

Spring Dead Spot + Take-all Root Rot Assurance

Spring dead spot and take-all root rot are among the most damaging diseases of bermudagrass putting greens throughout the transition zone. These diseases attack during the fall and spring when bermudagrass is growing slowly, with the potential to cause long-term reductions in playability. Both diseases begin to damage roots in the late summer to fall, so this is the key time to begin a preventative fungicide program.

- Take-all root rot activity begins in mid- to late-summer when soil temperatures are consistently below 80°F.
- Spring dead spot activity begins in late summer to fall when soil temperatures drop to 70°F or less.

With proper application timing and the best rotation of products, take-all root rot and spring dead spot can be managed very effectively as part of a program approach. Syngenta has developed this recommended program through years of research with the leading universities in the transition zone.

Preventive late-summer to fall fungicide applications, prior to dormancy, are recommended to protect the turf from pathogen attack and ensure acceptable turf quality in the spring.

SPRING DEAD SPOT CONTROL IN 'CHAMPION' BERMUDAGRASS

Jim Kerns, Ph.D.

North Carolina State University, Raleigh NC



Posterity® Forte
0.84 fl oz/1,000 ft²



Posterity + Headway®
0.32 + 1.5 fl oz/1,000 ft²



Untreated

All fungicide treatments applied on Oct 17 and Nov 21, 2019. Photos taken on May 26, 2020

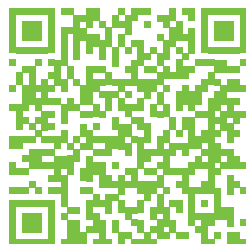
Introducing the Spring Dead Spot + Take-all Root Rot Performance Assurance for Bermudagrass Putting Greens in the Transition Zone

Application	All rates are per 1,000 ft ²	For More Information, visit:
1	Briskway® (1.2 fl oz)	GreenCastOnline.com/Briskway
2	Posterity Forte (0.84)	
3	Posterity Forte (0.84)	GreenCastOnline.com/PosterityForte
4	Headway (1.5 fl oz)	GreenCastOnline.com/Headway

TAKE-ALL ROOT ROT

Scan the Code for more information including:

- Disease ID photos
- Symptoms
- Conditions favoring disease
- and more



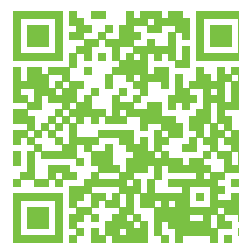
Management Tips:

- Maintain soil pH below 7; most turfgrasses perform best when soil pH is between 6 and 6.5.
- Avoid lime applications unless directed by soil test results.
- Reduce turf stress by increasing mowing height, providing adequate fertility, and minimizing mechanical wear.
- Implement a nematicide program if populations are at damaging levels
- Cultivate regularly to increase soil aeration and root growth.
- Improve soil drainage and avoid over-irrigation.

SPRING DEAD SPOT

Scan the Code for more information including:

- Disease ID photos
- Symptoms
- Conditions favoring disease
- and more



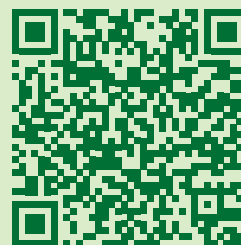
Management Tips:

- Avoid high amounts of late-summer or fall applications of nitrogen fertilizers. Modest amounts of nitrogen (i.e., < 0.75 lb N/ 1,000 ft²) in late summer do not appear to enhance the disease.
- It is very important to control competing weeds in affected turf to enhance recovery of patches.
- Improve drainage and reduce thatch.

Application Notes:

- **Make first application** in late summer/early fall **when 3-day average soil temperature declines below 80°F** (typically Aug-Sept).
- Make subsequent applications on a **28-day interval** in the sequence provided above.
- All applications must be watered-in immediately with at least 0.15" of irrigation.

This program of applications is targeted to prevent take-all root rot, spring dead spot. This program also has been shown to improve the winter quality and spring green-up of bermudagrass putting greens.



Scan the Code

to sign up for soil temperature alerts for each of these destructive diseases or visit:

Prevent Spring Dead Spot + Take-all Root Rot with a Program Approach

- Follow the management tips above and the prescribed solution with application timing & product use rates recommended for effective control on bermudagrass greens in AL, AR, GA, MS, NC, OK, SC, TN, TX, VA.
- **Follow Syngenta soil temperature alerts** and initiate applications when 3-day average soil temperature declines below 80°F. Make sequential applications on a 28-day interval.
- All applications must be watered-in immediately with at least 0.15" of irrigation.
- If breakthrough occurs, it is at the Syngenta Territory Managers discretion as to what product to provide for rescue treatment and when or if spot treatment or broadcast treatment is required. Breakthrough is defined as appearance of spring dead spot or take-all root rot symptoms (confirmed by samples submitted to a diagnostic lab to confirm spring dead spot or take-all root rot) to levels that negatively impact the uniformity and playability of putting surfaces.

Claims must be completed by May 1, 2022 with a territory manager.

- The Assurance is limited to providing product for up to two recovery applications for the acres originally treated.

