

Berks Co. Cattlemen Tour Chester Co. Beef Operations

LEESPORT — The Berks County Cattlemen's Association recently hosted a tour to three Chester County beef operations. The trip also featured an informative stop at the University of Pennsylvania's veterinary school facility, New Bolton Center.

A group of thirty cattle producers, accompanied by Berks County Extension Agent Clyde Myers

who helped to organize the field trip, participated in this annual event. The first stop of the day was Devereux Soleil Farm, located near Devon. Recognized nationally as an expert in the production of beef cattle, farm manager Conrad Grove discussed the farm operation and announced its phasing-out program — the result of the Devereux Foundation's shift away from

agriculture.

Grove shared with the group his philosophy on raising economical beef cattle, and noted the Pin-Pointer feeding system which allowed him to scientifically monitor cattle feed conversion for the past fifteen years. This tool allowed him to select the most efficient breeding stock which were used as the foundation of the farm's purebred Angus herd.

Dr. Colin Johnstone, of New Bolton Center, described the operations of this large animal hospital and veterinary training center to the Berks cattlemen. While the majority of work done at the Center is focused on the equine industry, Dr. Johnstone noted a trend to exam more "food animal" clients. Because of the expense of treatment at the Center, generally only those animals that are of great value as breeding stock are seen by the veterinary specialists on staff at New Bolton Center.

Dr. Jim Evans and partner Greg Krueger of Genetics Unlimited hosted the Berks Cattlemen at their nationally-recognized Angus farm. The home of numerous

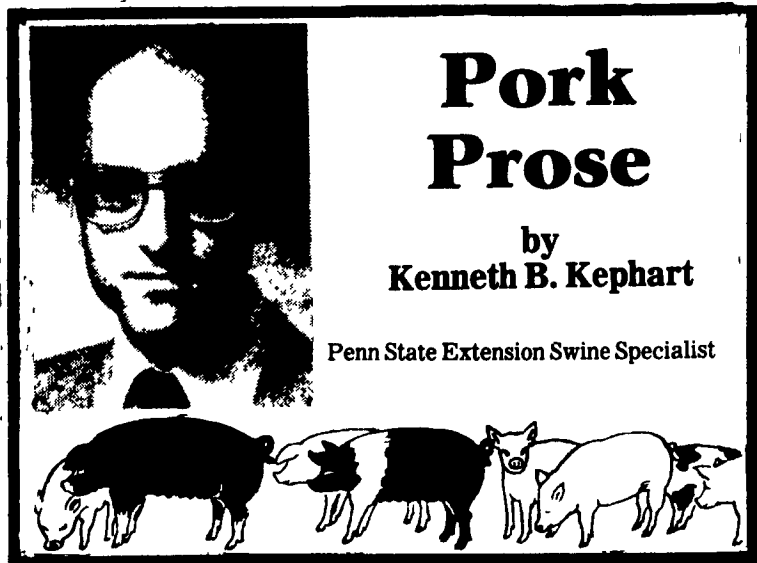
champions, Genetics Unlimited specializes in the production of purebred Angus cattle through the implementation of modern technology. The rolling pastures at this Chester County farm are dotted with Hosltein cows with black calves running at side — the end result of an intensive embryo transfer program.

After an informative discussion by Greg Krueger on the farm's show cattle which were escaping the nearly 100 degree temperatures in a barn equipped with a water mister to keep them cool, Dr. Evans provided an enlightening lesson on embryo transfer techniques and the applicability of this technology to various cattle operation. He explained that the cost of this tool has decreased slightly in recent years because of the development of nonsurgical methods. He suggested that soon cattlemen will be calling for frozen embryos the same way they now call for frozen semen to artificially breed cattle.

A demonstration of warm season grasses and intensive pasture

management was the focus of the final stop on the tour. With the assistance of Soil Conservation Service's Tim Smail, beef farmer Woody Zook explained how he reduced feed costs and stretched his grazing season by incorporating rotational grazing into his pasture management system. High-tensile fencing and spring-fed watering troughs allows Zook to make maximum use of this economical program. Zook said he lets the cattle do the work of harvesting their feed, which saves time and fuel. He uses portable fencing to divide small sections of pasture which are grazed by his herd of Angus cattle for two-day periods. This system allows the pasture grasses to regrow during their "resting" period and provides lush pasture during hot summer months when traditional cool-season grasses stop growing.

Berks Cattlemen's president Ken Rarick and publicity chairman, Sheila Miller, assisted in organizing the field trip, along with Chester County Extension Agent Cheryl Fairbairn.



Pork Prose

by
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Toil N' Trouble, Drug Issue Continues To Bubble

The antibiotic issue continues to bubble and boil. The Food and Drug Administration, after a foiled attempt in 1977, wants to ban penicillin and tetracyclines in animal feeds again. And now *Pennsylvania Farmer* reports a proposed bill in the Senate that would not only exclude feed-grade penicillin and tetracycline, but limit the use of oral and injectable tetracyclines as well.

Do feed-grade antibiotics affect human health? And if we eliminate some of the drugs used in swine feed, how will that affect your operation?

A lot of knowledgeable people are convinced that feeding drugs to livestock endangers our health. The scenario they fear is that animal bacteria can become resistant to antibiotics and transfer their resistance to human bacteria, which may not respond to treatment if humans get infected.

Some evidence to support this theory came in 1984 when the Center for Disease Control published a study linking a Midwest cattle feedlot and salmonella poisoning in people. The salmonella were resistant to several antibiotics and the researchers concluded this resistance was associated with feeding tetracycline to the feedlot cattle. The authors never found the conclusive evidence they wanted — a sample of hamburger with same bacterial strain as that found in the patients.

