

Here Are Tips to Assure

SUCCESSFUL WINTER LAWN

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A lawn grass for Southern Arizona that will stay green the year round has been sought for many years. Since this search has not been successful, the recommended practice is to plant a permanent summer lawn such as Bermuda and then seed winter rye grass in the fall to give a green cover after frost has turned the summer lawn brown.

Because of the very conditions to which they are subjected, in order to fit them for their purpose, lawn plants are inclined to be more prone to disease than other plants. Wounding of leaf blades by cutting allows entrance of many parasitic fungi. Reduction of leaf surfaces by mowing decreases food manufacture which is carried on chiefly in the leaves. Reduction in leaf surface tends to weaken the plants, making them more susceptible to disease.

Good Seedbed Important

As is true at any time of year in the planting of any lawn, proper management of winter rye can do much to minimize disease. Good seedbed preparation is of utmost importance. There must be proper soil aeration so that oxygen to the roots of plants may be adequate; correct watering and proper drainage must be assured; proper rate of seeding and proper cutting height after the grass is established are important.

Because all growing plants must be fed, a knowledge of the kind of fertilizer to be used on a lawn and when to use it is essential. For information on the preparation for the planting of annual rye grass in Bermuda sod, see University of Arizona Extension Circular 135, "Lawns for Arizona."

Diseases of winter rye are few compared to those of summer lawn grasses but any one of the few may be extremely damaging.

Seed Rot and Damping-off

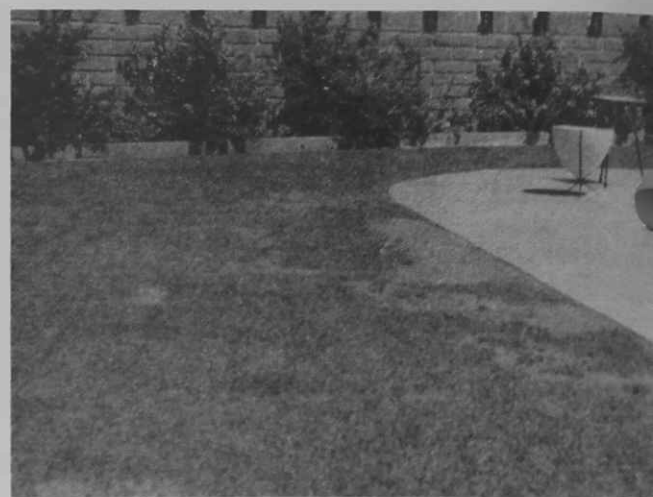
The two phases of this disease account almost entirely for poor stands when grass is planted from seed. The seed may rot just after the seed coat is broken. Shortly after emergence, seedlings may develop a water-soaked appearance or take on a darker green color. Finally the seedlings turn black, then shrivel as they turn brown.

Since the soil dwelling fungi responsible for this disease are encouraged by cool soils, the planting of winter lawns much after Oct. 15 should be avoided. The disease is also favored by high soil moisture. Even in early seeded lawns the disease may start and spread from low places, so it is important in preparation for planting to avoid low spots where water will stand. Use good seed. It pays. If late planting is unavoidable, seed treatment with Spergon helps to control the seed rot phase of the disease. Captan used as a soil drench checks damping-off if treatment is given promptly when symptoms appear.

Fusarium Blight

Probably the most destructive disease seen in both annual and perennial rye during our cooler months is caused by a fungus related, but not identical to, the Snow Mold Fungus, so destructive to turf in parts of the country where heavy snows occur. The disease is characterized by the presence of white, thread-like masses, the mycelium of the fungus, covering leaf blades and stems. In a few hours the fungus growth becomes powdery in appearance due to the production of masses of spores.

The fungus may kill grass in areas several feet in diameter. Although most often found in shaded areas in a lawn, it is not uncommon to find the disease in



LIGHT AREAS reveal Brown Blight in winter ryegrass lawn.

full sun if watering is done in the evening. Wet grass blades and low night temperatures make up the perfect environment for growth of the fungus and infection of the grass.

