



Cape May Plant Materials Center Fiscal Year 2025 Annual Report of Activities

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The New Jersey Plant Materials Center (NJPMC) provides plant solutions for natural resource conservation concerns pertaining to coastal shorelines, sand dunes, critical areas, and coastal grassland habitat serving the Mid-Atlantic region. Significant accomplishments and major activities or findings from fiscal year 2025 are covered in this report.

‘Cape’ American Beachgrass Final Study Report Nears Publication

In April, New Jersey Plant Materials Center (NJPMC) staff initiated a study to evaluate reproductive performance attributes, primarily seed production, of two [American beachgrass](#) (*Ammophila breviligulata*) strains: ‘Cape’ and a native NJ wild collection germplasm. Cape was developed and selected for survival, vigor, culm production, and biomass production. Reports documenting germplasm comparison trials conducted for the selection of Cape and the process of its development

and release in 1972 were not formally published, but hard copies of reports on comparative trials and data are available in NJPMC filing cabinets. While anecdotal observations of limited seedhead formation are documented in unpublished reports, no evidence of a formal trial or data to support those observations were located. The primary objective of this study was to produce data to support or refute those anecdotal claims. Reproductive performance was assessed based on culm production, seedhead formation, seed production, and culm viability. Cape displayed less reproductive fitness than the wild collection: significantly less seedheads produced, less seed produced, and fewer average culms per bunch after four growing seasons. Time between harvest and planting was significantly negatively associated with culm viability regardless of American beachgrass strain. Full details of the study will be available in the Final Study Report (early 2026 anticipated publication).

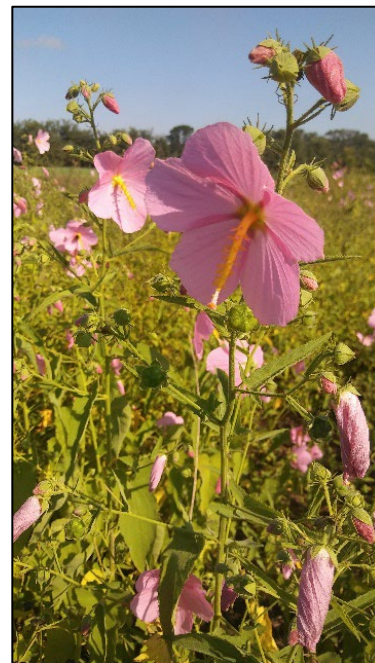


Cape (left) and a wild collected strain (right) of American beachgrass display varied timelines to break dormancy.

NJPMC Initiates Two Comparative Field Studies of Virginia Saltmarsh Mallow and Bushy Bluestem Wild Collections

[Virginia saltmarsh mallow](#) (*Kosteletzkya virginica*) is an herbaceous, flowering perennial native to the coastal plains and marshes of the Mid-Atlantic region as far north as New York and south to Florida. It is well adapted to tidal and non-tidal marshes, swamps, and along the edges of wetland habitats where it occurs and is listed as an obligate wetland species. The lengthy bloom period, typically beginning in June and continuing as late as October, and nutritionally valuable seed make Virginia saltmarsh mallow a valuable species for conservation practice standards concerning wildlife. However, commercial sources of seed are rare and often unavailable. Readily available commercial seed sources of Virginia saltmarsh mallow would make its use for NRCS conservation practice standards more feasible.

Inflorescence abundance, flowering period duration, and seed yield data can all be gathered from a set of replicated trial plots to determine if any native Mid-Atlantic wild germplasms display superior performance for those attributes. NJPMC staff established replicated study plots of three (NJ, DE, and NC) wild germplasms for evaluation. Results from this study may contribute to the development of a conservation plant release selected for superior wildlife value attributes.



Virginia saltmarsh mallow flowers in a study plot at the NJPMC.

[Bushy bluestem](#) (*Andropogon glomeratus*) is a native, warm season, perennial, saline tolerant bunchgrass that can be found growing along brackish and freshwater marsh borders, moist roadside ditches, and grassland. Bushy bluestem is well adapted to soils with poor drainage and is assigned the wetland indicator status of Facultative Wetland for the Atlantic and Gulf Coastal Plain region. Although commercial sources of seed are often unavailable, it is recommended as a potential candidate for 15 NRCS conservation practice standards, 14 of which are listed in the Field Office Technical Guides for Mid-Atlantic and Northeast states.

The Plant Materials Program has

standardized plant attribute measurement protocols for Conservation Cover (327), Field Border (386), Riparian Herbaceous Cover (390), and Filter Strip (393). A [greenhouse seedling vigor study](#) was conducted to evaluate 34 wild collections from brackish coastal sites in Virginia and North Carolina. The 14 top performing collections from the seedling vigor study were included in this advanced field study to evaluate them based on plant attributes (stem diameter, stem density [stems/ft²], plant height, or dry matter yield) applicable for recommended NRCS conservation practice standards.



Mature, fluffy, silvery-white bushy bluestem seedheads are displayed in the NJPMC study plots.

