Avoiding an energy crisis

By Kenneth B. Kephart Extension Livestock **Specialist**

University of Delaware Nothing is more depressing than an empty farrowing crate. It's a signal that profit potential down the road will suffer. And it's also a grim reminder that feed was wasted on a non-productive sow.

One factor leading to the empty farrowing crate syndrome is the failure of sows to return to heat. This is usually figured to be a firstlitter-gilt problem, but it will occur in older sows, too.

Why does it happen? Researchers at the University of Nebraska have been asking the same question. And after several experiments, it looks like they have some answers.

In designing the experiments, they suspected that low energy intake during lactation was at the root of the problem. So they fed nursing sows several different energy levels, then took a lot of measurements in both the sows and their pigs.

The first series of experiments was set up to look at the sow. D. Reese and E.R. Peo, Jr. placed the sows on low, medium or high energy levels during lactation. These levels corresponded to a daily intake of six, nine or 12 pounds of a normal corn-soybean meal lactation diet. After weaning, they fed the sows 4 pounds per day.

As expected, sows getting only six pounds a day lost a lot of weight during lactation - almost 52 pounds. Those eating 12 pounds per day lost only four pounds. Those on the low energy level lost .3 inches of backfat compared to only a .1 inch loss in the high energy group.

By seven days post weaning, 97





percent of the sows on the high energy diet had come into heat. And 91 percent of those on the medium energy level (9 pounds per day) were in heat within the first week. But sows restricted to six pounds were slow. After seven days, only 60 percent had shown signs of estrus. And even after 70 days, 14 percent of these sows still weren't in heat.

What was different about the sows that came into heat and those that didn't? Reese and Peo decided to take a closer look at the low energy group to find out. They discovered two things. First, sows in the non-return group had less backfat at weaning. And second, blood analysis indicated that the non-cycling sows had overactive thyroid glands. The trouble is, we don't know if these sows were hyper at the start, or if the restricted feeding made them hyper. That's a brand new can of worms for future research.

What about the baby pig? In the

second series of experiments, two other Nebraska scientists, J.L. Nelssen and A. J. Lewis, fed three different energy levels to sows to get a handle on the relationship of calorie intake and sow and litter performance. These levels corresponded to a feed intake of seven, 8.5 or 10 pounds of a cornsoybean diet. Pigs received no creep feed.

Baby pigs in all groups had similar survival rates - about 93 percent. But feeding sows either 8.5 or 10 pounds each day during lactation produced heavier pigs at 28 days than feeding seven pounds. For example, feeding 8.5 pounds produced a litter weight of 135.6 pounds compared to 127.4 pounds with the seven-pound feeding level. So the extra 42 pounds of sow feed produced more than eight pounds of additional litter weight. That's \$4.20 invested in sow feed and at least \$7 returned in extra production. Money well spent.

So there's a real plus to feeding 8.5 pounds rather than seven pounds per day during lactation. But in this study, sow and litter performance in the 10-pound group was almost identical to that of sows getting 8.5 pounds.

Where does that leave you? To be sure that sows come into heat quickly, they ought to be getting 12 pounds of feed a day (16,000 kcal) during lactation. But these studies suggest that milk production (at least in first-litter sows) may plateau at a daily feeding level of around 8.5 pounds.

So, full feeding may be more than is necessary. But if you restrict the feed too much for a nursing sow, sooner or later it'll cost you - either in milk production or in return to heat.

Livestock Marketing Congress "84 set for June 13 to 15

KANSAS CITY, Mo. - Nineteen speakers and panelists have been announced for the 15th annual Livestock Marketing Congress to be conducted June 13 through 15, at the Hyatt Regency Hotel, San Antonio, Tex.

Conducted by the Livestock Merchandising Institute of Kansas City, Mo., Congress '84's theme will be "The New Reality".

Featured speakers include economist Michael Evans, former U.S. Secretary of Agriculture Earl Butz, and the following industry spokesmen: Jo Ann Smith, president-elect of the National Cattlemen's Association; James

Mullins, chairman of the National Livestock and Meat Board; Virgil M. Rosendale, past-president of the National Pork Producers Council; C.O. Emrich, one of the founders of the Livestock Marketing Institute; Robert L. Campbell, Jr , Institute treasurer; Sheldon Stahı, former Federal Reserve Bank economist and member of the Institute's Board of Governors.

Registration information can be obtained from the Livestock Merchandising Institute, 301 East Armour Blvd., Kansas City, Mo., 64111. Phone: 816-531-2235.

Delmarva raises \$319,000

annual fund drive of Delmarva Poultry Industry, Inc. (DPI) has recently been completed with a record amount of money raised by the regional trade group to support its many activities for the coming year.

Paul E. Ferrier, fund drive chairman and 1st vice president of DPI, announced, "The 1984 Fund Drive was the most successful in the history of the organization. This year, we have raised \$319,120 to be used for the continued progress of the poultry industry on Delmarva."

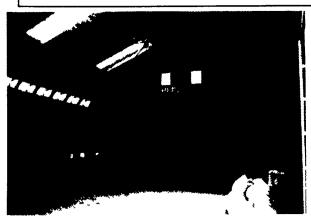
In past years, the announcement of the final figure for the annual

GEORGETOWN, Del. - The t fund drive has been made at the \$100-A-Plate Delmarva Poultry Booster Banquet. Due to the threat of avian influenza invading the Delmarva poultry area, the banquet was postponed until the threat of the disease is past. Much of DPI's efforts during the early months of 1984 has been spent toward protecting the Delmarva area from this deadly disease. This year's goal was \$295,000.

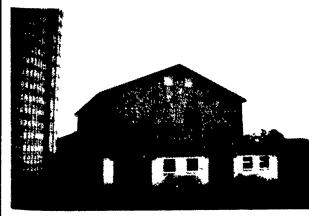
These funds are used by the association to continue its work in many areas including research, educational activities, legislative and public affairs, consumer information and the promotion of chicken.

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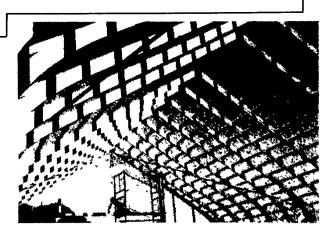


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