Effect of Vertical Mowing and Nitrogen on 'TifEagle' and 'Champion' Bermudagrasses. (C05-mccrimmon193417-Oral)

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Abstract:

Two recently released bermudagrass (Cynodon dactylon (L.) Pers. x C. transvaalensis Burtt-Davy) cultivars, 'Champion' and 'TifEagle', are being utilized more extensively on golf greens in the Southern states. They form a dense turf stand and provide an improved putting surface than previous cultivars. Both cultivars accumulate thatch at a higher rate, thus requiring more management. The research was done in order to assess the effects of vertical mowing and N rate on turfgrass color, shoot density, turfgrass quality, and thatch accumulation. The study was conducted on a research green constructed to USGA specifications. The treatments were combinations of two vertical mowing regimes (weekly and every two weeks) and two N rates (227 and 454 g N/93 m(^2)/month(^1). Potassium was applied at a 1:1 ratio with N; micronutrients were applied monthly. The green was mowed at a height of 3 mm and topdressed weekly. Data was taken monthly for color, density, uniformity, and quality. Shoot and root cores were taken to determine shoot dry weight; thatch thickness and dry weight; and root depth and dry weight. There were differences for color, density, quality, uniformity, and thatch for the cultivars under certain treatment combinations.

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