



Pork Prose

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Seeing the Light

Just how the topic of light fits into hog production isn't well understood. Most agree it can affect performance. But to date we lack standards on how many hours of light are needed or what intensity is best. So I took a look at the research conducted over the past 30 years. Here's what I found.

GROWING-FINISHING HOGS

Given the choice, pigs will spend about 18 hours a day in the dark, Canadian studies show. Other studies seem to parallel this finding. When pigs are raised in complete darkness, weight gains are depressed. And conversely, providing more than 6 to 8 hours of light for growing-finishing hogs is of no value.

For many producers the 8 hour requirement is easy, since most hogs are grown in modified open front facilities. But for those in totally enclosed buildings, leaving the lights on during working hours makes good sense.

DEVELOPING GILTS

One thing is pretty certain regarding gilts — those in confinement won't cycle as early as those outside. Lots of studies show that, but we don't know why. Light and daylength may be part of it, but other factors seem to be involved as well.

If you're committed to confinement, then what? Light isn't the whole answer but keeping gilts out of the dark will help. For example, experiments at Iowa

State and in Canada show that gilts in total darkness will be slower coming into heat than those getting artificial light or natural light through windows.

How many hours of light are needed? Experiments point to 6 to 8 hours as an absolute minimum. And studies at Purdue make a 15-hour schedule look pretty good — especially during late summer and fall when daylength is waning. From August to January, gilts getting 15 hours of light (8 hrs. natural, 7 hrs. artificial) cycled an average of 20 days earlier than those on natural light alone.

DEVELOPING BOARS

Light does influence the time it takes boars to reach sexual maturity. But the details are a little different from what we described for the gilts. With the male, it doesn't seem to matter whether days are getting longer or shorter. If the daylength is short, supplemental light will accelerate mating behavior. Studies at Purdue show that 15 hours of light (8 hrs. natural, 7 hrs. artificial) will increase libido scores in young boars.

Unfortunately these boar experiments are a little misleading. For one thing, only crossbred boars were used. Many commercial producers use purebred boars. Secondly, libido scores were taken from about 5 to 8 months of age — too early to be using boars in the first place.

New Jersey showmanship champs



Dr. Robert Herr, of Nix Besser Farm, Narvon, Pa., judged the 4-H Livestock Show at the Cumberland County Fair in Millville, NJ, on July 10.

Dr. Herr is flanked by Michelle Ayars, winner of the beef showmanship contest, and lamb showmanship winner David Dilks. This year's 4-H beef, sheep and hog shows were double the size of last year's events.

LACTATING SOWS

Only a few studies have measured the effect of light on lactation. But the results are striking. For example at Kansas State, sows getting supplemental light weaned litters that were 6 pounds heavier at 25 days than those exposed to lights only at feeding time. And by 5 days post weaning, 83 percent of the sows in the lighted group were in heat compared to only 68 percent in the dark group.

In a University of Georgia experiment, sows receiving 16 hours of light weaned .9 more pigs and litters that were 10 pounds heavier at three weeks compared to sows on eight hours of light. Survival of all pigs weighing 3 pounds and under at birth was improved.

HOW DOES IT WORK?

We haven't answered that one yet. Study after study shows that light has no influence on the hormones crucial to reproduction. About all we know is that the more time a pig spends in the dark, the heavier his pineal gland becomes. This is a tiny structure in the brain that starts out as a third eye in the fetus, but ends up as a pineal with nerve connections to the functional eyes.

RECOMMENDATIONS

We don't have all the answers, but here are some suggestions.

1. Growing-finishing hogs: If you have hogs in dark confinement buildings, lights should be on a minimum of 8 hours a day.

2. Developing gilts: From about August until January, gilts cycle earlier with 16 hours of light. If you have ample light coming through windows or curtains the rest of the year, that'll be adequate. If gilts are housed with the other market hogs, then the finishing floor should have 16 hours of light during late summer and fall.

3. Developing boars: Sixteen hours seem to provide the best response for very young boars. But as long as boars are getting 8 hours throughout the growth period, that'll probably be adequate for practical situations.

4. Lactating sows: Provide 16 hours.

How Bright?

Light coming from fixtures covered with dust and fly specs will not be enough. Light coming through fan blades will not be enough. Light coming from heat lamps in the farrowing house will not be enough.

