Potasan Punches Pests

A NEW nerve-gas insecticide called E-838 or "Potasan" has joined the list of deadly chemicals which make the modern American farm a very dangerous place for the insects-and sometimes for the men who fight the insects.

"Potasan," a trade name, was described in Washington to scientists and government agricultural experts about to conclude the most far-reaching Federal hearings ever held on the chemicals used by U. S. fruit and vegetable growers.

The new insect poison is a close cousin of parathion, one of the most effective agricultural chemicals developed since World War II. Like parathion, E-838 was discovered originally by a German chemist, the brilliant Dr. Gerhard Schrader of I. G. Farben, during a wartime search for new poison gases.

Dr. Schrader produced the so-called "nerve gases," incredibly toxic compounds that were never used in the war. Among the same chemical family were substances which proved to be potent insecticidesparathion, TEPP, HETP and now E-838, developed within the past two years.

Present indications are that E-838 will deliver a Sunday punch to such costly U. S. farm pests as the Colorado potato beetle and the red spider mite, Thomas F. Cleary, official of the Chemagro Corp., testified at the Food and Drug Administration hearing.

He said the new poison (which has the tongue-twisting technical name of diethoxy thiophosphoric acid ester of 4-methyl-7-hydroxy coumarin) has been tested also against the costly codling moth in apple orchards, the Mexican bean beetle, Southern armyworm, cabbage worm, onion thrip and pea aphid.

Such phosphorus compounds, being linked to the nerve gases, are also extremely dangerous to man. The American Medical Association warned that extreme caution must be used in handling these new insecticides. Already they have caused deaths and numerous severe poisonings. Protective clothing as well as gas masks must be used in the field or orchard, for the chemicals can be absorbed through the skin as well as inhaled.

Evaluation of the health hazard to the U. S. consumer from these and other modern-day agricultural chemicals is the goal of residual tolerance hearings which began in Washington last January, and which ended Sept. 15.

More than 9,000 pages of testimony were taken. Experts from the U. S. Public Health Service, FDA, Department of Agriculture and most major U. S. chemical companies testified on the necessity as well as the possible danger of using chemical

weapons now available to fruit and vegetable growers.

Nearly all chemicals used as insecticides, fungicides and weed killers have been studied. Final goal of the project-after lengthy briefs have been filed by witnesses and a proposed set of regulations perhaps battled out in court—will be new Federal rules regulating the permissible amounts of chemical residues on fruits and vegetables traveling from truck farms and orchards to the nation's dinner table.

Science News Letter, September 23, 1950

PSYCHOLOGY

All Work, No Play Does Make Jack Dull Boy

➤ THE "All work and no play makes Jack a dull boy" saying gets scientific support from a study by Dr. Frederic T. Jung of Chicago, Ill. The report will particularly please the Jacks-and Jills-who complain about too much school work without enough vacations.

The study, made on students carrying accelerated courses at Northwestern University School of Medicine, also carries a warning to scholarly students. They, Dr. Jung found, are "inclined to slight their physical needs.'

Both physical fitness and enthusiasm, Dr. Jung found, declined measurably during long uninterrupted periods of schooling, both rose significantly during an interval that included a vacation.

Science News Letter, September 23, 1950

GEOLOGY

Plants 100,000,000 Years Old in Colorado

TAKING his bearings by the fossils of strange plants millions of years old, a government geologist has pinned down the age of a slice of Colorado.

Dr. Roland W. Brown of the U. S. Geological Survey, in a professional paper published in Washington, reports that a rock layer covering uranium ore deposits in southwestern Colorado dates from the time when birds and flying reptiles first appeared on earth, and the time when dinosaurs and giant reptiles were becoming ex-

Much of his detective work was done by studying plants preserved in the rock. These included cycads—plant half-way between tree ferns and palms-as well as ordinary ferns and flowering plants. Among his specimens, Dr. Brown says, are four species previously unknown, four plants which grew in Colorado perhaps 100,000,000 years ago in America's Cretaceous Age.

Science News Letter, September 23, 1950



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