Government

New Chemical Additive Control Measure Proposed

ADEQUATE PRETESTING and assurance of safety are the principal requirements of a proposed new bill relating to the use of chemical additives in foods. The new measure, introduced in Congress by Rep. A. L. Miller (R.-Neb.), would amend the Federal Food, Drug, and Cosmetic Act.

Like a previous measure introduced by Dr. Miller relating to chemicals used in insecticides (see *J. of Ag. and Food Chem.*, April 1, page 27), the new bill would set up a separate section of the act relating to this subject. Dr. Miller has stated that he intends to introduce another similar bill relating to chemicals used in cosmetics.

Representatives of the Food and Drug Administration have made no official statement of FDA's feeling concerning the bill. Unofficially, some have questioned the appeals procedure. One representative of the chemical industry said that he feels that the chemical industry will support the measure in principle, but a detailed study of the individual provisions will have to be made. A well-known food industry spokesman said that he sees no objectionable features in the measure. The official attitude of this industry will be formulated during the coming months.

At present it appears unlikely that any action will be taken on this bill during the present session of Congress. Thus, interested parties will be allowed ample opportunity to study the proposed measure.

Major Provisions. The proposed Miller bill would amend the Federal Food, Drug, and Cosmetic Act to ensure that chemicals added to foods have been adequately pretested and declared safe. Chemicals generally recognized by experts as having been adequately tested and proved safe for the use intended are not included. Chemicals used as insecticides, pesticides, fungicides, and rodenticides are covered by a separate provision of the law.

Chemical additives are defined as those substances used to preserve or alter food; those used as substitutes for any food ingredient; those used in manufacturing, processing, and packaging where such use is likely to result in food contamination; and those used as artificial coloring, flavoring, or sweetening agents. Vitamins used to enrich bread, mold inhibitors, bactericides, antioxidants, emulsifiers, and minerals are also included.

Before a chemical additive may be used in interstate commerce, an application must be filed with the secretary of the Department of Health, Education, and Welfare (formerly Federal Security Agency). The application must include complete data showing that the additive is safe for its intended use; its composition; methods of analysis; samples, and directions for use. Any subsequent changes in proposed use require an amended application. The secretary may exempt additives from the requirements when they are to be used for experimental purposes by qualified investigators.

Unless the secretary calls for a hearing on the additive or denies its use, it may

be used within 60 days. He may postpone issuance up to 180 days to study the application.

If, after a hearing, the secretary feels that the proposed additive does not meet the required criteria, he may deny the application. He may approve the additive at a later date if facts so require. He may also revoke a previously approved application if information becomes available showing that the additive is unsafe or that the application contained false statements. The applicant can apply for a hearing in such cases.

The secretary or the applicant has 90 days from the time of rejection of an application to request that the matter be referred to an advisory committee, which has 60 days to consider the question. The secretary then has 30 days within which to act on the committee's report and recommendation. The secretary is not bound by the actions of the committee. The committee is composed of equal numbers of experts designated by the applicant, the secretary, and the Food Protection Committee of the National Research Council.

Within 90 days of issuance of a regulation concerning an additive, any interested person may file objections, which are then considered by the secretary and ruled upon.

An applicant adversely affected by a ruling of the secretary may appeal to the U. S. District Court within 60 days. The complete record is filed with the court, which will then consider the evidence and any additional data which it requests. The court's ruling is subject to review of the U. S. Supreme Court.

Plant Growth Research

The National Science Foundation has awarded a two-year grant of $11,000 for research to investigate the effect of light on the growth of plants. The work will be under the direction of Professor A. W. Galston of the California Institute of Technology. Dr. Galston intends to study the chemical reactions produced by light which affect the rate and nature of plant growth.

MCP for Stem Rust

Use of MCP (2-methyl 4-chlorophenoxyacetic acid) promises to speed up eradication of barberry bushes, which harbor stem rust, a disease of wheat, oats, barley, and rye. According to the U. S. Department of Agriculture, MCP has proved effective in tests to erradicate the common or European barberry, the most prevalent stem rust host in the U. S.

