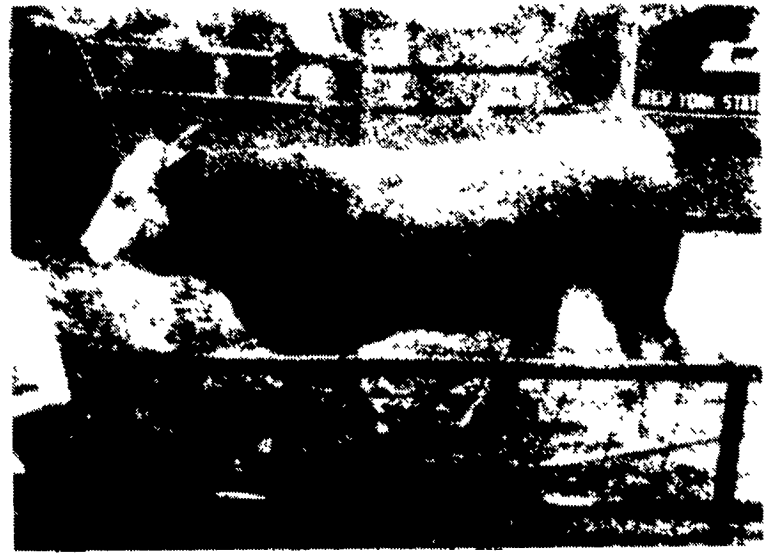


Success Marks Bull Test Sale

ITHACA, NY — The Bull Olympics '88 is now history. This year's New York State Bull Test Sale averaged approximately \$2,344 with the highest bulls being a Black Angus from Ballantrae Farms of Westfield selling for \$5,000 and purchased by Richard Milk of Byron, New York, and a Reg Angus owned by Ken Marquis of Ithaca also sold for \$5,000. This bull was purchased by Ted Antol of Hopewehl, Virginia.

Bidding was brisk. Auctioneer Col. John Spiker of West Virginia kept the pace rolling. Thirty-six bulls were sold at the New York State Bull Test Sale which was sponsored by the New York Beef Cattlemen's Association, Department of Ag & Markets, Department of Animals Science at Cornell University.

Top sellers in their respective breeds were: **Charolais:** Cooper Charolais Farm bull born 4/1/87 was sold for \$3,000 and purchased by Curtis Kundert of Walkill, New York. **Gelbvieh:** Lucas Farms of Cazenovia bought a bull owned by Elmer Newman of DeKalb Junction, New York, for \$1,850. **Shorthorn:** Springbrook Farm of Parish, New York, sold a 3/1/87 bull for \$2,300 to Sunrise Farms of Auburn. **Simmental:**



The top-selling Simmental owned by Blue Chip Farm of Warren, Pennsylvania, was purchased by Paul Wood of Gillette, Pennsylvania, for \$3,300.

\$3,300 took a Blue Chip Stock Farm of Warren, Pennsylvania, bull born 4/1/87. It was purchased by Paul Wood of Gillette, Pennsylvania. **Polled Hereford:** Virgil Phelps of Oakfield, New York, purchased the Dunwalke/Puddingstone bull from New Jersey for \$4,800. This bull also received a special award from the National Polled Hereford Association for top gaining hereford. The

award was presented to Dunwalke/Puddingstone Farm prior to the bull being sold. Overall, the sale, which had standing room only was very successful and all who were involved with the sale were pleased with the outcome. Chairman of the sale was Steve Gotovich. Bull Test Director was Bill Greene of the Cooperative Extension Livestock Department.

Pork Prose

by
Kenneth B. Kephart

Penn State Extension Swine Specialist



Dr. Kenneth B. Kephart
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Penn State University
April 17, 1988

Growth Agents on the Horizon

Swine producers are asking a lot of questions about the coming generation of growth promotants. And they should. The products are different than anything we're now using in the hog industry. The effects on performance and carcass quality are almost beyond belief. And we're inundated with a new set of terms -- biotechnology, repartitioning agents, beta-agonists, and somatotropin to name a few. Let's take a look at these products, their effects on the hog and on the industry.

