Search For Poisonous Plants

Entomology

POISONING the water to catch fish is illegal in almost all civilized countries, as well as in many of the lands of the sun that have become the "white man's burden"; yet the leading governments of the world are now engaged in a zealous search for the most efficacious of the plants used as fish poisons by savage peoples. In a bulletin of the Royal Botanic Gardens at Kew, England, F. N. Howes, well-known British botanist, summarizes the knowledge so far obtained.

These fish-poisoning plants are desired not for poisoning fish but for fighting insect pests. The artless savage takes insects for granted, but the more advanced nations of Europe, Asia and the Americas, dependent for their food on the highest efficiency of agriculture, fight the devouring hordes with every weapon they command.

A chief dependence has been arsenical sprays. These are very effective, but some insect pests have developed resistant strains that can swallow considerable quantities of arsenic without suffering harm. Hence the search for new kinds of poisons.

Fish poisons made from plants have been found highly efficient substitutes. Dilutions of one part in a million or more of water are fatal to insects, usually on mere contact. Derris, an East Indian plant, or rather group of plants, is already in considerable use. It is proposed to spray for several seasons with arsenicals, then for several with derris or one of its relatives, thus catching the arsenic-immune strains that may have evolved with something to which they are not immune.

Most of the fish-poison plants thus far experimented with are of tropical origin. One of the most promising recent additions is the South American "cube," pronounced "koo-beh." Both derris and cube, together with the majority of other fish-poisoning plants, are members of the legume family, relatives of clover and peas. It is proposed to grow them as fertilizer crops in rubber groves and other tropical plantations, thus obtaining two paying crops off the same land with the same labor, and enriching the soil at the same time.

But many other fish-poisoning plants belong to other plant families. One which used to be used in southern Europe is the common mullein, which is now thoroughly naturalized in America as well. If mullein turns out to be an efficient insecticide, its cultivation should present no particular problem, for it is the rankest kind of a weed.

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Radio Fever—*Cont'd*

Prof. McLennan and his associates made their tests on chemical solutions similar to those contained in living things. As a result of their tests, physicians will be able to tell just what wavelengths to use to produce fever in any part of the body. There is one optimum wavelength for heating a material of given conductivity to the greatest degree.

The liver, heart and other parts of the body have different conductivity for these short waves, the scientists found. Taking advantage of this fact, physicians may be able to aim the high frequency treatments at a special organ or part of the body that needs heat treatment.

Scientists point out that the effective amounts of radio waves used in the cancer investigations and also in the production of the artificial fevers are far larger than could be obtained from radio broadcasting. There is little likelihood of beneficial or harmful radio waves entering the home along with political speeches, jazz or other radio programs of today.

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Honors for Fliers

BY special congressional action, all members of the Alaskan Aerial Survey expedition, which mapped nearly 13,000 square miles of wild country in that region in June, July, August and September, 1926, are expected soon to be given the distinguished flying cross by the Navy Department. A bill providing for this honor has been passed by the House and is on the calendar of the Senate awaiting its turn.

Each plane was in the air about 180 hours during the mapping and each plane flew about 18,000 miles, over mountainous, largely uninhabited country. No safe landing places were available excepting on a few small lakes which were seldom accessible and from these take-offs could not have been made, states a report made to Congress by the naval committees of both houses.

Officials of the Department of Agriculture and the Department of Commerce recommended the awards, and told of the value of the work done in inventorying national forest resources, and locating power sites.

Aviation

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