



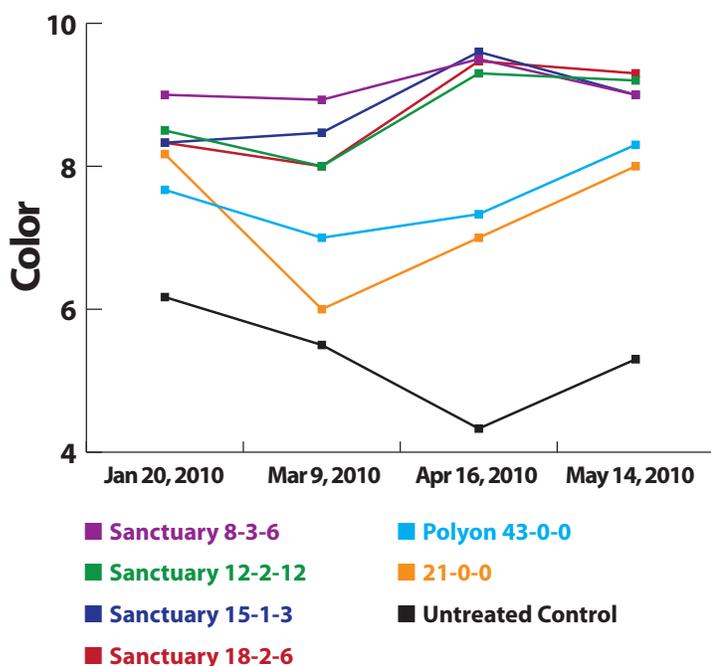
# This Fall . . . . . . Think Spring Greenup!!!

In the late fall, this is an ideal time to fertilize the turf. This research trial will explore the benefits of a late fall application of fertilizer prior to winter dormancy. This trial will compare the agronomic results from a standard ammonium sulfate application verses several Sanctuary organic fertilizer products.

This research addresses the benefits of a late fall application of Sanctuary organic products. In summary, the Sanctuary product will help to promote rooting, turf density and overall winter stress management. Plus, this application will provide outstanding early spring color, which translates into an outstanding springtime turf quality and green up.

## The Sanctuary Difference

The Sanctuary products provide the wintertime nutrient requirements to build carbohydrate reserves. These reserves translate into winter stress tolerance and early Spring green up. Throughout the winter, this application provides the nutrients to continue turf recovery, enhance rooting and provide excellent spring color.



## The Sanctuary Benefits

1. The Sanctuary products delivered a superior springtime color and green up which provided an early springtime putting surface.
2. As a dormant application, the Sanctuary products would eliminate the need for a springtime fertilizer application when nutrient release can be marginally effective.
3. The Sanctuary products contain complex carbohydrates, which impact the uptake of nitrogen by the turf and enhance microbial stimulation.

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## Fall Dormant Protocol

**Objective:** Evaluate the impact of various nitrogen sources on springtime green up and color on a sand based creeping bentgrass tee.

**Researcher:** Steven Mc Donald, Turfgrass Disease Solutions, LLC

**Site:** Philadelphia Country Club

**Turf Type:** Princeville Creeping Bentgrass

**Soil Type:** Sand Based Tee

**Evaluation Criteria:** Turf Color & Springtime Green Up

**Application:** All products were applied on December 4, 2009 at a nitrogen rate of 0.8 lbs of N/M.

**Experimental Design:** Randomized complete block with a minimum of 3 replications

**Treatments:** The treatments included Ammonium Sulfate, Poly Coated 43-0-0, Sanctuary 8-3-6, Sanctuary 12-2-12, Sanctuary 15-1-3 and Sanctuary 18-2-6.

**Results:** It is important to note that the winter of 2009-2010 was marked by above average snow fall and duration of coverage with colder than normal temperatures. When the snow melted, it melted from the bottom up, hence there was plenty of insulation and moisture underneath the snow. Following the snowmelt in January, there were significant differences in color observed. The highest visual color was observed in plots treated with Sanctuary products. The Sanctuary 8-3-6 had the best early winter color. However, all the Sanctuary products provided the best overall color when compared to the traditional synthetic fertilizer products. Per the treated plots, Polyon 43-0-0 had the lowest early color. In fact, there was a 'yellowing' effect observed in plots treated with Polyon 43-0-0 throughout much of the trial. By the completion of the project in mid May, all the plots had a better color than compared to the untreated control plot. Therefore, a late fall dormant fertilizer application offers a springtime color benefit to the turf.

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