firmed experiments that have been carried out in New York State and justified the use of "bottomless pits" to keep rosettes from floating away after they were cut.

Plant Shows Fourfold Annual Increase

In 1964, we were able to work only some two weeks on the waterchestnut problem. Of 100 acres in the Sassafras River system, we cut about 30 acres in Turner's Creek at that time. By June 1965, only scattered plants marked the areas cleaned out in 1964, whereas the uncut areas were covered with dense mats of waterchestnut. We estimated that the infested area increased about four times in the untouched portions of the creek. If this was an accurate estimate, it indicates that three-fourths of the chestnut must be destroyed each year just to hold an infestation at status quo.

Salt May Halt Regrowth

In mid-July 1964, new growth appeared at the surface less than a week after cutting. These rosettes were small and did not set seed. In 1965, however, there was almost no regrowth. We think that the salt content of the water may have prevented regrowth in 1965, although we were not able to detect salt in any part of the Sassafras system. Frequent measurements by various agencies show that salt content of the Chesapeake Bay has been increasing for three or four years; by September, salinity in one fresh-water area on the Susquehanna flats had reached three parts per thousand (ppt.). In August, we found rather heavy sets of barnacles in most of the tributaries of the lower Sassafras, and these barnacles cannot survive in water with less than 4 ppt. salt.

On waterchestnut we had not yet cut, the outer leaves of rosettes turned brown and fell off. Many of the stems rotted and remaining rosettes floated away with their seeds. In the summer of 1965, we cut some 180 acres of chestnut; the salt water intrusion, we believe, finished the job for us.

Need More Data on Pesticide Risks, Maryland U. Conferees Are Advised

"We have some information on the risks involved in the use of pesticides, but we need more," Dr. J. E. Dewey, of Cornell University, Ithaca, N.Y., told delegates to the Sept. 27-28 Northeastern Arborist-Nurserymen's Pesticide Application Conference at the University of Maryland, College Park.

Dr. Dewey noted that continued employment of pesticides is a must, but cautioned that the safest chemical that will do a given job adequately should be used. He called for increased emphasis on the use of sprays rather than dusts, and on use of more carbamate and organic phosphate pesticides which leave less residue than some others.

Attended by more than 75 arborists, nurserymen, pesticide coordinators, and others, this was the third in a series of custom applicator schools sponsored by the University of Maryland and the Northeastern Pesticide Coordinators.

Program speakers included Dr. John A. Weidhaas, Cornell University entomologist, who talked on "The Chemical Aspects of Shade Tree and Nursery Insect Control"; Horace Webster, National Park Service plant pathologist, who described municipal pest control in the Capital region; Dr. Charles W. McComb, University of Maryland entomologist, who headed a session on "Recognition of Some Important Insects of Shade Trees and Their Control"; Dr. Edward Duda, of Bartlett Arboretum, Stamford, Conn., who discussed "Hydraulic Application of Pesticides"; and Dr. James L. Brann, Jr., Cornell University entomologist, who covered "Some Factors Affecting Air-Blast Sprays."

Highlight of the two-day meeting was a guided tour of the 415-acre National Arboretum, in Washington, D.C. Participants viewed plant research projects and discussed measures used at the Arboretum to control pests of trees and shrubs. Anyone interested in additional information on the conference series should contact chairman David Shriver, chemical-pesticide leader, Department of Entomology, University of Maryland, College Park, Md. 20742.

Centrifugal Spreader Gives Speedy Broadcast

The Diadem centrifugal fertilizer spreader is capable of broadcasting all types of fertilizers, lime, seed, granular herbicides and insecticides with precision in one-fifth of the time ordinarily required, according to The Vandermolen Co., North Caldwell, N.J., which has introduced the equipment in the U.S.

Diadem can cover up to 12 acres per hour with even swaths of 35 ft. and more, Vandermolen says. Spinner disk, scoop blades, and feed outlets are designed and matched to provide uniform placement of all types of material. Tractor speeds up to 10 m.p.h. can be used, and a simple adjustment will vary coverage from 9 lbs. to 2,600 lbs. per acre.

The Diadem spreader's conical steel hopper has a 700-lb. capacity. Spinner assembly and setting controls can be removed without the aid of tools for quick cleaning of parts. For complete information and illustrated literature on the equipment, which is manufactured in West Germany, write to The Vandermolen Co., 378 Mountain Avenue, North Caldwell, N.J. 07006.

Diadem centrifugal spreader holds 700 lbs. of fertilizer, seed, or herbicide, spreads at speeds up to 10 m.p.h.