

It is best to strike it early, of course; but if that has been neglected there is still time even after the pollen-shedding begins. Any given ragweed plant will shed pollen for several weeks, with new flowers coming to maturity all the time. But if the plant gets its dose of 2,4-D it will be crippled if not killed, and the shedding of pollen will stop very soon. Fortunately for us, ragweed is one of the most sensitive of plants to the poisonous action of 2,4-D.

In the Midwest, this should be an especially good time to go after ragweeds, because their thickest stands, especially of the tall species, are on flat river-bottom lands. The floods blotted out millions of acres of ragweed this summer, along with the cornfields, so in many places the spraying crews will

have only the upland ragweed patches to deal with.

In cities, ragweed thrives most rankly on wastelands—the neglected patches between tracks in railroad complexes, on vacant lots, around tumble-down abandoned houses and other buildings. It used to be necessary to send scythe squads to do the sweaty job of mowing them down; now it can all be done with a sprayer.

Of course, there will still be hayfever even if all the ragweed patches in your community are accounted for. The pollen is very light, and the wind carries it for miles from masses still growing in the country. But it is worth while to kill city ragweed patches anyway, for every reduction in pollen density in the air will benefit hayfever sufferers.

Science News Letter, August 23, 1947

MEDICINE

Weapon Checks Cancer

Chemical, urethane, is being tried against cancer of the prostate gland and has been successful in some cases. It is poisonous drug.

➤ A NEW CHEMICAL weapon against cancer is being tried at the University of Chicago. This chemical is called both ethyl carbamate and urethane.

It causes "inhibition" (checking) of some cases of cancer of the prostate gland, Drs. Charles Huggins, Sung Ting Yu and Ralph Jones, Jr., report in *Science* (Aug. 15).

Considerable decrease in size of the cancer, relief of pain and an improved sense of well-being occurred in three patients with widespread cancer of the prostate who were treated with this chemical.

The chemical, however, is a relatively poisonous drug. One patient who was given it for 33 days showed improvement at first, but six days after the drug was stopped, he died of necrosis of the liver. Much smaller doses were given to other patients without harm and with some improvement in their condition.

The drug must be given with great caution, the doctors warn, and the number of white blood cells must be checked frequently. When these drop to less than 4,000 per millimeter or when the patient is nauseated, the drug must be stopped.

The chemical is one of a number the Chicago doctors have been investigating for use in cases of cancer of the prostate that have relapsed after being con-

trolled for a time by anti-male hormone treatment.

The anti-male hormone treatment was introduced by Dr. Huggins several years ago. It consists in either surgical removal of the male sex glands or treatment with female sex hormone or both. It is not completely satisfactory because, although the patients at first improve, 80% of them relapse in less than five years.

The favorable effects of urethane are not due to anti-male hormone action or to interference with the cancer cell's nutrition.

The chemical also has a suppressive effect on a transplantable cancer of rats, the Chicago doctors found.

Ethyl carbamate, or urethane, has previously been used as a sedative and, with quinine, in the treatment of varicose veins.

Almost half a century ago the German scientist, Otto Warburg, discovered that small amounts of this chemical would check cell division in fertilized eggs of the sea urchin. Last year a group of English scientists, Drs. E. Haddow and A. Paterson and their associates, reported that it caused a temporary but significant slowing of the growth of mouse breast cancer and a cancer in rats and had a very great palliative effect in human leukemia.

Science News Letter, August 23, 1947

CHEMISTRY

Old-Fashioned Insect Bane To Give DDT Competition

➤ DDT, 666 and some of the other new synthetic insecticides may presently have competition from a modernization of an old-fashioned discourager of insects, black pepper. Edward Harvill, chemist on the staff of the Boyce Thompson Institute for Plant Research at Yonkers, N. Y., combines piperine, extracted from pepper with alcohol, with pyrethrin, to make a highly potent insecticide. A one-tenth per cent solution made a 99.8 per cent kill of flies in one test, he states. His patent number is 2,425,530.

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