceptable to consumers who are concerned about the consumption of saturated fat and its association with coronary heart disease," says Terry Etherton, associate professor of animal nutrition.

Etherton has completed studies in which pigs injected with the somatotropin are consistently leaner — with increased muscle and decreased fat — than those not injected.

"Somatotropin is a naturally occurring protein hormone produced in the pituitary gland," he says. "It is one of the most important protein hormones involved in the regulation of animal growth." In this light, he says, his studies have used the strategy of administering more somatotropin than the pig would produce normally.

A recent study showed that pigs that received somatotropin for 30 days grew 14 percent more rapidly. In addition, carcass fat was decreased by 30 percent while muscle mass was increased.

"The improvement of feed efficiency by more than 20 percent is a development that can save pork producers \$2 to \$4 billion per year in feed costs," the professor says.

"The use of somatotropin has the potential to revolutionize animal agriculture," Etherton points out. "The impact on animal industry is a leaner product produced more efficiently."

Penn State animal scientists have pioneered the use of pig somatotropin to increase the growth rate, improve carcass composition and markedly enhance feed efficiency (quantity of feed consumed per quantity of weight gained).

In the most recent study, where pigs were treated with somatotropin daily for three months, the responses were "very dramatic," Etherton says.

The pigs in Etherton's studies

have been injected with somatotropin daily. But, he says, "a farmer isn't going to inject his pigs every day" for the five to six months it takes a pig to reach market weight.

"Thus, the critical question to be resolved is the mechanism of delivery," the professor says. "For example, it would be beneficial to have a delivery system whereby a farmer would

inject a pig only once every 30 days.

"We envision that the delivery system would then release the somatotropin at some fixed daily rate over a period of time, eliminating the need for the daily injection."

The development of a delivery system is an area of intense research in the United States because a breakthrough in this area would make the use of

somatotropin commercially feasible, Etherton says.

The pharmaceutical industry has been encouraged by the positive results of the studies conducted at The Pennsylvania State University and are working on a somatotropin-based product, the professor says.

Etherton notes, "Somatotropin has been produced by recombinant DNA technology and it appears

that this technology will produce somatotropin at a cost that is not rate-limiting for the development of the product."

Currently, studies are underway in Etherton's laboratory to determine if the recombinantly derived somatotropin produces the same responses as the pituitary derived somatotropin. He may have the answer by summer, he says.

## Workshop discusses effective cattle merchandising

BIRD-IN-HAND — Learning to merchandise cows effectively through advertising, promotion and photography was the basic goal of everyone at the Holstein Investment Opportunities (HIO) Workshop held recently at the Bird-In-Hand Motel.

Ron Buffington of HIO explained at the start of the workshop, "There is no fun in wholesaling a product, we need to retail it and make things happen."

Ruth Benedict, also of HIO, confirmed this idea by explaining that this is done by "developing profitable marketing skills."

Creating effective ads and what ads should contain was one topic that discussed at length at the workshop.

Prior to developing ads, a foundation for a advertising program is needed. This is accomplished by the establishment of marketing goals and periodic evaluation of these goals.

When working on an ad, the layout that is considered must be attractive and easy to follow. The parts must have continuity to keep the reader's attention.

A reader's attention is drawn to an ad by its originality, uniqueness and flashiness.

After capturing the reader's attention, it must be maintained and increased through the ad's components. Interest is generated through a headline or introduction. Simplicity is often the best rule to follow with both components.

Entering into the body of an ad, the information must be complete and concise. Details pertaining to

where an animal can be purchased, how to reach the farm for more details, and why she is important are pertinent to an ad's effectiveness.

A farm logo provides ready identification of the farm with the reader and its importance should not be overlooked. Any farm that does not have a logo should seriously consider obtaining one, Buffington suggested, since it is a strong advertising tool. The logo needs to be simple, versatile and different enough to draw attention.

Many ads feature photographs of cows. Judy Black from Agri-Graphics discussed some things to consider when photographing cows.

On the day of the photo, she said, the animals must be clipped, trained to lead, washed completely, feet trimmed, and the udder should be full of milk to attain the best photo.

A good photo allows prospective buyers that cannot come and view the cow in person to see its outstanding qualities.

When done correctly and by a professional, a photo can be a very effective marketing tool, Black said.

Marketing cows is a must for any dairyman who intends to stay in the business, Glenn Freese from Glee-Hi Holsteins said. He compared the Holstein business to a ladder with those on top doing everything from milking cows to contract matings. The guy on the bottom is simply milking cows, he noted, and urged anyone at the bottom to make the commitment to

move up the ladder.

To achieve the goal of moving up the ladder, it is necessary to learn how to turn registration papers into dollars through merchandising, Freese stated. Success in this venture is contagious and moving up the ladder becomes easier, he added.

Time, finances and opportunity

are important key elements in acquiring these goals according to Benedict. Through promotion and management, which includes items such as feeding and breeding, the bottom line or return on investment can be great. The bottom line, Benedict emphasized, is the reason for the importance of merchandising cattle in the present economy.



Prepared ad winners at the H.I.O. workshop, Glenn Freese, left and Harold Bare, right, are congratulated by Ruth Benedict of H.I.O.

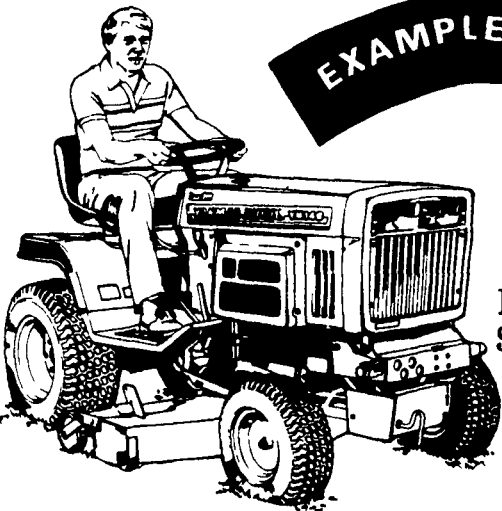


Winners of the contest for ads prepared at the workshop were, left, Larry Kennel, Barry Hostetter, Alvin Stoltzfus and Melvin Stoltzfus.



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