

# Business Newsletter . . .

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## STILBESTROL IN POULTRY MAY BE BANNED

FDA is starting proceedings to ban use of stilbestrol for fattening poultry. The grounds: diethylstilbestrol has been found to cause cancer in test animals when fed over a long period of time; residues of stilbestrol, 20 to 30 p.p.b. in the liver and 35 to 100 p.p.b. in the skin fat, have been found in treated poultry. Until the ban goes into effect, manufacturers of stilbestrol have voluntarily agreed not to sell it for use in poultry, and hormone-treated poultry will be voluntarily removed from the market. Only about 1% of the total poultry supply is affected, and USDA will buy that. Stilbestrol is still approved for use on cattle and sheep, although last May's freeze (Ag and Food, July 1959, page 455) against new producers, new formulations, and new customers remains in effect. With tests sensitive at levels as low as 2 p.p.b., chemists have not been able to find residues of stilbestrol in beef or mutton from hormone-treated animals. Stilbestrol case finds FDA in a legal tangle that involves FDA's prior sanction of stilbestrol as a new drug application (thus shifting to FDA the burden of proving it harmful), and passage of the Food Additives Amendment with its grandfather clause and its Delaney anticancer clause. Secretary of Health, Education, and Welfare Flemming says he is "thinking" of asking Congress to change the Delaney clause so that in cases of this type FDA would not have the burden of proof, and that use of a cancer-inducer could be permitted if such use leaves no detectable residue of the cancer-inducer in food.

## WESTERN EXPANSION

Hercules will make urea-form fertilizer at its Hercules, Calif., plant, according to plans for a multimillion-dollar expansion there. Also included in the expansion are facilities for methanol, formaldehyde, and urea-formaldehyde concentrates. Present plant at Hercules makes anhydrous ammonia, nitric acid, ammonium nitrate solutions, grained ammonium nitrate, urea, urea-ammonium nitrate solutions, and nitrogen tetroxide. Urea-formaldehyde facilities will be ready by the middle of next year; methanol and formaldehyde units will be finished early in 1961.

Stauffer will build a new agricultural chemicals plant at Richmond, Calif., thereby doubling its capacity to produce for the northern California market. When finished in February, it will replace facilities at Berkeley. Also to go up at Richmond is a major research center on a 10-acre tract adjacent to existing research facilities there. Construction of the first unit of the research center will begin in January and be completed early in 1961. First unit will include administrative offices, 20 labs for basic and applications research, library, auditorium, units for bench-scale process development, and usual service facilities.

Dow plans a 36-million-pound-per-year phenol plant for the Pacific Northwest. Exact location has not yet been selected, but it will be on deep water at Puget Sound, or Longview, Wash., or in Portland, Ore. Phenol plant will be first step in an integrated chemical and plastics manufacturing operation in the Northwest.

## MIDWESTERN EXPANSION

American Agricultural Chemical's new fertilizer plant at Johnson Creek, Wis., is operating. It has facilities for handling and storing Agrico's complete line of farm, turf, and garden fertilizers. Until

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the new plant was built, Agrico served its Wisconsin customers from plants at East St. Louis and Fulton, Ill. Location of the plant was selected to take advantage of the state's highway network and of truckers' back-hauls from Milwaukee and Chicago.

Abbott Laboratories has bought 80 more acres of land adjacent to its 220-acre research farm south of Mundelein, Ill. During this past year, two large cattle feeder barns, four buildings for nutritional and health studies of livestock and poultry, a large implement shed, and additional grain storage facilities were completed at the farm. Another building was remodeled into a veterinary study center. Farm can now handle 300 head of cattle, 6500 chickens, and 300 swine. Crop land is used to grow corn, oats, and hay. Present studies at the farm are concerned with growth stimulants, hormones, anti-infectives, tranquilizers, and animal feed nutrients.

Niagara Chemicals will have a production facility for a wide range of pesticides ready for operation in March at South Haven, Mich. It will be located in an existing building, part of which has been used for the past two years as a Niagara warehouse. New facility will blend dust formulations for customers in western Michigan, and parts of Ohio and eastern Michigan. Company expects to be able to custom-blend formulations to meet sudden infestations.

#### SULFURIC ACID PLANT FOR DAVISON

Davison Chemical has awarded the contract for a new sulfuric acid plant at Bartow, Fla., to Leonard Construction Co. Of the Monsanto contact sulfuric acid type, it will have an initial rated capacity of 400 tons per day, with built-in facilities for expansion. Acid is to be used by Davison in its fertilizer production. Completion is scheduled for next August. Cost was not disclosed.

