



Ultradwarf Bermudagrass Tinting Study

How do different paints and pigments affect the surface temperature of greens?

BY BRIAN WHITLARK

The practice of overseeding bermudagrass greens for the winter is growing less common with each passing season. There are three major reasons for this trend. First, a difficult economy has superintendents seeking ways to reduce maintenance costs without sacrificing playing quality. Eliminating the cost of seed and the winter-long mowing requirements of the overseeded greens saves significant dollars. Second, dormant bermudagrass greens offer outstanding putting quality providing some of the smoothest and fastest surfaces players will see all year. Third, the processes of establishment and transition are eliminated. Not only is this much easier on the bermudagrass greens, it puts an end to the loss of putting quality at two of the most enjoyable times of the year to play golf – spring and fall.

The one real drawback to not overseed is the loss of winter color. To overcome this, superintendents across the country are experimenting with a variety of dyes and paints to maintain a green tint, even on fully dormant greens. As the practice has caught on, questions began to arise concerning whether or not tinting greens in this manner might result in a warming of the surface and possibly help bermudagrass begin growing earlier in the spring.

In November, 2011, Mr. Kai Umeda from the University of Arizona Cooperative Extension and Mr. Brian Whitlark with the USGA Green Section, Southwest Region, began a tinting study on two ultradwarf bermudagrass greens. This study was designed to evaluate a variety of tinting products,

application timing, rate, cosmetics, and the impact on surface temperature. The first location is Whirlwind Golf Club. Mr. Mick Twito, the golf course superintendent, offered a non-overseeded Tifeagle putting green that is less than one year old. The second green used in the study is located at Paradise Valley Country Club. Mr. Rob Collins, golf course superintendent, provided his non-overseeded Champion bermudagrass nursery green, which is five years old.

The study began on November 17, 2011, prior to the onset of winter dormancy. Products were applied weekly or biweekly, depending on appearance. The goal is to provide cosmetically attractive surfaces every day for the golfer. During the most recent application on January 4, 2012,

surface temperatures were measured using an infrared thermometer (Table 1). In general, the products classified as paints, including Green Lawnger, Turf Dye Southwestern, Color 2 Grass and WinnerPlay, exhibited warmer surface temperatures than the pigments or dye. Moreover, when Warmup (a black paint) was added to the pigments or dye, surface temperature was increased, but not to the level of the paints.

The tinting study is ongoing and will continue until the bermudagrass at both locations initiates spring growth. Stay tuned to hear more about which products are favored by golfers and which products expedite bermudagrass growth this spring.

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Product	Surface Temperature (degrees Fahrenheit)
Turf Dye Southwestern	77.7
Green Lawnger + Turf Dye Southwestern	76.1
Color 2 Grass	76.0
WinnerPlay	75.4
Green Lawnger	75.2
Par + Warmup	75.0
Sarge + Warmup	74.6
Griggs Pigment Green + Warmup	74.0
Foursome + Warmup	72.1
Green Toes + Warmup	70.0
Non-Painted Treatment	69.9
Par + Green Lawnger	68.0
Non-Painted Treatment	67.5

Table 1. Surface temperature as influenced by a variety of paints, pigments and dyes, measured by an infrared thermometer on January 4th, 2012 on a non-overseeded Tifeagle bermudagrass green at Whirlwind Golf Club in Chandler, AZ.

You can also view short videos of this project by clicking on the links below:

http://webcast.usga.org/usga/Whitlark_Paint_Study_Intro_at_Whirlwind.wmv

http://webcast.usga.org/usga/Whitlark_Paint_Study_Surface_Temperature.wmv

http://webcast.usga.org/usga/Kai_Umeda_on_spray_application.wmv

