BOTANY

Graft Method Tests Sweet Potato Disease

➤ SWEET POTATO viruses will now be studied with a new method of grafting.

Vine cuttings are inserted into a single potato root which can be cut as many as twenty times and support 100 different shoots. Three strains can be grafted onto one potato root infected with a virus. The effect of the virus on each species gives an indication of its resistance to a particular virus. Since cuttings of different strains can be grafted on the same infected root, the passage of the virus into shoots is more reliable than in a soil test.

This research was done with sweet potato varieties Mabrouka, Mangawy and Selecta for cork disease virus by A. K. Gaafar, University of Cairo. It was reported in the Nature, Dec. 1, 1962.

• Science News Letter, 83:61 January 26, 1963

SURGERY

Active in Sports After Open Heart Surgery

➤ A HAPPY ENDING to an auto smashup followed by open heart surgery was reported in the New England Journal of Medicine, 268:128, 1963. A year and a half after a 15-year-old high school boy, R. H., underwent a rare operation at the Boston City Hospital he is leading a normal life that includes activity in sports.

R. H. had been driving at a speed of more than 100 miles an hour when the car hit a tree and overturned. The steering wheel struck his chest, causing a rupture of the septum between the two ventricles of the heart.

The boy had other injuries and was in profound shock, so that treatments during a six-month interlude preceded the heart operation. A harsh systolic murmur had been noted soon after the accident, but the surgeons had attributed it to congenital heart disease.

After going over records of the patient's hospital birth and his school examinations, which revealed no history of heart murmur, the surgeons performed a cardiac catheterization that showed the rupture.

During the open-heart surgery, R. H. was connected to a pump oxygenator and placed on total bypass of the normal circulation. The right ventricle was opened but the defect was hidden from view by a muscle that had to be temporarily detached. Three small openings, which made up the defect, were closed with silk sutures and the muscle was reattached. The right ventricle was then allowed to fill with blood and the operation was completed.

Only three such cases have been reported, and the present case is believed to be the only one in which the success of the operation was proved. Usually early congestive heart failure and eventual death have resulted.

Dr. Gerard Desforges of Tufts University School of Medicine and Dr. Walter H. Abelmann of the Harvard Medical School, both of Boston, reported the study.

• Science News Letter, 83:61 January 26, 1963