

Business Newsletter . . .

EXPANSIONS

Bunker Hill Co. has contracted with Dorr-Oliver for preliminary engineering, process design, and layout of its proposed plant at Kellogg, Idaho. Among facilities called for are two silos for phosphate rock storage, a phosphoric acid plant, ammonium phosphate and triple super plants, warehouse, labs, and office space.

Agriform Co. of Northern California recently opened a liquid fertilizer mixing plant at Fallon, Nev. Aqua ammonia, nitrogen-phosphate combinations, and other mixtures are to be produced there.

A synthetic ammonia plant went on stream last month in Peru, that nation's first. The \$10-million plant, at Callao, was built by Montecatini, uses a Fauser-Montecatini process, and is operated by Fertilizantes Sinteticos, S. A. It can produce annually 20,000 metric tons of anhydrous ammonia, 54,000 metric tons of nitric acid, 35,000 metric tons of ammonium nitrate, and 7500 metric tons of ammonium sulfate. Ammonium nitrate will be prilled by a granulating device based on revolving disks, a technique used by European pharmaceutical and candy manufacturers. (For more on other overseas nitrogen plants being built, see page 306.)

Hooker Chemical has formed a Mexican affiliate, Hooker Mexicana, S. A., which will manufacture and sell phosphates in Mexico. Hooker did not specify intended end uses or major markets at which it will aim.

PRODUCT MARKETING

Calspray and Stauffer are starting to sell Phaltan (N-trichloromethylthiophthalimide), new fungicide that is a chemical kin of captan. It is now registered for some uses on ornamentals, potatoes, and citrus. Calspray says it is particularly effective against black spot and powdery mildew on roses, leaf spot on chrysanthemums, early and late blight on potatoes, and citrus scab and melanose on citrus. It also indicates potential for various diseases of cherries, strawberries, grapes, apples, carnations, cucurbits, and tomatoes. In some cases, Phaltan is about equal in effectiveness to captan or zineb, but it may be superior to them in sticking quality.

A horticultural variation of Dri-Die (Davison's silica gel insecticide) is being readied for extensive trial this season. Company has an experimental label registration from USDA. Horticultural product, Dri-Die 91, contains silica gel and magnesium fluosilicate; Dri-Die 67, which already has permanent registration, is silica gel and ammonium fluosilicate. So far, Dri-Die 91 has been tested primarily against spider mites on roses under greenhouse conditions.

Monsanto will try limited marketing of a granular formulation of Randox herbicide this summer. Illinois growers, who use Randox for control of annual grasses and broadleaf weeds in corn and soybeans, will be among the first approached.

Climax Molybdenum will sell its Moly-Gro molybdenum seed treatment in 12 more states this spring. Originally, plans had called for selling it only in five states. The list now includes: Washington, Idaho, the Dakotas, the Carolinas, New York, New Jersey, Wisconsin, Minnesota, Iowa, Nebraska, Missouri, Georgia, Tennessee, and Alabama.

Montrose Chemical Corp. of California has a contract with UNICEF for 4 million pounds of 75% wettable DDT. About \$1,250,000 is involved.

USDA announces it will give Sevin insecticide (Union Carbide) a tryout against the gypsy moth on about 75,000 acres of woodland in New York this summer. Exact locations of the field-scale demonstrations have not yet been selected. Sevin was chosen, says USDA, because it has shown very low toxicity to man, warmblooded animals, fish, and aquatic insect life. Although DDT has proved to be safe when applied according to recommended procedures, stresses USDA, some other insecticide such as Sevin may prove preferable where a long-lasting residue is not required.

Allied's Nitrogen Division is adding a little color to fertilizer solutions. Its Urans (urea-ammonium nitrate solutions) now have a golden color; products will now be called Golden Urans.

TOLERANCES

Fairfield Chemicals has asked FDA for a tolerance of 1.0 p.p.m. of piperonyl butoxide and 0.1 p.p.m. of pyrethrins in or on whole cheese as a protectant against the cheese mite. For the outer $\frac{1}{8}$ inch of the whole cheese, a tolerance of 50 p.p.m. of piperonyl butoxide and 5.0 p.p.m. of pyrethrins has been suggested.

