

RECOMMENDED TURFGRASS CULTIVARS FOR CERTIFIED SOD AND PROFESSIONAL SEED MIXTURES



University of Maryland
Turfgrass Technical Update
TT-77 July 2009

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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, fewer pest problems and thus reduced pesticide use.

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 has intermediate requirements. Although Kentucky bluegrass and bermudagrass generally have 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 represent those that have been performing well in trials in both states over a period of at least 3-5 years. Please bear the following notations in mind as you review the lists:

Cultivars listed in green *italics* are considered promising but have only been tested in Maryland or Virginia for 2 years, or may be difficult to find due to limited seed availability.

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 due to non-availability of certified seed

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 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, water, and pesticide needs.

This publication supersedes and replaces the publication 'Agronomy Mimeo 77'.

CERTIFIED SOD RECOMMENDATIONS

The Maryland certified sod program is administered by the Maryland Department of Agriculture. Rather than naming individual cultivars, many specifications require that certified sod of a particular turfgrass species be used.

Specifying certified sod guarantees that the sod will contain cultivars that are currently recommended by researchers in Maryland and Virginia, will have been seeded in recommended percentages, and will be of high quality (minimal insects, weeds, and diseases). Thus, the need for constantly updated specifications to reflect improvements in cultivars is greatly minimized. Listed below are the recommendations for zoysiagrass, bermudagrass, Kentucky bluegrass, turf-type tall fescue, and fine fescue sod.

Zoysiagrass Sod

Only eleven cultivars are currently recommended in Maryland for certified sod production due to potential winter hardiness problems of other cultivars. 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.

<i>Cavalier (v)</i>	<i>J-36 (s)</i>	<i>Zen 400 (s)</i>
Compadre (s)	<i>J-37 (s)</i>	<i>Zen 500 (s)</i>
<i>Companion (s)</i>	<i>Marquis (v)</i>	Zenith (s)
<i>Himeno (v)</i>	Meyer (v)	<i>Zorro (v)</i>
<i>J-14 (s)</i>	<i>Sunburst (v)</i>	

Note: See page 1 for explanation of superscripts and italics

Bermudagrass Sod

Eleven 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. Four 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.

Contessa (s)	Premier (v)	Tifton 10 (v)
Midfield (v)	Quickstand (v)	Tifsport (v)
Midiron (v)	Riviera (v)	Tufcote (v)
Midlawn (v)	Shanghai (v)	Vamont (v)
Patriot (v)	Sovereign (s)	Yukon (s)



Bermudagrass winter hardiness is a major consideration for cultivar recommendation.

Kentucky Bluegrass Sod

- A minimum of 3 recommended Kentucky bluegrass cultivars must be chosen
- Each cultivar must range from a minimum of 10% to a maximum of 35% of the blend's weight.
- At least 65% of the blend must be from cultivars listed in Category I.
- No more than 35% of the mixture may be comprised of promising cultivars.

Cultivar evaluation trials identify disease-prone cultivars



Leaf spot of Kentucky Bluegrass



Summer Patch of Kentucky Bluegrass

Category I: Recommended Kentucky Bluegrass Cultivars (65 - 100% of mixture by weight)

<i>Alexa II</i>	<i>Emblem</i>	<i>Nuchicago</i>
Apollo	Everest ³	NuGlade
<i>Aries</i>	Everglade	Princeton 105
<i>Aura</i>	Excursion	Quantum Leap
Award	<i>Ginney II</i>	Raven
Awesome ³	<i>4- Season</i>	<i>Rhapsody</i>
<i>Barrister</i>	Glenmont ¹	<i>Rhythm</i>
<i>Belissimo</i>	<i>Granite</i>	Skye
<i>Bewitched</i>	Impact	<i>Solar Eclipse</i>
Beyond	Juliet	Sudden Impact
<i>Bluestone</i>	Liberator	Total Eclipse ³
Bordeaux ³	Midnight	Touche
Brilliant	Moonlight ³	<i>Wildhorse</i>
Cabernet ³	<i>Mystere</i>	<i>Yankee</i>
Courtyard	Nu Destiny	<i>Zinfandel</i>
Diva		

Category II: Special Use recommended Kentucky bluegrass cultivars (0-35% of mixture by weight)

A. Shade Tolerance

Ascot	Moonlight	Princeton 105
Brilliant	NuGlade	Quantum Leap
Liberator		

Fine Fescue Sod

- The recommended 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 must be 40-95% of the mixture by weight.
- Chewings, and creeping red fescue may be 0-40% of the mixture.
- Promising cultivars may not compose more than 40% of the mixture.
- Kentucky bluegrass must 5-40% 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) = Creeping red fescue, (C) = Chewings Fescue, (H) = Hard Fescue,

