

# profile...

## Weeds, corrosion, and chemistry propel American Chemical Paint Co. Firm holds many basic patents including 2,4-D

**A**MERICAN CHEMICAL PAINT CO. holds claim to the pioneer role which led to 2,4-D and 2,4,5-T. Today these herbicides constitute a multimillion-pound industry, and many makers in the U. S. and abroad hold ACP licenses. The firm claims also the first successful chemical method to treat steel before painting, using Deoxidine, a phosphoric acid metal cleaner and rust remover. These rather diverse fields hold the key to ACP's major operations: agricultural chemicals and metal treating products, both handled through separate company divisions.

### Metal Protection

ACP first went into business to make products which would clean rust from steel and then prepare the surface for painting. This is how ACP got its name, for the firm does not make paint, varnish, lacquer, or enamel. It has, however, been close to painting problems since its founding. Today the company makes many products which clean and protect metals such as steel, zinc, aluminum, stainless steel, titanium, and zirconium.

ACP's line here consists primarily of inorganic phosphate products used to bond paint to automobile bodies, steel drums, and other sheet steel products. Another phosphate acts similarly with aluminum.

Late last year, ACP branched further into protective coatings when it acquired the Benjamin Foster Co. This firm makes accessory compounds designed for use with thermal insulation.

For wear resistance, ACP makes an oil-phosphate combination designed to rust-proof steel and improve wear resistance. In this use it works as a lubricant.

ACP launched its operations in 1914, producing Deoxidine at its Philadelphia plant. Ten years later the firm moved to Ambler, Pa., where

it now has main offices and its largest manufacturing plant. Other plants are at Windsor, Ont., Niles, Calif., and St. Joseph, Mo.

### Agricultural Specialists

ACP branched into agricultural chemicals in 1937. Since then its forte has been specialty products,



The President . . .

**G. C. Romig**

Research a strong asset

mostly synthetic growth regulators and herbicides. The company will likely stay in the herbicide field for it has no interest now in fungicides, insecticides, or fertilizers.

Many ACP products are made for household use although substantial sales are direct to farmers, industrial users, or formulators. Here are some ACP sales leaders:

- Rootone, which contains indole butyric acid, used to stimulate root growth

- Transplantone, which has naphthylacetamide, used to reduce wilt and loss in transplanting vegetables, flowers, and shrubs

- Fruitone, a mixture of  $\beta$ -naphthoxy- $\alpha$ -propionic acid, naphthalene acetamide, and naphthalene acetic acid. This product is used to improve the "set" of fruit on apple trees, and also tomatoes and beans.

### Basic in 2,4-D

ACP research led to the production of 2,4-D and 2,4,5-T in the early '40's. Now large volume items, they are manufactured or formulated by many companies in this field under ACP licenses. ACP still makes and markets formulations under the Weedone name, in both liquid and powder form.

Recent ACP research led to another important product, Amizol (3-amino, 1,2,4-triazole). It is a growth inhibitor which hinders plant chlorophyll production. Instead of developing a normal green appearance, leaves on plants treated with Amizol become white. Biologists call this phenomenon "albinism."

Defoliation is another Amizol effect which, coupled with albinism, makes it valuable to cotton growers at picking time. However, the material's greatest importance lies in its ability to inhibit plant growth, giving control—by moving through the root systems—of deep-rooted perennial weeds such as poison ivy, Canada thistle, and white-top. The firm is now licensing the production know-how for this product.

### Strong Research Arm

American Chemical Paint considers its research and development arm a very strong asset. Its agricultural research labs at Ambler work chiefly on weed killers and growth regulators. Research is often at the basic level, although much of the work consists of applied research and product development. Now, for example, ACP is testing gibberellin formulations, a field the company plans to enter this year.

Test work for the gibberellins is conducted at the firm's research farm, near Ambler. A combination lab and pilot plant, the farm occupies more than 50 acres where new products are tested under many conditions.

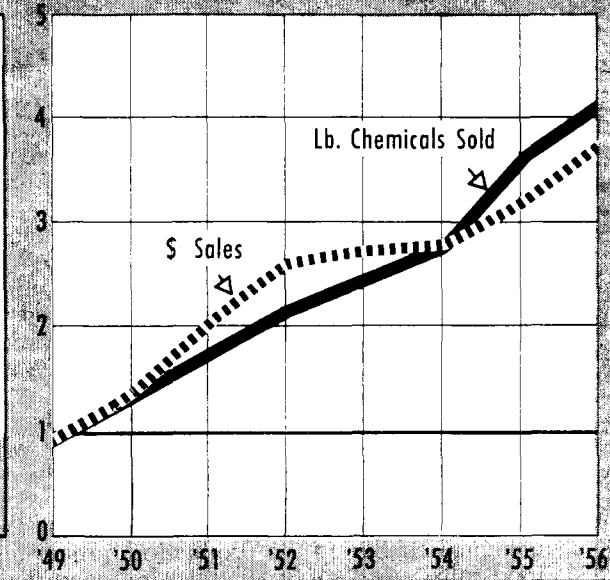
Workers screen new agricultural chemicals throughout the year. During the growing season, the most promising ones receive a secondary screening and are measured against standard established chemicals.

Prominent among products con-

## Index of Agricultural Chemicals Sales (1949-1)

### American Chemical Paint Co.

Sales of the agricultural chemicals division show the tremendous growth of herbicide use and the downward price trend.



stantly under test at the research farm are growth regulators—chemicals used for setting fruit, thinning fruit, increasing the number of flowers, or rooting cuttings. These and other plant hormones are tested over long periods, several years if necessary, un-

der carefully controlled conditions.

Many weeds such as Canada thistle, leafy spurge, quackgrass, and crabgrass are grown here as test specimens for potential weed killers. Sixteen different lawn grass plots give weed-killer evaluation data. Problem woody

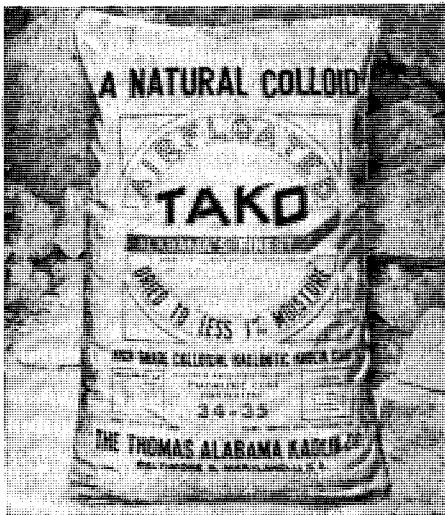
plants—red maple, locust, and oaks—are grown for brush killer studies. Flowers, shrubs, and crops including wheat, oats, corn, and tomatoes are raised so that weed killing among the crop plants can be evaluated.

Often county agents, workers in state and federal experimental stations, and company sales personnel use the farm as a meeting place where problems in weed control and crop production can be discussed.

ACP holds over 1000 patents, and through a company policy established in 1925 has set up manufacturing licenses throughout the world. The licensing operation began when the firm realized it could not service its customers well by remote control; hence, foreign arrangements. The company keeps it licenses, both in the U. S. and overseas, abreast of latest developments, via extensive technical service activities. Today, more than 50 companies use this function.

Behind the technical service program is the philosophy that, while supplying chemical ingredients is a relatively easy job, making them work effectively demands the skill of an experienced organization. "We don't stop with the delivery of a chemical," ACP tells its customers. "We put it to work and keep it working effectively."

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