

Six states represented at Yorkshire-Duroc Invitational

LEBANON — Swine buyers and sellers from Pennsylvania, New Jersey, New York, Maryland, Connecticut and Ohio converged on the Lebanon Fairgrounds on Mar. 1, for the Pennsylvania Yorkshire-Duroc Invitational Show and Sale.

Topping the blue-ribbon porkers at sale time was the champion Yorkshire bred gilt shown by Leon Arnold of Lebanon. This gilt was purchased by Dan Heilman of Ford City, Pa., for \$550. The sale's 15 York bred gilts averaged \$337.

Of the nine open York gilts sold, John Archer's champion was the top seller. Archer, of Darlington, Md., sold his top entry to Leon Arnold for \$460. The open gilts averaged \$223.

Other top selling boars and gilts

were as follows:

Champion Yorkshire boar — Exhibited by Leon Arnold and sold to Calvin Lazarus and Sons, Whitehall, Pa., for \$350.

Champion Duroc boar — Shown by Don R. Smith, Mt. Gilead, Ohio, and purchased by Larry Arnold, Womelsdorf, Pa., for \$500.

Champion Duroc open gilt — Shown by Shipley Durocs, Newark, Ohio, and sold for \$320 to Wilson Bros., New Freedom, Pa.


Champion Duroc bred gilt — Shown by Holloway Durocs, Glen Rock, Pa., and purchased by Rick Pfautz, Stevens, Pa., for \$425.

Judging the show was Lebanon Extension agent Ken Winebark, and Harry Bachman of Annville handled auctioneering duties.

Sale receipts totaled \$14,805.



Some of the champions named at the Yorkshire-Duroc Invitational show were (clockwise, upper left) Leon Arnold's champion York bred gilt; John Archer's champion York open gilt; Don Smith's top Duroc boar; and Holloway Durocs' champion Duroc bred gilt. At left is show judge Ken Winebark. (Keystone Livestock Photography)



Pork Prose

by
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Copper for Swine Feed

We've known for at least 40 years that pigs need a small amount of added copper in their diets. But it's only been the last decade or so that we've routinely added copper at much higher levels. What's the logic behind adding copper at 125 or 250 ppm rather than the normal level of 10 ppm? Improved growth rate and feed efficiency. That saves money, but there are some precautions as well. Let's take a look at the pros and cons.

What form of copper is used? The hydrated form of copper sulfate seems to be the universal compound. It contains about 25 percent copper. One pound per ton provides 125 ppm of copper, and two pounds provide 250 ppm.

How much copper sulfate is normally added? Regardless of the age of the pig, 250 ppm (2 lbs/ton) seems to be the optimum level.

What kind of response can you expect with added copper? For weanling pigs, 12 experiments at the University of Kentucky show increases in growth rate of 26 percent and improvements in feed efficiency of 9 percent. Like any growth promotant, the response is less as the pigs get older. For growing pigs, gains and feed conversion are improved about 7 percent and 3.5 percent, respectively. For finishing pigs, the improvements are about 3 percent and 2.5 percent, respectively. Most of these experiments were based on 250 ppm added copper.

How does it work? There are lot's of theories floating around, and a lot of people are working on this question. But as yet, we just don't know how copper sulfate does what it does.

Will two pounds of added copper sulfate improve performance enough to pay for itself? A typical cost for copper sulfate is about \$1 per pound. With the levels of performance listed above, copper sulfate will easily pay for itself.

Can antibiotics be used with copper sulfate? Yes. The response seems to be additive. In other words, copper alone will improve performance, and copper and antibiotics together will improve performance even more. Some of the antibiotics that have been used successfully with copper sulfate

include chlortetracycline, virginiamycin, carbadox, tylan, tylan and sulfa and ASP-250.

Is copper sulfate approved for feeding at high levels? In the eyes of FDA, copper sulfate is not approved as a growth promotant. However it's not necessarily illegal to add high levels to the diet as a "nutritional additive."

What are the drawbacks to feeding copper sulfate?

- High levels of copper in the liver. The liver serves as a "filter" and storage center for excess copper in the body. A normal level of copper in pork liver is about 20 ppm. At a feeding rate of 2 pounds per ton, the level of copper in the liver shoots up to 350 ppm. That's a lot of copper. And some people are sensitive to high levels of copper.