<i>Ambassador (C)</i>	<i>Firefly (H)</i>	Predator (H)
Berkshire (H)	<i>Fortitude (R)</i>	<i>Reliant IV (H)</i>
<i>Cardinal (R)</i>	<i>Garnet (R)</i>	<i>Spartan II (H)</i>
Chariot (H)	Gotham (H)	<i>SR 3000 (H)</i>
<i>Compass (C)</i>	Longfellow II (C)	SR 5130 (C)
Discovery ⁴ (H)	<i>Oxford (H)</i>	<i>Wendy Jean (R)</i>
<i>Epic (R)</i>	<i>Pathfinder (R)</i>	<i>Zodiac (C)</i>

Note: See page 1 for explanation of superscripts and italics

Turf-Type Tall Fescue Sod

The following recommended turf-type tall fescue cultivars may be seeded individually or in blends:

Recommended turf-type cultivars:

Avenger	Grande ⁴	Rebel Exeda
Biltmore	Grande II	Regiment II
Bingo	Greenkeeper WAF	Rembrandt ³
Bravo	Guardian 21	Rendition ³
Blackwatch	Hounddog 5	2nd Millennium
Cochise II ³	Hunter	Southern Choice II ³
Cochise III	Inferno	SR 8250 ³
Constitution	Justice	Taos
Coyote II	Magellan	Tarheel II
Crossfire II ^{3,4}	Masterpiece	Tarheel ³
Davinci ³	Matador ³	Tempest
Daytona ³	Matador GT ³	Titanium
Endeavor ³	Onyx ^{3,4}	Tombstone
Falcon IV	Padre	Turbo
Fidelity	Penn 1901	Ultimate ³
Forte	Picasso ³	Watchdog
Good-En ^{3,4}	Raptor	Wolfpack

Promising turf-type cultivars:

<i>Aggressor</i>	<i>Firenza</i>	<i>Speedway</i>
<i>Aristotle</i>	<i>Gazelle II</i>	<i>Spyder LS</i>
<i>AST 9003</i>	<i>Greenbrooks</i>	<i>SR 8550</i>
<i>Braveheart</i>	<i>Hemi</i>	<i>SR 8600</i>
<i>Bullseye</i>	<i>Hudson</i>	<i>SR 8650</i>
<i>Cannavaro</i>	<i>Jamboree</i>	<i>Stetson II</i>
<i>Catelyst</i>	<i>Lindbergh</i>	<i>Tahoe II</i>
<i>Cezanne RZ</i>	<i>Monet</i>	<i>Talladega</i>
<i>Cochise IV</i>	<i>Mustang 4</i>	<i>Terrier</i>
<i>Compete</i>	<i>Ninja 3</i>	<i>3rd Millennium SRP</i>
<i>Einstein</i>	<i>Raptor II</i>	<i>Titanium LS</i>
<i>Escalade</i>	<i>Rebel IV</i>	<i>Toccoa</i>
<i>Essential</i>	<i>Renovate</i>	<i>Traverse SRP</i>
<i>Faith</i>	<i>Reunion</i>	<i>Trio</i>
<i>Falcon NG</i>	<i>Rhambler SRP</i>	<i>Tulsa Time</i>
<i>Falcon V</i>	<i>Rocket</i>	<i>Umbrella</i>
<i>Fat Cat</i>	<i>Shenandoah Elite</i>	<i>Van Gogh</i>
<i>Finelawn Xpress</i>	<i>Shenandoah III</i>	<i>Wolfpack II</i>
<i>Firecracker LS</i>	<i>Sidewinder</i>	

Kentucky Bluegrass Cultivars Recommended for Mixing with Tall Fescue or Fine Fescue Sod

The following recommended Kentucky bluegrass cultivars may be mixed with turf-type tall fescue or fine fescue to enhance sod strength during harvesting, up to 10% of the seed mixture by weight:

Dura Blue, Thermal Blue, Thermal Blue Blaze, and all Category 1 & Category 2 recommended Kentucky bluegrass cultivars.

