

GOVERNMENT

UPDATE

2,4,5-T warnings suggested

Counselors of the Environmental Defense Fund, the National Audubon Society and the National Wildlife Federation have signed a letter to the EPA suggesting that a warning be posted on all areas sprayed with 2,4,5-T where human reentry might be possible, especially recreation sites.

An example of the suggested warning is: "Warning! This area has been sprayed with 2,4,5-T. This product has been determined to cause birth defects in laboratory animals. Women of child-bearing age should not enter posted area and do so at their own risk."

Australia finds no 2,4,5-T, birth defects link

A Consultative Council appointed by the Minister of Health, Victoria, Australia has reported that there does not appear to be any relationship between herbicide usage and type of birth defects or deaths related to birth.

The Council noted that it had compared birth defect numbers in two statistical divisions with similar numbers of births. Even though 2,4,5-T and 2,4-D use was considerably higher in one division, the council reported no differences in the rates or types of defects.

tered for greenbug control. Funds to support the project are invited from the turfgrass industry.

Various biotypes of the greenbug have developed which attach specific grass hosts. Speculation is that a new bluegrass adapted biotype of the greenbug has evolved in Ohio and other midwestern and eastern states.

The greenbug damages grasses in several ways. With piercing-sucking mouthparts it feeds on phloem sap. Large numbers of the insects seriously weaken plants. In addition, the greenbug secretes a salivary phyto-toxin which is injected into the plant, resulting in yellow and orange spots on the leaves. There is the possibility that the toxin may also move within the plant and weaken the root system. The aphid may also be involved in the transmission of virus diseases.

Greenbug damage first appears in late June and continues through September. (See *WEEDS TREES & TURF*, October, 1978). Some control has been achieved with organophosphates, but three or four follow-up applications may be needed.

The new research effort will attempt to establish whether or not a bluegrass-specific greenbug has developed and if so, does it overwinter in bluegrass and will management practices affect overall populations.

Varieties of bluegrass will be screened for resistance or tolerance.

NURSERY

Mich. scientists make plant cloning possible

A technique forming the basis to produce hybrid plants with reduced flowering time, like the kalancho, thereby cutting down on energy and labor costs to keep the plant under short-day conditions, has been developed in the laboratory of Dr. Kenneth Sink, Jr., Michigan State University Professor of Horticulture, according to an article in the *Voice of M.A.N.*, the Michigan Association of Nurserymen's publication.

The adventitious bud technique, a type of single cell tissue culture, involves taking a slice from the leaf petiole of a plant, placing it in a culture medium, then exposing it to the right combination of light and temperature to promote shoot growth.

New plant varieties can be produced by treating the cell cultures with radiation or mutation-inducing chemicals that change the genetic code contained in the cells.

Sink has found 8 to 10 species, including petunias tobacco and

potatoes, that the system will work on. Two Michigan nurserymen, Walter's Gardens in Zeeland, and Goldner-Walsh in Howell, are using tissue culture according to the article.

TURF

Greenbug effect to be studied in Ohio

Stepped up efforts are planned for 1979 to learn more about *Schizaphis graminum* (Rodani), the greenbug aphid that has been causing increased levels of damage to turfgrasses.

Drs. Harry Niemczyk, Professor of Turfgrass Entomology, and L.R. Nault, aphid specialist, at the Ohio Agricultural Research and Development Center, will be co-investigators in the study.

The goal of the study is to learn more about the greenbug and to develop effective and economical methods of controlling damage. Information on the insecticides tested in the study could lead to the granting of a state or national label for the use of materials not presently regis-

SALT

Microscope shows cell damage to pines

Salt damage to trees and shrubs is being evaluated with a scanning electron microscope by Drs. Charles Krause and Alden Townsend, at the U.S. Department of Agriculture's Nursery Crops Research Laboratory.

Krause said they evaluated bristlecone pine and Japanese white pine after they were sprayed twice a day for 10 days with a two percent salt spray. The unaided eye could detect brown needles and typical salt damage symptoms on the bristlecone pine but the Japanese white pine appeared healthy and vigorous.

When examined under the electron microscope, however, the Japanese pine showed damage to the surface guard cells on the needles and