FDA has cleared use of Stilbosol in feeds in levels up to 20 mg. per pound of protein supplement in the feed. Eli Lilly says this clearance will provide the recommended 10 mg. of stilbestrol daily in as little as 0.5 pounds of supplement. Two restrictions are attached to the clearance, however: supplements with more than 10 mg. of stilbestrol per pound must be mixed with grains or roughage before use; and feed manufacturers must run assays on each batch of supplement containing over 10 mg. of stilbestrol per pound. New clearance means feedlot operators and others who wish to use supplements containing more than 10 mg. per pound will no longer have to file applications with FDA.

AGRICO SPLITTING STOCK

American Agricultural Chemical Co. is planning a three-for-one stock split. Stockholders voted on the proposal late last month. May 5 is the effective date. After the split, Agrico plans to raise another \$7 million in equity by offering additional shares of common stock.

LYSINE DEVELOPMENTS

Merck has its new lysine amino acid plant at Elkton, Va., on stream. Plant uses a one-step fermentation process developed in Japan. Lysine can also be produced by extraction from natural sources, by two-stage fermentation, and by synthesis. Until now, Merck's lysine was produced by extraction. Merck lowered lysine's price from \$8.00 a pound to \$6.00.

Du Pont, which produces lysine synthetically, also reduced its price to \$6.00, as did General Mills and Pfizer. Du Pont makes only pilot plant quantities of lysine. (For more on amino acids, see page 316.)

DIALDEHYDE STARCH

Abbott Laboratories reveals it is making major plans to produce dialdehyde starch, an organic chemical made from corn. It has potential use in such diversified materials as plastics and polymers, leather tanning agents, coatings, binders, thickening agents, adhesives, and oil-well drilling muds. It also has possibilities as an organic raw material. USDA's Northern Utilization Research Branch at Peoria, Ill.,

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developed the first commercial method for making it, but Abbott's research staff worked on the process for over a year to refine it still further. Quantities of dialdehyde starch for testing are available.

TVA REORGANIZES FERTILIZER RESEARCH

TVA has reorganized its fertilizer research and development activities into four branches--fundamental research, applied research, process engineering, and design. Fundamental research, headed by Kelly L. Elmore, will tackle long range chemical problems related to behavior of fertilizers in soils. Travis P. Hignett will be in charge of applied research branch, concerned with chemical and small-scale engineering studies to define, develop, and evaluate new fertilizer processes, and promote their commercial use. Process engineering, headed by Alvin B. Phillips, will design and operate pilot plants for new processes, and obtain data for design of demonstration and large-scale plants. Process engineering will also produce new fertilizers in sufficient quantities for field testing. Design branch, unaffected by reorganization, is headed by James Cox. In addition, TVA has established the position of staff chemical engineer and appointed M. M. Striplin, Jr., to the post. He will advise the manager of chemical engineering and the director of chemical development, and assist in promoting use of TVA developments.

NATA SURVEYING AERIAL APPLICATORS

National Aviation Trades Association is surveying its aerial applicator members on their 1958 operations--chemicals used, equipment, finances, employment, insurance, and related matters. The new Federal Aviation Agency does not plan to continue the annual work survey formerly made each year by the old Civil Aeronautics Administration, and NATA has stepped in to fill the void. Results will be out this month.

LICENSING OPPOSED

California's legislature has before it a proposal for state examination and licensing of agricultural chemical salesmen. Industry representatives oppose the legislation and are proposing an educational program for dealers, salesmen, farm advisors, and farmers on the hazards and proper use of agricultural chemicals. Among organizations opposed to the legislation are the National and Western Agricultural Chemicals Associations, National Plant Food Institute, California Fertilizer Association, and the State Department of Agriculture. Favoring the legislation is the Agricultural Aircraft Association.

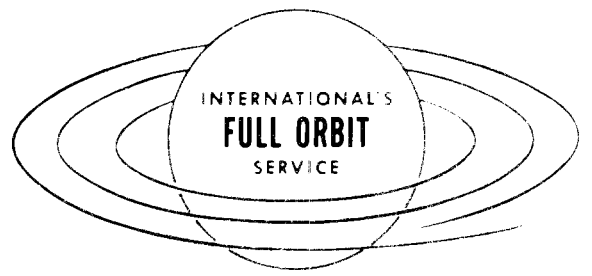
MEETINGS

Conference on Use of Serpasil, a Tranquilizing Agent, in Poultry and Animal Production, Rutgers University, May 7.

