

profile...

Recent mergers broaden Hooker Chemical's agricultural interests. An active research program should push it still further into ag chemicals

TWO BIG MERGERS in less than two years are largely responsible for Hooker Chemical's broader, more solid base in agricultural chemicals today. Not that it has gone out specifically to buy up farm chemicals operations. But the agricultural market accounted for a good share of business for both of its most recent acquisitions.

Its' latest merger, completed in May, tied Shea Chemical into Hooker's operations. Shea, whose facilities form the backbone for Hooker's new phosphorus division, had been a fast growing producer of phosphorus chemicals; 1957 sales were double those of the year before. Far and away Shea's biggest volume product was sodium tripolyphosphate, sold to detergent producers. Ranking second in its sales picture, however, was dicalcium phosphate, which it produces at Columbia, Tenn. Last year Shea sold some \$2.2 million worth of the material, to over 50 customers, for blending into animal feeds. Its sales accounted for an estimated 45% of total U. S. consumption.

Former Shea plants at Columbia, Jeffersonville, Ind., and Dallas, Tex., also turn out food, feed, and fertilizer grades of phosphoric acid. Sales of acid, however, accounted for less than \$2 million of Shea's \$20.6-million total volume. The Shea merger, moreover, provides Hooker with phosphate rock deposits in Tennessee. But Hooker has no present plans to produce phosphate fertilizers from its newly acquired reserves. It expects to hold them as a source of raw material for its own phosphorus production.

Hooker had expanded its agricultural chemicals business in a similar way late in 1956 when it acquired its Niagara Falls neighbor, Oldbury Electro-Chemical. Oldbury's interest in farm chemicals centered on sodium chlorate, which it had produced since 1903 and marketed as a weed killer since the early thirties.

With chloride plants at Niagara Falls and Columbus, Miss., Hooker has continued to expand on the Oldbury base. Another \$1-million expansion at Columbus is slated to be operating

next spring. Hooker sells the bulk of its chlorate to the paper industry as a source of chlorine dioxide for bleaching. Agriculture is its second best



The President . . .

Thomas E. Moffitt

Well Established Pesticide Research

chlorate customer today, with several thousand tons sold annually as a herbicide or—more recently—as a cotton defoliant.

Internal Growth Biggest Factor

Hooker has by no means relied solely on mergers for its place in the agricultural sun. Most of its business has been built up with products developed in its own research laboratories. Last year (before the Shea acquisition) chemicals destined for farm use amounted to 6% of its total gross—or well over \$6 million in sales. Only four industries bought a larger volume of Hooker's diversified output.

This year, moreover, sales of agricultural chemicals will be still higher. For one thing, products acquired with Shea will add upwards of \$4 million

of business. And Hooker expects sales of insecticides and herbicides to gain over last year. Not only do farmers have more money this year, but weather has been more favorable, too—better for cash crops, and better for weeds and bugs. Infestations of fire ants in the South and grasshoppers in the West also have boosted demand for insecticides.

Few agricultural chemicals reach the farmer tagged with a Hooker label (most notable exception: sodium chlorate). Hooker's chief role is as a basic manufacturer rather than a distributor.

It manufactures a number of chemicals, for example, that go directly into pesticide and herbicide formulations, but sells its output to other large agricultural chemicals producers and formulators instead of marketing directly to wholesalers or consumers. Among Hooker's biggest volume materials of this type are benzene hexachloride and lindane, the high-gamma isomer of BHC. Just this summer the company started a major revamping of its BHC process at Niagara Falls to boost efficiency and cut manufacturing costs.

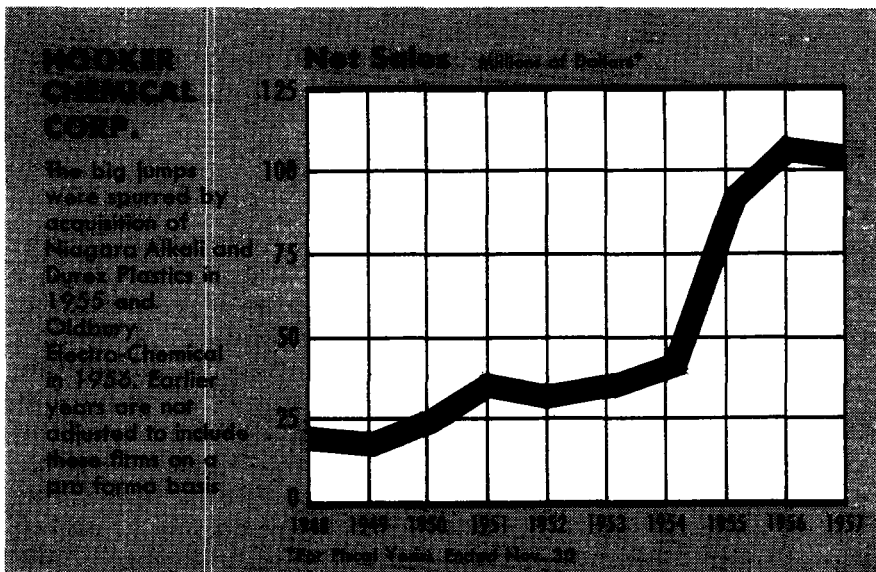
Even more important in Hooker's over-all agricultural chemicals business, however, are the intermediates it sells to insecticide and herbicide makers. One important example is C-56 (hexachlorocyclopentadiene), produced by Hooker at Niagara Falls and at Montague, Mich., and sold for use in synthesizing various insecticides. Other agricultural chemical intermediates shipped by Hooker are phosphorus pentasulfide, phosphorus oxychloride, and tetrachlorobenzene.

