# Ag and Food Interprets . . .

- **FDA likely to benefit by new look at HEW**
- **Miller pesticide amendment deadlines extended**
- **Water weeds—extensive nuisance needs more control**
- **Tendency toward nitrogen discounts grows**
- **Amino acids, now in feeds, look toward foods**
- **Tin still holds important position in food cans**

HIDDEN BEHIND the headlines concerning polio vaccine are some other problems that the Department of Health, Education, and Welfare must face up to soon.

In the near future the department will have to make decisions on the following:

The future of the Food and Drug Administration, which has been groping along on a low budget for several years.

Chemicals in food legislation, now languishing in Congress.

Research policies of the department that have been taken to task by the Hoover Commission.

The resignation of Oveta Culp Hobby is bound to bring changes in the Department's policies. Marion B. Folsom, the new secretary, has an intimate knowledge of the chemical process industries (he is former treasurer of Eastman Kodak). He brings to the department a mixture of business "horse-sense" tempered with a feeling for social justice (he is one of the fathers of the Social Security system).

Some Washington observers believe that part of HEW's difficulties can be traced to bad public relations. Disputes and confusion over the handling of the polio program could have been eased by an aggressive leadership program, they feel. In addition, the department has not always had the best relations with Congress, which may have brought about some of HEW's financial problems.

Folsom has promised that he will follow

**Marion B. Folsom, new Secretary of HEW, will have to face many problems besides the polio vaccination program**

Mrs. Hobby's lead, for a while at least. The polio vaccination program will take up much of his time, but other pressing problems must be looked at.

### *FDA: More Help Needed*

One perennial problem is the Food and Drug Administration. Although FDA's workload has been increased tremendously, the agency has to get along on a budget only slightly higher than the total for 1938.

The Citizens Advisory Committee on the FDA, formed last year to evaluate the FDA's operations, frankly states that it is one of the weakest agencies in Government. Congress has looked the other way for the past 20 years when the FDA fund request came up. Actual reductions in personnel add up to 15% of the staff in the past four years.

This level of money and people has led to a skimming process in some of FDA's operations. The agency is charged with protecting the country's health and welfare. Translating this into everyday operations may be a tremendous task, however.

FDA traditionally has spent most of its time in the field of enforcement operations. This includes testing of food, drugs, and related materials to maintain standards set up under the Federal Food, Drug, and Cosmetic Act. In its early years FDA centered much of its activities in the food field, seeking to ferret out contamination and misrepresentation.

In the drug field, the early operations were restricted in part to testing nostrums and patent medicines which might violate government regulations. But the big workload in drugs commenced less than 20 years ago. Almost half the highly potent drugs used today were unknown then. The sulfa drugs came on the scene in the '30's, while antibiotics began to be used extensively a decade later.

The advent of antibiotics created particular problems for FDA. Under law, the agency must certify "all batches of drugs wholly or partly of any kind of certain specified antibiotics." These tests have been run prior to distribution, beginning in 1945 when the law was extended to include penicillin. Since then, the act has been further extended to streptomycin and certain of its derivatives, chlortetracycline (Aureomycin), chloramphenicol (Chloromycetin), bacitracin, and tetracycline.

Proposed chemicals in foods legislation may give FDA some additional headaches. In bills introduced before Congress this year, the FDA will participate in evaluation of new food additives in one way or another. Industry is supporting a proposal to inform FDA of test results on proposed additives, leaving any restrictive action to the courts. Other

proposals favor giving the agency power to license or ban additives.

FDA may be given a reprieve from such activities for another year. Congress has set up a target date for adjournment and consideration of chemicals in foods does not seem to be on the legislative horizon. Bills representing the opinions of a sizeable segment of the chemical industry have not yet been introduced. Protracted hearings probably will be held before any definitive legislation can be worked out.

### *Basic Research and the Hoover Report*

HEW is still smarting over some of the recommendations of the Commission on Organization of the Executive Branch of the Government, commonly known as the Hoover Commission. Reversing the trend of its former reports, the commission recommended that more money be spent for research and development in Government. The group singled out HEW for censure because it had not asked for enough money for basic research activities.