#### 182 CHEMICALS DECLARED SAFE FOR FOOD USE

FDA has declared 182 chemicals safe for use in food.

These chemicals can be used in food without obtaining prior approval from FDA, and are not subject to the Food Additives Amendment. On the list are chemical preservatives, buffers and neutralizing agents, emulsifying agents, nonnutritive sweeteners, nutrients, sequestrants, stabilizers, and some miscellaneous items. The list was prepared from a list of 188 that was sent to 900 qualified experts last December for comment. The six not included on the final list are: carbon black, charcoal, titanium dioxide, ultramarine blue, oleic and linoleic acids.

#### MEETINGS

National Canners' Association, Miami Beach, Fla., Jan. 18-20.

Northwest Agricultural Chemicals Conference, Benson Hotel, Portland, Ore., Jan. 20-21.

Southern Weed Conference, Buena Vista Hotel, Biloxi, Miss., Jan. 20-22.

Fertilizer Sales Promotion Workshop, Hotel Hershey, Hershey, Pa., Jan. 21.

Symposium on the Chemistry of Phosphate-Soil Reactions, Muscle Shoals, Ala., Jan. 27, 28, and 29.

Weed Society of America, Cosmopolitan Hotel, Denver, Colo., Feb. 22-25.

# Research Newsletter . . .

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## ESSENTIAL OILS AS FUNGICIDES?

Further evidence of garlic's power against plant fungus diseases comes from Jasper C. Maruzella and Jerry Balter, Long Island University (Plant Disease Reporter, Nov. 15 issue). Their report concerns oil of garlic; earlier work (Ag and Food, April 1959, page 231) concerned juice from garlic cloves and aqueous extracts of garlic powder. Of 119 essential oils tested in vitro against 12 phytopathogenic fungi, the oils of garlic, onion, thyme white, thyme red, origanum, bay, lemon-grass, sweet birch, and Bois de Rose were found to produce the most activity. There is a suggestion that small amounts of essential oils may enhance the effectiveness of fungicidal sprays.

## HERBICIDE SOUGHT FOR FALLOWING

A highly efficient herbicide with no hold-over toxic effect on crops is necessary before chemical fallowing can become a dryland farming practice in the Great Plains, reports USDA. In Texas tests, chemical fallowing left more plant residue for ground cover than ordinary fallow methods, thus aiding in reducing soil loss by wind erosion. The 2,4-D ester (1 lb. per acre) controlled broadleaved weeds, but not grasses. Because of incomplete weed control, chemical fallow generally resulted in less moisture storage during the fallow period than was provided by subsurface tillage. Scientists believe that if adequate chemical weed control can be accomplished, moisture storage in the soil and crop yields may be comparable to those obtained with usual dryland fallowing practices.

## INSECTS' "ANTIFREEZE"

A University of Minnesota team of biochemists has found that carpenter ants generate glycerol within their bodies whenever temperatures drop below a certain point. This may explain why those insects, and perhaps corn borers, can survive winter. In summer, researchers found no glycerol in the insects' bodies. Also, after bringing dormant larvae, which contained glycerol, slowly to room temperature, they found the larvae contained no glycerol three days later. If a way is found to stop glycerol formation or prevent its accumulation in the insect body, a new type of insecticide could result.

## ANTIBIOTIC FOR SILAGE PRESERVATION

Zinc bacitracin may give a summer-like quality to winter stock feed, according to L. L. Rusoff of Louisiana State University. He says it checks growth of undesirable bacteria, increases the flavor appeal of silage, and imparts good quality, odor, and acidity, with promise of reasonable economy. No special equipment is necessary for its application. The antibiotic apparently works by inhibiting the protein splitting bacteria and favoring the lactic-acid producing bacteria, whereas preservatives such as sodium bisulfite and molasses ward off spoilage by promoting growth of acid-forming bacteria. Dr. Rusoff said the antibiotic did not affect milk flavor or quality in a 63-day trial.



- Herbicide structure and activity studied by measuring inhibition of photolytic activity of isolated chloroplasts (page 832).
- Coupling of protein hydrolyzates with 2-(2,4-DP) may provide low-volatile amide herbicides (page 837).
- New plant growth regulators that exude from the roots (page 841).