

ANIMAL NUTRITION

Detergents Speed Growth

Find growth spurt similar to that with antibiotics when soapless soaps are added to standard diets of hogs and chickens. Cheaper feed bills foreseen.

► FARMERS MAY some day sprinkle small amounts of detergents, the so-called soapless soaps, in the feed for chickens and hogs to speed the animals' growth.

This possibility is foreseen from experiments in both Michigan and Ohio that have shown about the same amount of growth spurt in chickens and hogs fed a standard diet plus laundering detergents as in those animals fed the same basic diet plus certain of the antibiotics, the miracle mold drugs.

If further tests show that the detergents do make chickens and hogs grow faster, great savings are in store for farmers, and ultimately for consumers, for these chemical are much cheaper than the antibiotics now used to speed the animals' growth.

C. M. Ely, of the research division of the National Distillers Products Corporation, Cincinnati, Ohio, reports that certain surface active agents, including commercial preparations for home and laundry use, "will promote an increase in growth ranging to 12% above controls."

His results were obtained in laboratory trials of more than two years' duration, and the important laboratory findings were checked in field trials. Some detergents did not prove beneficial, others did.

To find out how the detergents cause the more rapid growth will require testing them under a wide variety of conditions. Mr. Ely suggests two theories that might explain their action: they restrain or destroy certain bacteria in the intestine of the chick, and their wetting properties cause the nutrients in the chick feed to be assimilated more rapidly in the intestine.

Research scientists at Michigan State College agricultural experiment station, East Lansing, report that a surface active agent, an ethomid, gives a growth kick to hogs when added to a standard diet. The animals fed the ethomid gained nearly 1.3 pounds per day while those without the feed supplement gained only 1.1 pounds per day.

Work with the hogs was done by Drs. R. W. Luecke, J. A. Hoefer and Frank Thorp, Jr. They also suggest that the surface active agents could act either as germ-killers or by reducing surface tension to allow more effective absorption of the food nutrients.

U. S. Department of Agriculture scientists at Beltsville, Md., have made one test run with 20 chickens fed one of the same detergents used by Mr. Ely in his experiments. After eight weeks of growth, they found no difference in the response between 20 chicks fed the standard diet and 20 fed the standard diet plus the detergent supplement. New tests are scheduled to start at Beltsville within a month to check further into the growth response of chicks fed a standard diet plus detergents.

Science News Letter, March 15, 1952

TECHNOLOGY

Photocopies of Letters Made in Less than Minute

► PHOTOGRAPHIC COPIES of letters can be made in less than a minute by a new experimental method demonstrated by Dr.

Cyril J. Staud, director of the Kodak Research Laboratories, Rochester, N. Y.

Based on a discovery made by a British scientist in 1879, a special photographic emulsion unaffected by ordinary room lighting is exposed to a bright light with the document to be copied. A special activating solution forms an image of soft gelatin containing a dark dye. When this is put in contact with a plain sheet of paper a thin layer of the dyed gelatin is transferred to give a positive copy of the letter ready for immediate use.

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