USDA plans to use MCP as a spray application for control of the rust host this year. It is claimed that the procedure will be much more effective and economical than the previous control programs, which send workers into the fields to cut the bushes down.

The stem rust disease lives alternately on the barberry and grains or grasses. By destruction of the secondary host, the barberry, officials hope to control the disease which in epidemic years has destroyed wheat over wide areas of the nation. Losses to the rust have already been reduced by 75% in the principal grain states by the barberry control program and the use of rust-resistant varieties of grain.

Industry

Monsanto Pushing Production Of Sodium Bisulfite for Silage

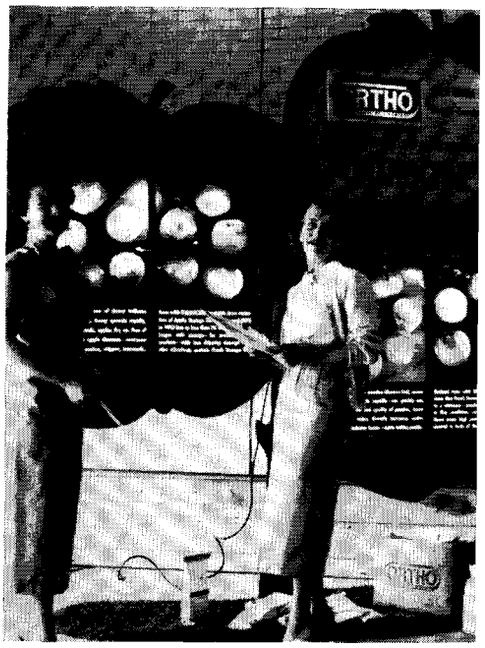
A 50% increase in production of sodium bisulfite and a nationwide system of distributorships are planned by Monsanto Chemical to meet growing demand for the chemical as a silage preservative.

The production increase will be met by stepped-up schedules at Monsanto's Merrimac division plant at Everett, Mass.

Bulk distributors for sodium bisulfite will be Louis E. Page, Inc., of Concord, Mass.; G.L.F. of Buffalo, N. Y.; P. J. Oesterling & Sons, Inc., of Butler, Pa.; Pennsylvania Farm Bureau of Harrisburg, Pa.; and Hopkins Agricultural Chemical Co. of Madison, Wis.

Recent studies at Pennsylvania State College, by R. W. Swift, J. W. Bratzler, and R. L. Cowan have indicated that sodium bisulfite addition to unwilted silage results in "very satisfactory silages."

The Penn State scientists advocate use of eight pounds of sodium bisulfite



CalSpray Opens Plant

Shirley Cecil (left) and Mildred Rowe greeted opening day guests of California Spray-Chemical at its new and enlarged San Jose, Calif., facilities. Color blow ups in the background featured CalSpray's new Orthocide, a captan-containing fungicide. Orthocide is one of many Ortho products which will be formulated at San Jose for central California farmers

On The Cover . . .

Trace Elements May Mean Health or Failure

THE FACT that certain minimum requirements of a number of nutritive elements must be met in the diet to produce either healthy plants or healthy animals is generally known. But the knowledge isn't always used in production. Some of those requirements have been emphasized so much that it probably is only carelessness that allows their neglect. Such may be the case of the pig with the curled foot, who didn't get enough calcium. However, certain elements are needed only in microgram quantities or traces and it is much easier for the farmer or feeder to rank their importance on the same relative scale. But it is easy to see more than a trace of harm has come to the cow that has failed to get a trace of cobalt. The hen with the slipped tendon only needed a trace of magnesium, but without it she's in bad shape—and her eggs will hatch poorly.

Trace elements are vital to plants as well. A direct comparison is made of two beet plants—one with and one without the needed trace of boron. The serious effects of absence of the necessary small amounts of zinc is clearly visible in the apple leaves across the bottom of the page.

The minor elements are required only in traces, but their importance, compared with that of nutrients is not related in magnitude to the requirements. It is absolute!