- Increased corrosion of "electrolysis" of metal in the hog facility. This is evident from a few research studies. Some hog producers have recognized it as well.

- Change in the bacterial population in the manure pit or lagoon. There's evidence to show that the type of bacteria or at least the metabolism of bacteria may change under high levels of copper. The biggest concern would be over the long term in a lagoon that's not pumped out frequently.

- Elevated levels of copper in the soil. Heavy metal build-up is a minor problem with row crops. But it can present problems for vegetable crops. And it may be a problem with forages for sheep since they're very sensitive to copper.

If you decide to feed copper sulfate, how can you find a happy medium between the pros and cons? The wise decision would be to not feed it during the finishing period. The response for these older and heavier pigs is less, so the payback will be minimal. Second, avoiding the finishing period will give copper levels in the liver a chance return to normal if copper sulfate had been fed previously. I'm certain that would mean a lot to the consumer. And finally the volume of copper-containing manure would be much less; so the chances of damaging the environment are reduced.

Hereford associations to sponsor show and sale

ITHACA, NY — An enthusiastic response from consignors was received as a result of the call for entries into the New York "Spring Select Show & Sale" for registered Polled Herefords sponsored jointly by the NYPHA, EPHA, and NYHA. Fifty lots have been catalogued, and will go on the auction block April 19, at the Cornell Livestock Pavillion in Ithaca.

The bulk of the offering consists of open and bred heifers carrying some of the nation's most popular bloodlines, featuring both performance and pedigree. There also

will be an excellent selection or bred cows and cows with calves at side, plus a group of selected bulls. An added highlight will be an auction of breeding certificates to some of the nation's leading sires that have been offered by some of the entrants.

The animals will be on display and showing in group classes beginning at 9 a.m. Judge for the show will be Gerry Ballard of Ballard's Stock Farm, in Columbus, Ohio. The auction will begin at 12:30 p.m. with Polled Hereford auctioneer Dale Smith of Guston, Kentucky calling the bids.

Assisting him will be the American Polled Hereford Association area representative, Ernie Smith, from Ohio, and the three association presidents and joint sales committee.

Final catalogs are expected to be ready in mid-March and will be mailed to association members and other breeders throughout the Northeast. They also can be obtained by writing Winifred Clark, RD 1, Box 269A, Clinton, NY 13323 or calling her at (315) 853-5011.

Sale headquarters will be the Holiday Inn of Ithaca. Buyers and sellers needing rooms should contact Winifred Clark.

Rocco sheep program to be discussed in Lancaster

LANCASTER — The sheep industry in Pennsylvania is currently riding a wave of enthusiasm created by the start-up of Rocco Further Processing, Inc., of Timberville, Va. The plant's goal of processing 10,000 lambs a week has resulted in many inquiries

from rural residents regarding the profitability of a sheep enterprise. To help answer these questions, Penn State's Cooperative Extension will sponsor a meeting at the Lancaster Farm and Home Center on Mar. 25, at 7:30 p.m.

Speakers will include Extension sheep specialist Dr. Clair Engle addressing the subject of sheep profitability, and Bill Reed, representing Wolgemuth Bros. of Mount Joy and Rocco Further Processing. Reed will discuss the goals of the Rocco program.

Wye Angus sale slated for Monday

COLLEGE PARK, MD — The auctioneer's gavel will come down at noon, Monday, March 24 for the 8th annual sale of Wye Angus beef cattle, at the University of Maryland's Wye Research and Education Center. The center is located just off US 50 East between Queenstown and Chesapeake

College. This year, the Center will auction 10 females - all with excellent records and all with calves at their side - plus 25 performance-tested yearling bulls.

All of the bulls have passed a semen test within 30 days of the sale date. The entire herd is accredited free of tuberculosis and

certified free of brucellosis. All animals up for auction are available for inspection. Truckers and insurance representatives will be available the day of the sale. Prospective buyers are invited to a pre-sale hospitality hour at the nearby Wye Woods on Sunday, March 23, 6 p.m.

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