

'Wildwood' Bayberry

(*Morella pensylvanica*) (Mirbel.) Kartesz

A Conservation Plant Released by the USDA NRCS Cape May Plant Materials Center, Cape May, NJ



'Wildwood' bayberry (*Morella pensylvanica* (Mirbel.) Kartesz) is a cultivar released in 1992. Photo by Cape May Plant Materials Center, USDA NRCS.

Description

'Wildwood' bayberry is a native, upright, salt-tolerant woody shrub that forms thickets with a height and spread of 6–7 ft. This early to mid-successional shrub will reach full height at inland locations, and will be shorter under more exposed seashore conditions. It is a semi-evergreen shrub with alternate, dark-green, inversely egg-shaped, aromatic leaves that are 2.5–4 in long. When well-established, these multi-trunked shrubs will form dense colonies by spreading through underground stems. This plant fixes atmospheric nitrogen which helps it survive in stressed environments, such as sand dunes and other sterile soil conditions.

Source

'Wildwood' Bayberry (*Morella pensylvanica*) was developed from a cross of four superior strains collected from locations in New Jersey and North Carolina. These accessions were selected for exceptional seedling vigor, survival rate, foliage abundance, and disease and insect resistance. The 'Wildwood' material was field-tested on dune sites from Delaware to Massachusetts with little or no performance variation. The cultivar was released to commercial growers in 1992.

Conservation Uses

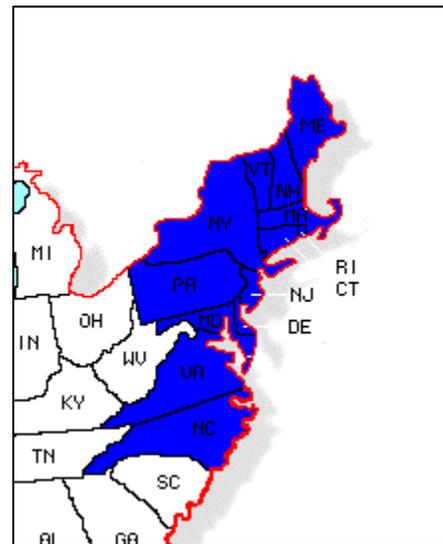
Bayberry is primarily used for stabilizing secondary coastal sand dunes. Because of its late winter leaf and fruit retention, it provides good protective cover and food for many species of song and game birds. A study by Shiflett and Young (2010) found that seeds from *Morella* spp. (*Morella cerifera* and *Morella pensylvanica*) accounted for 62% of total seeds collected in fecal seed

traps installed on three Virginia islands. Thus, with the help of seed dispersal via birds, bayberry plays an important role in reestablishing woody plant species on barrier islands in particular. Dickerson (2002) also notes that bayberry seed is a valuable food source for bobwhite quail, ruffed grouse, ring-necked pheasants, various songbirds, and migratory swallows in the fall.

In agricultural applications, 'Wildwood' can be utilized as a medium-sized windbreak or field border. In residential applications, it can be used as a foundation plant, hedge, screen, or street tree that can tolerate moderate trimming.

Area of Adaptation and Use

Although indigenous to the Mid-Atlantic coastal area, bayberry also occurs on more inland sites. It is well-adapted to droughty sites with moderately fertile, slightly acidic, loamy and sandy soils. Bayberry does not perform well on heavy clay soils, but will tolerate moderately well-drained to somewhat poorly-drained conditions. 'Wildwood' is geographically adapted from Plant Hardiness Zones 5a to 8b.



Map of 'Wildwood' bayberry area of distribution.

Establishment and Management for Conservation Plantings

Bayberry seedlings should be at least 1–2 years old before transplanting. Remove or control existing vegetation before planting bare root or containerized material. Planting in sites with algal crusts and moss mats may help establish young seedlings, however productivity will be reduced through competition for moisture and nutrients (Thiet et al., 2013). Plant spacing for this shrub is based on its intended use. For back dune plantings, plants should be placed two to three feet apart; for a wildlife

hedge or field border, three to four-foot spacing is adequate. Adding mulch around new plants will aid in weed control and moisture retention. To assure seed production, both male and female plants must be established in close proximity to one another. Several seedlings should be planted in the same area as seedling sex cannot be determined before maturity.

The seedlings can be started from seed in fall on raised beds. Plant 4 grams of pure live seed (PLS) per square foot of bed (Dickerson, 2002). The plant will spread through adventitious shoots (suckers) especially in accumulating sands. Dune and natural area plantings should be allowed to grow naturally with no pruning or maintenance. The shrub can only withstand minimal pruning. Heavy pruning will lead to reduced vigor and die back.

Fertilization is generally not necessary and may promote more weed competition. The optimal soil pH is 6.0–6.5.

Ecological Considerations

No known diseases or pests dramatically affect this species.

Seed and Plant Production

The clusters of waxy gray-white fruit develop from inconspicuous flowers which bloom in the early spring (around April) from second-year stems. The fruit grows in tight clusters along the length of the stems, has low water content, and is high in lipids (Shiflett and Young, 2010). The fruit ripens in October and remains on the plant well into winter, thus providing food to birds during the coldest months of December and January. Shiflett and Young (2010) found that *Morella* spp. made up 99% of all seeds found in seed traps during the winter season.

This species is dioecious, meaning there are separate male and female plants. Nurseries often choose to grow plants with both male and female flowers on the same plant (monoecious) so as to avoid selling separate male and female plants.

‘Wildwood’ had a germination rate of 28% at Cape May Plant Materials Center, Cape May NJ, for the years 1996–2010; and yielded an average 89 lb/ac of cleaned seed from 2010–2012.

Availability

For conservation use: Seedlings of ‘Wildwood’ are available to commercial growers. Seed is also available through the Cape-Atlantic Soil Conservation District for a

nominal fee.

For seed or plant increase: ‘Wildwood’ bayberry is an Eastern US cultivar. NRCS maintains foundation stock at the Cape May Plant Materials Center (PMC) in Cape May Court House, NJ. It is now available from some commercial nurseries in the Northeastern United States.

For more information, contact:
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Citation

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For additional information about this and other plants, please contact your local USDA Service Center, NRCS field office, or Conservation District <<http://www.nrcs.usda.gov/>>, and visit the PLANTS Web site <<http://plants.usda.gov/>> or the Plant Materials Program Web site <<http://www.plant-materials.nrcs.usda.gov/>>

References

- Dickerson, J. 2002. Bayberry (*Morella pensylvanica*) plant factsheet. USDA-Natural Resources Conservation Service, Syracuse, New York.
- Shiflett, S. A. and D. R. Young. 2010. Avian seed dispersal on Virginia barrier islands: potential influence on vegetation community structure and patch dynamics. *The Am. Mid. Nat.* 164(1): 91–106. doi: <http://dx.doi.org/10.1674/0003-0031-164.1.91>
- Thiet, R.K, A. Doshas and S. M. Smith. 2013. Effects of biocrusts and lichen-moss mats on plant productivity in a US sand dune ecosystem. *Plant Soil.* doi: 10.1007/s11104-013-2002-8

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