A backlog of 723 projects totaling about $7.4 million will not be undertaken by the National Institutes of Health this year because funds have not been requested. Failure to request enough money indicates a tendency to de-emphasize basic research. Such a policy could have a disastrous effect, the commission believes.

THE FOOD AND DRUG ADMINISTRATION has announced an extension of the deadline for establishing residue tolerances for a number of pesticides under the provisions of the Miller Amendment. Under the original law, signed by the President in 1954, crops in interstate commerce would be subject to seizure after July 22 if they contained residues of pesticides for which tolerances had not been established.

Government agencies were somewhat concerned over the small number of petitions for tolerances received up to June 1. As the deadline for petitions approached it became apparent to FDA and USDA that many manufacturers would not be able to have their applications for tolerances ready by July 22.

FDA and USDA estimated that about 60 chemicals registered under the federal insecticides act for food crops will require processing either for residue tolerances or for exemptions under the Miller Amendment. Only about 15 applications for tolerances were received by FDA up to the first week in June.

On June 10, FDA announced that manufacturers could request an extension of the deadline for specific chemicals. The requests for extension would have to be supported by evidence to indicate that the pesticides would not leave residues on commodities which would result in a public health hazard.

About 60 of these requests for extension were received by FDA. Under the regulations a manufacturer had to request an extension for any chemical for which a residue tolerance had not been established. In some cases the manufacturer may have submitted his data and request for a tolerance previous to the July 22 deadline, but if the FDA had not granted the tolerance the manufacturer then had to request an extension.

FDA had received 31 petitions for residue tolerances by July 22. Four of these petitions had been processed resulting in permanent tolerances for one chemical and temporary tolerances for three additional chemicals.

The relatively small number of tolerances established up to July 22 can best be explained by operating problems both in industry and Government agencies. Although many manufacturers had anticipated the residue toxicity problem for some time, it was only with the actual passage of the Miller amendment and the subsequent regulatory statements from FDA that the procedure for toler-

## By July 22, effective date for the Miller Amendment, FDA:

### Received—

**Petitions for residue tolerances for 31 pesticides**
***Requests for extension of the effective date of the law for about 60 chemicals***

### Granted—

**Permanent Tolerances for: captan**
**Temporary tolerances for three chemicals**
**Extensions of the effective date of the law for:**

Aramite
Acrylonitrile
Aldrin
Calcium cyanamide
Calcium cyanide
Carbon bisulfide
Carbon tetrachloride
Captan
Chlordane
Chlorobenzilate (ethyl-4,4′-dichlorobenzilate)
Chloropicrin
Copper carbonate, basic
DDT
Dieldrin
Endrin
EPN (*O*-ethyl-*O*-*p*-nitrophenyl benzene thiophosphonate)
Ethylene dibromide
Ethylene dichloride
Ferbam
Heptachlor
Hydrocyanic acid
Karathane (2,6-dinitro-6-capryl-phenyl crotonate)
Karmex DW (3-(3,4-dichloro-phenyl)-1,1-dimethyl urea)
Karmex W (3-(*p*-chloro-phenyl)-1,1-dimethyl urea)
Lindane
Malathion
Maleic hydrazide
Maneb
Methoxychlor
Methyl bromide
Ovotran (*p*-chlorophenyl *p*-chloro-benzene sulfonate)
Parathion
Phygon (2,3-dichloro-1,4-naphtho-quinone)
Piperonyl butoxide
Potassium cyanate
Sodium orthophenylphenate tetrahydrate
Sulfoxide (*n*-octylsulfoxide of isosafrole)
Sulphenone (parachlorophenyl phenyl sulfone)
Systox (β-ethyl merceptoethyl diethylthionophosphate)
TDE
Toxaphene
Trichloroethane
Zineb
Ziram

### Planned—

**To publish decisions on the remainder of extensions by end of July**
**To announce two more permanent tolerences soon**

ances could be spelled out. The tolerance petitions from industry are based on scientific evidence and in many cases manufacturers found that they were in need of additional scientific data to support their petitions to FDA. Some manufacturers have probably not yet completed processing their scientific data for presentation to FDA. In addition to the problem of accumulation of scientific evidence there has been the normal, or natural, problem associated with any new government-industry project: how is it going to work? The forms and procedures for filing petitions had to be worked out, and it required a certain amount of "shaking down" for a routine to be established.

