

turf in Florida is due to these pests, Dr. Winchester estimates. In early stages, sting nematode-infested turf roots appear cut off 4 or 5 inches beneath the soil surface. Stubby root nematodes cause colorless lesions near root tips, while spiral nematodes cause small lesions all along the roots. Root knot nematodes cause small galls on roots.

Sarolex does not kill weeds, but increased grass vigor caused by the control measure gives grasses a better chance to compete with the weeds.

Applications to St. Augustine-grass also gave good nematode control, Dr. Winchester relates. He says zoysia and centipede grasses infested by root knot nematodes were treated with 1½ pints of Sarolex per 1,000 sq. ft. They maintained vigorous green color a year later while surrounding grass was dead.

The nematocide must be applied at low pressure (35-60 psi) and it must be "drenched" into the soil right after applying to avoid turf injury.

### Herbicides Stop Growth Of Crabgrass Seedlings

Crabgrass seed germination is not inhibited by preemergence herbicides, as commonly believed. Rather, these herbicides stop growth of both roots and shoots soon after germination. This leads to death of the young crabgrass seedlings.

This new facet of research is reported by Dr. Clayton Switzer, University of Guelph, Ontario, Canada, who has just completed experiments in this area.

In studying several commonly used preemergence crabgrass herbicides, Dr. Switzer reports that very little herbicide is needed to bring about this growth inhibition, much lower than must be used in practical applications on turf. This, he says, indicates that much of the herbicide is probably inactivated soon after application, possibly by being tightly adsorbed to the soil particles.

Other Canadian research on movement of bensulide, a common preemergence crabgrass weed killer, substantiates this idea. Little downward move-



Mr. and Mrs. Wyn Behrens, publisher and editor respectively of the Marysville Journal-Tribune, appear a bit pensive as they watch sod for the lawn of their new home being laid on a 4-inch concrete base. One neighbor, watching the concrete being poured, thought the Behrens' were making a parking lot.

### Sod Over Concrete Proves An Unusual Innovation

Citizens of Marysville, O., were a bit shocked recently when Mr. and Mrs. Wyn Behrens laid their new sod on a concrete base. But the new turf is thriving and neighbors have accepted the idea that turf can be made to grow on about any type surface.

The Behrens' permitted the O. M. Scott & Sons Co. to use the lawn of their new home as a demonstration area to show that a good lawn doesn't necessarily have to be grown on quality topsoil. Scotts has grown sod on

ment of herbicide was found even though large quantities of water were leached through the soil.

### Most States Operate Chemical Info Centers

For the operator or grower seeking pesticide chemical information, most state Extension Services operate a full-time center.

Information is available by contacting the Cooperative Extension Service at the state land-grant university.

Such centers have data on regulations, registered uses, toxicities, persistency, degradability, compatibility, and safety pre-

old driveways, atop rocks and in so-called "impossible" soils, and now on concrete.

The turf is kept green with a modest daily watering and the use of a fertilizer every second month. It is weed free. The company believes it will grow well indefinitely.

Naturally, Scotts is not recommending concrete as a base for sod, unless, of course, a pure sand or gravel area has to be sodded. They simply wanted to show proof that good soil isn't a must for quality turf, and still recommend soil as a more favorable environment than concrete.

cautions of pesticide chemicals, and feed and food additives.

Major activities, according to Dr. L. C. Gibbs, coordinator of Pesticide-Chemicals Programs for the United States Department of Agriculture Federal Extension Service, fall into specific categories such as: (1) depth training programs for aerial and ground pesticide-chemical applicators and dealers; (2) development of visual aids and publications for the public; (3) surveys and projects to provide guidelines for developing future programs; (4) program coordination; and (5) dissemination of pesticide information on all aspects of pesticide use, storage, handling, and safety.