CHEMISTRY

DDT Has New Competitor

Claimed to be even deadlier to some species of insects, it is a compound described as a chlorinated hydrocarbon, named Velsicol 1068.

➤ DDT HAS a new competitor in the insect-killing business, claimed to be even deadlier to some species. It is a compound described as a chlorinated hydrocarbon, to which the trade name Velsicol 1068 has been given. The number 1068 affords a hint as to its composition: it contains 10 atoms of carbon, six of hydrogen and eight of chlorine to the molecule, giving it the empirical formula $C_{10}H_6Cl_8$. This of course gives no clue to the actual structure of the molecule, for the same assortment of atoms could be arranged in many different ways.

The new insecticide was compounded in the laboratories of the Velsicol Corporation of Chicago, which will manufacture and market it as an ingredient for sprays, insecticidal paints, etc. Laboratory and field tests on a limited number of insect species have been conducted by three entomologists, Prof. C. W. Kearns and Prof. Lester Ingle of the University of Illinois, and Robert L. Metcalf of the Tennessee Valley Authority.

Prof. Kearns states that the new compound has been found from three to four times as toxic to houseflies as DDT, twice as toxic to potato beetle larvae and to pea and spiraea aphids. It was about equal to DDT and the British insecticide known as Gammexane in its deadly effects on the "wigglers" of the most common of the malaria-carrying mosquitoes *Anopheles quadrimaculatus*.

Precisely measured dosages of 1068 and DDT applied externally to adult American cockroaches revealed 1068 to be approximately three times more toxic than DDT to this particular insect, Prof. Kearns continues. Measured quantities fed to adult grasshoppers indicated that 1068 is between five and 10 times more deadly, weight for weight, than DDT; also that it is from two to four times more poisonous to grasshoppers than Gammexane.

Volatility tests showed that 1068 is intermediate between Gammexane and DDT in its evaporation rate, so that it can be expected to last longer than the British poison but not so long as DDT when used in paints or as a residual spray.

Thus far, Prof. Kearns adds, "little information has been obtained as to the effect of 1068 on plants and animals other than insects."

Science News Letter, February 2, 1946

GENERAL SCIENCE-EDUCATION

AAUW Study Grants

Girls who led underground forces, helped resistance movement in Nazi-occupied countries now studying in United States with AAUW aid.

➤ A YOUNG WOMAN leader of underground forces in Norway during the Nazi occupation, another who aided refugees escaping to Sweden, a third who secretly taught classes in astronomy after the Nazis forced the University of Brussels to close, are among six young women now studying at colleges and universities in this country with aid from the International Study Grant program of the American Association of University Women in Washington, D. C.

Most dramatic of the stories of these young women told by the AAUW is that of 25-year-old Miss Anne Sofie Oestvedt, who is now studying the chemistry of foods at the University of California at Berkeley, preparing to do much-needed nutrition work in Norway.

Miss Oestevedt was second in command of 3,000 underground workers in Norway. She was hunted so intensively by the Germans that she had to take on a disguise so complete that her own father, standing next to her in a street car, did not recognize the young brunette as his former blonde daughter.

Hiding from the Germans since 1942, Miss Elsa van Dien, of Holland, nevertheless continued her scientific studies and was able to complete most of her thesis. Now enrolled at Radcliffe College, she is studying astronomy at Harvard Observatory and fulfilling the hope she never gave up of "joining USA student life." She had been awarded a fellowship to study in the United States in 1939 but could not accept it because of the outbreak of the war.

Also a student at Radcliffe and Harvard Observatory is Miss Simone Daro, of Belgium, who taught classes organized secretly by the underground after the University of Brussels closed.

Miss Karen M. Dannevig was another candidate chosen from among forty Norwegian applications for AAUW Study Grants. When occupation by the Germans interrupted her work at the University of Oslo, she worked first with the secret military organization in arranging the flight of refugees to Sweden and allowed her rooms to be used for instructing refugees, thus risking arrest and confiscation of her belongings. When her rooms were finally taken by the Gestapo, she worked as a coder of secret messages and as secretary to the leader of the Norwegian Home Forces. She is now studying American literature and history of the arts at Radcliffe College, preparatory to teaching English.

When an AAUW Study Grant was given to Miss Elizabeth Jansma of Holland last fall, the U. S. Ambassador to the Netherlands helped her to get passage to this country as the only passenger on a Liberty Ship. Her father, a well-known liberal, was one of the first group arrested by the Germans. A graduate of a "gymnasium" for girls, Miss Jansma is enrolled at Sweet Briar College, Virginia.

Miss Cecile Rabut of Paris, France, who has been a practicing advocate since graduating from the law school of the University of Paris, received the AAUW Study Grant to make a study of the problems of juvenile delinquency as handled by courts and correctional agencies in this country. After study at the New York School of Social Work, she will observe American methods in juvenile courts and institutions in the South and Middle West, under a schedule planned by the U. S. Children's Bureau. She will report to French authorities upon her return with a view to helping solve problems of delinquency which have reached alarming proportions in France.

The American Association of University Women will bring another group of women students to the United States next fall.

Science News Letter, February 2, 1946