Certification of usefulness, responsibility of USDA, has not proved to be difficult. USDA has generally been able to certify the usefulness of a specific chemical based on evidence presented for registration under the Federal Insecticide, Fungicide, and Rodenticide act. The FDA on the other hand has had the fundamental problem of determining whether or not the tolerance proposed by the manufacturer reasonably reflects the amount of residue likely to result from the proposed use of the chemical.

In many cases there has not been sufficient residue data on a particular crop use to serve as a sound basis for quantitative estimates of the amounts likely to be encountered. Where there is no data on the amount of residue likely on a particular crop, results on other crops of the same family can sometimes be transferred to related crops.

There has, apparently, been a certain amount of shifting and modification in the requirements regarding residue data on the tolerance petitions. Originally FDA wanted experimental data on residues resulting on crops grown under different climatic conditions, however in cases where manufacturers have been unable to supply experimental data they have interpolated results from one region to predict climatic differences in residue.

Another problem has been the tendency of manufacturers to propose tolerances on the basis of comparative toxicology—petitioners have asked for a tolerance based on that previously established for a chemical with the same order of toxicity, with no consideration of differences of application rates or residues likely to result.

Another problem but perhaps not completely understood is that the FDA by the tolerance procedure is, in effect, certifying that pesticides are safe for use on food. The fundamental responsibility of FDA is to the consumer of the agricultural commodity. But residue tolerances could also serve as a useful evidence for the pesticides industry to rebut those who claim it is poisoning our food.

Continuous drainage of fields is necessary on many farms. Ditches are often choked with cattails, which catch debris, impeding drainage. Formerly, ditch would have to be re-excavated, at great expense, leaving banks of mud

# Water Weeds

## Costly problem over large areas has had relatively minor attention. New products now appearing, but many answers remain to be found

AQUATIC WEEDS, expensive nuisances, have been plaguing the coastal and irrigated areas of the country so long they are accepted in some quarters as a problem that has to be lived with. But chemical control is possible and is in use. Producers of agricultural chemicals are becoming much more visibly aware of the potential rewards lying in the bullrushes.

Expense to irrigation farming appears to be the biggest area of loss. Some years ago the Bureau of Reclamation estimated the annual losses in the 17 western states at $25 million. Weeds not only prevent proper quantities of water from reaching the crops, but they can seriously disrupt drainage systems, collect silt, increase evaporation losses, and, by raising the water level, markedly accelerate water losses by overflow and seepage.

In the Gulf and Atlantic Coast states, especially Louisiana and Florida, water hyacinth is the predominating nuisance, particularly in water control canals and in navigation channels, where weeds can reduce flow capacities by as much as 50%. Stagnation of water is increased, and swimming, fishing, and boating are obstructed if not completely prevented.

### *Varieties Complicate Problem*

The problem of aquatic weed control is complicated by the fact that the weeds fall into several categories, each of which may require special methods of handling. One variety consists of submersed or submerged weeds (coontail, naiad, pondweed) which grow entirely under water. Another type includes the emergent or emersed weeds (cattail, water sedge, alligator weed) which although rooted in the soil, extend above the water's surface. The surface or floating aquatics (water hyacinth, water primrose, water lettuce) that move about freely with the surface currents comprise a third type. Also widely prevalent are ditchbank weeds (cotton wood, Johnson grass, water hemlock) that grow rife along the edges of the water.

Control of submersed weeds can be a ticklish problem since it may involve injecting a chemical into a large volume of water, where its effectiveness may depend on the turbulence and velocity of the water, its temperature, salt content, and other factors. And the possibility that the weed killer may be hazardous to fish, wild life, or farm crops must be considered.

One of the most widely employed agents in the control of submersed weeds is aromatic solvent mixtures, often containing a high percentage of methylated benzenes in addition to an emulsifier. The fish problem is distinctly secondary