

American Forage and Grassland Conference, Lexington, KY**Copy of the abstract sent in for the 1995 AFGC Meeting:****DRY MATTER YIELDS, NITROGEN PRODUCTION, AND FORAGE QUALITY
OF ANNUAL MEDICS AND BERSEEM CLOVER**

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Severe winter-kill of alfalfa (*Medicago sativa* L.) in some years prompts the need for emergency forages in northern locations. Three species of annual medics; barrel medic (*Medicago truncatula* Gaertn. cv. Mogul), burr medic (*M. polymorpha* L. cv. Santiago), and snail medic (*M. scutellata* L. cv. Sava), and berseem clover (*Trifolium alexandrinum* L.) were evaluated as emergency forages, compared to spring seeded 'nitro' alfalfa in 1993 and 1994 at Ingham and Kalamazoo counties in Michigan. All the species were 'clear seeded' in early spring and harvested sixty days later. Forage yield and quality, and nitrogen production of the species were determined. In 1993, only Sava and Santiago were evaluated, the DM yields of which were 0.6 and 0.5 t/a. In 1994, highest DM yields were obtained from Mogul with an average of 1.5 t/a across the two locations. Average yields of alfalfa, Santiago, Sava, and Berseem were 0.9, 0.9, 1.0, and 0.9 t/a respectively. Statistically different ($P \leq 0.05$) yields were evident only in Kalamazoo county, where Mogul was significantly higher than the others. In 1993, Santiago and Sava averaged 10.0 and 11.9% crude protein (CP) respectively. In 1994, berseem produced the highest CP concentration (22.4%), with alfalfa, Mogul, Santiago, and Sava producing 18.9, 17.6, 13.2, and 16.0% respectively. The medics and berseem had significantly higher acid detergent fiber (ADF) and neutral detergent fiber (NDF) than alfalfa at both locations. Average ADF values for alfalfa, Mogul, Santiago, Sava, and Berseem were 22.5, 27.7, 31.9, 34.0, and 27.6% respectively, and average NDF values

were 33.8, 36.0, 38.2, 42.9, and 36.6%; respectively. Nitrogen production of the above-ground biomass for Santiago and Sava in 1993 averaged 15.6 and 21.5 lb N/a respectively. In 1994, average N production of alfalfa, Mogul, Santiago, Sava, and Berseem across the two locations was 46.5, 65.7, 21.6, 45.6, and 56.0 lb N/a respectively.

From these experiments, it appears that annual medics and berseem clover have potentials for being used as emergency forages in Michigan.

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