

**VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIFICATIONS FOR STANDARD AND NON-STANDARD SEED
Green Tag Program**

PROCEDURES AND RATIONAL

August 2023

Justification:

To provide an unbiased and scientific basis for selection of seed used by Virginia Department of Transportation [VDOT] on construction and roadside maintenance projects.

VDOT Approved Species and Cultivars

Previously VDOT and Virginia Tech conducted field trials to review new cultivars under Virginia roadside conditions before the cultivars were placed on the *VDOT Roadside Vegetation Management Approved Species & Cultivars* list which was known as the RD-4 list. Since VDOT and Virginia Tech have suspended the field trials it has been determined that the *VDOT Roadside Vegetation Management Approved Species & Cultivars* list will be developed by merging the RD-4 List revised, August 2007 with the current *Virginia Turfgrass Variety Recommendation* and the three previous published *Virginia Turfgrass Variety Recommendation*. The Virginia Crop Improvement Association will revise the *VDOT Roadside Vegetation Management Approved Species & Cultivars* list each time a new *Virginia Turfgrass Variety Recommendation* is published.

The *Virginia Turfgrass Variety Recommendation* is developed by the Maryland-Virginia Turfgrass Variety Recommendation Work Group meets each Spring to consider the previous year's data from Virginia and Maryland National Turfgrass Evaluation Program (NTEP) trials and to formulate these recommendations. Virginia and Maryland variety recommendations are essentially identical except for specialized grasses and research situations that differ due to adaptation and state regulation. To qualify for this recommended list turfgrass varieties: 1) must be available as certified seed or, in the case of vegetative varieties, as certified sprigs or sod; 2) must be tested at sites in both Virginia and Maryland; 3) must perform well, relative to other varieties, for a minimum of two years to make the list as a "promising" variety and for three years to make the "recommended" category. All test locations in Virginia and Maryland are considered in making these recommendations.

Single Species Seeding with Base Seed with Nurse Crop and Additive Species

When permanent seeding recommendation is to be completed by adding a base turf seed of a single common species or cultivar, nurse crop and additive species individually to the hydro seeder all common species and cultivars must be selected from the *VDOT Roadside Vegetation Management Approved Species & Cultivars* list. All seed must be green tagged.

Blends

A blend is achieved when more three or more cultivar of a species of grass such as tall fescue* is combined. A tall fescue blend*, fine fescue blend* or bluegrass blend* for example could be presented for Green Tag consideration. When a blend is presented for green tag consideration a minimum of 65% by weight of the cultivars included in the blend must be from ***VDOT Roadside Vegetation Management Approved Species & Cultivars*** list.

When permanent seeding recommendation is to be completed by adding a blended species is added to a specified nurse crop and additive species in the hydro seeder application all seed must be green tagged.

Mixtures

A mixture is achieved when more two or more species of grass such as tall fescue* and bluegrass* are combined. A mixture could be tall fescue blend* or fine fescue blend* to which supplemental species such as bluegrass* or other species has been added could be presented for Green Tag consideration. When a blend is presented for green tag consideration a minimum of 65% by weight of the cultivars included in the blend must be from ***VDOT Roadside Vegetation Management Approved Species & Cultivars*** list. The supplemental species should not be more than 10% of the total mixture by weight.

Mixture	Crop / Percent	Crop/ Percent	Crop / Percent
Tall Fescue/Bluegrass	Tall Fescue 90%	Bluegrass 10%	
Tall Fescue/Fine Fescue	Tall Fescue 50%	Fine Fescue 50%	
Orchardgrass/Bluegrass	Orchardgrass 50%	Bluegrass 50%	
TF/Bluegrass/A. Ryegrass	Tall Fescue 85%	Bluegrass 10%	Annual Ryegrass 5%

When permanent seeding recommendation is to be completed when a mixture of species is added to a specified nurse crop and additive species in a hydro seeder application all seed must be green tagged.

The Virginia Crop Improvement Association (VCIA) will accept the turfgrass blends or mixtures for Green Tag consideration in accordance with established VCIA procedures and protocol.

Temporary Seeding

The Temporary seeding recommendation can be met by a contractor's mixture of VNS fescue and a nurse crop or by a fescue cultivar selected from the ***VDOT Roadside Vegetation Management Approved Species & Cultivars*** list an approved blend or mixture and a selected nurse crop.

If the Contractor's mixture is selected then 70% by weight must be the VNS fescue. All seed must be green tagged.