Calo Cure has effectively controlled this disease. Captan gives fair control if used when symptoms first appear. It is usually necessary to repeat the treatment several times at weekly intervals.

Brown Blight

Brown blight, also caused by a fungus, is a disease of both perennial and winter rye. Blighting starts at leaf tips. Numerous dark-brown, elongated spots may finally involve the entire leaf and leaf sheath. The leaves wither and turn brown. If not checked, the fungus may grow down into the crowns of plants destroying large, irregularly shaped areas. The disease is favored by cool temperatures and the presence of moisture on leaf blades for extended periods. Therefore, morning watering is advisable.

Acti-dione, an antibiotic spray, controls this disease. If damage to the crowns of plants has been severe, reseeding of some areas may be necessary.

Brown Patch

All grasses are susceptible to attack by the brown patch fungus. It is most likely to appear in winter lawns early in the fall or in early spring when nights are cool and days warm. The fungus that causes Brown Patch is commonly present in soils.

In Arizona, we seldom see the leaf blight phase of the disease—the fungus

Why Not Try A New Palm In Your Patio?

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The palm has been a widely accepted landscape tree in the desert areas of Arizona, yet this plant has not been used to its ultimate capacity.

Four varieties, the Mexican Fan palm (*Washingtonia robusta*), California Fan palm (*Washingtonia filifera*), and the two feather palms, the fruiting date (*Phoenix dactylifera*) and the ornamental date (*Phoenix cannariensis*) have been widely planted.

There are a number of other varieties perfectly adapted to Arizona conditions that by their growth habit are outstanding landscape specimens. A number of these, as well as the four listed above, are growing on the campus of the University of Arizona at Tucson.

Campus Is A Laboratory

The University over the years has, as each new building is completed, used in the landscape development of the buildings plants that are not commonly found in the Tucson area. The purpose is dual: first of all, outstanding landscaping and secondly, experimentation. The net result is a campus that in effect is a botanical garden of many rare species and a public proving ground of plant materials for the warmer areas of the state.

growing over grass blades giving a "smoky" appearance to the invaded grasses. The disease is important as a root and crown-rot. Large, roughly circular areas may be entirely killed.

High soil nitrogen results in severe brown patch damage. The addition of small amounts of nitrogen fertilizer during the growing season is preferable to a heavy application at one time.

Water In Morning

Late afternoon and evening watering is

The dominant landscape theme of the University of Arizona campus is palms and red brick buildings. The palms consist mainly of the four varieties previously described. A number of other varieties have also been growing successfully for many years, such as the Queen palms. A striking tree is the Mexican blue fan palm, a slow growing, rare and exotic landscape specimen. The ultimate size of this tree is 40 feet. It is a native of lower California, is planted in southern California, and in Arizona an excellent planting exists at the Mormon Temple in Mesa.

Interesting Dwarf Palm

In addition, a very dwarf palm called the Mediterranean Fan palm may be grown, a hardy species and a single trunk variety. Several others of this genus are well adapted to Arizona conditions.