NJPMC Celebrates 60 Years of Developing Plant Solutions for Conservation Purposes

The NJPMC commemorated their 60th anniversary with a celebratory field day event on September 25th. This long-term effort of plant evaluation and technology development has been strengthened by partnerships, a theme that was stressed during the event and displayed by the crowd of attendees representing over 20 partner organizations. The NJPMC has formed and nurtured internal partnerships with other PMCs as well as external partnerships with other federal and state agencies, nonprofit organizations, academic institutions, and commercial nurseries working towards common goals. The cooperative efforts of these partnerships have been a critical element leading to the development of 15 conservation plant releases, numerous technical publications, and regular training activities.

The event opened with a morning of presentations and a series of guest speakers including Julie Hawkins (USDA-NRCS, NJ State Conservationist), Kasey Taylor (USDA-NRCS, Regional Conservationist for the Northeast Region), Frank Minch (NJ Dept of Agriculture), Bob Andrzejczak (USDA Farm Service Agency), Allen Carter (NJ Farm Bureau), Joseph Lomax (DelAtlantic Conservation District Board of Supervisors, Vice-Chairman), and John Englert (USDA-NRCS, National Plant Materials Program Leader).

Just before lunch, a ceremonial signing of the finalized conservation release package took place to officially release [Hamer Germplasm sea oats](#). Named after retired NJPMC Manager, Don Hamer, the in-person signing of this conservation plant release was more emotionally charged than most with Mr. Hamer in attendance and available to provide his personal remarks on the release's path to development.

The afternoon consisted of several tour options. A field tour was offered to view and learn about conservation plant production plots and field studies/demonstrations. Guided tours of the greenhouse and seed cleaning facilities were also offered.



Field day attendees are treated to wagon ride tour of conservation plant production plots and field studies/demonstrations.



Field day attendees are treated to a morning of presentations and guest speakers.



John Englert (left) and Julie Hawkins (right) sign the Hamer Germplasm sea oats release documents.



Chris Miller provides background on the development of Hamer Germplasm sea oats and how its production is managed during the field tour.

Release of Hamer Germplasm Sea Oats

The development of [Hamer Germplasm sea oats](#) is a saga spanning over four decades and encompassing the efforts of more than 20 NRCS employees and Earth Team volunteers. It is a tale of adventures, such as a fierce standoff with bulldozers preparing to bury trial plots for a dune reconstruction project. Other plots decimated by natural sand accumulation/burial and wildlife herbivory add catastrophic elements to the story ramping up the drama. Above all the setbacks and challenges though, it presents the character of a man who was passionate enough about plant materials development to pursue a sea oats conservation plant release with undying tenacity and persistence. That man is Mr. Donald Hamer.



Don Hamer inspects a sea oats trial planting.

Hamer Germplasm is named after Donald Hamer, retired Cape May Plant Materials Center Manager (1985-1995) for his tireless dedication to the development of a sea oats conservation plant release. Although Mr. Hamer retired from the Plant Materials Program in 1995, his passion for plant materials work burned on and he returned as an Earth Team volunteer (2010-present) to help finish the work that was started during his NRCS career.

The project began with seed collection trips from natural stands in Virginia and North Carolina conducted from 1981-1984. Field trials were conducted until 1995 when the project was shelved indefinitely. The project was reinitiated in 2009 when five individual plants that survived the trial plantings in Avalon, NJ were rediscovered. After additional testing, Hamer Germplasm was officially released on September 25, 2025 during the Cape May Plant Material Center's 60th Anniversary celebration.

Hamer Germplasm displayed a statistically significant shorter average height than NC and SC commercially available sources of sea oats it was compared to in a replicated in situ trial planting. The shorter stature is a desirable trait for coastal communities and property owners seeking low growing dune vegetation options that do not impede ocean views.

As a part of the conservation plant release process, two new publications, [Release Brochure](#) and [Notice of Release](#), were developed and published. Additionally, the existing [Sea Oats Plant Guide](#) was updated to include the newly released conservation plant release.



Hamer Germplasm sea oats on a back dune in Avalon, New Jersey.

NJPMC Outreach Activities

NJPMC staff supported the Avalon Environmental Commission's fourth year of their Grasses in Classes program by providing supplies and technical guidance. The educational program promotes beach stewardship to Avalon Public School students who are provided a hands-on learning experience about the importance



Avalon Public School student plants American beachgrass propagated in the classroom on the dunes.

of the dune environment and how to protect it from erosive factors. After planting and caring for the plants in the classroom, students plant the 'Cape' American beachgrass plugs on the dunes.



Scott Snell, NJPMC Study Leader, pictured with his poster presentation at the 2025 National Native Seed Conference.

The NJPMC contributed to a strong Plant Materials Program showing at the 2025 National Native Seed Conference in February. In attendance were staff from five PMCs and West Region Plant Materials Specialist, Heather Dial, and our National Program Leader for Plant Materials, John Englert. The group manned a Plant Materials Program exhibit table as a form of outreach and means of education about the program. Margaret Smither-Kopperl, California PMC Manager, presented a talk titled Establishment of Perennial Pollinator Species from Plugs in California's Mediterranean Climate.

