

RECOMMENDED TURFGRASS CULTIVARS FOR CERTIFIED SOD PRODUCTION AND SEED MIXTURES IN MARYLAND



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Numerous new turfgrass cultivars continue to be developed and released by turfgrass breeders. However, while many of these cultivars are adapted to the environmental conditions that prevail in other regions of the country, many are not adapted to the difficult environmental conditions that occur in the transition zone, which includes Maryland and Virginia. Thus, to identify cultivars that will perform well in this region, extensive cultivar trials are evaluated each year at the University of Maryland and Virginia Polytechnic Institute and State University.



The cultivar performance data obtained at various locations in Maryland and Virginia are reviewed annually in a joint meeting of university researchers and representatives of the Departments of Agriculture of both states. The use of recommended cultivars usually results in a turfgrass stand of higher quality and density, greater stress tolerance, lower nutrient requirements, less water usage, and fewer pest problems. Also, the use of recommended cultivars generally has the benefit of a reduction in the need for pesticide applications, greater water infiltration, reduced water runoff, and the enhancement of the environmental benefits of properly managed turfgrass.

There has been extensive interest in recent years regarding turfgrass species that have reduced nutrient requirements, especially nitrogen. The two recommended turfgrasses with the lowest nitrogen requirements are the fine fescues and zoysiagrass, while turf-type tall fescue and bermudagrass have intermediate requirements. Although Kentucky bluegrass generally has the highest nitrogen requirements, research has identified several Kentucky bluegrass cultivars that provide fair quality under reduced nitrogen fertility and other maintenance inputs.

The following lists of recommended cultivars consist of two groups. "Proven" cultivars represent those that have been performing well in trials in both states over a period of at least 3-5 years, and have had certified seed tested by the MD and/or VA Departments of Agriculture. "Promising" cultivars, listed in green *italics*, have shown good performance, but have only been tested in Maryland or Virginia for 2 years or may be difficult to find due to limited seed availability.

CULTIVAR NOTATIONS

Cultivars followed by a numerical notation may be removed from these lists in future years for the following reasons:

Cultivar¹ - May be removed from the list due to declining field performance relative to other cultivars

Cultivar² - may be removed from the list due to declining seed quality

Cultivar³ - may be removed from the list because certified seed has not been tested recently by either the Maryland or Virginia seed testing labs.

Cultivar⁴ - may be removed from the list due to the lack of current testing data relative to other cultivars. The cultivar will be removed from the list if it is not included in the next available cultivar trial.

KEY POINTS

Recommended cultivars have been evaluated for performance in Maryland and Virginia.

Maryland Certified Sod must contain only recommended cultivars.

Recommended cultivars generally provide better quality turf and improve ground cover.

The use of recommended cultivars reduces many pest and management problems.

Recommended cultivars often have lower fertilizer and water needs, and the need for pesticide applications should be greatly reduced.

The use of recommended cultivars enhance the environmental benefits of turfgrass.

Turf-Type Tall Fescue Sod

The following recommended and promising turf-type tall fescue cultivars may be seeded individually or in blends, and may be mixed with Kentucky bluegrass (see note below for percentages). Addition of Kentucky bluegrass may improve sod harvestability as well as improving overall performance and quality without increasing management inputs.

Proven turf-type tall fescue cultivars:

AST 9003	Forte	Regiment II
Avenger	Grande II	Rendition
Barvado	Greenkeeper WAF	Rhambler SRP
Bingo	Guardian 21	2nd Millennium
Blackwatch	Hounddog 5	Shenandoah Elite
Bullseye	Inferno	Shenandoah III
Cochise III	Justice	Sidewinder
Constitution	Magellan	Skyline
Coyote II	Masterpiece	Spyder LS
Crossfire II ⁴	Matador GT	Taos
Dakota	Monet	Tarheel II
Davinci	Montana	3 rd Millennium SRP
Daytona	Mustang 4	Titanium
Endeavor	Pedigree	Titanium LS
Faith	Penn 1901	Tombstone
Falcon IV	Raptor ³	Tulsa Time
Falcon V	Raptor II	Turbo
Fidelity	Rebel Exeda	Wolfpack
Firecracker LS	Rebel IV	Wolfpack II

