

New Products and Equipment . . .

Baron, New Industrial Herbicide

Baron, a nonselective herbicide developed by Dow, is now available for industrial use. The new product is a liquid which emulsifies readily in water.

Active material in Baron is 2-(2,4,5-trichlorophenoxy)ethyl 2,2-dichloropropionate, which was discovered as a chemical and developed as an herbicide by Dow research scientists. For convenience this chemical has been given the coined common name *erbon*. Baron contains four pounds of technical erbon per gallon.

Baron may be sprayed on leaves, which take it up directly; or it may be sprayed on the soil, from which it is taken up by roots. Its translocation from leaves is relatively independent of rainfall moisture.

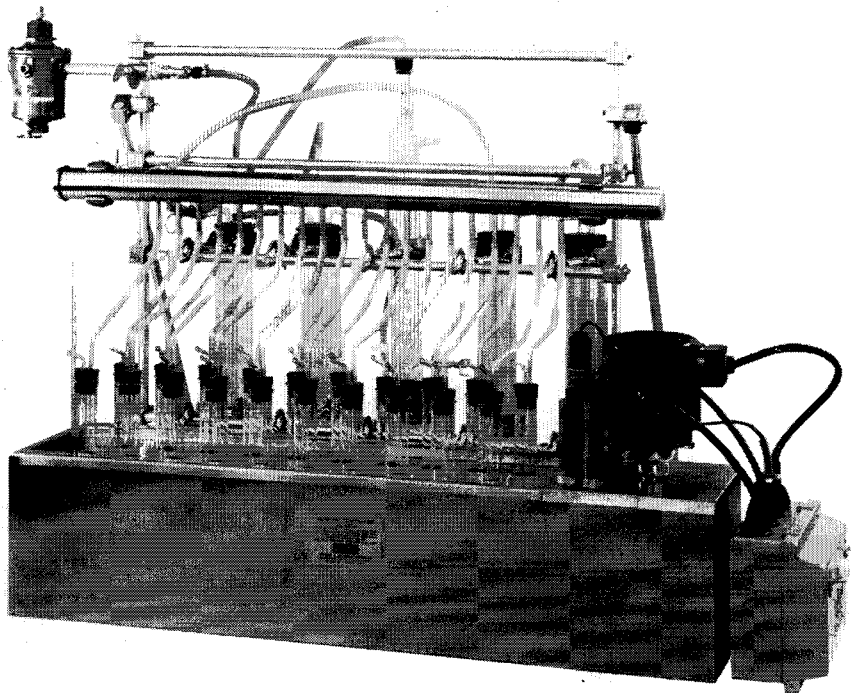
When applied to the soil it acts as a residual sterilant, lasting for approximately a season, its effective persistence depending upon various factors.

Baron applied to foliage exhibits early contact action which produces a prompt reduction of the vegetation and defines the treated area.

Fat Stability Apparatus

LaPine apparatus determines keeping time of fats and oils by the activated oxygen method. In addition to its use for animal fats, the apparatus can also determine the stability of vegetable and cooking oils, shortening, and animal feeds that contain fats. In this test, clean air is bubbled through the sample at a constant rate until rancidity develops; a bath maintains the sample at a constant temperature of 208° F; and time of aeration until the inception of rancidity is recorded. Peroxide values are then determined by chemical tests and plotted against aeration times to show keeping time

PE2



Chemically, erbon is unique among weed killers. Other active herbicidal chemical molecules, for example 2,4-D have to be combined with molecules of formulation substances which are more or less inert. Both parts of the erbon molecule exert herbicidal action, each being toxic to its own range of vegetative types. However, the erbon molecule has proved to be considerably more active than either of its principal components.

PE1

Laboratory Heater

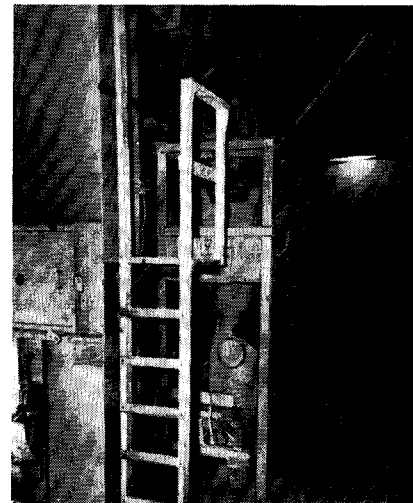
An economical-type heater has been developed by E. H. Sargent for general laboratory use in distillations, evaporations, digestions, or extractions. This heater is equipped with three Chromel-A heating elements which provide seven operating ranges from 150 to 750 watts. Control is through three toggle switches.

The stainless steel case remains cool at all times because the heating unit is isolated from the outer frame. The reversible upper refractory will accommodate 500- or 800-ml. Kjeldahl flasks, large round-bottom flasks, and concentric metal rings. The case is equipped

with dovetail clamp sockets and a clamp for supporting the heater, or for attachment to a vertical rod.