PORCINE SOMATOTROPIN

The product that provides the best response and seems to be getting most of the press is porcine somatotropin (PST), another name for pig growth hormone. At moderate doses, PST will improve growth rate and feed efficiency by roughly 20%. If given to pigs from 60 to 220 pounds, PST would reduce the time to market by 2 weeks and save about 115 pounds of feed per head. At the same time, pigs receiving PST will have .2 inch less backfat and loin eyes that are 1 square inch larger.

There are some other "nice" things about PST. Since it's identical to the growth hormone produced by the pigs pituitary gland, it leaves no residue. And even if it did, it would have no effect on a consumer eating pork from a treated pig.

But PST has its drawbacks. Because it's a protein, feeding the stuff is out of the question. The stomach would digest it like any other protein. That leaves injection as the only way for getting PST into the pig. All the research that we read and hear about has been with daily injections.

It's difficult for me to imagine injecting several hundred pigs every day, let alone several thousand. Surprisingly, many of the people that plan to market PST say that daily injections aren't that bad and hope that producers will agree. The companies have been developing special multiple dose syringes and even back slap syringes to make things a little easier.

For the producer that "just says no" to daily injections, implants of some kind are apparently being developed. However, implants and PST don't make a smooth combination. Once PST is dissolved and at body temperature, the hormone tends to fall apart or change into something that has no effect on performance. That doesn't mean an "implant" won't be available. But it does mean that the injection will still have to be given fairly often (like every 2 weeks). And the response will be less.

Another drawback with PST is a potential lameness problem. In Terry Etherton's research at Penn State, pigs on high doses have had

a lot of mobility problems toward the end of the finishing period. We're not certain why, however Pitman-Moore, a company involved in PST production, claims that lameness is not a problem if high doses are avoided and pigs are injected only during the finishing period. However, Dan Hagen and Keith Bryan, also at Penn State, observed soundness problems with gilts that weren't started on treatment until about 200 pounds.

Another glitch with PST is that a few pigs in some trials have died shortly after the injection. It may be a while before we find the cause since the deaths occur after many injections, and the actual mortality rate is extremely low. At Penn State we've also seen some pigs on PST die of ulcers. We don't know if the ulcers were related to the PST.

PST will probably not be marketed for sows in the near future for a couple of reasons. It does save feed during lactation. And it does help the sow produce milk more efficiently. But it seems to have little if any effect on piglet weaning weights. And it decreases backfat and sow feed intake during lactation -- two effects that would be difficult to sell when the current theory promotes higher feed intake and less fat loss.

BETA AGONISTS

These compounds are man-made and similar to adrenaline. Like PST, they improve growth and feed efficiency. They also reduce fat and increase muscle in the carcass. Compared to PST, the changes in performance are less dramatic. But since the beta agonists are not proteins, they can be included in the feed.

Cimaterol & Clenbuterol

Both of these compounds are added to the feed at very low levels (.20 to .50 ppm). Growth rate and feed efficiency are both improved 5 to 10 percent. Loin eye areas are increased about .5 square inches and backfat is reduced .1 to .2 inches. One drawback to these compounds is that they increase heart rate up to twice normal rate, probably because of their similarity to adrenaline. Another problem, particularly with cimaterol, is an increase in hoof lesions and cracks.

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These two compounds, with the strange names, appear to support greater changes in growth performance than cimaterol and clenbuterol. Studies show that feeding 1 ppm improves feed conversion by 10 to 12 percent. Backfat is reduced about .1 inches and loin eye area is increased about .5 square inches. Improvements to average daily gain have not been reported.

Ractopamine

Of the beta agonists, a lot of people think that ractopamine shows the most promise. At 20

(Turn to Page D4)

Delaware Valley College Finishes Sixth In Hunt Seat Horse Show

LAURINBURG, NC — The Delaware Valley College Hunt Seat horse show team finished sixth in this spring's Intercollegiate National Horse Show, held at St. Andrews Presbyterian College in Laurinburg, NC, after completing a show season as Region V champion.

