Biodiversity in Pasture Ecosystems: Integrating Spatial and Temporal Scales. (C06-tracy090831-Oral)

Authors:

- B.F.Tracy - *University of Illinois*

Abstract:

Biodiversity is an important, yet often overlooked, component of pasture ecosystems. In some grasslands, high biodiversity has been linked to greater primary production and yield stability, better nitrate retention, reduced pest and pathogen abundance, and greater potential carbon sequestration. Managing pastures for high biodiversity, then, could be potentially beneficial from both environmental and production perspectives. The value of maintaining high biodiversity in pasture systems is debatable though because it may be costly and require more intensive management. Before we make judgements about the value of biodiversity in pastures, we need to better understand its function at multiple spatial and temporal scales. Furthermore, the way we measure biodiversity can often lead to misleading interpretations about its importance in plant communities. Researchers exploring biodiversity issues in pastures need to incorporate studies that evaluate variables at multiple spatial and temporal scales. It is also critical that researchers use appropriate indices to describe biodiversity. I will discuss these issues using examples from the literature and my own research.

Corresponding Author Information:

Benjamin Tracy
University of Illinois
Dep. Crop Sci. 1102 S. Goodwin Ave.
Urbana, IL 61801

phone: 217-265-5313
fax: 217-333-9817
e-mail: bftracy@uiuc.edu

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