

THE STORY OF WINDSOR

Windsor, a natural mutant of Kentucky bluegrass, provides delightful color and texture as well as wearability. Since it is endowed with an exceptionally high-count chromosome guidance system, its superior vegetative characteristics of sturdiness, and tolerance to heat, cold and prolonged drouth, are reproduced faithfully in each new generation.

Root Vigour Does It

Of all the wonders of nature, few are as wondrous as grasses, the only plants that continuously renew themselves in spite of weekly or even daily defoliation. They are able to do this because new growth of grass blades pushes up from the roots rather than growing out from the extremities of branches and shoots as with trees and other vegetation. **Root vigour** is truly the vital factor in grass performance.

How does a grass obtain greater root vigour? By fortunate heritage! And what is now called Windsor, the improved variety of Kentucky bluegrass, has such an inheritance.

Surprisingly, although Scotts scientist had long been evaluating grasses collected from all parts of the world in their never ending search for a truly superior turf variety, Windsor was discovered in 1949 in a pony pasture on the Ohio farm of Scotts Research Director.

This mutant was put into the research program because of its observed ability to stay green long after surrounding varieties and species had lost color in heat and drouth. Although it was but one of many hundreds that Scotts scientists had studied and appraised through the years, it proved to have the inherent qualities that the researchers were seeking.

Following the Discovery of Windsor, ten years were spent studying aspects of its turf adaptability. This was necessary because certain vital questions had to be answered.

Was it an accident that this particular patch of grass stayed greener longer in heat and drouth than surrounding grasses even though the ponies nibbled it more closely? How wide climatic adaptation did it have? Was it resistant to rust, fungus and other afflictions of blugrasses? Would it take the wear of golf tees and fairways, yet have the texture and appearance to glorify the American home?

Even though favorable answers kept coming back year after year, there still remained the all-important question: could the inherent qualities of the original plant be transmitted generation after generation in an economical way?

Generally Varietal Mutants can be reproduced true to type only by vegetative propagation, with stolons or roots, a method impractical for broadscale distribution of a grass because of cost and perishability problems.

It is one thing to preserve the inbred characteristics of a natural grass mutant in a few isolated nursery plants. It's another to make the benefits widely available.

Instead of reproducing by true seed, Windsor reproduces asexually. This results in a propagative part that **looks** like seed but which technically is a **dis-seminule**. The few such "seeds" harvested from the original discovery 17 years ago have now been multiplied into multi-millions of pounds of seed annually.

Multiplied a thimbleful of its progeny, billions upon billions of times, while maintaining the inherent characteristics of the parent, took ten years of pain-

staking laboratory and field effort. Subsequently United States plant patent number 2364 was awarded to Scotts on Windsor.

The Source of Windsor's Superiority

The original plant, from which many thousands of acres of outstanding turf have been developed over the past 15 years in the United States and Western Europe, was a natural mutant of Kentucky bluegrass. In contrast to most mutants, this one, fortunately, improved* the species and brought forth a new variety better able to accommodate itself to varying and changing environments.

The parent Windsor mutant carried forward the age-old basic strengths of the **Poa** species. They have given bluegrasses the ability to produce pasture and ornamental turf of attractive color and texture, resistance to heat and chill, broad climatic adaptability and ruggedness without coarseness.

Today there are several superior selections of bluegrass available. But turf trials and observations over more than 15 years provide convincing evidence that the heritage bred into Windsor makes it the truly professional performer.

Rhizome and Tiller Strength. The key to Windsor's superiority is two-fold, both related to greater root strength. First, its spreading rhizomes (root stems), develop faster and sturdier and are more far reaching. This ability to develop virogous rhizomes more quickly is manifest soon after seeding. Because of this, mature turf is developed with less seed and in a shorter time than with any other bluegrass. Secondly, because of strong tillering action, Windsor typically develops one-third more leaf blades than other bluegrasses to give a more compact turf.

Performance and Adaptability

The official documentation in the U.S. Patent application compares Windsor with Merion, Delta and Common Kentucky bluegrass and shows it consistently top-rated in 1) color, 2) density, 3) drouth toelrance and 4) disease resistance.

The typical color of Windsor is dark vibrant green. Its turf is surprisingly pleasant to the touch despite its ruggedness and justifies being known as the grass that "feels like velvet and wears like iron."

Windsor loves the sun and takes hot weather well **except in subtropical areas** or where there is month after month of high night temperatures. In drouth periods, Windsor is usually the last turf grass to turn

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brown and the first to green up when moisture is supplied.

How Does It Do in Shade? Windsor will do as well or better than any other grass in difficult shade conditions. Experience shows that Windsor can thrive even where there is considerable morning shade if the trees are trimmed to permit moving-and-alternating patterns of direct sunlight and shade.

As with other turf grasses, one of the worst situations is morning shade followed by sudden direct exposure as the sun gets high in the sky.

This situation causes: 1) delayed drying of the grass which intensifies disease activity on grasses just as it does on garden roses; 2) rapid loss of moisture by the leaves as the sun suddenly hits them.

Ideally, the environment provides good air circulation and exposure to sun from early morning through most of the day.

MAINTENANCE LEVELS

MOWING. For golf tees and fairways, Windsor can be cut at $\frac{3}{4}$ inch or even less if the surface grade is such that mowing will not scalp the sod. For the typical home lawn, the recommended range of cutting height is from 1 to $1\frac{1}{2}$ inches.

While better appearance is maintained with a mowing frequency so growth between mowings is not greater than one-half the height of cut, Windsor doesn't cringe when whacked back after neglect.

CLIPPINGS AND THATCH. Higher cutting of Windsor, as with any grass, increases the problem of clippings and other debris accumulation. Since this, in turn, aggravates problems of air-and moisture-penetration, disease and insect proliferation, it is advisable to consider occasional mechanical removal of the surface debris.

Thatch build-up is reduced by frequent mowing and occasional sweep-up of clippings.

FERTILIZING. Well-fed turf will look better and per-

form better. To achieve the maximum in sparkling color, Monthly Turf Builder feedings are suggested through the growing season. A median program is feeding at 60-day intervals throughout the growing season.

WATERING. In normal summer sunshine, Windsor needs the equivalent of one inch of water per week to maintain its optimum color. It makes little difference whether this is supplied weekly or daily, by rain or irrigation. Nor does the time of day matter.

DISEASE CONTROL. The ruggedness of Windsor growth is such that should a disease such as leafspot (**Helminthosporium**) strike, the grass recovers readily.

Windsor is generally immune to rust. In some situations, frogeye disease (**Fusarium roseum**) or striped smut (**Ustilagostriformis**) may cause damage to Windsor just as to other bluegrasses.

While such attacks usually damage only scattered patches, easily repaired with new sod, encouraging results in prevention and control are reported from the use of new ProTurf broad spectrum fungicide.

Thanks to Dick Bangs of **SCOTT'S SEED CO.** for the story on Windsor.

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