bluegrasses with the lowest water applications were also ranked among those with the highest visual quality (Fig. 6; there were no statistical differences among cultivars with average visual quality greater than 5.5). The amount of water applied to these 15 cultivars with superior turf quality was also below the mean water applied to all 30 bluegrasses (32.8 cm). Similarly, visual quality in 12 of the 15 bluegrasses that received the least water was greater than the mean of all 30 bluegrasses (5.78 cm). Differences in seasonal water applications were as great as 21.6 cm and differences in days to 50% wilt between irrigations were as great as 6.7 days, nearly 1 week. Based on statistical range tests, only 15 of the 30 cultivars were in the group that both received the least water and had the greatest visual quality. Results indicated that, under conditions similar to those in our study, KBG in the Compact America and Mid-Atlantic phenotypic groups can be selected for their lower irrigation requirements without sacrificing visual quality, and types from those two groups may represent the best selections for breeding efforts to achieve such goals.

CONCLUSIONS
Cultivar selection in KBG had significant impacts on water requirements and visual quality ratings. Among cultivars, differences in seasonal water applications were as great as 21.6 cm and differences in days to 50% wilt between irrigations were as great as 6.7 days, nearly 1 week. Based on statistical range tests, only 15 of the 30 cultivars were in the group that both received the least water and had the greatest visual quality. Results indicated that, under conditions similar to those in our study, KBG in the Compact America and Mid-Atlantic phenotypic groups can be selected for their lower irrigation requirements without sacrificing visual quality, and types from those two groups may represent the best selections for breeding efforts to achieve such goals.

Dr. Dale J. Bremer is associate professor, Dept. of Horticulture, Forestry and Recreation Resources, Kansas State University; Dr. Jason D. Lewis is assistant professor, Dept. of Horticulture & Crop Science, California Polytechnic State University, San Luis Obispo. This article was reprinted with permission from Sports Turf Manager, Vol 26, No 1, Spring 2013. This research was funded by United States Golf Association, Turfgrass Producers International, and the Kansas Turfgrass Foundation. The technical assistance of Tony Gouldbey was greatly appreciated.