#### Cattle feeders urged to be better businessmen

BY JACK HUBLEY

LANCASTER Lancaster County cattle feeders will have to revamp their operations if they hope to survive the coming decade.

This was the message delivered by Penn State Extension beef specialist, Dr. Les Burdette, last Friday at the county's Cattle Feeder's Day held at the Farm and Home Center.

To be a survivor, according to Dr. Burdette, the modern cattle feeder will have to maintain a tight rein on his finances.

"Do you know your feed cost per pound of grain? Your total cost per pound of gain? Your interest costs, and facilities depreciation? Do you know what your break-even is on a load of cattle before it's sold? If you don't spend two days of each week in the office analyzing your business, you won't be with us in 10 years," Burdette cautioned.

Based on his dealings with the state's cattle feeder industry, Dr. Burdette ventured that fewer than 10 percent of Pennsylvania's cattle maintain adequate feeders records. He also noted that cattlemen who aren't using Rumensin and Bovatec, and aren't implanting, "are throwing away \$15 to \$25 per head.

The specialist offered the following guidelines for optimum

-Maintain the proper level of protein and minerals. This includes force-feeding of minerals, especially calcium phosphorus, for top performance.

-Use feed additives, Rumensın, Bovatec, and antibiotics.

-Use implants

-Don't overfinish

-Strive for maximum feed intake. To insure this, practice good feed bunk management and maintain constant supplies of clean feed and water. If cattle aren't performing despite your best efforts, don't forget to check water purity, he said.

-Avoid muddy feedlots. Wading through six or eight inches of mud greatly increases energy consumption.

-Supplement fermented rations with some dry feed to maximize feed intake.

Underscoring the importance of not only taking, but also using good records, Dr. Burdette pointed out that about 85 to 90 percent of the poultry industry, and 70 to 75 percent of swine producers are relying on available computer technology. The beef industry lags behind at a 60-percent figure.

Also featured was Extension ag engineer, Dr. Dan Meyer, who discussed ventilation problems and solutions. The key to healthy livestock is removing drafts and moisture, while providing enough moving air to dilute airborne organisms, he said.

Meyer noted that the traditional bank barns, along with the lean-to additions built to expand existing barns account for many of the ventilation problems he encounters.

Along with describing the use of fans and duct work for mechanical ventilation systems, Dr. Meyer outlined ways in which natural ventilation can be employed.

When possible, buildings should be erected perpendicular to the established air currents, with sufficient space between units to facilitate air flow.

Simply admitting air at the eves of a building and opening the ridge will greatly enhance summer cooling, he said. An open ridge will drop summer temperatures by 10 to 15 degrees.

Many times it costs more, in terms of respiratory problems, to house animals in old, nonventilated barns, than it does to do something about it, Meyer con-

Cattlemen attending the meeting were treated to a full slate of presentations, with a lunch break coming year's cattle market, and

Principle speakers at Lancaster County's Cattle Feeder's Day on Jan. 25, were (left) Penn State ag engineer Dr. Dan Meyer; beef specialist Dr. Les Burdette; and economist H. Louis Moore. Not pictured is the event's fourth Penn State speaker, research assistant Sharon Harmon.

at noon. Included in the program were Penn State economist Louis Moore, with predictions on the

Penn State research assistant Sharon Harmon, who discussed the state's Residue

# LIVESTOCK

### Del. Pork All-American pays attention to "the little details"

NEWARK, Del. - Robin James of Laurel has been named 1985 Delaware All-American Pork Producer. The award was announced at the annual dinner meeting of the Delaware Pork Producers Association, January 15, at the Felton Fire Hall.

James markets 3,500 hogs a year from his farrow-to-finish operation, weaning an average 9.5 pigs per litter and marketing 22.9 hogs per sow per year.

He built his first farrowing house in 1977 and since then has gradually expanded production, adding a 400-head nursery in 1978 and a second farrowing house in 1981. Until completion of a finishing house last year, he sold only feeder pigs. James says the new facility allows him to be much more flexible in marketing.

In addition to pigs, he raises 80 acres of corn, 110 acres of wheat and 110 acres of soybeans-all under irrigation.

The Laurel farmer says there's nothing fancy about his swine operation, but he believes in keeping an eye on "the little details while never losing sight of our long range goal of doing the best possible job that can be done. And always feeling that we could be better." He says he tries to run the kind of operation that will give pork producers a good image in the community.

The new Pork All-American is a director and treasurer of the Delaware Pork Producers Association. He has provided feeder pigs for 4-H projects. (Two of those animals became Delaware and Virginia grand champions.) James is also school board



Laurel, Del. pork producer Robin James is Delaware's All-American Pork Producer for 1985.

chairman for the Epworth Christian School and a member of the Epworth Fellowship Church.

