

Mr. Pyrethrum keeps growing. Association with Food Machinery & Chemical offers him new horizons

NE MAN as the driving force behind an entire industry is a recurring theme in American business. There are many tales of a man who conceived an idea or saw an opportunity, and whose life then became enmeshed in the development of a new industry. To the agricultural chemicals industry, the man behind the past 20 years' development of pyrethrum as a successful insecticide, Mr. Pyrethrum himself, is Russell B. Stoddard. This man not only built up a successful business once. but has actually done it twice. In that time Stoddard has sailed the pyrethrum ship through five different corporate shifts, through a war which made pyrethrum big-time and then almost destroyed it.

Russ Stoddard's interest in insecticides began in the early 30's, when he was still in the essential oil trade with Ungerer. In 1934, he joined R. J. Prentiss & Co., primarily to build a rotenone business. One of his first achievements was to find a new source of rotenone root, which previously had come exclusively from Malaya and Java. Today's major source is Peru, largely due to Stoddard's efforts during the 30's.

After a few years, Stoddard's rotenone expanded to include pyrethrum, as another, even safer, insecticide. Here was a product with definite advantages over any other insecticide, but in chronic short supply, and with a high and at times wildly fluctuating price. Unfortunately, Prentiss had no facilities for extracting the flowers or for needed development work. Plenty of experience in extractions plus development and production facilities were offered by Dodge & Olcott, where Stoddard took his pyrethrum enthusiasm in 1939.

Along with war in 1941 came strict allocation of rotenone, badly needed for insect control by the armed forces. Use of pyrethrum for some purposes was restricted by irritating impurities until a research group at Dodge & Olcott, headed by Herman Wachs and sparked by Russ Stoddard, came up with a purified extract containing 20% active pyrethrins. This coincided with military needs; opened the way to wartime success for pyrethrum-based self propelled insecticides.

Aerosol spray bombs incorporating pyrethrum had been attempted before, by USDA. Unfortunately, the spray had been almost as rough on the humans it was supposed to protect as it was on insects. Stoddard was instrumental in developing aerosol bombs based on the purified, concentrated extract.

Intrigued by Improvement, Stoddard Acted

For many years it had been realized that the efficiency of pyrethrum could be multiplied by synergism. Stoddard was intrigued by the possibilities; encouraged research by D&O workers and others. Haller and Gertler at Beltsville hit on valuable clues; Hedenberg at Mellon Institute independently explored even more promising paths. Complete success came only in 1945 when Wachs improved one of Hedenberg's best leads and came up with piperonyl butoxide. Still the best pyrethrum synergist known, piperonyl butoxide was the salvation of the pyrethrum industry after the war, declares Stoddard.

Immense stocks of government surplus pyrethrum and pyrethrum insecticides flooded the market after the war, and for two years demand for pyrethrum practically disappeared. As these stocks were sold and the new, more effective, synergized pyrethrum formulations were able to come on the market, a slow comeback began. Today, use of pyrethrum flowers in the U.S. has about returned to the prewar level. Piperonyl butoxide synergism, however, has multiplied insecticidal effectiveness by three to five times.

Stoddard was very satisfied with the development of pyrethrum at Dodge & Olcott. He realized that it was a pricelimited business, but its unique combination of lack of toxicity and quick knockdown made it an ideal small volume, high price specialty. The business looked so good that it was purchased by U.S. Industrial Chemicals in 1945; in 1948 the insecticide portion of D&O



Russell B. Stoddard

Manager, Fairfield Chemical Division, Food Machinery and Chemical Corp. Born Jan. 17, 1892, North Brookfield, Mass.; Clark University 1912, degree in chemistry. Taught organic chemistry, Lowell Textile Institute 1912–17; research chemist, National Aniline 1917–20; writer for trade journals including Drug Chemical News; editor Ungerer's Bulletin 1920–33; E. J. Prentiss and Co. 1934–39; Dodge & Olcott 1939–45; U. S. Industrial Chemicals 1945–54; Food Machinery and Chemical Corp. 1954; director, National Agricultural Chemicals Association; Chemical Specialties Manufacturers Association committees

was transferred to USI. USI's larger resources helped ease postwar troubles; Stoddard became coordinator of insecticide operations, a title which perhaps described his actual function better than most. This was the first time in his insecticide experience that he had actually possessed a formal title.

Recognizing inherent limitations on the expansion of African pyrethrum supplies, Stoddard was cautiously interested when, about four years ago, he found that high test pyrethrum was being grown successfully on the slopes of the Andes. Here was another great opportunity; Stoddard, sceptical at first, grew enthusiastic. Next year, for the first time, substantial quantities of pyrethrum flowers will come from Fairfield's plantations in Ecuador.

When USI was absorbed by National Distillers in 1951, Stoddard and his group of management, sales, and research executives again moved as a unit. Distillers' primary interest was in expansion along other chemical lines, Stoddard and his group marked time for three years. Then Food Machinery & Chemical decided that insecticides would fit right into their set-up, and the pyrethrum business changed hands again. It now looks as though the wandering boy is home for good; FM&C intends to expand the pyrethrum business, develop allethrin as a complementary product. Stoddard is manager of the Fairfield Chemical Division, will be involved in development of specialty chemicals plus insecticides. He feels that perhaps now is the time to take pyrethrum insecticides out of the specialty class. New sources of supply, sympathetic management, new technical developments hold an exciting challenge.

