# Performance and nutritive value of Elymus virginicus and E. hystrix in the Northeast USA (C06-sanderson074446-Poster)

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### Abstract:

Most forage grasses in the northeastern USA are introduced species. We evaluated northeastern collections of the native cool-season grasses Elymus virginicus and Elymus hystrix var. hystrix for yield, persistence, and nutritive value. Sixteen accessions and two commercial sources of E. virginicus and 13 accessions and one commercial source of E. hystrix were transplanted into single-row field plots in 2000 at Beltsville, MD, Rock Springs, PA, and Big Flats, NY. Two orchardgrass (Dactylis glomerata L.) cultivars were the checks. Yield and plant morphology data were collected during 2001 and 2002. Leaf morphology varied widely among all accessions. Yields of E. virginicus ranged from 8 to 57 g of dry matter per plant in 2001 among locations, whereas yields of E. hystrix ranged from 4 to 40 g. Orchardgrass yielded an average of 30 to 140 g per plant. Most of the variation in nutritive value was associated with differences in leaf-to-stem ratio. Both E. virginicus and E. hystrix were very sensitive to drought. E. hystrix was eliminated at PA by insect(putatively a Sphenophorus spp) feeding on apices and roots. These results indicate limited potential as productive forage grasses for these native grasses without genetic improvement.

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