

centage of monkeys when simply injected under the skin, Drs. Trask and Paul found. These virus strains were recently isolated, some of them coming from patients in the Toronto epidemic last summer. Older virus strains, obtained long ago and kept growing in laboratories for years, rarely produce the disease unless injected into the nasal cavity.

The difference between the strains may be only a coincidence, the Yale investigators point out. If it is not coincidence, it is obvious, although the scientists say nothing of this, that the fight against the childhood plague will have to be approached from a somewhat different angle.

#### Sulfanilamide No Help

Sulfanilamide, the new chemical remedy that has apparently been conquering one infectious malady after another,

is probably not going to be any help against virus infections like infantile paralysis. Research indicating this is reported by Drs. Earl B. McKinley, Ellen Gray Acree and Jean Sinclair Meck, of George Washington University School of Medicine to the same journal.

These investigators tried sulfanilamide as a remedy for infantile paralysis in monkeys and for two other virus-caused diseases in rabbits, but the new chemical failed to save the lives of these animals. All but one monkey died.

The explanation, Dr. McKinley suggests, is that sulfanilamide is unable to exert its action against a disease germ when the latter gets inside body cells, as viruses do. In the diseases for which sulfanilamide has proved an effective remedy the causative germs are bacteria of a type which live between body cells rather than inside them.

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#### FOR SUGAR

*Insects, both destructive and beneficial, are gathered from the tropics of all the world, in efforts to place sugar cane growing on a more scientific basis. Here, Dr. F. X. Williams, Hawaiian entomologist, examines a collection from Guatemala.*

ENTOMOLOGY

## Hunt in New Guinea for Foe Of Sugar Cane Insect Pest

### When Killer Ally Is Found Then Long Difficult Feat Of Transplanting Him to Foreign Soil Will Begin

**D**EEP in the wilds of New Guinea lurks a killer insect without a name. A party from Hawaii is slashing its way through the jungle, risking death from disease and possibly unfriendly natives, determined to "get their bug."

Not that they intend to drag their six-legged quarry back to the bar of civilized justice. Quite the contrary; they approve the creature's lethal activities, for it is one of the insects that unconsciously fights man's battles by killing other insects that are harmful to his crops.

This particular insect is an enemy of the sugar cane borer, one of the most destructive pests both in Hawaii and in the sugar area of the mainland United States. It is hoped that it can be transplanted and acclimated first in Hawaii, and then possibly also the rest of the way across the Pacific.

The new insect ally of sugar cane planters was discovered quite by accident. A scientific exploring party was sent out by the Hawaiian Sugar Planters' Association, under the leadership of Cyril E. Pemberton, to seek new types of wild

cane. Their boat was wrecked on the New Guinea coast.

Thrown onto a forbidding and possibly hostile shore, the party occupied itself with forays into the jungles while they waited for help. They discovered a patch of cane, close to a swamp. Some of the stalks were afflicted with borers. They opened these up—and found the long-sought enemy of the pest.

Marking the place of discovery, and trusting the insect's descendants would still be there when they returned, Mr. Pemberton and his party journeyed on to Honolulu. Elaborate preparations are being made for the insect's importation. With acclimatizing stations established possibly in Samoa, Fiji and New Caledonia, the attempt will be made to transplant it to Hawaii.

Life spans of such insect allies, and the tremendous distances over which they must frequently be brought, make it impossible to carry individual insects through. The originals are generally established near their homeland, where they can be watched and their food requirements studied. Insects on which they feed must be similarly treated. In

some cases a whole coterie of enemies of various types must be captured, studied and carefully reared to get a single one through, and a failure in preserving any one type may destroy the chances for the entire expedition.

Similarity of climates must also be taken into consideration. Too great a change in one step may spell disaster. It is nothing unusual for a year or more to be spent in carrying a single desired insect over a few thousand miles.

Successfully transplanted, there is still the very definite danger that in the insect's new homeland his life characteristics may suddenly change. An originally valuable species, after acclimatization, may lose its interest in hereditary enemies and be utterly valueless as an ally to science. Even more serious, it may suddenly be imbued with the inclination to cooperate with established pests, and itself become a menace that forces instant eradication.

New insects, life forms, plant species, etc., must therefore be placed in isolation wards where they can be watched under Territorial conditions. Imprisoned in limited areas, insects and plants are placed with them, and more months allowed to pass while constant check is kept of developing tendencies. Only after positive proof of benefit are the doors opened and the new ally installed in the field.

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