VDOT Seed Standards

Kind and Cultivars	Min. Pure Seed %	Min. Germ. %	Pure Live Seed Min. %	Min. Germ. Plus Hard Seed %	Weed Seed Not to Exceed %	<u>LIMITATIONS</u>
*Tall Fescue Cultivars:	98	90	88.20%	--	0.25	<u>RES. NOX.</u>
*Kentucky Bluegrass	98	85	83.30%	--	0.25	<u>WEEDSEEDS</u>
*Fine Hard Fescue	98	85	83.30%	--	0.25	Same As VA Seed Law
*Fine Creeping Red Fescue	98	85	83.30%	--	0.25	
*Fine Chewings Fescue	98	85	83.30%	--	0.25	
*Fine Sheep Fescue	98	85	83.30%	--	0.25	
Bermudagrass:	98	85	83.30%	--	0.25	
Zoysiagrass:	98	85	83.30%	--	0.25	<u>PROH. NOX. WEEDSEEDS</u>
Common bermudagrass (2)	98	85	83.30%			Same As VA Seed Law
Foxtail Millet (German)	98	85	83.30%	--	0.25	
Annual Ryegrass	98	90	88.20%	--	0.25	<u>LAWN & TURF</u>
Rye (Winter Rye) Cultivars:	98	85	83.30%	--	0.25	<u>REST. NOX</u>
Triticum aestivum Wheat	98	85	83.30%	--	0.25	10 Per ounce or 160 Per Pound
Hordeum vulgare (Barley)	98	85	83.30%	--	0.25	
Weeping Love Grass	98	80	78.40%	--	0.25	
Orchardgrass(1)	90	85	76.50%	--	0.5	
Crownvetch Cultivars: (3)	98	36	69.58%	71	0.25	
Flat Pea (3)	99	38	74.25%	75	0.25	
White Dutch Clover (3)	99	80	89.10%	90	0.25	
Birdfoots Trefoil Cultivars: (3)	98	55	78.40%	80	0.5	

***Certified Seed Required For These**

- (1) Virginia origin or approved cultivars.
 - (2) Spring-Hulled, Fall-Unhulled [note hulled = hulls are removed]
 - (3) Seed must be inoculated with the appropriate strain and rate of bacteria.
- For hydroseeding, use a minimum of five times the dry seeding rate of inoculant.

Tall Fescue^{1*}

2nd Millennium	Falcon V	Magellan	Spyder 2LS
3rd Millennium SRP	Fantasia	Meridian	Spyder LS
4th Millennium SRP	Fastlane	Michelangelo	SR8650
Amity	Fayette	Monument	Standout
Annapolis	Fesnova	Monument	Stealth
AST 5112	Finelawn Supreme	Moondance	Summer
AST 7002	Firebird	Moondance GLX	Sunset Gold
AST 7003	Firebird 2	Mustang 4	Supersonic
AST 9002	Firecracker SLS	Nightcrawler	Swagger
AST 9003	Firehawk SLT	Paramount	Technique
Avenger	Firenza II	Penn RK4	Temple
Avenger II	Firewall	Persuasion	Terrano
Avenger III	Foxhound	Pro Gold	Thor
Barrington	Gazelle II	Rain Dance	Titan GLX
Barvado	GLX Revive	Raptor III	Titan Rx
Battle Hawk	Golconda	Rebel Exeda	Titan Ultra
Birmingham	Gold Medallion	Rebel IV	Titanium
Black Tail	Grande 3	Rebel V	Titanium 2LS
Bladerunner 2	GRO PRO	Rebel XLR	Titanium G-LS
Bloodhound	GTO	Rebounder	Tough
Bullseye	Guardian 41	Reflection	Traverse II SRP
Bullseye LTZ	Hemi	Regenerate	Trending
Caesar	Hot Rod	Rendition RX	Trinity
Catalyst	Houndog 5	Rhambler 2 SRP	Titanium 2LS
Clash	Houndog 8	Rhizing Moon	Turbo
Crossfire 4	Hover	Rockwell	Turbo RZ
Dakota	Hudson	Rowdy	Turfway
Daybreak	Inferno	Saltillo	Valkyrie LS
Diablo	Integrity	Screamer LS	Valsetz
Doubletake	Jaguar 4G	Serenade	VanGogh
Dynamite G-LS	Justice	Shenandoah Elite	Venture
Embrace	Kingdom	Shenandoah III	Vert
Estrena	Lafayette	Sidewinder	WATKINS
Extravaganza	Leonardo	Six Point	Wichita
Falcon IV	Lifeguard	South Fork	Xtender
Falcon Supreme	Maestro	Speedway	Xtremegreen

Fine Fescue^{1*}

Chewings Fescue

Ambrose	Cascade	Compass II	Shadow 2
Tiffany	Longfellow II	Radar	Fairmont
Intrigue 2	Longfellow 3	Treasure II	Wrigley 2
Zodiac	Momentum	Brittany 2	Radar II

Red Fescue^{*}

Jasper 2	Navigator	Razor	Seamist
Wendy Jean	Navigator II	Chantilly	

^{1*} Requires minimum plot coverage of 70% or greater over a three year evaluation period to be included on the VDOT Approved Species and Cultivar list.