Pilot Plant Demonstration, Tennessee Valley Authority, Muscle Shoals, Ala., June 9, 10, and 11.

- Miller Amendment and development of resistant strains give new impetus to microorganisms that cause disease in insects (page 302).
- On a few crops, growers can control quality as well as quantity of yield, but for most crops, more research is needed (page 305).
- Underdeveloped countries pushing fertilizer plant construction (page 306).
- Chemicals getting the nod for roadside maintenance as cost savers (page 307).

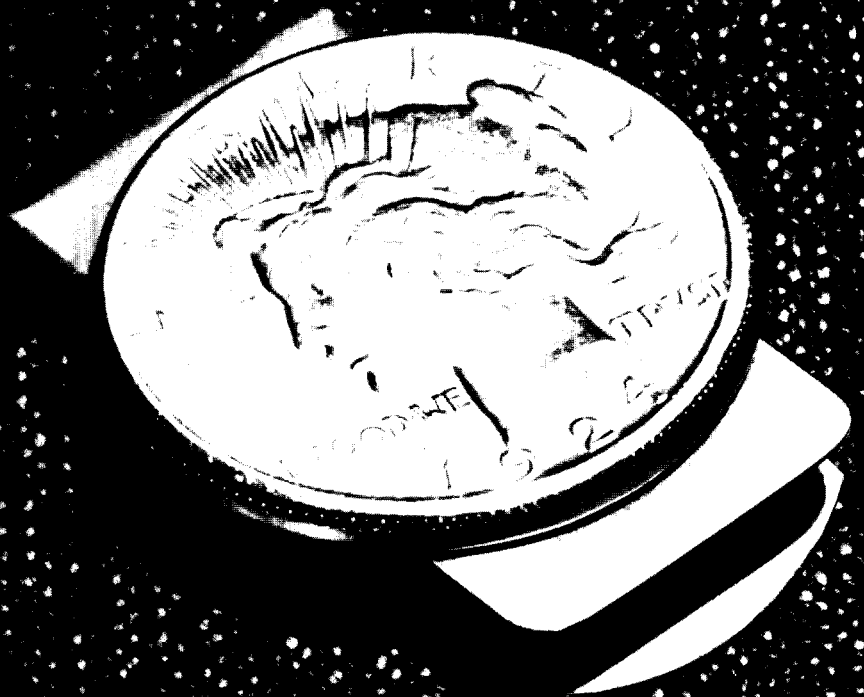
A graphic consisting of a dark, textured circular shape with the word "Spotlight" written in a white, cursive font across it.