Most experiments indicate 300 to 400 lux is optimum. To be sure what you have, measure the intensity about one foot off the floor. Otherwise, a rough rule of thumb is that three clean 100-watt incandescent bulbs will provide about 300 lux over a 75 square foot area. Two 40-watt fluorescent bulbs will do about the same.

And keep in mind that lights in the farrowing house should be installed over or behind the sows head so the front of the crate doesn't create an obstruction.

What kind?

It doesn't matter. Incandescent or fluorescent will work equally as well. But remember, fluorescent lights provide more light, watt for watt, than incandescent.

Indiana girl repeats Simmental Summer Classic win

BOZEMAN, Mont. — Nikki Overpeck of Clinton, Ind., was the high scoring individual for the second consecutive year at the American Simmental Association's Fifth Annual Summer Classic, held recently in Lincoln, Neb. The team competition was won by a group of four from Texas.

More than 200 junior members, representing 19 states competed in a Sire Selector exam, Herdsman quiz, Public Speaking, Heifer Sales Talk, Beef Bowl, Livestock Judging with Oral Reasons, a Heifer Competition and Showmanship.

"Emphasis is placed on

Williamsburg, Bedford and Northern Bedford FFA chapters.

The sale's 103 hogs averaged 216 pounds, and went for a total of \$16,163.51. The average price, including champions was \$72.53 per pound.

Serving as show judge was Hatfield Packing buyer Ezra Good.

Buyers who contributed to the sale's success included Hatfield Packing, Rhodes Meat Market, Shaw Packing Co., Tri-County Packing Co. A.J. Peachy Meat Market, Farmers Livestock Market, Jacob Dressler, Morisson Cove Livestock Market. Indiana

Bedford show

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Livestock Market, Blair-Bedford Buying Station, Rendulic Packing Co., Greencastle Livestock Market, John Diehl and Alfery Sausage Co.

Heavyweight

1. Sheila Biddle; 2. John Dowey; 3. John Bechtel.

Light Heavyweight

1. Kevin Rhodes; 2. Gina Hall; 3. Carol Frederick.

Medium Weights

1. Kevin Dowey; 2. Fred Dixon; 3. Melvin Leach.

Light Weights

1. Robbie Anderson; 2. Todd Hall; 3. Ed Clark.

Lehigh Judging Contest Winners



The Lehigh County 4-H Livestock Judging contest on July 9, saw 64 4-H'ers from seven counties in competition. Pictured above is the winning senior team from York County. From left are Joann Rishel, Jamie Kohr and Krista Rankin. Miss Kohr was also the high scoring senior individual.



From Berks County, the top junior team included Glenn Heffner (high scoring junior), Jane Zook and Valerie Hunter. Judges for the contest were Scott Davenport, West Grove; David Albert, Trout Run; and David Hartman, Turbotville.

E. Nat'l to include ewe sale

TIMONIUM, Md. — An added feature of interest to purebred sheep breeders at this year's Eastern National Livestock Show will be a yearling ewe and ewe lamb sale. This year's ENLS will be held October 2 to 5 at the

Maryland State Fairgrounds in Timonium. The sale is scheduled for 2:00 p.m. Saturday, Oct. 5.

The sheep show at the 1984 ENLS was the largest of the three species of livestock on exhibit at the prestigious show. Plans are to continue this trend by using strong publicity and maintaining high premiums.

Plans have been finalized by a committee of representatives from Maryland's three purebred breed associations who are working closely with ENLS manager Ken Shifflet to promote and coordinate the sale. Initial plans are to include the Dorset, Hampshire, and Suffolk breeds, with the possible addition of other breeds, in future years. Classes will include yearling ewe, fall ewe and ewe lambs. Trophies will be presented to the champion and reserve champion sale ewe in each breed.

For information and entry blanks contact the ENLS, Box 38, West Friendship, MD. 21794. 301-442-5712.

The Texas I team, composed of Whitney Risinger of San Antonio; Donnell Brown, Throckmorton; Lucy Jo Buxkemper, Ballinger; and Greg Chovanec of Caldwell bettered all other teams in cumulative event scores. The runner-up team was Kentucky I; followed in order by Maryland I; Montana; and Indiana.