Kura Clover-Grass Mixtures Through Ten Years of Clipping: Dry Matter Production and Composition. (C06zemenchik173840-Poster)

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Abstract:

Perennial forage legumes in the North-Central USA lack persistence in monoculture or in mixture with grass, which results in costly sward renovations or premature rotation with other crops. We determined whether kura clover (Trifolium ambiguum M. Bieb; KC), a persistent rhizomatous legume, would remain productive through ten yr of clipping in monoculture or in binary mixture with Kentucky bluegrass (Poa pratensis L.; KBG), smooth bromegrass (Bromus inermis Leyss.; SBG), or orchardgrass (Dactylis glomerata L.; OG) while managed under selected cutting heights and frequencies. Swards were established near Arlington, WI in 1990 and 1991 and cut to either a 4 or 10 cm height, harvested three (3X), four (4X), or five (5X) times annually for ten yr. All swards followed dry matter (DM) production trends where the 4 cm cutting height > 10 cm and where 3X > 4X> 5X. Combining 3X with a 4 cm cutting height had the greatest annual DM production, which became range-bound after three yr, and varied from 8.3 to 10.6 Mg/ha for KBG, 6.7 to 9.4 for SBG, 7.3 to 8.9 for OG, and 6.8 to 8.2 for KC. Mixture grass DM proportions were least for 10 cm combined with 5X. Swards with a short cutting height and longer harvest interval, especially KBG, remained productive under clipping for ten yr.

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