But more evidence came in March of this year when the CDC released another study.

Like the previous study, patients were infected with salmonella. And again, hamburger was the suspected source. But this time, the researchers had samples of beef contaminated with salmonella that matched the strain in the people. Worse, the salmonella was resistant to chloramphenicol — one of the primary drugs used to fight salmonella in human medicine, although not legal in livestock.

Again, the researchers linked this resistance to the use of antibiotics in the cattle.

Salmonella contamination in meat is nothing new. Although

contamination seems to occur more often in poultry, the livestock industry needs to strive to keep it to a minimum. Common sense tells us that meat-borne salmonella poisoning can be easily eliminated with proper cooking. Unfortunately common sense doesn't always prevail when congress is responding to consumer pressure.

What would happen to swine performance if we lost the use of a few antibiotics?

The University of Kentucky posed a similar question 15 years ago for their two swine research herds — but they took the question a step further. In one herd they stopped using all antibiotics in 1972. In the second operation, feed-grade antibiotics continue to be used in all phases of production and injectables are used as needed. Since that time, researchers have been monitoring antibiotic resistance patterns and herd performance.

In the drug-free herd, conception rate currently averages about 83 percent. Prior to the drug withdrawals, conception rate averaged over 91 percent. Before pulling out the antibiotics, number born live was 9.8. Now it's down to 9.3. Prior to 1972, number weaned averaged 8.8. Since then it's averaged 7.5.

Compared to the herd where antibiotics are used routinely, pigs in the drug-free herd have a greater incidence of joint problems and skin lesions, a major diarrhea problem has arisen and each crop of pigs has a higher percentage of "poor-doers."

On the positive side, *E. coli* bacteria isolated from the feces in the drug-free herd are less resistant to tetracycline than they were 15 years ago. Currently, less than 30 percent of the fecal coliforms are tetracycline resistant compared to more than 80 percent in 1972.

There are some puzzling things about the resistance patterns in the drug-free herd. For example, bacteria from pigs raised on concrete are more resistant to antibiotics than bacteria from pigs raised on pasture. Bacteria from younger pigs are more resistant than bacter-

ia from older pigs. And trucking pigs 200 miles nearly doubles the antibiotic resistance of their fecal coliforms — resistance that takes several weeks to return to normal. And again, all these differences were found in the drug-free herd.

In the antibiotic herd, more than 90 percent of the fecal coliforms are resistant to tetracycline. But the researchers continue to use the drug and it continues to work. In the last series of trials, tetracycline increased gains by 20 percent and improved feed conversion by 9 percent for early weaned pigs.

So if we stopped antibiotics swine producers could still raise pigs, but costs of production almost certainly would go up.

But the real question congressmen have is, if we restricted the use of antibiotics would the consuming public be at less risk?

• Victor Lorian says no. He is a microbiologist from the Bronx Lebanon Hospital in New York. He and an associate looked at resistance patterns of nearly 10 million strains of bacteria isolated over a 12-year period. Lorian concluded: 1.) bacterial resistance is not increasing, if anything it is decreasing, and 2.) resistance of bacteria in people is related to our use of antibiotics in human medicine, not in the livestock industry.

• John Walton from the University of Liverpool in England says no. In England, restrictions there on both therapeutic and subtherapeutic antibiotics have not changed the resistance patterns of bacteria.

Unfortunately, the FDA has for at least 10 years felt that feeding antibiotics to livestock does, in some way, put consumers at risk. With the recent studies at their disposal, and with the uproar over poultry contamination, restrictions are almost certain to come.

What should you do in the meantime?

Follow directions and keep good records. These practices are a must for the industry and they're essential for keeping you out of trouble.

Secondly, use discretion when considering the use of antibiotics in the finishing period. At that point they may not pay, and the consumer would prefer you leave them in the bag



Pork Producers Join Complaint Against EEC

DES MOINES, IOWA — The National Pork Producers Council joined with other members of the Meat Industry Trade Policy Council today in filing a formal unfair trade practice complaint (section 301) against the European Economic Community (EEC). The complaint charges that the so-called "Third Country Directive," which the EEC has been threatening to put into effect, is actually an artificial attempt to limit U.S. meat imports to EEC countries.

Under the proposed Directive, only seven slaughter plants and three cutting plants of the 400 plants inspected in the United States would be able to send meat products into EEC countries. Other plants would be expected to make costly changes in facilities and procedures. Another 59 slaughter plants are approved only until December 31 and must be reinspected by EEC reviewers. USDA currently accepts meat imports from some 250 European plants.

The requirements the EEC would impose on U.S. meat packing plants under the Directive are different than those applied to

meat packing facilities processing and shipping products between EEC countries. Specific requirements of the Directive include paved parking lots, and prohibition of wooden facilities including knife handles, pallets and structural beams. The complaint states that "no scientific evidence (exists) that the detailed facility requirements of the EEC Directive have any significant health or safety advantages when compared with USDA's facility requirements."

Jim Phillips, a pork producer from Drexel, MO, who represents the National Pork Producers Council on export issues said, "Through this action we are serving notice on the EEC that we will not tolerate imposition of a regulation of this sort. It provides no health or safety benefits. If it's put in place, it would serve solely as a blatant barrier to trade in meat products."

In addition to NPPC, other members of the Meat Industry Trade Policy Council joining in filing the unfair trade practice complaint are the American Meat Institute, the Meat Export Federation, the American Farm Bureau and the National Cattleman's Association.

