

Lush Winter Turf. Swedish soccer teams playing winter games at Solna, Sweden, this year will enjoy lush, green turf despite the snow. The field has been engineered to beat freezing by combining underground heating cables and a plastic covering. Sod has been installed over a six inch mixture of sand and gravel to absorb excess moisture. Electric cables prevent freezing and can maintain a 54° F temperature. Protection against night frost and drying out of the leaf zone is provided by a giant transparent plastic sheet, more than 260' x 360'. The plastic cover is handled by a motor-driven steel drum. Thus, even in the severe climate near Stockholm, turf growth is induced in early March and maintained until well after killing frosts in the fall.

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New Test for DED Antidote. A new antidote for Dutch elm disease has received clearance for field tests. Registration by the USDA is for a period of one year for a product developed by Charles R. Freers, Muscatine, Ia. Testing will be done in Missouri, Iowa, Illinois, and Indiana. Freers reports that the antidote inhibits continued growth of the DED fungus organisms.

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AAN Legislative Conference. Legislation has had an enormous impact on the nursery industry. So says Bob Lederer who is executive vice-president of the American Association of Nurserymen. Much of the success of the AAN, he says, is in helping members in an intelligent approach to legislation. A third national legislative conference by the AAN is being staged at Chicago this month. Lederer who is backed in his views by the state nursery association secretaries believes this coordination is the only way the nursery industry can avoid errors in judgement and duplication of effort regarding common legislative problems. Listed for discussion at the Chicago session are subjects ranging from wage-hour problems to tax suits.

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Community Programs. New trend in the suburbs is community spray programs. Robert Bartlett, company president for Bartlett, says more property owners are organizing and contracting for tree and shrub pesticide applications on area basis. In some cases, home owners are billed

individually, in others a representative of the suburban group negotiates a contract for the community, collects from each and pays the custom pesticide applicator. In either case, Bartlett states, the cost for each property owner is less. Normal service is a 3-step program: an early spring initial spraying to ward off leaf-eating insects; a late spring spraying aimed at aphids, lace wing flies, white flies, and leaf eating insects; and a third spraying in early summer for mosquitoes and other insect pests.

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Davey Keeps Busy. Davey Tree Expert Company has opened their new 28,000 square foot shop at their Kent, O., headquarters. It is one of five repair and service operations for handling Davey's fleet of 800 vehicles used by crews in 42 states and Ontario, Canada. In addition to cranes, aerial baskets, and crawler tractor sprayers, the company uses 300 brush chippers, 250 shade tree sprayers, and more than 50 tractors. Add to this array 500 power saws, 5000 hand saws and pole trimmers, and 275 electric drills for tree feeding. Davey crews, each year, also use more than 100 miles of manila rope, 75,000 feet of high pressure hose, enough ladders to reach several miles high, and about 1½ million pounds of tree plant food.

UM Suggests How and When to Make Soil Tests

Late summer through fall soil testing has definite advantages over spring testing, says William Fenster, University of Minnesota extension soil specialist.

By taking soil samples in the fall, one can avoid the inevitable "spring rush" and get test results back in plenty of time for spring planting. Fall testing also gives you ample time to decide which fertilizers will best provide proper nutrients for maximum yields, says Fenster.

Furthermore, fall testing allows fertilizers to be applied when soil is in relatively good condition. Waiting for spring to apply fertilizers often causes difficulties if the ground is wet.

As far as soil tests themselves are concerned, results are only as good as the samples on which

the tests are made, according to John Grava, supervisor of the university's Soil Testing Laboratory.

To collect a soil sample that reflects the fertility of an entire field, Grava recommends the following steps.

Divide each field into uniform areas of not more than 20 acres on level land or more than 5 on hilly grounds. Soil in each area should have the same color and texture, cropping history and fertilizer and lime treatments.

Avoid taking soil from low spots, dead furrows, fertilizer bands, urine spots, old fence rows or areas near crushed rock roads.

Before sampling each area, scrape away surface litter. Then sample to plow-layer depth for row crops; for pastures, sod crops or lawns, sample to a 3-in. depth. If using a spade or trowel, dig a V-shaped hole and remove a ½-in. slice from the side of the hole. Place the core in a clean pail; if testing for zinc, use a plastic container.

Repeat this procedure in about 15 places in each of the uniform areas. Mix the subsamples thoroughly, then pour the composite mixture into a pint soil container. (Both containers and information sheets can be obtained from your county extension agent.)

If the soil is wet, let it air dry or send it immediately to the laboratory, Grava said. He also stressed that information sheets be filled out completely so that researchers know which tests are to be run. Also, warns Grava, keep records of where you took the various samples.

Mail to the Soil Testing Laboratory, University of Minnesota, Institute of Agriculture, St. Paul, Minn. 55101. Checks should be payable to the university.

As of mid-September, Grava said, soil tests and recommendations will be computerized to give faster, more efficient service.