markets. A promising new outlet, Walsh reemphasized, exists in the use of fats as an additive to animal feeds.

The export market today is taking unprecedented quantities of tallow and greases, nearly half of the total output, he cautioned.

But who can tell how well or how long export outlets will hold up, and when we shall be confronted with an immediate need for a substantial expansion in domestic usage, to be attained without too great a drop in price, he asked.

# Grassland Acres in the South Double in 25-Year Period

JACKSONVILLE, FLA.—Acreage devoted to pasture and hay in the nine southern states east of Texas has more than doubled since 1925. In that year more than 31 million acres were devoted to hay and pasture; by 1950 almost 65 million acres were in hay and pasture. During the same period, acreage in corn and cotton dropped from 36.7 million to 27.7 million acres. These figures were given by T. S. Buie, South Carolina State conservationist, before the Soil Conservation Society here Nov. 15 to 17.

The greatest increase in pasture occurred between 1946 and 1950, when the tremendous increase in demand for livestock products, generated by the war, began to be felt. Reviewing the history of grassland development in the South, he said that the movement started in the 20's, probably because of the labor shortage immediately after World War II. Other factors were the decline in cotton prices at that time and the destructive spread of the boll weevil throughout the cotton territory. The trend did not advance far during the 30's but it picked up speed again during World War II.

Three types of southern farm land are being turned over to grassland. A substantial acreage of row crops has been directly replaced by grass for hay, pasture, and seed. Thousands of acres, idle for many years because of severe soil erosion, lack of labor, the low price of cotton, or a combination of these, are now being planted in grass. Bottom land, found along streams in the hilly portions of South, is being cleared and used for pasture and hay.

Responsible for the growth of grass land farming in the South are several technical developments: breeding of varieties adapted to the soil and climatic conditions of the south, mechanization, and fertilizer.

Of approximately 40 different species of grass in more or less general use now, approximately half of these were unknown, at least in the areas where they are now extensively grown, 20 years ago.

Many new problems have arisen because of the development of grassland agriculture, such as control of disease and insects, application of fertilizer, weed control, and adaptation of equipment.

Dr. Buie stated that grassland agriculture cannot be expected to replace cotton throughout the South, but the two, he believes, will fit together in a complementary relationship based on ecomomic conditions, land capability, farmer desires and abilities, and related factors.

#### Entomologist Believes Miller Bill Can Curb "Malicious Rumors"

New legislation should go a long way toward curbing "malicious rumors" that the public is being poisoned by agricultural chemicals. Bailey B. Pepper, chairman of the department of entomology at Rutgers University, made this assertion at the annual Rutgers conference for pesticide dealers.

He spoke particularly of the announced proposed tolerances in the Federal Register on Oct. 20. "The fact that the proposed tolerances have been announced probably means," Dr. Pepper said, "that the Food and Drug Administration will be active in 1955, checking on farm products in interstate commerce to determine whether growers are abiding by established tolerances."

"That being the case, it would seem to me that it is the responsibility of the extension specialist and the research specialist to make every effort to help the grower get satisfactory pest control and yet not permit sprayed or dusted crops to exceed the established tolerances of chemical residue at harvest.

"For the most part, it is believed that established tolerances will not work a particular hardship on the grower. At the same time the grower now has the advantage of knowing what limits of residue levels are permitted. In past years, without tolerances, he could not be sure that his product could go to market and not be questioned or seized."

Besides curbing malicious rumors about chemicals, establishment of tolerances should convey to the public, Dr. Pepper concluded, that any of the agricultural chemicals used within certain limits do not adversely affect the health and well-being of the public.

#### Industry

### FMC'S Buffalo Electro-Chemical Becomes Becco Chemical Div.

Food Machinery & Chemical Corp. has announced that on Jan. 1, its subsidiary, Buffalo Electro-Chemical Co., Inc., will be merged with the parent corporation and thereafter will operate as its Becco Chemical Division. The announcement was made by Ernest Hart, FMC executive vice president in charge of chemical divisions.

Buffalo Electro-Chemical, producer of hydrogen peroxide and other active oxygen compounds, was acquired by FMC in 1951 to complement the corporation's operations in diversified industrial chemicals. Sold under the trademark, Becco, the company's peroxygen chemicals are produced at its headquarters plant in Buffalo and its West Coast facilities in Vancouver, Wash.

### Sorbic Acid Unit to Be Built by Carbide & Carbon

A sorbic acid production unit, designed to meet the expanding demand for sorbic acid as a mold inhibitor in foods, has been authorized and construction is already under way at South Charleston, W. Va., according to an announcement from Carbide & Carbon Chemicals. The unit is scheduled for completion in the spring of 1955.

Demand for sorbic acid exceeds production capacity of the present pilot plant and requires construction of the larger facility. If yields can be improved in the new large unit, lower selling prices should be possible, the company stated.

To market sorbic acid, Carbide & Carbon has arranged for a non-exclusive license under The Best Foods, Inc., patent relating to the use of sorbic acid for control of mold growth. This arrangement permits the company to grant sublicenses to its sorbic acid customers under the patent, (U.S. 2,379,294). Royalties are included in the price of sorbic acid.

Sorbic acid has proved to be an effective antimycotic for certain cheese and cheese products. It is estimated that an annual loss of more than 10 million pounds of cheese due to mold spoilage can be avoided through the use of sorbic acid as a mold inhibitor. Reports indicate that the use of sorbic acid in the concentrations necessary for mold control does not affect flavor, odor, or color.

Temporary permits have been granted by the Food and Drug Administration to a number of cheese manufacturers to use sorbic acid in certain standardized cheeses, pending action on a petition to amend certain cheese standards to include sorbic acid as an optional ingredient.

