

# CORN STARTER AND PESTICIDE NEEDS

SEE

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## Researchers Report on Poultry Dietary Studies

— Extremely high or low levels of calcium and phosphorous fed to developing pullets might adversely affect egg production or quality, according to Dr. E. C. Naber, chairman of the Poultry Science Department at Ohio State University, speaking in Washington, D.C., at the 20th Annual Pfizer Research Conference.

Naber said calcium requirements of the egg-laying, production-type chicken seem to vary from 2 3/4 to 3 1/2 per cent of the diet. Higher calcium levels may hurt feed consumption and egg production rates depending on their source. Some dolomitic limestones have been shown to be satisfactory for laying hens although excessive magnesium can still be a problem.

Naber noted that poultry nutrition made strides toward becoming a more exact science in 1971. New data have more precisely defined chicken and turkey requirements for several nutrients. He cited the following efforts in particular:

- Protein and amino acid needs

of growing chicks and turkey poulters were studied.

- The replacement value of cystine for methionine and the total sulfur amino acid requirements were reevaluated.

- The need for proline as an essential amino acid for chick growth was confirmed.

- The lysine and total sulfur amino acid requirement of the poult were refined.

Vitamin research indicated that beta-carotene supports growth as well as vitamin A, but does not permit liver storage of the vitamin based on its potency for growth, according to Dr. Naber. He mentioned conflicting studies about the benefits of vitamin D3. Turkey breeders did not respond to a biotin supplement nor did developing pullets or layers respond to choline supplementation.

Rapeseed meal, castor bean meal, dried yeast sludge and dogfish meals were among the unusual products studied for possible feed use. Other studies

have shown that processing full fat soybeans by infrared heating and extrusion and their use in growing rations for chicks are promising alternates to conventional soybean processing. Expansion-extrusion of grains did not affect growth of the chick.

Dr. Naber also pointed out that studies on natural and chemical pigmentation sources confirmed that there are a number of satisfactory products for coloration of skin and egg yolk. Dr. Naber discussed studies of contamination of feedstuffs with micotoxins. FUSARIUM-contaminated corn adversely affected egg shell quality. Developments in other studies showed that the protein, lipid and antibiotic content of the diet affords some protection against aflatoxin to chicks.

### Mobile Laboratory Is Seeking New Ozone Data

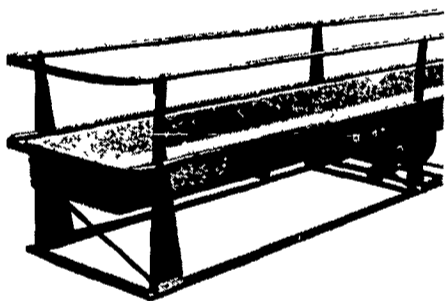
The ozone layer, the gas that absorbs the sun's deadly radiation high in the sky and makes life possible on earth, is being studied by the National Aeronautics and Space Administration (NASA).

From the truck-mounted Satellite Photometric Observatory built by Goodyear Aerospace Corporation, NASA scientists in Yuma, Ariz., are determining ozone height and volume density by measuring reflections from a 100-foot diameter, balloon-type satellite called Pagcos. This measurement may give scientists insight into the effect high-altitude air pollution has on the environment.

Data are recorded on tape and by an oscillograph, both being fed by a detection system on the mobile observatory's 24-inch diameter telescope.

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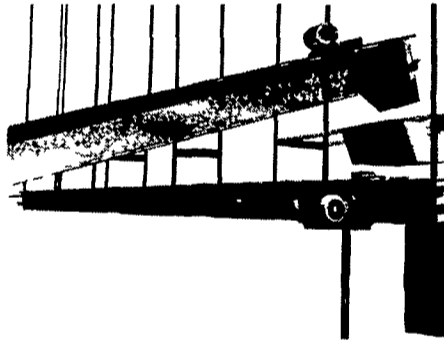
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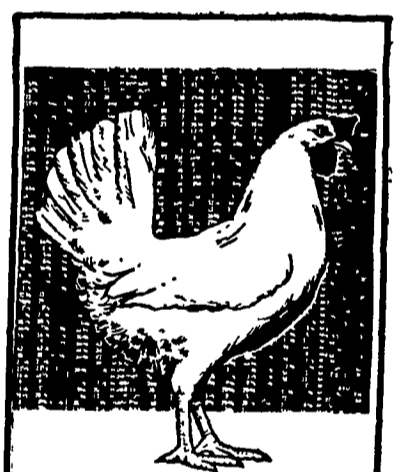
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