Are Forage Crops Over-Represented in Biodiversity-Productivity Studies?

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Biodiversity manipulation experiments are essential to our understanding of ecological theory and how plant communities are assembled in natural systems. Many forage species are present in ecosystems, and have become naturalized as a result of intense cultivation practices. These species are grown to feed livestock, and have undergone significant human selection for traits that increase productivity. We investigated the proportion of forage species used in biodiversity-productivity studies to determine if this differs from the background proportion found in natural communities. The proportion of forage crops used in the 21 biodiversity-productivity studies was obtained from a well-cited meta-analysis and compared to the background frequency in Ontario. We saw that forage crops were over-represented in the majority of studies, indicating that artificially selected upon species are being over-used in experiments meant to model natural systems.This finding may have implications for our understanding of ecological theory, and suggests there is a bias in the selection of species for ecological research.