

HORTICULTURE

Sugar Cane Weed Conquered by 2,4-D

➤ CONQUEROR of many a tough weed in this country, 2,4-D has demonstrated its power over even tougher weeds in the tropics. Prof. Kenneth V. Thimann of Harvard, just returned from Cuba, tells of successful experiments with this chemical killer against the most troublesome of cane-field weeds, a woody plant of the legume family known as *Aroma marabu*. This weed has hitherto defied hoeing and mechanical cultivation, which merely chop its tops off but leave the roots alive and ready to throw out new sprouts.

Best success with 2,4-D was scored with the sodium salt of the compound, with one-half per cent of Carbowax 1500 added to help the spray to stick to the leaves. 2,4-D ester in oil was also effective. Both these compounds were used in three-tenths per cent concentration, which is three times the strength commonly used on weeds in this country.

Another troublesome tropical woody weed that can be knocked out with 2,4-D is a botanical cousin of poison ivy, having quite similar effects on the human skin. Botanists call it *Comocladia dentata*, but its common name in Cuba is "guao". "Guao" is pronounced (approximately) "WOW!" and in every-day speech means just about that.

Prof. Thimann, reporting briefly on the work in *Science* (July 25), states that the experiments are being continued.

Science News Letter, August 2, 1947

PSYCHIATRY

Reflex Method Tests For Serious Brain Damage

➤ IF YOU CAN'T be taught to make your mouth water at sight of a juicy beefsteak, there may be something wrong with your brain.

This is the basic method used in a kind of speedy examination that physicians can now use in searching for serious brain damage.

The new 30-minute method was demonstrated at the Fifth International Congress of Pediatrics in New York by Dr. W. Horsley Gantt, of Phipps Psychiatric Clinic, Johns Hopkins Hospital, Baltimore, Md.

Your mouth waters at the taste of a juicy beefsteak. That is known as an in-

born reflex. But even young babies can learn to have the same mouth watering or start sucking movements at just the sight of food. This acquired reflex is known as a conditioned reflex.

The ability to form new conditioned reflexes depends on the action of the higher nervous centers and especially in mammals upon the cortex. The higher in the animal scale, the more does this ability to form conditioned reflexes depend upon the brain cortex.

Inability to form new reflexes points to serious damage to the brain cortex—perhaps a brain tumor. It is also possible through use of the conditioned reflex technique to distinguish between functional disturbances such as neuroses, psychoses and hysteria and the organic disturbances.

Science News Letter, August 2, 1947

GENERAL SCIENCE

Science Foundation Bill About To Become Reality

➤ CONGRESS has voted a National Science Foundation (See SNL, July 26) after nearly two years of planning and debate. President Truman was expected to sign the new foundation into being this week.

Heading the foundation, under terms of the compromise conference report passed by both houses of Congress, will be a 24-man board of part-time policy-makers appointed by the President with the approval of the Senate.

The director of the foundation will be appointed by the board. The directorship, an important new post in American science, will be a full-time job with an annual salary of \$12,000.

Planned as a peace-time successor to the World War II Office of Scientific Research and Development, the foundation will be the agency for administering federal support of science. Since the end of the war, OSRD has been going out of business, and federal support of science has been left chiefly in the hands of the Army and the Navy. The military program in science has included not only the development of weapons but also the support for fundamental research. Most of this latter program will now move over to the new foundation.

Work of the foundation will be divided into special divisions. Social sciences, originally urged by many scientists as one of the divisions, are not included in the bill passed by Congress. In addition to the divisions created within the

foundation, special commissions for attacking cancer, heart diseases and poliomyelitis are authorized, and others may be added.

Basic research will be emphasized in the foundation program, but foundation's jobs will be done through grants, loans, scholarships and other aids to scientists and laboratories, rather than in new laboratories actually directed by the foundation.

Science News Letter, August 2, 1947

MEDICINE

Headache and Spasm Are Early Symptoms of Polio

➤ DOCTORS should diagnose and treat infantile paralysis early in order to reduce discomfort and crippling of the victims, Dr. John F. Pohl of the Elizabeth Kenny Institute, Minneapolis, urges in a report appearing in the *Journal of the American Medical Association* (July 26).

Headache is the most distinctive initial complaint. This is usually a severe, generalized, unrelenting type, which is rare in the illnesses of childhood.

Spasm, which is shortening of the muscles, appears early and is present in every case, Dr. Pohl also found in studying 1,125 cases of poliomyelitis during the 1946 epidemic. Paralysis is not a common early symptom, however.

"Symptoms and observations are sufficiently characteristic to enable the diagnosis to be established in most patients within 24 hours of the onset," Dr. Pohl said. "The study also discloses that paralysis is not a useful diagnostic sign because paralysis or weakness of the muscles is not a common early event and in a considerable number of cases does not occur at all. To await the appearance of paralysis to confirm the diagnosis or to begin treatment is inadvisable. It is now recognized but should be emphasized, that patients without paralysis are often seriously ill and may become crippled from conditions other than paralysis which affect the muscles. All cases should be brought under treatment as soon as possible."

Science News Letter, August 2, 1947

United States imports from Argentina *hides* and *skins* of animals not known here; they include carpincho, a large rodent; jabali, a wild boar; lagarto, a large lizard; vibara and boa, snake; and lobo marino, a seal.