

Plant Diversity and Functional Characteristics of Temperate Pastures. (C06-barker081301-Oral)

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Abstract:

Although temperate pastures in New Zealand and USA have the primary function of providing biomass for livestock production, they also have other important functions including persistence, seasonal stability, soil stability, water harvesting, carbon sequestration and aesthetic value. The variable effects of species composition (including both number and distribution) on these functions are reviewed using published and unpublished data. There is conflicting evidence that species might function as groups of similar function, rather than as individual species (i.e. functional groups). Various mathematical and statistical approaches have been used to identify functional groups. These, and a potentially new statistical approach, will be discussed and compared. An analogy between inter-species and intra-species diversity will be made, with implications for recommending species and cultivars for mixtures.

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