

COOPERATIVE EXTENSION

Native Grasses for Low-Input Landscapes

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Introduction

Ornamental grasses are popular nursery and landscape plants that are low maintenance and deer resistant. Many native grasses demonstrate ornamental qualities as well as abiotic stress tolerance. Grasses can attract pollinators and perform valuable ecosystem services in green infrastructure applications. This program evaluated various species and cultivars of native grasses for their growth characteristics, bloom times, and summer performance in field trials in Central New Jersey. The results were communicated to commercial horticulture professionals and home gardeners through field tours, and in-person and virtual conference presentations.

Objectives

1. To evaluate various species and cultivars of ornamental grasses to benefit nurseries, landscapers, and green infrastructure professionals.
2. To share the results of the trials with stakeholder groups through field tours and presentations

Materials and Methods

Forty-six different taxa of ornamental grasses and sedges were established at the Rutgers Specialty Crop Research and Extension Center in Cream Ridge, NJ. Open-pollinated native species propagated from NJ genetics were compared with commercially available native cultivars and common non-native industry standards. Each taxa included four replicates. The grasses were transplanted into raised beds with drip irrigation and mulched with aged wood chips in 2021.

In 2022, the plants received no supplemental fertilizer or irrigation and were evaluated based on bi-weekly measurements of the following parameters (height, width, bloom time, insect or disease damage, summer performance). Ratings were based on a scale of 1 to 5, with 5 being the highest.



Big Bluestem (*Andropogon gerardii*)
‘NJ Open-pollinated’ (L) rated 4.5/5 and ‘Blackhawks’ cultivar (R) rated 5/5.



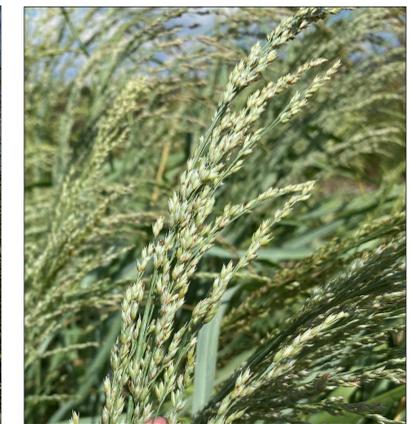
Little Bluestem (*Schizachyrium scoparium*)
Cultivar ‘The Blues’ was uniform with good color, and inflorescences that started in early July. Rated 5/5.



Switchgrass (*Panicum virgatum*)
‘Purple Tears’ had an upright growth habit and performed well in summer stress. Rated 5/5.



Coastal Panicgrass (*Panicum amarum*)
‘NJ Open-pollinated’ was fast growing and drought tolerant with blue-green foliage. Rated 5/5.



Results and Discussion

Several native species were among the top performers, including Big Bluestem ‘NJ Open-pollinated’ and ‘Blackhawks’, Little Bluestem ‘The Blues’, Switchgrass ‘Purple Tears’, and Coastal Panicgrass ‘NJ Open-pollinated’. These taxa demonstrated a high degree of heat and drought stress tolerance and were minimally affected by any insect or disease problems, making them strong candidates for low-input landscapes.

Conclusion

While many of the native cultivars demonstrated uniformity and unique traits in color and form, the genetic diversity observed amongst open-pollinated native species may have advantages for ecological restoration plantings.

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