PROFESSIONAL SEED MIXTURE RECOMMENDATIONS

Many seeding specifications for municipalities, counties, state and governmental agencies, landscape architects, and professional organizations state that cultivars used for turfgrass establishment must be selected from this publication (TT-77, formerly Agronomy Mimeo 77, or AM-77). Recommended seeding mixtures are shown below, along with cultivars recommended for use with them. State Highway specifications, while employing information included here, are developed separately and may require species and/or cultivars not normally recommended for uses other than roadside seeding.

Recommended Species for Seeding Blends and Mixtures

Full Sun High Maintenance Turf

For use in full sun areas that will receive irrigation and intensive management - **Kentucky bluegrass (85-100%) and perennial ryegrass (0-15%)**. 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% of a perennial ryegrass cultivar should be used, as it will predominate if seeded at a higher rate.

Full Sun Medium to High Maintenance Turf

For use in full sun areas that will tolerate a wider range of management inputs (may not receive irrigation and may receive less intensive management) - **Turf-type tall fescue (95-100%) + 0-5% Kentucky bluegrass**. A single cultivar or a blend of turf-type tall fescue cultivars may be used, and may be mixed with up to 5% of a recommended Kentucky bluegrass.

Full Sun to Moderate Shade Turf

For seeding locations that have both full sun and shady sites. Two different types of seed mixtures may be selected for these sites. Tall fescue turf will tolerate a wider range of management inputs. Kentucky bluegrass + fine fescue turf will generally require higher maintenance for the survival of the Kentucky bluegrass in the sun, but reduced maintenance inputs are recommended for the maximum survival of the creeping red fescue in the shade.

- 1. Turf-Type Tall Fescue (90-100%) and 0-10% Kentucky Bluegrass** A single recommended cultivar or a blend of recommended turf-type tall fescue cultivars may be used, and may be mixed with up to 5% of a recommended Kentucky bluegrass, or
- 2. Kentucky Bluegrass (80-90%) and Creeping Red Fescue (10-20%)** A minimum of 3 recommended bluegrass cultivars should be selected, ranging from a minimum of 10% per cultivar to a maximum of 35% per cultivar of the seed mixture by weight. One recommended cultivar of creeping red fescue should be selected. More than 20% creeping red fescue may cause a dominance of this species during establishment.

Low Management and/or Shade Turf

For use on sites that will receive minimal management (no irrigation, low fertility) and/or if the site has partial to full shade.

Fine Fescue (100%)

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. The fine fescues include creeping red fescue, chewings fescue, and hard fescue, . Creeping red fescue should be considered only for shady sites and not for sunny, low

maintenance sites.

Recommended Cultivars for Seeding Mixtures

The recommended cultivars for species listed in the aforementioned seed blends and mixtures:

Kentucky Bluegrass: Same as the cultivars recommended for certified sod production.

Tall Fescue: Same as the cultivars recommended for certified sod production.

Fine Fescue: Same as the cultivars recommended for certified sod production.

Perennial Ryegrass: The recommended cultivars listed below:

<i>Accent II</i>	<i>Exacta II</i>	<i>Palmer V</i>
Affirmed	<i>Fiesta 4</i>	<i>Palmer GLS</i>
<i>All Star 3</i>	<i>Fusion</i>	Paragon GLR
<i>Amazing GS</i>	Gator 3	<i>Phenom</i>
Applaud	Grand Slam ³	<i>Plateau</i>
Apple GL	<i>Grand Slam 2</i>	<i>Pleasure Supreme</i>
<i>ASP6004</i>	<i>Gray Fox</i>	<i>Primary</i>
<i>Attribute</i>	<i>Harrier</i>	<i>Protege GLR</i>
<i>Barlennium</i>	<i>Homerun</i>	<i>Prototype</i>
Brightstar II	Inspire	<i>Regal 5</i>
Brightstar SLT	Jet	<i>Repell GLS</i>
Buena Vista	<i>Keystone 2</i>	<i>Revenge GLX</i>
Calypso 3	<i>Kokomo II</i>	<i>Secretariat II GLSR</i>
Catalina II	Line Drive GLS	<i>Silver Dollar</i>
<i>Charismatic II</i>	<i>LS 2300</i>	SR 4600
<i>Citation Fore</i>	Manhattan 4	Stellar
<i>Dart</i>	<i>Manhattan 5 GLR</i>	<i>Stellar GL</i>
<i>Dasher 3</i>	<i>Notable</i>	<i>Soprano</i>
<i>Defender</i>	<i>1G Squared</i>	<i>Transformer</i>
<i>Derby Xtreme</i>	<i>Palace</i>	<i>Uno</i>
Divine	<i>Palmer IV</i>	<i>Zoom</i>
Exacta		

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