

# profile...

## Diamond Alkali has been in the agricultural chemicals field only since 1951, but already ag chemicals account for 10% of its sales

**D**IAMOND ALKALI did not really get into the agricultural chemicals business extensively until 1951, when it acquired Kolker Chemical Works, which manufactured DDT and other pesticides at its Newark, N. J., and Houston, Tex., plants. Entering the agricultural chemicals business was a natural result of Diamond's policy of upgrading its basic products. In this case the basic product was chlorine, which Diamond had been selling to Kolker in Houston from its Deer Park plant a few miles away. Agricultural chemicals now account for a substantial part of the sales of the company's chlorinated products division, as well as 10% of total company sales since 1955.

Diamond was organized in 1910 to supply soda ash to glass makers. The first plant—and still the largest of the company's 18 manufacturing facilities—was built at Painesville, Ohio, east of Cleveland on Lake Erie. From this beginning the company has expanded along carefully selected channels so that it has achieved a high degree of both product diversification and vertical integration. Manufacturing and sales are responsibilities of seven major product divisions: chlorinated products; cement-coke; chromium chemicals; electrochemicals; plastics; silicate, detergent, calcium; and soda products. Company headquarters is in Cleveland, and the research center, which serves these divisions in addition to doing exploratory research and development, is located at Painesville.

Manufacture of basic agricultural chemicals like DDT and benzene hexachloride has lost much of its charm for many companies. The num-

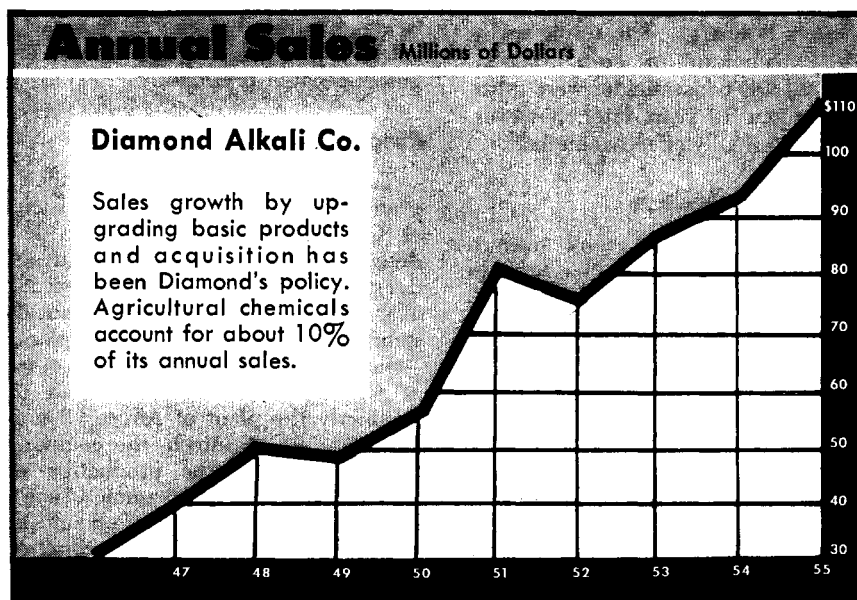
ber of producers has dropped from 12 to six. But even though DDT is down from its 105-million pound Korean War peak, and prices have dropped too, sales in the U. S. still amount to about 75 million pounds a year. Diamond is not thinking of getting out of either DDT or BHC. One company official says: "We of Diamond propose to stay in both of these chemicals and make them profitable by further reduction in cost of production. Several years of intensive process improvement have rewarded us with a more profitable potential on BHC, and developments are now at hand to maintain our present position as one of the dominant factors in DDT."

Besides these two basic insecticides and lindane, Diamond is one of the four major producers of 2,4-D weed killers, 2,4,5-T brush killers, and miticides. Hexachlorobenzene (used for seed treatment against smut in wheat), and grain fumigants round out the list of pesticides that Diamond produces. Diamond started selling the standard "80-20" carbon tetrachloride-carbon disulfide fumigant in 1949. This is the only ag chemical it produced before the Kolker acquisition. It now has several formulations on the market, including a safened "80-20" type and others which also contain ethylene dichloride and ethylene dibromide. Unlike the other pesticides, which are made at Newark and Houston, grain fumigants are manufactured at Painesville.

In March 1955, Diamond took an important step toward changing its distribution system from its "traditional" policy of supplying basic materials (and a few formulations) by forming Diamond Black Leaf Corp. with Virginia-Carolina Chemical Corp. Diamond holds the majority interest and handles administration. L. P. Scoville, general manager of the chlorinated products division, is also president of Diamond Black Leaf, and certain other key positions are also held by Diamond executives.

### Formulating Plant Acquired

To Diamond Black Leaf went the formulating plants of Virginia-Carolina's former Black Leaf Division at Richmond, Va., Louisville, Ky., Montgomery, Ala., and Waco, Tex. In addition, the new company took over V-C's basic production of nicotine—an old pesticidal material, and still a





Board Chairman . . .

**Raymond F. Evans**

Process improvement—profit key

good aphicide—and ground tobacco stems, an important carrier in many pesticide formulations. Recently, Diamond Black Leaf took over the operation of a Des Moines, Iowa, formulating plant to broaden DBL's marketing position in the 15 central states area.

Another asset of the new company is the old, established Black Leaf trade-name. Diamond feels that an increasingly large share of the total pesticide market will be sold under relatively few brand names, and it intends to make Diamond Black Leaf one of them.

**Basic Materials Position**

Diamond Black Leaf gets many of its basic pesticidal raw materials from Diamond Alkali, but it is by no means limited to formulating these materials—it will formulate a wide variety of materials. Likewise, Diamond Alkali will continue to sell its technical pesticidal materials through other channels too.

Further development of existing basic products is one of the phases of Diamond's agricultural chemicals research. This is not so intensive as it used to be, but, for example, new herbicide esters are still prepared and arrangements made for their testing. The other phase of the research effort is directed toward new products.

Each company division, such as the chlorinated products division, has its own research and technical service

staff. In addition to the divisional research groups is the exploratory research staff for the entire company. One group in exploratory research is concerned with synthesizing new compounds which might have pesticidal properties. The work of this group is helped by frequent exchange of ideas with the agricultural research staff. Compounds prepared are sent to Boyce Thompson Institute, where they are screened for insecticidal, herbicidal, fungicidal, nematocidal, and other biological activities. If a compound passes initial screening and additional tests, it is turned over to the agricultural chemicals technical service group. They arrange for testing by university experiment stations, and

sometimes through grants-in-aid. The search for new pesticides was not started until 1952, and already results look promising. For instance, a new nematocide is now in advanced stages of development.

**Nematocides Promising**

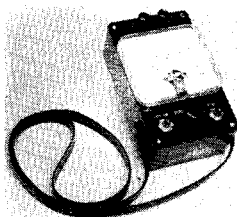
New insecticides and fungicides have to be unusually good to stand up in the market today, and research in these fields cannot be expected to pay off as soon as that in some others. "But nematode control is wide open," says L. Gordon Utter, manager of technical service for agricultural chemicals, "and weed control is still in its infancy."

# IRRIGATION... when? ...and how much?

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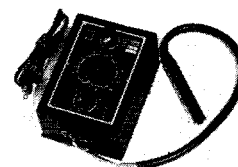
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