Promising turf-type tall fescue cultivars:

<i>Aggressor</i>	<i>Firenza</i>	<i>Speedway</i>
<i>AST 7002</i>	<i>Garrison</i>	<i>SR 8550</i>
<i>AST 7003</i>	<i>Gazelle II</i>	<i>SR 8600</i>
<i>AST 9002</i>	<i>Greenbrooks</i>	<i>SR 8650</i>
<i>Bladerunner II</i>	<i>Hemi</i>	<i>Stetson II</i>
<i>Braveheart</i>	<i>Hudson</i>	<i>Sunset Gold</i>
<i>Cannavaro</i>	<i>Jamboree</i>	<i>Tahoe II</i>
<i>Catalyst</i>	<i>Lindbergh</i>	<i>Talladega</i>
<i>Cezanne RZ</i>	<i>LS 1010</i>	<i>Tanzania</i>
<i>Cochise IV</i>	<i>LS1200</i>	<i>Terrier</i>
<i>Compete</i>	<i>Patagonia</i>	<i>Toccoa</i>
<i>Escalade</i>	<i>Penn RK4</i>	<i>Traverse SRP</i>
<i>Essential</i>	<i>Renovate</i>	<i>Trio</i>
<i>Falcon NG</i>	<i>Reunion</i>	<i>Umbrella</i>
<i>Fat Cat</i>	<i>Rocket</i>	<i>Venture</i>
<i>Finelawn Xpress</i>		<i>Van Gogh</i>

Kentucky Bluegrass Cultivars Recommended for Mixing with Tall Fescue Sod

The following Kentucky bluegrass cultivars may be mixed with turf-type tall fescue to enhance sod strength during harvesting: Dura Blue, Thermal Blue, Thermal Blue Blaze, Wildhorse¹, and all recommended Kentucky bluegrass cultivars. A maximum of 10% Kentucky bluegrass by weight may be included with tall fescue.

Fine Fescue Sod

- The recommended and promising fine fescue cultivars may be used for the production of certified sod.
- No one cultivar may be more than 40% of the seed mixture by weight.
- Hard fescue cultivars must be 40-95% of the mixture by weight.
- Chewings, and creeping red fescue may be 0-40% of the mixture by weight.
- Promising cultivars may not compose more than 40% of the mixture by weight.
- Kentucky bluegrass must 5-20% of the mixture by weight.
- Kentucky bluegrasses must be selected from those eligible for mixing with tall fescue.
- Md. State Highway Administration will not accept sod with creeping red fescue.

Recommended Fine Fescue Cultivars

The following recommended fine fescue cultivars may be seeded individually or in blends.

Key to table, below:

R) = Strong Creeping Red Fescue, (C) = Chewings Fescue, (H) = Hard Fescue,

<i>Beacon (H)</i>	<i>Intrigue 2 (C)</i>	7 Seas (C)
Berkshire (H)	<i>LaCrosse (C)</i>	<i>Spartan II (H)</i>
Chariot (H)	Longfellow II (C)	SR 5130 (C)
<i>Fairmont (C)</i>	<i>Navigator II (R)</i>	<i>Treasure II (C)</i>
Firefly (H)	Predator (H)	Wendy Jean (R)
Gotham (H)	<i>Radar (C)</i>	<i>Zodiac (C)</i>

Note: See page 1 for explanation of superscripts and italics

Zoysiagrass Sod

Only seven cultivars are currently recommended in Maryland for certified sod production due to potential winter hardiness problems of other cultivars or due to a lack of availability. The group listed as vegetative (v) cultivars can only be obtained as sod, plugs, or sprigs. The group listed as seeded may be obtained as seed (s) as well as in vegetative forms.

Compadre (s)	Zenith (s)
<i>Jamur (v)</i>	<i>Zeon (v)</i>
Meyer (v)	Zorro (v)
<i>Palisades (v)</i>	

Note: See page 1 for explanation of italics

Bermudagrass Sod

Six vegetatively (v) reproduced cultivars are currently recommended for use in Maryland for certified sod production. These can only be obtained as sod, plugs, or sprigs. Three cultivars that can also be seeded (s) are recommended as well. A prime characteristic in evaluating bermudagrasses for use in Maryland is winter hardiness (cold tolerance). Cultivars listed have improved winter hardiness, but may exhibit some damage in extreme years, particularly under low mowing heights.

