

company can function throughout the entire year with minimum layoffs of personnel. During winter months, Mercer keeps all of its key men busy with snow removal and equipment maintenance, and does its project planning then so no work time is lost. As a result, it can function as a year-round working force instead of a seasonal force, as do most of the nearby contractors. A crew of 80 to 125 men is employed on projects and another 15 on the sod farm, with some exchange of personnel to meet peak requirements. Of the farm crew, eight men are employed year-round, with the others assisting during the April-to-October cutting season.

#### **Brothers Split Management Duties**

Mercer Contracting Co., parent organization of the Mercer Sod Farm, was established in 1948 by the four Cacavio brothers, who began as small nurserymen and landscape contractors and have gradually extended the scope of their operations. The managerial duties are divided among the quartet, with Dominick as project manager, Frank in charge of the sod farm and maintenance, James as general manager, and Victor as field supervisor and expeditor.

All of the company's operations

are carried out from the central yard and office building, which covers about 30 acres in Trenton, N. J. In back of their one-story office building is the garage, which houses over 100 pieces of equipment, including tillers, harrows, mulching machines, equipment trailers, graders, scrapers, hydraulic seeders, mowing equipment, dump trucks, some 15 tractors, pickup trucks for the use of supervisory personnel, loaders, and four dozers.

Mercer belongs to the New Jersey Nurserymen's Association, Landscape Information Service, Landscape Contractor's Association, and the Cultivated Sod Association of New Jersey, of which Frank Cacavio is vice president.

#### **Experts Advise How To Ready Trees and Shrubs for Winter**

Trees and shrubs will better withstand the ravages of winter if watering is discontinued until the leaves have fallen, C. M. Drage, Colorado State University extension horticulturist, advises. Late-season watering produces soft or succulent wood that is susceptible to winter injury. Conifers and the main stems of broadleaf plants are particularly vulnerable.

Conifer damage is usually ap-

parent on the southwest side of the foliage. Arborvitae are also liable to be damaged by winterburn. This problem is caused by rapid temperature changes, Drage points out. Researchers say that leaf temperatures on a sunny winter day may exceed 70 degrees even though air temperature is below freezing. When the sun sets, leaf temperature drops quickly with resulting injury. Main stems and leaves of deciduous trees often show symptoms of frostcracks and sun-scald during the winter, he adds.

#### **Wrap Thin-Bark Trees**

James Nighswonger, extension landscape architect at Kansas State University, recommends wrapping the trunks of such thin-bark trees as sugar maple, tulip, American linden, flowering dogwood, and magnolia with a commercial tree wrapping to prevent winter sun-scald. Wrapping should be removed when the weather warms in the spring. Nighswonger also suggests applying a wilt-preventative spray to broadleaf evergreens to reduce leaf drop and winter damage.

Mulches around the base of trees and ornamental plants will help get them through the cold weather in good shape, the experts say. Nighswonger suggests using wheat straw, leaves, pine needles, shredded bark, and even peat moss if the site is protected from the wind. Advising against the use of grass clippings for mulch, he adds that mulches should be about 4 to 6 in. deep and should stay where they are placed without being compacted. Mulches should not be used until after several hard freezes have occurred. Mulching reduces the loss of moisture and moderates the alternate freezing and thawing of soil that is a prime cause of winter damage, the extension landscaper concludes.

The experts advise thoroughly soaking the soil around plants with water before freezing sets in. Drage adds this hint: overfertilized trees are especially susceptible to winter injury; fertilize only in the early spring.



**Broadcast pattern spray head** introduced by John Bean, is shown here operating from hand-held remote controls. The attachment, called "Rotocast," is powered by a 4-cylinder, air-cooled engine, and can discharge 10 to 40 gals. of spray per minute at 40 p.s.i. Remote controls rotate the sprayer 210 degrees horizontally. Air stream is adjustable through an arc 45 degrees downwards and upwards. More complete specifications can be obtained by writing for Catalog L-1496, to John Bean Division, Box 9490, Lansing, Mich.