Experimental work shows that addition of 0.1% of sorbic acid to commercial chocolate sirup gives complete control of mold for more than 10 weeks, whereas untreated chocolate sirup became moldy in a few days under the conditions. Sorbic acid may also be investigated as a mold inhibitor for fountain sirups, soft drink concentrates, maple sirup, and other products. Sorbic acid has proved a good mold inhibitor for bread, cakes, and packaged rolls and is also being tested for preventing spoilage of fresh fruits and vegetables, and a variety of other food products.

### Thomas Shareholders Approve Sale of Company to Pennsalt

Stockholders of I. P. Thomas & Son Co. of Camden, N. J., on Nov. 22 approved a plan under which the Pennsylvania Salt Mfg. Co. will acquire Thomas assets in exchange for 18,851 shares of Pennsalt common stock. This announcement was made by J. S. Coale, board chairman of the Thomas Company, who stated that his company will become an operating division of Pennsalt Chemicals on or before March 31, 1955

An 86-year-old producer of commercial fertilizers, phosphoric and sulfuric acids, and a water conditioning agent, the Thomas division will further diversify Pennsalt's industrial chemicals line and provide basic materials required in the company's chemical specialties production.

Present facilities of the Thomas company include a well-equipped plant and central warehouse in Paulsboro, N. J., and distribution centers elsewhere in New Jersey, New York, Pennsylvania, and Delaware.

#### Six Win Scholarships in Hercules-Sponsored Entomology Contest

Six members of the 4-H club have won \$300 college scholarships in the National 4-H Entomology Awards program sponsored by Hercules Powder. This is the third year of competition in the program.

The six winners were: Edwin Jones, Laveen, Ariz.; Barbara Ristow, Indianapolis, Ind.; Louise Ottaway, Viola, Kans.; Brenda Adams, Stillwater, Okla.; Judith Gates, Hillsboro, Oreg.; and David Anderson, LaFayette, R.I.

In addition to winning scholarships the six National winners, and six other Sectional winners, received trips to the National 4-H Club Congress in Chicago. In addition to awards for Sectional and National winners, County winners received gold-filled medals and State winners received wrist watches.

The purpose of the Entomology Awards Program is to help 4-H Club boys and girls: learn about insect life and the relation of insects to the health, wealth, and happiness of man; learn to recognize the major insect pests and beneficial insects common to the area where the club member lives; understand the fundamentals of insect control by carrying on some control practice; learn about insecticides—the kinds, their specific uses, and safety practices to be followed; support community projects and activities relating to insect control.

#### Huron Milling Names Sales Representatives for MSG, HVP

Huron Milling Co. has announced appointment of two sales representatives to handle its specialty products, monosodium glutamate and hydrolyzed vegetable protein.

Associated Brokers, Inc., 5020 Roosevelt St., Duluth, Minn., will service food manufacturers and processors in the Minnesota counties of St. Louis, Carlton, and Lake Itasca.

Phillips Brokerage Co., Birmingham, Ala., will service the food specialty business, canning industry, and meat packers in the entire state of Alabama with Huron products.

#### **Dow Acquires Versenes**

Dow Chemical has announced that it has purchased all of the outstanding stock of Versenes, Inc., a producer of chelating compounds used to furnish trace elements to growing plants. Versenes, formerly known as Bersworth Chemical Co., also produces chelating agents for use in detergent, soap, textile, metal, rubber, pharmaceutical, and petroleum industries.

F. C. Bersworth, president of the Versene company, will become a Dow, research consultant, and Frank Kottek Versenes treasurer and general manager, will continue as production manager at Framingham, Mass., where the company's manufacturing facilities are located.

## FMC Realigns San Jose Research Organization

Food Machinery & Chemical is realigning certain research activities formerly performed by the company's central research department in San Jose, Calif.

Coincidental with the completion of special chemical research projects for the Department of Defense, the San Jose research group's chemical activities has been transferred to the laboratories of its chemical divisions. The administrative offices of this group of divisions is in New York City.

Most of the qualified key personnel previously engaged in chemical research at San Jose under Government defense contracts are being transferred to the research groups of FMC's Chemical Divisions.

Segments of the central research department engaged in research work other than chemicals also have been aligned with appropriate FMC manufacturing operations.

The reorganization embraces a total of approximately 30 employees.

#### Research

#### Captan Gives 30% Yields Increase in Rutgers Tests

Captan, a fungicide developed at Rutgers by Robert H. Daines, proved unusually effective this past season, Dr. Daines reported at the recent meeting of pesticide dealers at Rutgers. A 30% better yield of apples was obtained from young, just-bearing trees of the Stayman variety. This comparison was made with trees sprayed with Ferbam.

In one particular block of young trees, those sprayed with Ferbam yielded at the rate of 4.4 bushels an acre, while those sprayed with captan yielded 11.1 bushels, according to Dr. Daines.

Captan has shown good eradicant action against apple scab when used within 18 hours of the beginning of an infection period. It is effective also, Dr. Daines said, against frog eye leaf spot, Brooks' fruit spot, bitter rot, calyx end rot, black rot, black spot on the fruit, and Botrytis nest rot in storage.

Captan was developed at Rutgers under the laboratory code number SR-406.

It produced fruit with excellent finish, russeting having been less on Captansprayed fruit than on fruit sprayed with other products.

#### Drummond Fellowship to Be Awarded Early Next Year

The Drummond Trust has announced that applications for the Drummond Fellowship for Research in Nutrition will be considered next March by the managing trustees.

The fellowship, to be tenable for two years at any research institute in Britain or overseas, will provide £900 a year, to which may be added a grant for expenses of research not exceeding £50 a year. Up to £90 may be paid for superannuation.