Pork All-American winners are selected by fellow producers on the basis of production efficiency, leadership in their local swine industry, participation in civic activities and general overall farming excellence. Nominees must be under 40 and must have made an outstanding contribution to the pork industry in their state. About 40 states participate in the program.

James will receive a special plaque from the National Pork Producers Council during the American Pork Congress later this

## Penn State professor defends use of antibiotics

STATE COLLEGE sumers may be concerned about antibiotic drug residues and drugresistant bacteria in meat, but three decades of safety will discredit any argument against antibiotic use in meat production, a Penn State red meat specialist

William R. Henning, assistant professor of animal science Extension, says antibiotics are safe economical when used correctly.

"The scientific community's been looking at this for a number of years, but there have been no confirmed cases of drug resistance due to the use of antibiotics," he says. "In theory, the potential does exist, but we've been feeding antibiotics to animals at low levels for 30 years without a known positive case."

Henning was commenting on public confusion following an apparent outbreak of salmonella poisoning in 1983. Health officials traced meat that had poisoned 18 consumers to a salmonellainfected South Dakota herd.

'In that outbreak, salmonella organisms found were insensitive to penicillin," Henning says. "But the cattle in question had not been fed penicillin. It's safe to assume the cattle were infected with salmonella, but the consumers affected had eaten their meat raw and were using penicillin themselves.'

Nevertheless, consumers express a concern on the safety of red meat. Henning believes the controversy now revolves around two issues - drug-resistant bacteria from low-level feedings of antibiotics, and drug residues in meat from the therapeutic use of antibiotics.

Bacteria can become resistant to antibiotics through a mutationone bacteria cell in millions that's genetically immune to antibiotics by chance. Bacteria can also become resistant when a substance called R Plasmid transfers this quality from one cell to the next

"An outbreak from resistant bacteria is possible, but in 30 years of antibiotic use, we haven't seen anything," Henning says. "That's

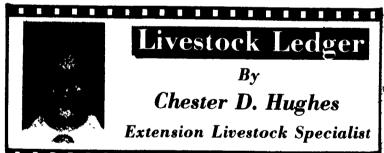
a good safety record."

livestock are more common, Henning states. Sulfa and arsenic are two drugs called antimicrobials used to treat swine and veal calf herds. If improperly used, these drugs leave minute residues in meat. Antimicrobialtreated feed can contaminate swine and veal calves ready for market if feeders and other livestock equipment aren't cleaned thoroughly.

One safety precaution used, Drug residues from treated Henning says, is the withdrawal period-an amount of time set between animal drug use and market slaughter.

"Withdrawal periods give the animal's body a chance to rid itself of the antimicrobial," Henning says. "There's a fairly stringent policing and monitoring system in place to catch residue offenders. Producers are beginning to realize how much trouble they'll be in if

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#### Livestock Ledger

 $\boldsymbol{By}$ Chester D. Hughes Extension Livestock Specialist

Pork producers in the United States raise the most abundant supply of pork in the world. But before the pork you produce reaches the kitchens of America, U.S. Department of Agriculture inspects the hogs. USDA veterinarians and trained inspectors examine hogs before and after slaughter to insure that only safe, wholesome products reach consumers.

Each year more than 85 million hogs are slaughtered under federal inspection. To keep pace, the inspection program has modified inspection methods, including the use of mirrors, and enhanced its laboratory capabilities. USDA's inspection responsibility also extends to processed foods like bacon, sausages, hot dogs and other products like cooked ham and bologna. Inspectors check processed products for safety, wholesomeness and accurate labeling.

While certain problems leave tell-tale signs, such as lesions from pneumonia, other unusual and hard-to-detect problems, like residues of drugs or chemicals, can be identified only through laboratory tests.

Residues do not change the way the carcass looks, feels or smells. Therefore, USDA routinely analyzes meat and poultry samples for residues of drugs and chemicals, such as sulfonamides, antibiotics, and pesticides.

Inspectors retain carcasses when they spot disease signs or infection lesions, suggesting drugtreatment. If the USDA laboratory confirms residues in illegal amounts, the carcass is condemned and cannot be used for food. The next animals from that producer must be tested before they can pass inspection.

Condemnations and delays are costly to meat packers and producers, alike. When consumers question the safety of the meat supply, prices and profits drop.

Experience has shown that the best way to control residues 15 PREVENTION. That's why USDA has launched the Residue Avoidance Program in cooperation with producers associations, other trade groups and veterinarians. We shall discuss the new Residue Avoidance Program in my next column.

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