CORPORATE

profile...

Largest producer in its field, Potash Co. of America is highly optimistic over the potash industry's future

ON A COOL DAY in February 1933 when a group of Colorado miners and businessmen broke ground for Potash Company of America's first mineshaft, PCA consisted mainly of faith and a series of drill holes on the empty desert near Carlsbad, N. M. The faith of that early group, however, has been thoroughly vindicated in the years since. One of the oldest firms in this country's potash industry, PCA has become the industry's largest producer of 60% muriate of potash.

Attaining this stature was not without its headaches and disappointments. In fact, the faith of the company's founders and of its early investors was seriously shaken on a number of occasions. The first core drilled by the company on its holdings in New Mexico was also its first major disappointment, for it proved barren of potash. Further exploration showed that the potash was there, but many difficulties were encountered before commercial production could begin.

An abortive attempt at a solution method of mining—pumping water into the ground to dissolve potash and bring it to the surface—proved the method was impractical, and was the second major disappointment for the young company. The ground-breaking in February 1933 was soon followed by the sinking of a 3-compartment shaft, and the first start toward practical operation had been made. While the shaft was being sunk, construction was begun on a crushing mill, power house, shop, and office.

First Shipment

PCA shipped its first carload of manure salts, or crushed mine-run ore, in February 1934. After a slow start, shipments picked up and continued at an increasing rate until development of a price war threatened to destroy the company completely. The price war was launched by the European cartel which prior to World War I had supplied essentially all the potash needs in the U. S. The cartel undoubtedly would have succeeded in crushing the domestic business, had it not taken quick and effective steps to improve its product and service.

Realizing it would have to sell a refined product or be overwhelmed by competition, the company's early management decided upon a flotation method developed jointly by L. D. Anderson of PCA and A. J. Weinig, Sr., of the Colorado School of Mines. The system they devised, flotation of a soluble salt in a saturated solution of itself, is still basically in use today.

The President . . .

G. F. Coope

Despite Problems, Prospects Are Good

With this refining process, PCA became a producer of 60% muriate of potash late in 1935. Since that time almost its entire production has been the refined grade containing a minimum of 60% K_2O, although small amounts of mine-run ore are still crushed and sold. PCA was the first company to produce the concentrated muriate, and remains the largest producer today. The first refining and concentrating unit went on stream in 1935 with a capacity of 200 tons per day. A scant five years later, production of 60% muriate had risen to more than three times the 1935 capacity.

When World War II again cut off all potash imports, PCA promptly threw all its resources into a major expansion program. The expanded capacity proved a boon in the postwar era as well, when farmers in large numbers began to turn to fertilizers, pesticides, and increased mechanization to improve the productive efficiency of their soil and to maintain their economic progress.

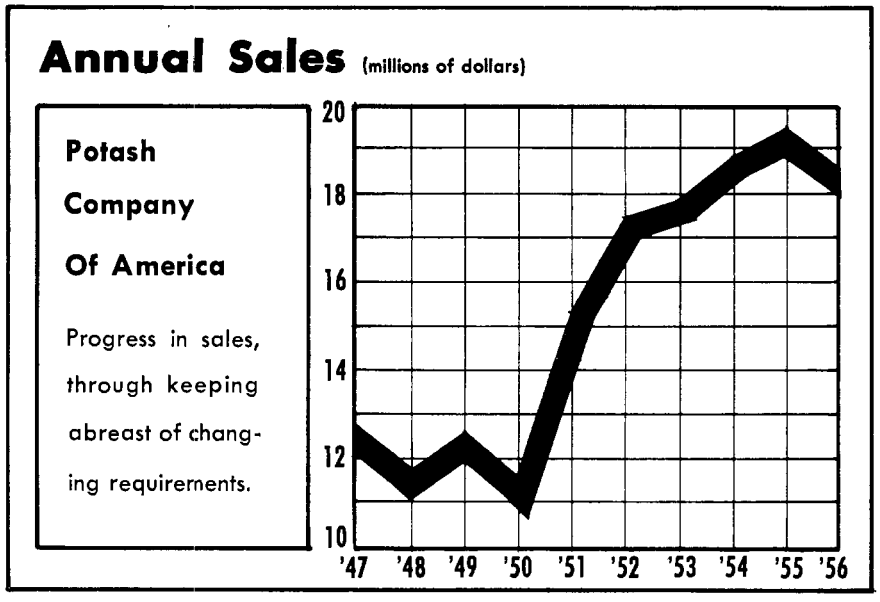
Fertilization of tobacco and other special crops requires sulfate of potash. A number of years ago there was a shortage of this material and PCA, in order to assist the fertilizer industry and farmer—and also itself—built a plant at Dumas, Texas, where muriate is treated with sulfur dioxide and converted to sulfate of potash. By-product hydrochloric acid is marketed by the company. PCA also produces sulfate at Fort Worth, Texas.

The products produced by PCA are marketed and sold through its own sales organization. The general sales office is in Washington, D. C., with a midwestern sales office located in Peoria, Ill., and a southern sales office in Atlanta.

Canadian Operations

Producers of potash, like most of the fertilizer industry, seem to have reached a plateau in the consumption and demand for their product. However, PCA is highly optimistic for the industry's future. Through its wholly owned subsidiary, Potash Co. of America, Ltd., it is actively pushing a project in Canada where vast reserves of potash ore are under development by nearly all of the potash producers in the United States; the company is currently in the process of sinking a shaft to tap its Canadian reserves near Saskatoon, Saskatchewan.

Unusual surface and sub-surface conditions in the area have led to a number of procedures unique in the potash industry. These include freezing of the sub-surface to a depth of more than 3,000 ft. to prevent cave-ins in the sedimentary layers until concrete for the shaft can be poured. Preparing the concrete itself presents a special problem in an area where temperature extremes vary from −50 to 100° F. The company made exhaustive tests to determine the correct mixture and type of concrete required. A special mixing plant was set up to be sure the materials used in construction of the mine shaft would be safe and dependable. Because of the weather extremes it was necessary to



enclose the head frame and other surface equipment, a major departure from practice at previous potash mining installations.

While PCA continues to look upon itself mainly as a potash producer, it does have other mining and exploration projects under way. It is operating a small non-ferrous metal mine in the Pacific Northwest, and has a potential phosphate deposit in eastern Idaho. An option has been taken on a large sodium sulfate deposit and plant in California.

In addition to its agricultural products, PCA manufactures a technical or chemical grade muriate of potash. This material is sold to the chemical industry which in turn converts it to carbonate, hydroxide, and other derivatives which are used in manufacturing television tubes, glassware, detergents, dyestuffs, pharmaceutical items, and many other products.

Research Policy

From its inception PCA has spent a great deal of time, money, and effort on its research policy. This policy was responsible for the development of a successful ore refining process, and its continuation has led to constant improvement in the company's products, its processing methods, and its operating procedures.

PCA is a member and strong supporter of the American Potash Institute and of the National Plant Food Institute, assisting these organizations in their support of education, research, and fellowships at the university and experiment station level. Their programs of determining and promoting valid recommendations for the optimum use of potash and other fertilizer materials benefit both the farm economy and the fertilizer industry.

Through continuing emphasis on research that shows how increased plant food use brings increased profits to growers, and through educational and sales promotional programs that will bring use more nearly into line with recommendations, PCA is working to assure that its optimism for the future will be justified.