Hooker has been making ammonia at its Tacoma, Wash., plant since 1952. Only a small part of its production there finds its way into farm use, however.

Teamwork in Development

Hooker's research in pesticides reflects its position as a manufacturer rather than a distributor. Its major research efforts center on three general areas at present: herbicides, insecticides, and nematocides and related products.

In looking for new compounds in these categories, Hooker researchers focus for the most part on synthesis and preliminary screening. The agricultural chemicals laboratory gets a sample of every new material made anywhere in the Hooker organization, to screen along with chemicals it synthesizes specifically for the purpose. Compounds that look good after preliminary tests then are often turned over to other companies for more extensive field tests, toxicity studies,



and sales promotion. One reason: Hooker prefers to avoid the high costs that are in many cases involved in getting government approval for materials to be used on food crops. It thinks it can spend its research dollars more wisely by concentrating for the most part on chemical research itself.

There is one exception to this general approach. In working on non-selective, long-duration herbicides, Hooker usually carries the ball itself all the way from synthesis through screening and testing to promotion and sales.

Although its research work in agricultural chemistry does not cover the entire spectrum, Hooker obviously is not selling agricultural chemicals short. The central research laboratory at Niagara Falls spends more of its research budget on agricultural chemical work than on any other single chemical field. Says President Thomas E. Moffitt: "Of all our programs in chemical research, probably none is more clear-cut or better established than that pointing us into agricultural chemicals."

This year Hooker has some 200 to 300 compounds in preliminary field tests, and about half a dozen others getting more extensive study. The company is not ready yet to take the wraps off any of these chemicals. However, Technical Director C. A. Stiegman notes, "We have several things coming along that look very interesting."

Ag Chemicals Add to Diversity

Pesticides tie in well, too, with Hooker's long-term efforts to diversify and to upgrade its basic position in chlorine and caustic (and, more recently, phosphorus). World War I set the stage for diversification. Until

1915 Hooker's only products were bleaching powder and caustic soda. By the end of the war it had added 15 chlorine-based chemicals to its line.

Hooker's first agricultural product dates back to 1920, when it started making *p*-dichlorobenzene. Not until after World War II, though, did it land in the farm market with both feet. In 1945 it began selling BHC for farm use, and developed a short-lived inter-

est in DDT. Lindane was added to the product list two years later. Other pesticides followed in rapid succession.

Total company sales more than doubled in the first decade after World War II. Spurred by mergers in 1955 with Durez Plastics & Chemicals and with Niagara Alkali, followed by its two recent acquisitions, growth has shot up in the past four years. This year's sales volume will be over two and a half times total 1954 sales.

Today Hooker ranks fourth among U. S. producers of chlorine—with a total rated capacity of 1045 tons a day—and sixth in caustic. Yet it has diversified until sales of chlor-alkali products from the electrolytic cell are less than a quarter of its total business. It processes about 40% of its chlorine output into other chemicals.

The over-all growth rate of all the companies now consolidated into Hooker has been better than 10% per year since 1935. If this growth continues, it's a good bet that agricultural chemicals business will grow too. Expanding research—a new \$3.5-million research center on Grand Island, N. Y., will be completed next year—points in that direction. So does Hooker's firm foundation in such basic chemicals as chlorinated hydrocarbons, phosphorus, chlorates, and sodium sulfide and sulfhydrate.

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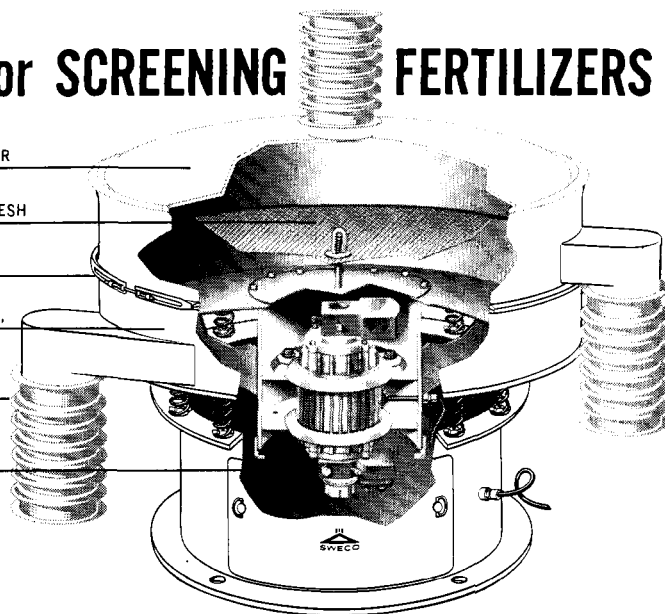
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