The Sabal palm or Pamento palm, native to Texas and the gulf states, is a fan

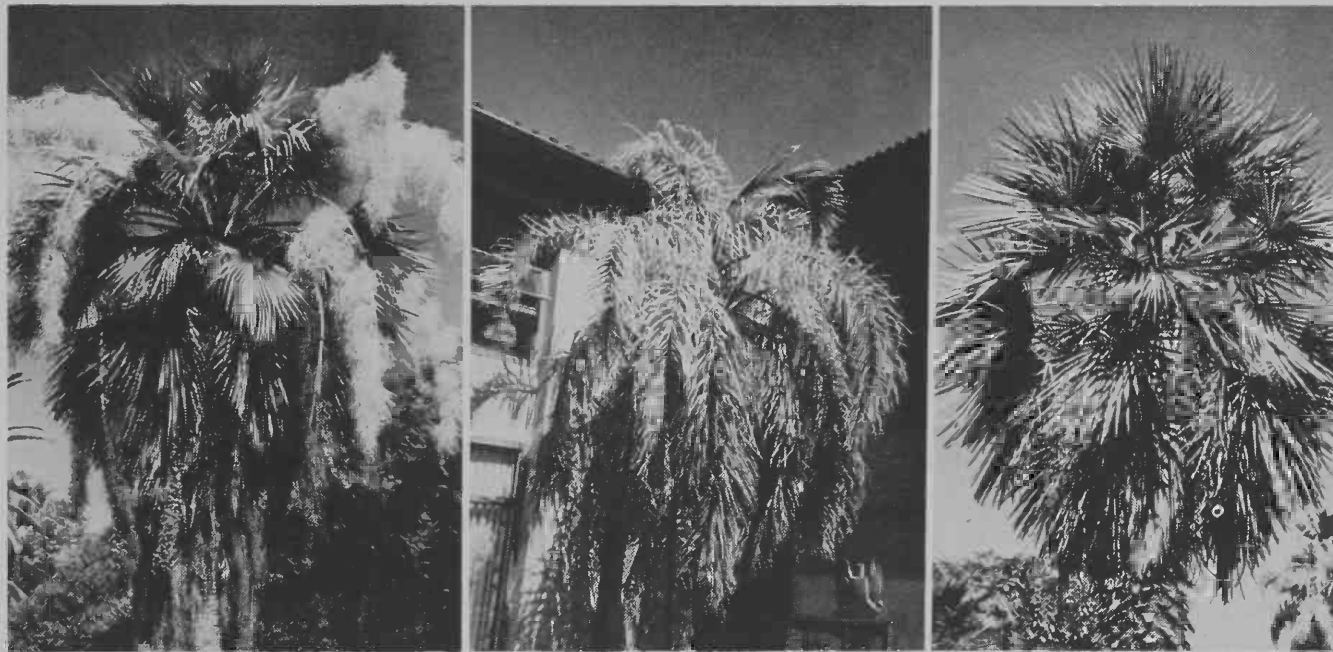
type but had not been planted to any extent in Arizona previously because of the public's unfamiliarity with the species. A mature specimen has been growing for many years at the University of Arizona.

Should Be Carefully Placed

These are key accent plants and should be so placed in the landscape that their full use in relation to the architecture of structures is realized. The palm, generally speaking, is a plant that will withstand many extremes of temperature, moisture, and soil conditions. It is an exception to most plants in that it prefers to be transplanted during periods of hot weather rather than cool. Palms of all sizes transplant readily.

All palms are almost singularly free of insect problems and diseases in Arizona. In addition to their beauty, this freedom from disease and insects adds to their value as landscape specimens.

LEFT TO RIGHT, Mexican Blue Palm, Queen Palm and Mediterranean Palm.



particularly objectionable in the case of this disease. Since the sclerotia from which the fungus grows to attack the grass plants are on or near the soil surface, drying of the soil surface as quickly as possible after watering is a must. Frequent, light sprinklings should be avoided. To best prevent this and the other diseases mentioned above, a lawn area should be soaked to a depth of four to six inches and watered again only when the first sign of wilting appears. The frequency of watering will depend on soil type. Should Brown Patch appear in spite of the use of correct cultural practices a

Calo Cure-Tersan mixture should be used. One ounce each in 10 gallons of water to 1,000 square feet, gives almost perfect control.

Since no single fungicide has been found that will control all diseases in lawns, it is important that the fungus causing the disease be identified. If specimens plus information about growing conditions, care given and any other pertinent information are sent to the University of Arizona's Department of Plant Pathology, the cause of the disease can usually be determined and control advice given.