PE3

Low Cost Bag Filling Machine



Open-mouth bag filling machine combining high speed and accuracy of operation with low cost for installation and maintenance developed by Kraft Bag Corp. Machine is capable of handling more than 20 100-pound charges per minute when using open-mouth bags. Machine will handle weights from 25 to 200 pounds with an average variance of not more than 8 oz. Low purchase and installation cost have attracted attention of fertilizer manufacturers to the machine

PE4

Space Fumigant

A space fumigant for fumigation of storage spaces is available from American Potash and Chemical. The material called Bromotox is a mixture of ethylene dibromide and methyl bromide, both of which have been used to fumigate warehouses in the past. American claims that their new product is more efficient and cheaper than either of its constituents for control of pests in grain flour, rice, cheese, and dried fruits.

PE5

Herbicide Controls Weedy Grasses in Corn

A new pre-emergence herbicide which field studies indicate will eliminate weedy grasses from certain grass as well as broadleaf crops without injury to the crop has been developed by Monsanto.

Monsanto says the new weed killer, 2-chloroallyl diethyldithiocarbamate (CDEC), has given excellent control of grasses at rates ranging from three to six pounds per acre.

Effective control of annual weedy grasses in corn and soybean rows has been obtained by 13-inch band treat-

ments using less than two pounds per acre.

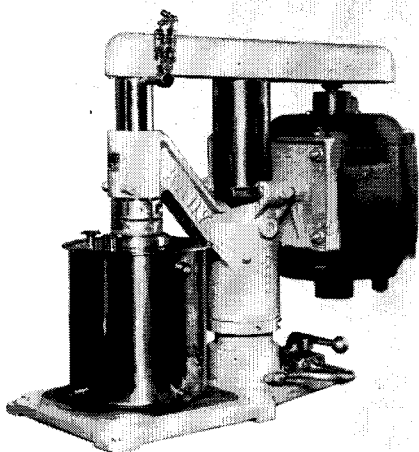
The new material is similar in performance to alpha-chloro-N,N-diallylacetamide (CDA) and alpha-chloro-N,N-diethylacetamide (CDEA) which the company announced in December, 1954, and was field tested at the same time. Legal requirements prevented its announcement earlier. **PE6**

Heyden Herbicide Available for Testing

Heyden Chemical is making a selective herbicide, called HC-1281, available for cooperative experimental testing. HC-1281 is a mixture of six isomers of trichlorobenzoic acid consisting primarily of the 2,3,6-trichlorobenzoic acid isomer.

Preliminary field reports indicate that the herbicide has no effect on corn but it is effective at low concentrations for control of a variety of weed plants. **PE7**

Dispersion Mill



Laboratory model mill for test and pilot dispersions available from Kinetic Dispersion Corp. The work of dispersion is done by kinetic energy. A solid agglomerate in a liquid carrier is accelerated very rapidly by a rotor within a slotted cylindrical stator. The solids impinge against the slots and are effectively dispersed without the use of "shear" or the reliance on close tolerances between moving parts under pressure. Thus the mill is not subject to loss of efficiency from wear. Applications of these mills include chemicals, foods, and insecticides. Capacity of the laboratory mill is $\frac{1}{3}$ to $\frac{1}{2}$ gal. All working parts are stainless steel **PE8**

Streptomycin For Plant Disease Control

Agri-Strep, a formulation of streptomycin for control of plant diseases is being marketed by Merck & Co. The

streptomycin is being distributed nationally by Niagara Chemical as Agri-Strep and by CalSpray as Ortho streptomycin.

The discussion of antibiotic formulations for plant disease control presented in AG AND FOOD's March pesticide survey, page 210, contained a statement that Merck's product would not be available this year. Merck's formulation is being made available through the distributors mentioned above.

Streptomycin is being recommended by many states for control of fireblight of pears and apples. In addition Agri-Strep has been registered with the USDA for control of bacterial spot of peppers, and tomatoes, wildfire and blue mold of tobacco, and bacterial diseases of walnuts and peppers. **PE9**

Perkin-Elmer Introduces New Flame Photometer

Flame photometer, styled for maximum ease of operation and performance, available from The Perkin-Elmer Corp. The instrument incorporates several features to permit simple and precise read-out of data, enabling a relatively inexperienced operator to turn out accurate determinations over long periods with minimum fatigue. Each control has been designed and positioned on a molded fiber glass panel for maximum convenience. Data is read out on counters instead of difficult-to-read vernier dials. **PE10**

DB Granular, Herbicide

The Pacific Coast Borax Co. is introducing DB-Granular, a weed killer specially designed for agricultural weed problems including deep-rooted noxious per-

ennial weeds. The herbicide is a complex of disodium tetraborate and 2,4-dichlorophenoxyacetic acid.

The herbicide is applied in dry form just as it comes from 50-lb. multi-wall paper sacks. DB-Granular for agricultural use is a companion product to the Company's new Ureabor introduced last month for industrial weed problems. **PE11**

Food Filler



This single-cylinder semi-automatic filler is now available for rapid, accurate filling of high viscosity semi-solids. It fills trays accurately and neatly at 30 per minute or four times the number filled by previous methods. The filler may be quickly and easily cleaned for rapid change-over to filling of other toppings and candy items. Small and compact, it fills bottles, jars or cans and is adjustable from 1 to 32 ounces **PE12**

Use . . .

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