Stoddard Follows Two Guiding Principles

Stoddard has followed two guiding principles which, he says, apply to the whole insecticide industry. First, no insect control problem should be considered satisfactorily solved until it can be handled with complete absence of danger at any level. This is obviously an ideal to be aimed at, perhaps approached very closely.

Second, there is no faint excuse for using hazardous materials in the sensitive areas of men, animals, and foods when perfectly safe products are available. He maintains that this goal is attainable and can be reached within reasonable time if half as much effort is ever expended on extending the usefulness of safe materials as is now being devoted to efforts to find safer ways to utilize inherently hazardous ones.

To Russ Stoddard, the most nearly completely suitable material is pyrethrum synergized with piperonyl butoxide. He foresees many new uses for the combination. Stoddard is busy in many directions these days, doesn't have much time for his 11 handicap golf game.

A thoughtful, mild mannered man, Stoddard is highly respected, both in the industry as a whole and among his own coworkers. He has the reputation of a man impatient with stupidity but willing to go all out for the people he accepts. Always willing to listen, he has an uncanny ability to separate the good ideas from the bad. Anything he does must be done well. His quick, logical mind has earned him the nickname of "the brain" in the agricultural chemicals industry. He is unique in that he can correlate the laboratory, management, sales, and promotional aspects of a business.

Even after many ownership changes, most of the team he brought together is still a unit. Besides Herman Wachs, who was with D&O when he joined in 1939, it has included since 1945 Walter E. Dove, entomologist, Howard Jones, chemist, and John Rodda, sales. Stoddard thinks big and long range; "likes to paint in broad strokes." His new job as manager of Fairfield will give all these qualities full play.

People

Bingham Named Spencer Acting Sales Directors

Harold E. Bingham has been transferred from director of traffic to acting director of product sales for Spencer Chemical. He replaces George Taylor who resigned recently.

Robert S. Nelson has been appointed production superintendent, and Lewis G. Fauble, chief chemist, at Monsanto's inorganic chemicals division plant at Kearny, N. J. Wallace K. Belin is to be maintenance superintendent.

H. D. McGowan, former vice president and general manager of Algonquin Chemical Co., has joined Stauffer Chemical as assistant director of market development.

Lawrence Wilkinson has been named group vice president of Continental Can. His former position, as vice president in charge of finance, will be filled by Charles B. Stauffacher, who has been control officer. Mr. Wilkinson will direct the activies of the fiber drum, paper container, flexible packaging, and crown and cork divisions.

R. C. Scott has been appointed to the newly created position of assistant to **H. F. Tomasek**, manager of agricultural chemicals for Pittsburgh Coke. He has been supervisor of the



company's agricultural chemical research.

Robert B. Coons, vice president of American Potash, has been elected to the company's board of directors.

William H. Danker has left Evans Research & Development to become project leader in the area of food acceptance at Genera Food's central laboratories. New project leader in engineering research is Albert Spiel, formerly associate scientist with National Dairy Research. Victor V. Studer, formerly with Wilson & Co., has been named assistant technologist in biochemistry for General Foods.

Arthur D. Moore has been appointed forest entomologist for the University of California. As the university's first forest entomologist he will study the forest insect situation in northern California.

Howard S. Paine, retired vice president in charge of research and development for Refined Syrups & Sugars, Inc., died at the age of 74 early last month in Brookline, Mass. Until 1944, Dr. Paine served, for 25 years, with the carbohydrate division of USDA. Under his supervision, the division pioneered in research on colloidal substances in cane and beet sugar production and on the action of carbon and other agents in removing colloids from sugar liquors.

Rolf Bernegger has been named manager of the Geigy Chemical Plant at Cranston, R. I. Dr. Bernegger will continue to act as head of the plant's production department. **Don M. Jones** has been named plant engineer at Cranston. Mr. Jones was formerly plant engineer at the McIntosh, Ala. plant of Geigy Chemical Co., Inc. Mr. Jones will replace **S. Marsh**, who recently resigned.

F. B. Bowen, manager of the Florida department, has been advanced to the newly created position of production manager of the phosphate minerals Division of International Minerals. He will supervise from his headquarters in Bartow, Fla., the production facilities in both the Florida and Tennessee phosphate departments. R. H. Linderman has been named domestic sales manager for the division. In recent years Mr. Linderman has been southern manager of the phosphate sales department. Edward F. Perkins, formerly European sales manager for the phosphate minerals division, has been named assistant export sales manager.

Carl H. Hartman, vice president of St. Regis Paper Co. in charge of multiwall bag development has retired but will serve the company in a consulting capacity. Mr. Hartman developed a number of improvements in multiwall bag making and filling equipment. He had an active part in the introduction of multiwall bags into such fields as chemicals, fertilizers, and foodstuffs.

Research

California Establishes Station for Subtropical Research

The University of California has purchased 200 acres near Santa Ana for experimental work on subtropical fruits, such as avocados, lemons, Valencia oranges, floriculture, and ornamental horticulture.

To be called the South Coast Field Station, the site is within 50 miles of Riverside and Los Angeles and will be used by UC scientists for work on development of new plant varieties, soil and irrigation problems, and insect and disease control.