

# Home Lawn Seeding Mixtures and Timing Trial

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### Introduction

Many lawn care professionals and homeowners debate the best time to establish a yard in Iowa, and how much more work and inputs it will take if planted the wrong time of year. Additionally, so many different turfgrass species are sold, that a side-by-side comparison of seed mixtures and planting dates is needed. The objectives of this study are to compare turfgrass seed that is locally, commercially available, commonly used, and planting timings. This is the first year of a two-year study.

### Materials and Methods

Research was conducted at the Iowa State University Horticulture Research Station. The ground was cleared of all vegetative cover before planting with a nonselective herbicide (glyphosate).

Two planting dates were used (October 4, 2016, and May 12, 2017) with six seed mixtures or species (Pennington Smart Seed Sun and Shade, Scotts Turf Builder Grass Seed Sun and Shade Mix + Watersmart Plus, Scotts Turf Builder Grass Seed Landscapers Mix, Sta-Green Sun and Shade Mix, 5 Iron Perennial Ryegrass, and Gulf annual ryegrass). Seed mixtures or species were treated with six different fertility products (Mesa, Duration, Urea, 28-0-3, 14-0-4, and an untreated control) and applied June 14.

Each treatment was planted according to seeding rates on the label with a slit seeder for maximum seed-to-soil contact. Plot size is 4 ft x 5 ft, and irrigation was provided to prevent dormancy.

Digital image analysis (DIA) was performed to track the cover of green tissue, color, dark green color index, and turf quality throughout the summer from the fertility treatments.

### Results and Discussion

No significant differences were observed between treatments for percent green cover, quality, and dark green color index on any rating date. Both fall and spring seeding dates provided 91 percent green cover July 14, 2017. The percent green cover decreased due to summer stress to 76 percent green cover on July 28 and August 3. However, the green cover was back to 91 percent by September 21 for both seeding dates. All seeding and fertility treatments provided similar percent green cover on all rating dates and followed the similar trend of the planting date trail.

Turfgrass color differed on the July 28, 2017, rating date (Table 1 and 2) for planting date and seed treatment. Fall treatments had a higher color rating (6.5 out of 9) compared with the spring planting date (5.8 out of 9). Also, the Scotts Landscape Mix (7.0) and Pennington Smart Seed Sun and Shade Mix (6.7) had higher color ratings than the Sta-Green Sun and Shade Mix (5.6) and Gulf annual ryegrass (5.5). No other differences existed on any rating date. One possible reason for the lack of differences is the high fertility already present in the soil for the study area. This study will be repeated in 2018 to investigate the performance of these treatments.

**Table 1. Turfgrass color ratings from digital image analysis for home lawn seeding mixtures and timing trial July 28, 2017.**

<b>Planting date</b>	<b>Color rating<sup>1</sup></b>
October 4, 2016	6.5
May 12, 2017	5.8
LSD (0.05) <sup>2</sup>	0.5

<sup>1</sup>Turfgrass color rated on a 1 to 9 scale with 9 = dark green color, 1 = light green color.

<sup>2</sup>Means were separated using Fishers LSD.

**Table 2. Turfgrass color ratings from digital image analysis for home lawn seeding trial by fertility, 2017.**

<b>Seeding mix</b>	<b>Color rating<sup>1</sup></b>
Scotts Turf Builder Landscaper Mix	7
Pennington Smart Seed	6.7
5 Iron Perennial Ryegrass	6.1
Scotts Turf Builder +Water Smart	5.9
Sta-Green	5.6
Gulf annual ryegrass	5.5
LSD (0.05) <sup>2</sup>	0.9

<sup>1</sup>Turfgrass color rated on a 1 to 9 scale with 9 = dark green color, 1 = light green color.

<sup>2</sup>Means were separated using Fishers LSD.