



Low-mow Kentucky Bluegrass Variety Performance for Fairways

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Goal: Evaluate Kentucky bluegrass variety performance under fairway conditions in Chicago.

Location: Sunshine Course's 3 Kentucky bluegrass fairway in play – Lemont, Illinois

Background: On fairways, Kentucky bluegrass offer value on golf courses with less inputs compared to creeping bentgrass. For example, inputs of fungicides will be much lower for dollar spot (*Sclerotinia homoeoecarpa*). Additionally, Kentucky bluegrass has better resistance to brown patch (*Rhizoctonia solani*) versus nearly all other cool-season turfgrass species. Compared to older varieties like 'Park' and 'KenBlue' which have rapid growth, a more open canopy and light to medium green color, newer Kentucky bluegrasses are greatly improved. Due to the apomictic behavior of Kentucky bluegrass, unique genetic combinations are locked into the makeup of a variety. This means Kentucky bluegrass is favorable for controlling a specific trait once introduced and creates a wide variety of stable appearances and uses. Examples include the dark green color of 'Midnight' for the home lawn and the newer low-mow varieties with a dwarf growth habit and slower growth rate for golf courses. However, vulnerabilities still may exist such as intolerance to newer selective herbicides, or poor ability to green-up in spring. Varieties must have resistance summer patch (*Magnaporthe poae*), a root disease associated with lower mowing heights necessary for fairways, tees, and first cut rough.

Brief Material and Methods: A total of 52 varieties were seeded in 5 ft. by 10 ft. plots on 2 July, 2009 using a randomized complete block design with 3 replications. The trial's proximity near a building reduces air movement and was selected to favor disease development. Hand seeding took place at a rate of 2 lbs per 1000 ft². Plots were managed at a height of 0.75 inch, irrigated as needed, and fertilized annually with 2 lbs N per 1000 sq. ft. Seedling vigor, percent cover, visual quality, and weed encroachment, were obtained in 2009 with spring green-up in 2010.

Results: Spring-greenup, Fall visual quality

- Best spring green-up (≥ 6.0) on 7 April 2010 was associated with experimental or newer varieties; Touche, Bedazzled, Rhapsody, Julia, 102S-117, and Blackberry. (Fig. 1)
- Best visual quality (≥ 7.0) on 8 October 2009 was associated with Touche, Bewitched, Guinness, Tsunami, Julia, Blackberry, Bedazzled, & Blueberry. (Fig. 2)

Table 1. Commercial Kentucky bluegrass varieties tested for fairway performance in Lemont, IL.

Entry #, variety name	Commercial source	Entry #, variety name	Commercial source
1. Rhapsody	DLF	27. Blue Chip	Jacklin Seed
2. Rhythm	DLF	28. Everest	Jacklin Seed
3. Harmonie	DLF	29. Impact	Jacklin Seed
4. Julia	DLF	30. Limousine	Jacklin Seed
5. Julius	DLF	31. NuBlue Plus	Jacklin Seed
6. Moonlight SLT	Scotts	32. NuChicago	Jacklin Seed
7. Moonshine	Scotts	33. NuGlade	Jacklin Seed
8. 102S-117	Scotts	34. Solar Eclipse	Jacklin Seed
9. Full Moon	Scotts	35. Sudden Impact	Jacklin Seed
10. Jumpstart	Scotts	36. Total Eclipse	Jacklin Seed
11. Prosperity	Scotts	37. Tsunami	Jacklin Seed
12. Moonbeam	Scotts	38. PST-101-92	Pure Seed Testing
13. Bewitched	Turf Merchants	39. PST-103-585	Pure Seed Testing
14. Bedazzled	Turf Merchants	40. PST-101-362	Pure Seed Testing
15. Blueberry	Turf Merchants	41. SR 2100	Seed Research
16. Blackberry	Turf Merchants	42. SR 2284	Seed Research
17. Bonaire	Turf Merchants	43. Touche	Seed Research
18. Diva	ProSeeds	44. Arcadia	Seed Research
19. Mystere	ProSeeds	45. Cheetah	Seed Research
20. Princeton 105	ProSeeds	46. Kingfisher	Seed Research
21. Guinness	ProSeeds	47. Bandera	Seed Research
22. Ginney II	ProSeeds	48. Spitfire	Seed Research
23. Alexa II	ProSeeds	49. Award	Jacklin Seed
24. Perfection	Allied Seed	50. Rugby II	Jacklin Seed
25. 4-Season	Jacklin Seed	51. Angus Blue	Turf Innovations
26. Beyond	Jacklin Seed	52. Rush	Jacklin Seed

