

Yukon Bermudagrass – Your Answer for Spring Dead Spot

Yukon bermudagrass (*Cynodon dactylon ssp. dactylon*) is the perfect choice for bermudagrass areas that have suffered Spring Dead Spot or Winterkill damage. The superior winter hardiness and high turf quality of Yukon increases the regional area where seeded bermudagrasses can be grown. It also provides security for the turf manager in those years when temperatures dip much lower than usual in more southern locations.

Superior Spring Dead Spot resistance in Yukon has been verified over many years in multiple trials and in real usage. Spring Dead Spot can be caused by three different related pathogens in the United States. The superior cold tolerance of Yukon is key to resistance to all three pathogens. The most common pathogen in the Midwest, and most damaging, is *Ophiosphaerella herpotricha*. The next most common is *O. korrae*, which occurs more in the Eastern United States and California, and also causes Necrotic Ring Spot in Kentucky bluegrass. The third species, *O. narmari*, is found primarily in Australia and New Zealand with scattered sites in California, Oklahoma, Kansas and North Carolina. This third one is the least damaging and seems to be a recent introduction into the United States (<http://www.apsnet.org/publications/apsnetfeatures/Pages/Bermudagrass.aspx>).

The use of Yukon, for both new plantings and repair interseeding of sports, landscape and golf turf, is an important part of a management strategy for reducing Spring Dead Spot. Changing cultivars is the first recommendation of turf



Large Spring Dead Spot patches in a non-resistant bermudagrass variety

pathologists for dealing with this disease. Using Yukon, coupled with changes in management, will drastically reduce the incidence and severity of Spring Dead Spot (<http://www.ipm.ucdavis.edu/PMG/r785102111.html>). Additional practices that have been shown to reduce Spring Dead Spot include aeration and vertical mowing, to reduce thatch and compaction, and the use of acidifying fertilizers, such as ammonium sulfate, to reduce soil pH for *O. herpotricha*. Calcium nitrate is a better nitrogen source to reduce disease for areas with *O. korrae* (Tredway 2009). In addition, map the most severely affected areas of your turf project so a fall fungicide can be applied to these areas. Yukon can also be seeded early in the season for quick repair, instead of waiting until later as is often necessary with vegetative cultivars. For example, your Tifway 419 sports or golf turf may have damage from both Winterkill and Spring Dead Spot this year – spring and summer are the perfect seasons to interseed the damaged Tifway 419 field with Yukon.

For additional information:

- http://www.sroseed.com/Products/PDF/yukon_ts.pdf
- <http://www.sroseed.com/resources/pdfs/articles/YukonMay2010.pdf>
- Tredway, L. 2009. <http://www.turfdiseases.org/2009/07/impact-of-nitrogen-sources-on-spring.html>
- <http://www.springdeadspot.com/index.html>



**Percent Winterkill Oklahoma State University – May 2010
(Winter 2009–10 was considered a severe winter)**

Cultivar	% Winterkill	Cultivar	% Winterkill	Cultivar	% Winterkill
Yukon – S	3.00	Riviera – S	11.67	Celebration – V	46.67
Patriot – V	6.67	Tifway 419 – V	16.67	Princess 77 – S	73.00
U-3 (SIU) – V	9.00	U-3 (TGS) – V	28.33	NuMex Sahara – S	94.67
Midlawn – V	11.00	TifGrand – V	30.00	LSD @ 5%	28.98

**Spring Dead Spot Ratings – Blacksburg, VA – 2002 NTEP
2003–2006 Data**

Ratings: 1–9; 9=No Disease

Cultivar	Mean Resistance	Cultivar	Mean Resistance	Cultivar	Mean Resistance
Yukon – S	8.7	LaPaloma – S	6.9	Southern Star – S	5.7
Tifway 419 – V	7.7	Sunbird – S	6.0	SunStar – S	5.3
Midlawn – V	7.6	Celebration – V	5.9	Mohawk – S	4.8
Patriot – V	7.4	Panama – S	5.9	Transcontinental – S	4.6
Riviera – S	7.4	Princess 77 – S	5.8	LSD @ 5%	1.6
NuMex Sahara – S	6.9	Sundevil II – S	5.8		

**2002 NTEP – Turfgrass Quality of Bermudagrass at
Nine Locations in the Transition Zone in 2006**

Quality Ratings: 1–9; 9=Ideal Turf

Cultivar	Mean Quality	Cultivar	Mean Quality	Cultivar	Mean Quality
Patriot – V	6.7	Veracruz – S	5.4	Southern Star – S	4.6
Tifway 419 – V	6.6	Sunbird – S	5.1	NuMex Sahara – S	4.6
Yukon – S	6.2	Princess 77 – S	5.0	Mohawk – S	4.6
Midlawn – V	6.2	Transcontinental – S	5.0	SunDevil II – S	4.5
Riviera – S	5.9	Panama – S	4.7	SunStar – S	4.5
Celebration – V	5.7	Arizona common – S	4.7	LSD @ 5%	0.3

S=Seeded; V=Vegetative

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