Latitude 36 (v)	Riviera (s)	Tifton 10 (v)
Northbridge (v)	Sovereign (s)	Vamont (v)
Patriot (v)	Tifsport (v)	Yukon (s)



Bermudagrass winter hardiness is a major consideration for cultivar recommendations.

Recommended Cool Season Species for Seeding Blends and Mixtures

The following seed blends and mixtures are those recommended for the large majority of sites in Maryland. Seed mixtures other than those recommended in this publication may be appropriate for the specific conditions or use at a particular site, but should be checked with a turfgrass specialist. The percentages (%) recommended for seed mixtures are on a seed weight basis. For example, when mixing 10 pounds of a 95% tall fescue – 5% Kentucky bluegrass mixture, 9.5 pounds tall fescue and 0.5 pounds Kentucky bluegrass should be used for the mixture.

Medium Maintenance Turf - Full Sun to Moderate Shade (For use in full sun to moderately shady areas and for turf that will tolerate a wider range of management inputs, with infrequent or no irrigation). Turf-type tall fescue is the most commonly recommended species for home-lawns, institutional grounds, and general use areas. They are also extensively used for general-purpose athletic fields and in golf course roughs.

Turf-type Tall Fescue (90-100%) and Kentucky Bluegrass (0-10%). A single cultivar or a blend of turf-type tall fescue cultivars may be used, and may be mixed with up to 10% of a recommended Kentucky bluegrass. The addition of Kentucky bluegrass to turf-type tall fescue generally results in an excellent turf without increasing needed management inputs.

Recommended Tall Fescue Cultivars: Same as the cultivars recommended for certified sod production (page 3).

Recommended Kentucky Bluegrass Cultivars: Same as the cultivars recommended for certified sod production (page 2) and Dura Blue, Thermal Blue, Thermal Blue Blaze, and Wildhorse.

turf-type tall fescue



turf-type tall fescue + perennial ryegrass



The effect of the mixing of perennial ryegrass with turf-type tall fescue on red thread disease. Perennial ryegrass should generally not be mixed with turf-type tall fescue due to increased disease problems.

High Maintenance Turf - Full Sun (For use in full sun areas that will receive irrigation and intensive management).

Kentucky Bluegrass (85-100%) and Perennial Ryegrass (0-15%). Due to the high maintenance requirements to successfully maintain most Kentucky bluegrasses in Maryland, it is primarily for use on showcase sites, for stadium athletic fields, and for low cut rough areas on golf courses. A minimum of 3 bluegrass cultivars should be selected, with each ranging from a minimum of 10% to a maximum of 35% of the mixture by weight.

No more than 15% perennial ryegrass should be used, as it will predominate if seeded at a higher rate. Although perennial ryegrass is generally not recommended for home-lawns due to its susceptibility to disease problems, its inclusion may be warranted with Kentucky bluegrass where erosion may be a significant problem. Perennial ryegrass germinates and becomes established much more quickly than Kentucky bluegrass.

Recommended Kentucky Bluegrass Cultivars: Same as the cultivars recommended for certified sod production (page 2).

Recommended Perennial Ryegrass Cultivars: The recommended cultivars are listed below:

Affirmed ³	Divine	Palmer V
Apple GL	Fiesta 4	Paragon GLR
ASP6004	Gator 3	Silver Dollar
Buena Vista	Homerun	Soprano
Catalina II ³	Jet	Stellar GL
Charismatic II GLSR	Line Drive GLS	Uno

Low Maintenance Turf – Full Sun or Shade (For use on sites that will receive minimal management, including no irrigation and low fertility).

Fine Fescue (100%). The fine fescues include creeping red fescue, chewings fescue, hard fescue, and sheep fescue. Creeping red fescue should be considered only for shady sites and not for sunny, low maintenance sites. One or more recommended fine fescue may be selected. However, neither mixing fine fescue species nor blending cultivars has been studied extensively in MD or VA for compatibility. Limited research doesn't indicate an advantage to either.

Recommended Fine Fescue Cultivars: Same as the cultivars recommended for certified sod production (page 4).

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