*Setting New Standards
of Quality Control*

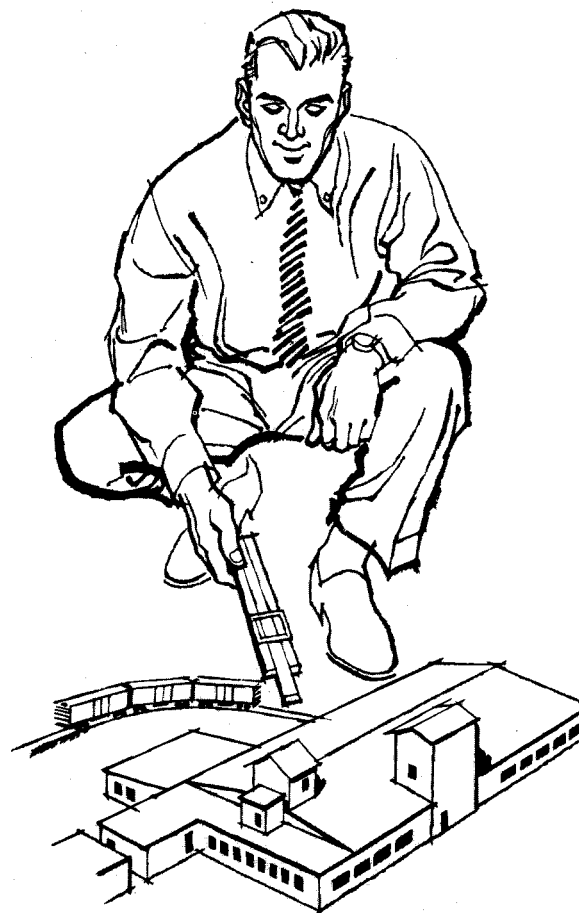
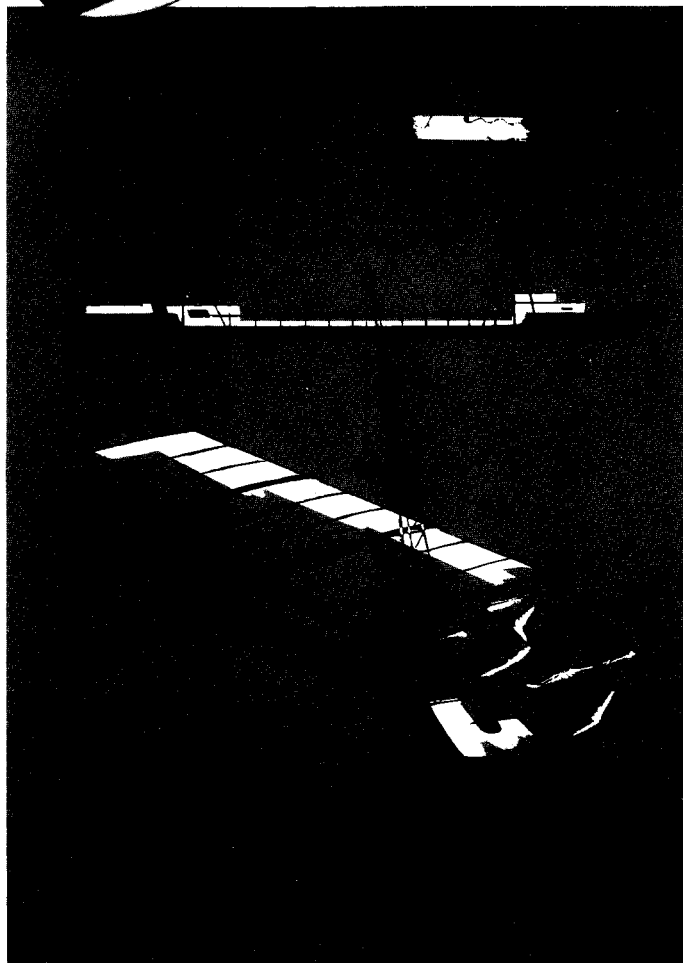
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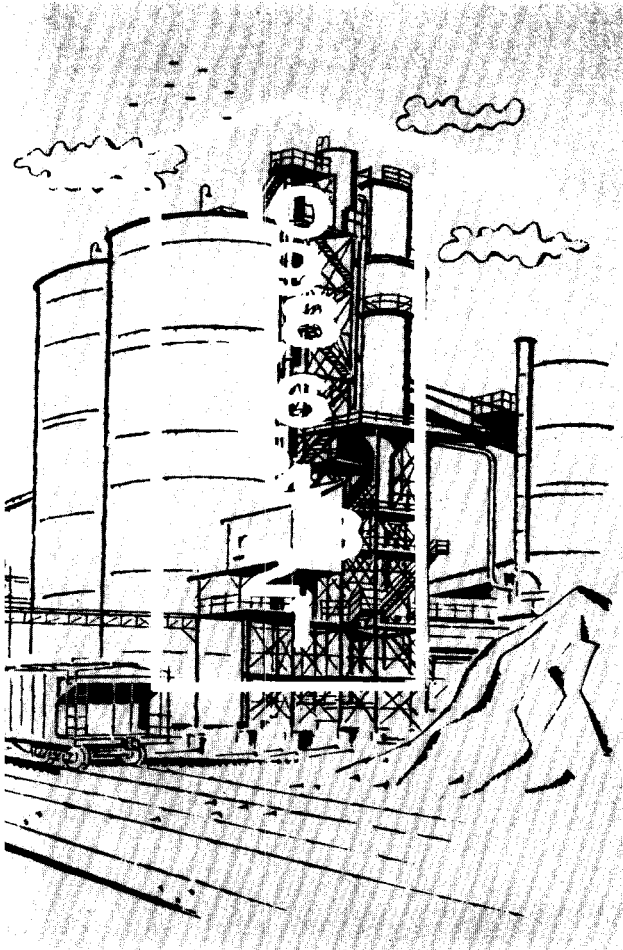
