MARINE BIOLOGY

DDT Checks Barnacles

➤ THE NEW insecticide, DDT, gives promise of eliminating barnacles from ships' bottoms and other marine structures. Barnacles failed to attach themselves in six months' time to wooden panels coated with a paint developed by Prof. R. E. Dimick, of Oregon State College.

This paint contained DDT, chemically dichlorodiphenyltrichloroethane, and no other known toxic substance. Control boards treated with the ordinary antifouling paints were heavily covered with barnacles and other salt-water fouling animals after three months' submersion in marine waters.

The anti-barnacle paint was one of a large group tested at the Yaquina Bay Fisheries Laboratory operated by the Oregon Agricultural Experiment Station. Since DDT is insoluble in water, the expectations are that its antifouling properties may greatly exceed the initial test period of six months. Studies are being continued to determine the efficiency of DDT as antifouling agent for marine animal forms other than barnacles, as a control for wood-boring marine mollusks and crustaceans, and to ascertain if the insecticide exhibits differences in antifouling properties for the various species of barnacles.

Since barnacles now have to be scraped periodically from ship hulls and marine growths foul ships and reduce speed materially, the successful and practical development of the DDT antifouling paint would undoubtedly save millions of dollars annually.

Science News Letter, July 14, 1945

CHEMISTRY

Lignin Now Found Useful With Fertilizers

➤ LIGNIN, a by-product of pulp and paper mills that has long been regarded as "the largest waste in industry", is now found useful with fertilizers to add humus and organic matter to depleted soils, Robert S. Aries, research associate at Yale University, has revealed.

This new use of lignin, he says, is an "extremely important discovery, because of the tonnage involved." Lignin is an organic substance which, with cellulose, forms the chief part of woody tissue.

In addition to 2,000,000 tons of lignin now discharged annually by mills into streams and rivers, he asserted, sawmills and other woodworking plants throughout the country "can readily make available another 10,000,000 tons of wood waste which can readily be incorporated into fertilizers."

"As a result of present day experiments," he continued, "lignin may assume an important part in this nation's soil building and conservation program. It will be a 'wealth from waste' movement, since lignin at present pollutes the nation's rivers; as fertilizer, it will definitely aid in providing higher land values and richer soils."

The part played in soil improvement by using lignin with fertilizers is largely to supply organic matter.

"If lignin is used on presently fertilized soils which need humus and organic matter, it is estimated that the efficiency of these soils would be raised about 20%," he said.

Science News Letter, July 14, 1945

BOTANY

NATURE RAMBLINGS by Frank Thone

Growths of Evil

➤ RAGWEEDS are getting fairly into bloom about now, over the northern part of their range. In a few weeks their waves of windborne pollen will sweep southward to the Gulf, and the sorrowful season of sneezes and bleary eyes will be on for thousands of hayfever sufferers. There will be no real letup until frost, for even though many municipalities now conduct summer weed-mowing campaigns, ragweed pollen grains are so light that they float for miles on the wind, and there are plenty of sources out in the country to keep the air of even the largest cities most dolefully contaminated.

Why ragweeds should bear the responsibility for nine-tenths of summer hayfever cases is still more or less of a mystery. To be sure, there are enormous quantities of both tall and low ragweed, and both species are prolific producers of pollen. However, other windborne pollens, such as pine and spruce, are often much more abundant than ragweed pollen, at least in certain regions, yet these tree species seem to cause few if any cases of hayfever. There simply seems to be some specific malignancy in the ragwood