



J. D. Sykes of Ralston Purina, presiding at the AFMA directors luncheon

the essential amino acids in the rumen. For most efficient protein synthesis in swine, said Dr. Thorp, it appears that all the essential amino acids must be consumed within a relatively short period of time; feed efficiency appears to be greatest for a single mixed feed, containing all essential ingredients.

**Poultry Disease.** Feeds as vehicles for substances to prevent diseases in poultry, according to J. P. Delaplane of Texas A&M, have limited application or justification in the light of research results to date. Many products are commonly incorporated in poultry feeds for disease control, said Delaplane, but actually few such products have been proved valuable through objective research. The coccidiostatics constituted the first group of products to lend themselves to use in feed for the prevention of disease, with a solid backing from adequate research. Among the coccidiostatics successful as feed components are sulfaquinoxaline, megasol, nitrofurazone, sulfaguandinine, and sulfanilamide, although the latter may be toxic to poultry at the levels necessary for coccidiosis control. The only other example of controlling a common poultry disease through feed additives is the control of blackhead in turkeys by the use of enheptin, Delaplane said. Like sulfaquinoxaline, enheptin is designed for use as a supplement to, rather than a substitute for, good sanitation and poultry management. Chemotherapy is often of value in the control of other diseases, said Delaplane, but the justifiable use of other additives for disease control is limited to individual flocks and situations. Except for coccidiosis and blackhead, most diseases of poultry are not widespread enough to justify the addition of therapeutic agents in manufactured feeds.

## New Insecticide Shows Promise Of Eventual Broad Application

Preliminary tests indicate material may be a potential new basic raw material for industry

CHICAGO.—The possibility that strobane, a mixture of chlorinated terpenes, may provide formulators with a new basic insecticide material was the chief topic of conversation among those attending the insecticide division sessions at the 39th midyear meeting of the Chemical Specialties Manufacturers Association here May 18 and 19. Effective against a host of household and agricultural pests, strobane will probably find its first uses in aerosols, space sprays, and surface sprays.

Present production is on a semiplant scale and is available only for research purposes, said D. L. Kent, Goodrich Chemical Co. It is thought that large scale manufacture will bring the cost into a range competitive with other commonly used agents. A request from the production and marketing authority to sell the substance will await further commercial development.

Preliminary Peet-Grady tests indicate that 0.5% concentrations give optimum results. Knockdown agents, such as pyrethrins, must be included in formulations of the new pesticide. The yellowish amber liquid is quite viscous but is soluble in most common solvents. No aerosol difficulties have been encountered in preparations with concentrations up to 5%.

**Toxicity.** Although toxic to a certain extent, strobane may be safely used in concentrations encountered in normal usage. H. A. Shelanski, Industrial Toxicological Laboratories, stated that oral administration to rats and guinea pigs showed that single doses of 75 mg. per kg. of body weight are toxic, but chronic ingestion of up to 500 p.p.m. in the diet may be considered nontoxic. Apparently the action is not of a cumulative nature.

Albino rabbits will tolerate skin applications of 1% solutions of strobane in white oil in quantities of 1 or 2 milligrams per kilogram of body weight. However, 5% solutions produce typical clinical convulsions on repeated contact. On the other hand rats exhibit no ill effects from being subjected to exposure to 5% concentrations of the insecticide in an aerosol over considerable periods of time.

**DDT Declining.** DDT-containing preparations seem to be declining somewhat. Last year it was the active principle in 19% of household sprays as compared with 25% in 1951. Chlordan is evidently the replacement. About two thirds of the liquid insecticides are used for household type sprays.

Speakers at the Chemicals Specialties Manufacturers Association meeting included James A. Green (left), Standard Oil Co. (Ind.), chairman of the insecticide division; H. A. Shelanski, Industrial Toxicological Laboratories, and George W. Fiero, Esso Standard Oil Co.