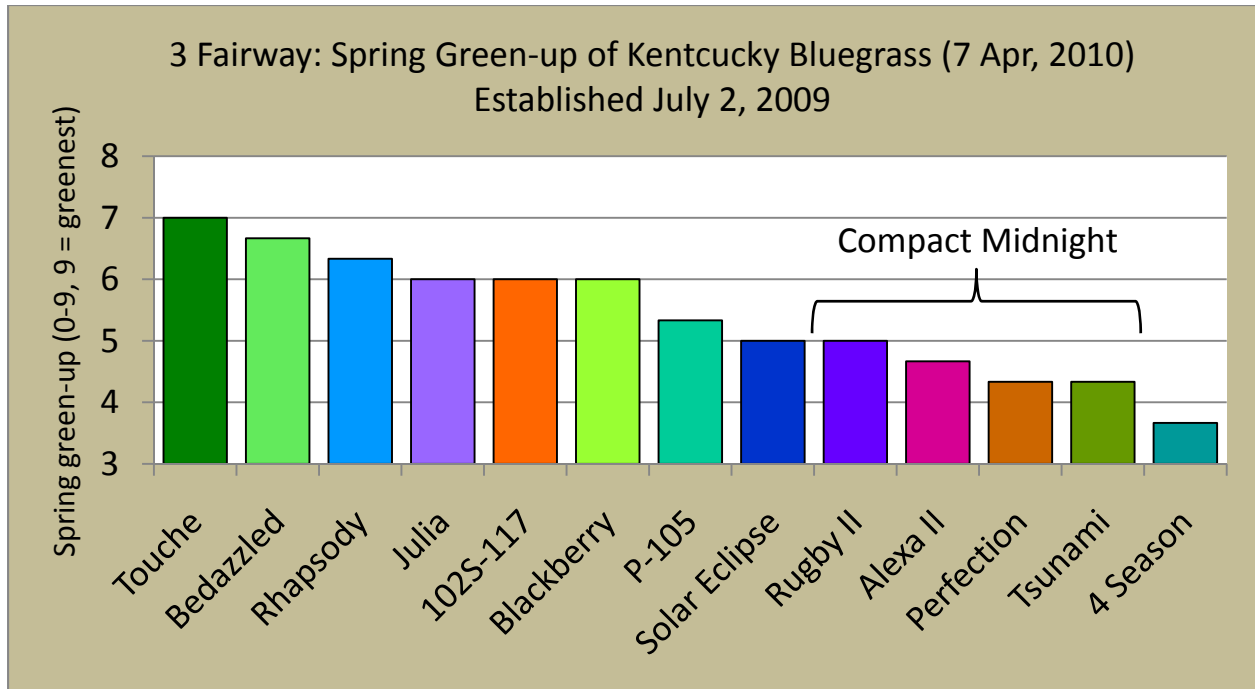


Figure 1. Spring green-up of Kentucky bluegrass varieties on 3 fairway, Sunshine Course, Lemont, IL in 2010.

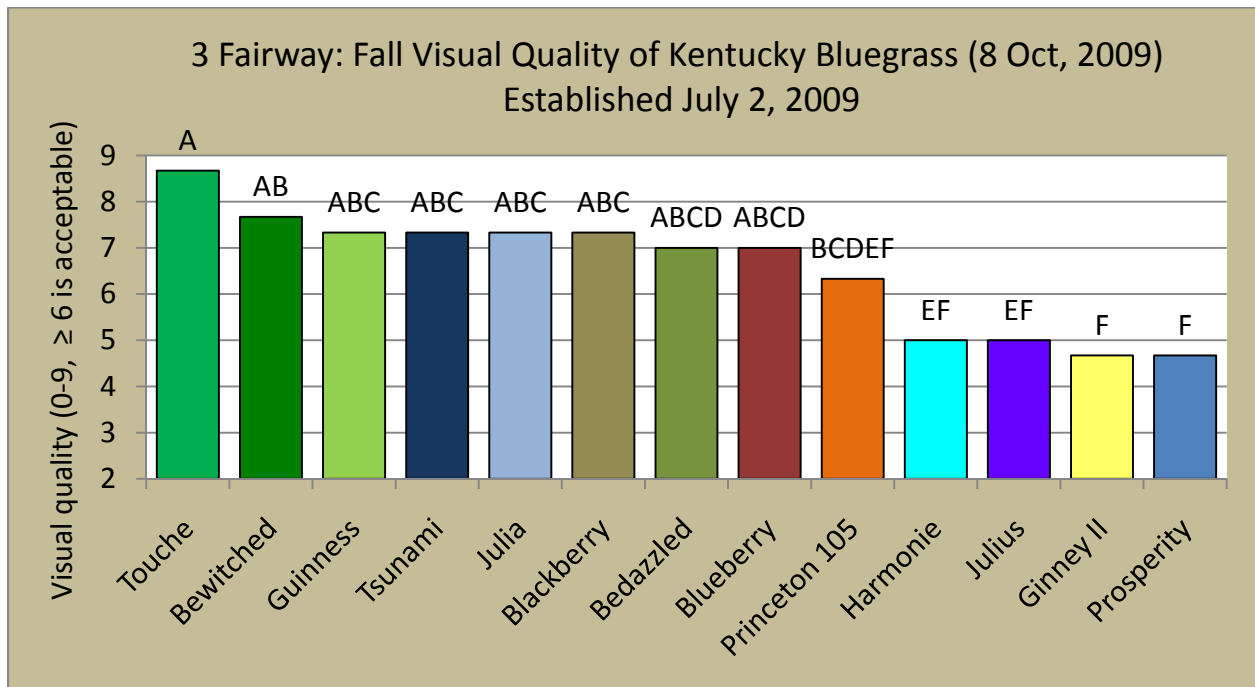


Figure 2. Visual quality of select Kentucky bluegrass varieties on 3 fairway, Sunshine Course, Lemont, IL in 2009.



Figure 3. Kentucky bluegrasses on Sunshine Course differ in genetic green color and ability to green-up in spring. A total of 156 plots measuring 5 ft. by 10 ft. are used to evaluate 52 varieties. *Settle 4-13-10*