Hard Fescue^{*}

Aurora Gold	Beacon	Berkshire	Brigade
Chariot	Gladiator	Gotham	Jetty
Minimus	Predator	Reliant IV	Spartan II
SR3100	Sword	Bighorn GT	Resolute
Beacon II	Sword II	Tenacious	

1* Requires minimum plot coverage of 70% or greater over a three year evaluation period to be included on the VDOT Approved Species and Cultivar list.

Sheeps Fescue

Azure Blue⁽⁵⁾

Bighorn⁽⁵⁾

Quatro⁽⁵⁾

Perennial Ryegrass^{1*}

Applaud	Evolve	JetFire	Slugger 3GL
All Star 3	Fastball 3GL	Karma	Soprano
All Star Fore	Fiesta 4	Legacy 2	SP 4660ST
Alloy	Fiesta Cinco	Line Drive GLS	Spike GLS
Apple 3GL	Goalkeeper	Monsieur	SR 4650
Apple GL	Grand Slam GLD	Octane	SR 4700
Apple SGL	Gray Fox	Palmer V	Stamina
ASAP	Gray Wolf	Pirouette	Stellar 3 GL
Aspire	Greenland	Pizzazz	Stellar 4GL
Bandalore	Homerun	Rio Vista	Superstar GL
Banfield	Homerun LS	Seabiscuit	Thrive
Benchmark	Infusion	Shield	TransGlobal
Big League	Infusion	Sidways	Umpqua
Black Pearl	Integra Supreme	Signet	Wicked
Diligent	Intense	Silver Spot	Xcelerator

Kentucky Bluegrass^{1*}

Apollo H2O	Cabernet	Kenblue	Skye
Acoustic	Cloud	Legend	Solar Eclipse
After Midnight	Conquistador	Mazama	Sombrero
Amaze	Courtyard	Mercury	SPF30
Aramintha	Crest	Merlot	Starr
Aries	Dauntless	Midnight	Sudden Impact
Babe	Deja Blue	Mystee H2O	Syrah
Baron	Delta Blue	New Moon	Tejas
Barserati	Diva	NiGlade	Thermal Blue
Barvette	Electric	Noble	Tirem
Barvette HGT	Endurance	NuChicago	Touché
Beyond	Everglade	Nurish	Twilight
Blue Bank	Finish Line	Oasis	United
Blue Coat	Full Back	Orion	Volt
Blue Devil	Granite	Pivot	Wildhorse
Blue Gem	Hampton	Quantum Leap	Yellowstone
Blue Magic	Heidi	Raven	
Blue Note	Impact	Ridgeline	
Bolt	Jersey	Selway	
Bombay	Keeneland	Shannon	

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Bermudagrass¹

Bermudagrass – Varietal differences in texture and winter hardiness are important considerations. If no notation follows the variety name this indicates it has performed in the top statistical category at both Blacksburg and HRAREC in Virginia Beach. Varieties with the notation # are only recommended in Virginia's warmest regions due to cold tolerance concerns. No guarantees can be made regarding any bermudagrass cultivar's winter survival in the transition zone, as damage to any cultivar is possible in an extreme winter.

Category I – Recommended vegetatively propagated bermudagrass varieties: Celebration, Latitude 36, Northbridge, Patriot, Premier Pro brand (variety name is Premier), Tahoma 31, TifTuf (DT-1), and Tifway.

Category II – Promising vegetatively propagated bermudagrass varieties: Iron Cutter, Celebration Hybrid.

Category III - Recommended seeded bermudagrass varieties: Princess-77, Riviera, and Yukon.

Category IV – Promising seeded bermudagrass varieties: Astro, Arden 15, Monaco, Rio, Sunqueen, and SWI-1070.

Coastal Plain Region only:

Del Sol

Piedmont Region only:

Sahara

Savannah

Yukon

Zoysiagrass¹

Zoysiagrass – (Varietal differences in texture and winter hardiness are important considerations.)

Category I – Recommended vegetatively propagated zoysiagrass varieties: Meyer and Zeon

Category II – Recommended seeded zoysiagrass varieties: Zenith

Coastal Plain Region only:

Cathay

Zen 300

Zenith

Blue Grama¹

Hachita

Weeping Lovegrass

Common

Miscellaneous Grasses

Tufted Hairgrass¹

Barcampsia

Colonial bentgrass¹

SR7100

Idaho bentgrass¹

Golfstar

Crested Hairgrass/Prairie Junegrass¹ (*Koeleria cristata*)

Barkoel

Barleria

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Orchardgrass¹

Potomac
Takena

Legumes

Birdsfoot Trefoil

AuDewey
Empire
Norecen

Crownvetch

Chemung
Emerald
Penngift

Flat Pea

Common

Sweet Pea

Common

White Dutch Clover

Common

Companion or Temporary Species

Annual Ryegrass

Common

Barley

Common

Cereal Rye

Abruzzi
Balboa

German/Foxtail Millet

Common