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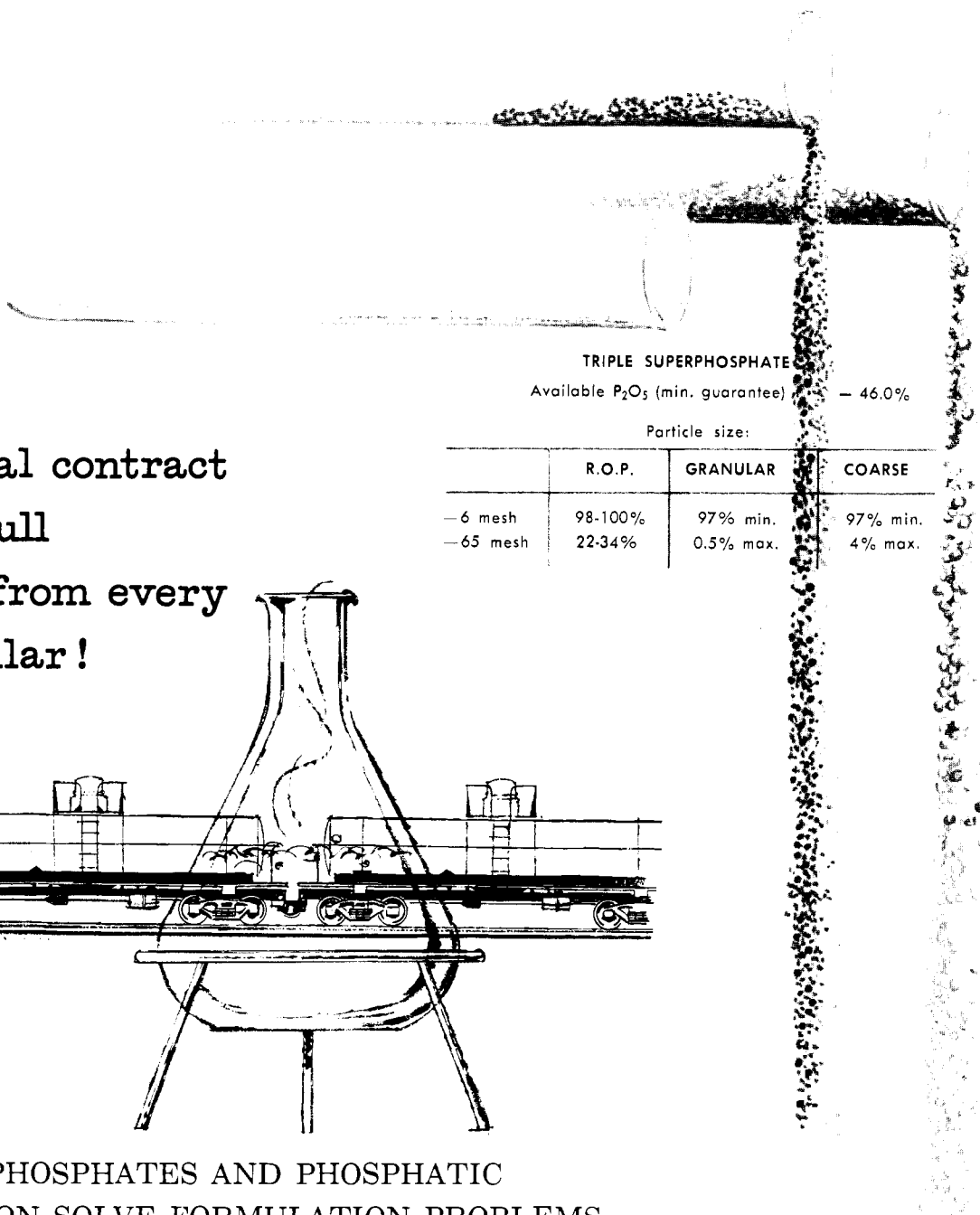
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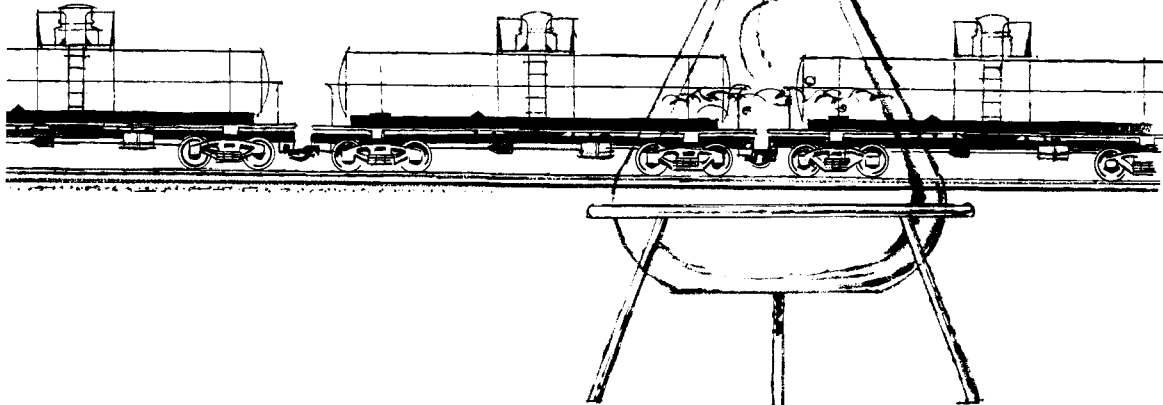
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Research Newsletter...