Melissa Gordon, a freshman equine science major from Conshohocken, PA, placed highest among DVC students, garnering a second place in the Novice Fence class for her Cartier Cup (hunt seat) team.

Anthony M. DeLise, junior biology major from Doylestown, PA, who earned the highest total points for hunt seat in all of Region V, placed fourth in the Open Flat class and fifth nationally for hunt seat high point rider. Tony is also the captain of the Hunt Seat Team at the College.

The Intercollegiate Horse Show Association is an organization encompassing 12 regions and approximately 152 colleges from 26 states and Canada; it represents over 3,000 riders. Formally established in 1967, its aim is to promote competition for riders at all skill levels, from beginner to show experienced, at both individual and team ventures. Emphasis is on learning, sportsmanship and fun, under the principle that any college student should be able to participate in horse shows regardless of financial status or riding level. Many schools provide mounts for the students who ride.

Delaware Valley College's recent history with the IHSA Region V has been impressive. Two years ago, it was also Region V champion in the Hunt Seat. The previous year, the Stock Seat Team traveled to Nationals to represent Region V as its champion. The 1988 showing of sixth place in the Nationals is the College's best showing ever, and gives both teams an optimistic outlook for the next year, according to Dr. Fred Hofsaess, chairman of the Department of Animal Science, which hosts the stock and hunt seat teams.

Each region sends a rider to represent it in each of the competition categories, bringing the competition at Nationals to the 12 best collegiate riders in this country. The following students placed in the IHSA Nationals:

Janet E. Distler, an animal science sophomore from Bedminster, PA, placed fifth in the Walk/Trot/Canter class, Hunt Seat.

Jan Egner, an equine science

freshman from Quakertown, PA, placed fourth in the Intermediate Flat class, Hunt Seat.

Betty Lollin, a sophomore animal science major from Lebanon, NJ, placed fourth in the Intermediate Fence class, Hunt Seat.

Lisa Wilkoski, a sophomore animal science major from Newton, PA, placed third as an individual qualified rider in the Intermediate Stock Seat class.

Pennsylvania's Boar Testing Program Underway

STATE COLLEGE (Centre) — Pennsylvania's official boar testing program is well underway. There are 20 pens of four boars each that are placed on test from swine producers from throughout the state. This year there are 10 pens of Yorkshires, three pens of Durocs, three pens of Hamshires and one pen each of Berkshires, Landrace, Poland Chinas and Spotted Boars. The four boars in a pen must be by one sire and out of one or two litters. The small boars must be delivered prior to reaching 80 days of age. They are given either a seven- or 14-day adjustment period depending on their size and then they are weighed on official test. Once on test the pigs have unlimited access to a self-feeder. The boars are weighed every 14 days and a progress report is generated for average daily gain, lifetime weight per day of age and pen feed efficiency.

When the pen average weight

reaches 230 pounds the pen is taken off test, and the boars are hand fed and exercised daily. The boars will have their final average daily gain calculated and ratioed, the days to 230 pounds will be computed and a final pen feed efficiency and ratio will be determined. The boars will be ultrasonically scanned to determine their backfat thickness and loin eye area. A percent lean cuts value will be determined for each boar and they will have to meet minimum requirements for soundness, underline, and scrotal development. Each boar will have a final index calculated from his average daily gain, feed efficiency and backfat thickness. After all the evaluations, the top 40 to 50 boars will be selected to be sold in Pennsylvania's 11th Performance Tested Boar Sale. The sale is scheduled for the Wednesday evening of Ag Progress Days, August 17, 1988 at 6:00 p.m. The sale will be held in the Ag Arena on the campus of Penn State University.

For more information on the boar testing program, the boars on test or the boar sale contact: Glenn Eberly, Director, Meat Animal Evaluation Center, 651 Fox Hollow Road, State College, PA 16803 or phone (814) 238-2527.