Jennifer MacMillan, Washington PMC Study Leader, and Scott Snell, NJPMC Study Leader, presented posters during the poster session titled Increasing Germination Efficiencies in Nine Palouse Prairie Native Forbs and [Development of Virginia Saltmarsh Mallow, Amberique Bean, and Bushy Bluestem Conservation Plant Releases](#), respectively.

The NJPMC was represented at the [Egg Harbor Township School District Dr. Joyanne D. Miller Elementary School's Annual Career Fair](#), an event that draws attendance of over 1,000 students, teachers, and administrators. The event provides fourth and fifth graders an opportunity to explore a wide range of career fields and ask professionals directly about their careers. Plant Materials did not always draw as big of a crowd as some of the traditionally "more exciting" professions (emergency first responders), but most kids were big fans of the seed samples.



Egg Harbor Township School District Dr. Joyanne D. Miller Elementary School.



Flageo saltmeadow cordgrass study plot at the NJPMC.

‘Flageo’ Saltmeadow Cordgrass is Adopted by NJPMC
 Last October, Chris Miller, NJPMC Manager, coordinated and came to an agreement with the Georgia and Florida PMCs to transfer the maintenance and distribution responsibilities of ‘Flageo’ saltmeadow cordgrass from the Georgia PMC to the NJPMC. The Flageo Release Brochure was updated to communicate that change and is now available [online](#). In a coordinated effort with the update of the Release Brochure, the [Saltmeadow Cordgrass Plant Guide](#) was also updated to the current format and amended with additional information from the [variety comparison study](#) conducted at the NJPMC.

Retired NJPMC Manager, Don Hamer, Honored with NAACP Lifetime Achievement Award

The NJPMC staff would like to share news of the celebration of former NJPMC Manager (1985-1995), Don Hamer, for his honor as recipient of the NAACP Cape May County Lifetime Achievement Award at the 2025 Freedom Fund Gala. Don’s career with NRCS was one of many notable achievements listed in his biography and accomplishments in the event’s program booklet. Mr. Hamer filled a critical role in furthering the Plant Materials Program mission during his time as Manager at the NJPMC and after his retirement when he returned to serve as an Earth Team volunteer. We salute Mr. Hamer for his contributions to the NJPMC and the NRCS Plant Materials Program as a whole.



Chris Miller (left) congratulates Don Hamer (right) as recipient of the 2025 NAACP Cape May County Lifetime Achievement Award.

Publications, Presentations, and Outreach

- [Cape May Plant Materials Center Fiscal Year 2024 Annual Progress Report of Activities](#)
- [Evaluation of saltmeadow cordgrass \(*Spartina patens*\) varieties for conservation applications](#) (poster)
- [Development of Virginia saltmarsh mallow, amberique bean, and bushy bluestem conservation plant releases](#) (poster)
- [Release Brochure for ‘Flageo’ saltmeadow cordgrass \(*Spartina patens*\)](#) (major revision)
- [Release Brochure for Hamer Germplasm sea oats \(*Uniola paniculata*\)](#)
- [Saltmeadow Cordgrass \(*Spartina patens*\) Plant Guide](#) (major revision)
- [Sea Oats \(*Uniola paniculata*\) Plant Guide](#) (major revision)
- [Notice of Release of Hamer Germplasm Sea Oats](#)
- [Cape May Plant Materials Center Electronically Available Publications](#) (brochure)
- [Effects of saltwater intrusion on candidate restoration species in coastal agricultural fields](#) (refereed journal article)

Cape May Plant Materials Center

The Cape May Plant Materials Center (NJPMC) was established in 1965 and is operated by the United States Department of Agriculture, Natural Resources Conservation Service. Approximately 80 acres of land are leased from the State of New Jersey for production and field studies while all infrastructure is situated on 4 acres of federally owned land. The NJPMC was added to the Plant Materials Program network of plant materials centers to address coastal restoration needs and to mitigate the impacts of future coastal storms following Hurricane Donna (1960) and the Ash Wednesday Storm (1962 nor'easter). The NJPMC is ideally located to focus on coastal ecosystem conservation concerns given the location of the center near tidal marshes, coastal dune communities, and extensive wetlands.

Program Emphasis

The mission of the Plant Materials Program is to find plant solutions to solve conservation problems through the development of plants and plant technology. The Plant Materials Program uses an integrated approach to transfer developed plant products and plant technology utilizing all NRCS staff levels, other government agencies, academic institutions, and private groups.

The NJPMC provides plant solutions for natural resource conservation concerns pertaining to coastal shorelines, sand dunes, mined lands and critical areas, and coastal grassland habitat serving a nine-state area, including parts of Connecticut, Delaware, Maryland, Massachusetts, Long Island- New York, New Jersey, North Carolina, Rhode Island, and Virginia.

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