Business Newsletter . . .

Medfly Attack

First phase of attack on Mediterranean fruit fly in Florida was **successful,** USDA reports. No flies could be found in two of most heavily infested areas after first round of spraying with malathion. **Battle is not over,** however, since larvae—protected by being underground during spraying—are expected to hatch a new crop, requiring a second treatment.

Farm Prices Rising Again

Farm prices rose 2% in the month ended June 15, bringing to **11% the total increase in 1956.** At 247% of the 1910–14 average, mid-June prices were above the year-ago level of 241%, first time a year-to-year gain has been registered since August, 1952. Meanwhile, **value of farmland** went up 4% in year ended last March.

Anhydrous Sales Gain

Despite rough going in the Midwest, particularly in North Central States, 1956 sales of anhydrous ammonia for direct application will be **up 15–20%** over last year's levels, says Agricultural Ammonia Institute. AAI survey, covering 47 distributors in 25 states and one in Canada, shows sales up 17.4% over first five months last year. AAI expects total **anhydrous tonnage for 55–56 to reach 460,000.** In Midwest, anhydrous shares market stickiness with other fertilizers; in some localities it has lost ground to other forms of nitrogen.

Pesticides Blamed for Killing Bass

California Department of Agriculture is warning farmers and pest control operators against **contamination of fish-bearing waters.** Pesticides (dieldrin or heptachlor) used to control rice pests have been blamed for kills of bass and other game fish in the Sacramento Valley.

- New chemicals on the way to growers for control of mites which cause losses often running up to $100 an acre (**p. 587**)
- Medfly outbreak brings new emphasis to the usefulness of chemical attractants and to the search for more specific lures (**p. 585**)
- Traditional foreign markets for U. S. pesticides are threatened by competition from Europeans and Japanese, who offer lower prices and more lenient credit (**p. 588**)
- Slightly lower tonnage of fertilizer sold in 1954–55, but primary nutrient use climbed (**p. 590**); British group predicts 12.5% drop in agricultural use of nitrogen in U. S. this year (**p. 591**)

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Angelica Bait Scarce

Medfly control efforts (See Business Newsletter, page 581) have created a problem in supply. Oil of angelica seed, highly specific **attractant for trapping male Medflies,** is so extremely scarce—even at $55 per pound—that USDA chemists have had trouble getting enough for research aimed at identification and eventual synthesis of the active fraction.

Acid Inhibits Plant Response to Light

University of Michigan botanists are investigating effects of **2,3,6-trichlorobenzoic acid** on plants' natural tendency to send **shoots upward, roots downward** from seeds. At concentrations as low as 0.5 p.p.m., the acid affects direction of shoot growth, inhibiting normal response of "bending" toward light, even after acid is withdrawn. Further study is aimed at fuller understanding of geotropism and phototropism—plant response to gravity and light.

Wasps Control Tobacco Pests

Large wasp populations, encouraged by provision of crude shelters, promise aid in controlling tobacco pests—at least in moderate infestations. USDA and North Carolina Ag Experiment Station found "paperhanger" wasps helpful in **combatting hornworms and budworms,** only a few of which are needed to wreak costly damage in tobacco fields.

DDT's Mode of Action

Entomologists at the University of Illinois are probing nerve physiology of insects to learn how insecticides work. They find that DDT—where effective—acts not by poisoning but by causing formation in the insect's blood of an unknown substance which **causes nerve system paralysis.** Formation of the substance can also be caused by electric shock.

- Precision scientific instruments make it possible to study and use soils, water, fertilizer, and pesticides more successfully (**p. 598**)
- Investigation of phosphate fertilizer indicates that it can be produced with almost any desired degree of water solubility (**p. 608**)
- Enzymatic method of estimating demeton residues modified to determine residues of DDVP on fruit and greenhouse plants (**p. 623**); a colorimetric determination of metaldehyde residues (**p. 625**)
- Sources of information for the many groups interested in pesticide toxicology are suggested (**p. 644**)