FEDERAL AND STATE REGULATIONS

Pesticidal-fertilizers problems for fertilizer makers and salesmen

MARYSVILLE, CALIF.—The addition of certain pesticides to fertilizers in order that a single application may be made to soil for the implied dual purpose allows the mixture to be classified as an economic poison as well as a fertilizer. In California (and many other states) this addition would require dual registration of the product under those two headings. Some of the problems that will occur if these materials reach the market were discussed by Allen B. Lemmon, chief, bureau of chemistry, State of California, at the First Annual California Fertilizer Conference May 7 and 8.

Labeling Problems

The problems to be expected were classified in four categories, first of which was proper labeling. The label must show an ingredient statement as an economic poison, in which case the fertilizing ingredients are usually considered as inert ingredients, and too, it must show proper guaranteed fertilizer analysis separate from the economic poisons ingredient statement. In addition, it must show proper directions for use and any necessary precautions required for proper handling of the economic poison.

Maintaining uniformity of product is a second major problem that can be expected. Fertilizer mixing equipment is not always suitable for adding small amounts of pesticides to a fertilizer mix, and if uniformity cannot be maintained, the fertilizer–economic poisons product may be unsatisfactory for this reason.

In many states there are many crops and many soil variations. In California there are no established uniform rates of application for fertilizers. In the case of a pesticidal-fertilizer, it is very difficult to prepare a mixture that will give the uniform application of an economic poison needed for pest control.

A fourth problem develops in distribution. Combination materials prepared for certain specific purposes must be kept separate and used only for those purposes.

The question of why objection is raised to claims for trace amounts of micronutrients in fertilizing materials also received some discussion. In California the law provides that the label must show the name and percentage of every constituent of agricultural value claimed to be in a product. Nitrogen, in its various forms, available phosphoric acid, and water-soluble potash, are the usual guarantees. Claims are also made for sulfur, gypsum, lime, or any other mineral substance of value in the case of agricultural minerals.

Commercial Fertilizers

When the minerals are in commercial fertilizers, they may be included on the labels as additional claims when the amounts present are worth claiming. Current regulations provide that claim may be made for chemically combined calcium, magnesium, and sulfur if the amount is not less than 1% in terms of the element in soluble form. Claim may also be made for chemically combined zinc, copper, manganese, and iron if the amount is not less than 0.1% in terms of the element in soluble form. These are not recommended amounts, but minimums established by regulations to prevent claims for trace amounts which in many cases are less than the amount already in the soil.

Sellers of natural deposits of some kinds have wondered why they are questioned when they distribute a complete analysis of an agricultural mineral, Mr. Lemmon pointed out. Such an analysis may include spectrographic determinations for various rare elements with a statement of a rather high percentage of silica. It is conceivable that a farmer shown such a purported analysis may be led to believe that the various constituents are of value and may buy the material in preference to another product for which a similar analysis is not provided. If such claims are made for an agricultural mineral or commercial fertilizer, attention is called to the misrepresentation and salesmen are instructed to discontinue distribution.

In California, fertilizing materials are divided into five classes. *Commercial fertilizers* are substances and mixtures of substances containing 5% or more of nitrogen, available phosphorus pentoxide, or potassium oxide soluble in distilled water. *Agricultural minerals* are mineral substances, mixtures of mineral substances, and mixtures of mineral and organic substances, containing less than 5% in available form of nitrogen, phosphorus pentoxide, or potassium oxide, singly, collectively, or in combination, except sand and soil. *Auxiliary plant chemicals* are substances such as hormones, auxins, and similar products intended to be used for influencing plants. *Manures* are the excreta of domestic animals. *Soil amendments* are all substances not included in the above four classifications and include hays, peat, and leaf mold.

Registration is required on the part of all firms manufacturing the first three fertilizing materials named. No specific requirements exist for the labeling of manures or soil amendments.

Allen B. Lemmon, Bureau of Chemistry, Sacramento, Calif. (left), discusses laws regulating sales of ag chemicals with William S. Stewart, Riverside Citrus Station