GIBBERELLINS AND AUXINS

Auxins such as indoleacetic acid show promise of inhibiting stem elongation induced by gibberellins. J. Weijer, University of Alberta, found that when gibberellic acid and indoleacetic acid were applied simultaneously, doubling and early flowering of Impatiens were still promoted, but the IAA (at a concentration of 10^{-4} g./1000 ml.) nullified the growth promoting properties of gibberellic acid. His report is in April 3 Science.

SUPERPHOSPHORIC FROM WET PROCESS ACID

TVA engineers are trying to find an economical method for concentrating wet process phosphoric acid. Contrary to expectations, they find that concentrated wet process acid deposits little or no impurity. They theorize that some of the acid is converted to pyro- and poly-phosphates that sequester impurities. Although TVA has no well-defined process for making the material as yet, it expects early development of a process—either by TVA or by industry.

ANSUL HERBICIDE

Ansul Chemical is working with a candidate for weed killing. It is cacodylic acid (or dimethylarsinic acid); brand name is Arsan. Company classifies it as having a high level of phytotoxicity while being relatively nontoxic to mammals. Its limited residual effects in soil permit its use just before seeding without effect on seed germination. It also has potential for use as desiccant, and as a defoliant.

AUREOMYCIN'S ADVANTAGE IS REDUCTION OF SCOURS

USDA says the major advantage of feeding aureomycin to dairy calves is reduced incidence of scours, and not temporary increase in growth rate. Aureomycin does stimulate appetite, rate of weight gain, and feed efficiency while it is being fed. However, once aureomycin feeding is stopped, rate of gain decreases and appetite returns to normal. Says USDA, addition of aureomycin to the diet for increased growth is seldom profitable after calves reach two months of age.

NOMINATIONS IN ORDER FOR SPENCER AWARD

The Kansas City Section of the ACS is accepting nominations for the 1959 Charles F. Spencer Award in Agricultural and Food Chemistry. Deadline for receipt of nominations is June 1. Nominees must be U. S. citizens, and work for which they are nominated must be in the field of agricultural and food chemistry. Work can be in education, industry, or research. Further information can be obtained from Chairman, Charles F. Spencer Award, American Chemical Society, 425 Volker Blvd., Kansas City 10, Mo.

- Paper chromatography turns up an unidentified metabolite of lindane in lindane-treated carrots (page 322).
- Diethanolamine salt of maleic hydrazide is most practical formulation for fast absorption of this plant growth regulator (page 341).
- Procedures for minimizing errors associated with preparation of leaves for analysis of nutrients (page 344).
- Method for determining concentration of an anthelmintic in feed (page 350).

