



The Big Bluestem Story

Developing a big bluestem release

Collection



Dormant vegetative material is harvested in spring or fall.



Identification numbers are assigned and remain with plants throughout evaluation.



Detailed harvest site data is recorded for vegetative and seed collections.



Remnants of dying prairies remain for collection.

Propagation and Assembly



Collections are propagated in the greenhouse before planting to the field.



Plants leaving the greenhouse are hardened off and then planted to the field for evaluation.



A replicated space plant nursery is planted for initial evaluation of plants.

Evaluation and Selection



Plants are evaluated and selected for various characteristics including forage and seed production, winter hardiness, disease tolerance, size, form, and color.



Selected plants are assembled to a breeder's block and seed is harvested for stand and seeding vigor evaluation.



Forage production from the selected population is measured at various locations.



Larger scale field trials further evaluate the selected population.

Name and Release

Name

A population is selected after rigorous evaluation and testing. This population is not a genetically modified organism, but is a selection from a larger population. The population can have a broad or narrow genetic makeup. The population is given a name, often based on its origin. Once named, the population is released to the public for increase and commercial use. Releases are either varietal (cultivar) or prevarietal, depending on the amount of time the population has been tested. Both types of release can be certified under the seed certification program within a state.

Announcement

A release notice announcing the release of a population is distributed to researchers and cooperators. An information brochure is published and made available to the public through the Plant Materials Center, the website, and NRCS field offices.



Cooperators

Cooperators are an important part of the plant release process. These include universities and experiment stations, Agricultural Research Service, state and federal agencies, and local NRCS and conservation districts.

Seed Increase and Production



An increase field is planted at the Plant Materials Center from seed harvested from the breeder's block.



Management of a seed production field includes fertilizing, weed control, burning, irrigation, and disease and insect control.



Seed is harvested by combining.



Seed is deawned (de-awned) and then cleaned through a fanning mill.



Foundation seed is stored in a temperature and humidity controlled environment until being distributed to commercial seed growers.



Foundation seed is distributed to seed growers to increase and distribute commercially.

Use



Seed growers produce certified seed for commercial sale.



Big bluestem is an "ice cream plant" for summer livestock grazing.



The unique seed heads, size, and color make this native species desirable for urban and rural landscaping.



Native prairie species are used to restore disturbed lands.



Wildlife use seeds and forage for food and cover.