

ASAS Centennial Paper: Future needs of research and extension in forage utilization

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Abstract :

Forage-animal production agriculture is implementing infrastructure changes and management strategies to adjust to increased energy-related costs of fuel, feed grains, fertilizers, and seeds. The primary objectives of this position paper are to assess future research and extension scientific needs in forage utilization, financial support for the discipline, and changing status and number of scientists. A survey questionnaire returned from 25 land-grant universities in the eastern half of the United States rated the top 4 research needs as 1) pasture systems and efficiency of production; 2) interfacing with energy concerns; 3) forage cultivar evaluations and persistence; and 4) environment impacts. Plant-animal future research needs at 11 USDA-ARS regional locations are targeted at sustainable management and improved livestock performance, ecophysiology and ecology of grasslands, environment impacts, and improved technologies for nutritive value assessments. Extension scientists from 17 southern and northeastern states listed the top 3 needs as forage persistence, soil fertility and nutrient management, and pasture systems and efficiency of production. Grant funds currently provide more than 40% of land-grant university research and extension efforts in forage utilization, and scientists estimate that this support base will increase to 55 to 60% of the funding total by 2013. Reduced allocation of state and federal funding has contributed to a reduction in the number of full-time equivalent (FTE) scientists engaged in forage utilization research and extension activities. The current 25 state FTE conducting research number about 2.8 per state. This includes 10 states with >3, 11 states with <2, and 3 states with <1 FTE. Increased interest in cellulosic energy, climate change, and environmental impact may offer new opportunities for these FTE to participate in integrated cross-disciplinary research. Extension programming, and technology transfer methods will change to accommodate reduced funding but with increasing numbers of novice, recreation-oriented landowners.

Key Word :

Extension, forage, pasture, production, research, utilization

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