Florida Native Plant Society

Native Plant Owners Manual

*Melanthera nivea* – Snow Squarestem

Mark Hutchinson
Putting things in perspective

All seasonal references are applicable to the eastern panhandle of Hernando County where the plants portrayed in this presentation grow. This area happens to be a cold spot in central Florida due to the Brooksville Ridge and approximates a Hardiness Zone of 8a or 8b, average annual low temperatures ranging between 10 and 20 °F.

Any reference to medicinal or culinary use of plants or plant parts should in no way be considered an endorsement by the Florida Native Plant Society of any sort of experimentation or consumptive use.

Please do not attempt to rescue any native plants without first reviewing the [FNPS Policy on Transplanting Native Plants](#).

Special thanks to Lucille Lane and Shirley Denton.
Snow Squarestem

Aster family
Melanthera nivea
What’s in a Name?

Biological Classification – Tree of Life

Where does this plant grow?
  • In North America
  • In Florida

What this plant needs to -
  • Thrive
  • Propagation
  • Pollination

Life Cycle

References

‘View/Full Screen Mode’ recommended

Throughout this presentation, clicking this symbol will return you to this page.
Snow Squarestem, cat’s tongue, pineland squarestem, snow melanthera, salt and pepper

*Melanthera* (mel-ANTH-er-uh)

Ancient Greek meaning black anther

*nivea* (niv-EE-AH)

From the Latin ‘*niveus*’ or ‘*nivosus*’ meaning of snow, or full of snow
Biological and Genetic Relationships

![Biological and Genetic Relationships](image)
(Individual species and genus denoted by italics)
Core Eudicots

Buxaceae
Didymelidae
Trochodendraceae
Proteales
Sabia
Ranunculales

Eudicots

Nymphaeaceae
(Aquatic flowering plants)
Austrobaileyales

Monocotyledons
(Lilies, orchids, palms, grasses & relatives)

Ceratophyllaceae
Chloranthaceae
Magnoloids

Amborella trichopoda

(Individual species and genus denoted by italics)
Link to the University of Arizona’s [Tree of Life](https://treeoflife.unm.edu/).
Species Distribution in the United States

Snow Squarestem is native to North America, and endemic to the coastal plains of the southeastern States. The current range of growth extends northward along the Mississippi River through Tennessee and Kentucky, into the southernmost counties of Illinois.

(For specific distribution within any of the shaded areas go to the USDA link provided on the reference page, and click the shaded area of interest.)
• The USDA, NRCS, lists a total of five species of the genus *Melanthera* Rohr throughout the United States.

• The Atlas of Florida Vascular Plants identifies only the species *M. nivea* as being native to Florida.

Species Distribution within Florida

- *Melanthera nivea*, a perennial wildflower or shrub, is *vouchered* in fifty-three counties in Florida, most extensively in the peninsula.

- Snow Squarestem prefers moist, fertile, well-drained sometimes sandy soils in coastal plains, yet is tolerant of soils containing substantial amounts of clay.

(*vouchered – indicates that a fully documented dried specimen has been deposited in an approved herbarium*)
Growing Conditions

• Melanthera nivea prefers direct sun to slight shade

• Snow Squarestem favors sandy or limestone, well-drained soil, moderate to low salt tolerance.

• Soil pH can vary considerably.

• Good drought tolerance.

• Hardiness: USDA Zone 6b: to –20.5 °C (-5 °F) to USDA Zone 11: above 4.5 °C (40 °F)

• Flowering and seed production occur from spring into late fall in central Florida.

• Height: 24 - 48 inches (60 - 120 cm.)
Plant Structure and Life Cycle

Come early spring, the first new growth of *Melanthera nivea* is hard to miss. The distinctive foliage is readily identifiable and remains so through the life cycle of the plant. A herbaceous, perennial wildflower, this plant’s common name would suggest it is a member of the mint family, which usually have geometric stems, however, Snow Squarestem is a member of the Aster Family.
As the plant extends itself from the ground, it will naturally assume a leggy appearance. If you want yours to be a little fuller and showy, just nip off the new growth at the end of the stems once the plant has reached a height of about two feet or better. This will encourage the plant to fill out. As spring turns to summer, *Melanthera nivea* will start to flower quite prolifically when the growing conditions are right.
The flowers have no ray petals and the central disk is composed of white tubular blooms, each of which will eventually display the male part of the flower.

Once pollinated, the tubular flowers will dry up as seeds form in an achene. Once the entire flower head dries, the achene will drop to the ground, preparing to start a new cycle.
Pollinators and Wildlife

*Melanthera nivea* is a must for any butterfly garden. It is a larval host plant to the Florida White butterfly (*Appias drusilla*), and nectar host to numerous butterflies and skippers, including the Carolina Satyr (*Hermeuptychia sisybius*), at right. Native bees and wasps also favor this flower. This species will keep your garden humming.
Seed Collection & Propagation

Once the tubular blooms of Snow Squarestem are fertilized by pollinators, the achene will form. The achene is actually a fruit that surrounds the seed, although many novice gardeners believe it is the seed. An example of an achene is a sunflower seed – the exterior shell is the achene and the much softer interior is the seed. The achene are released once the flower head dries.

Once the flowers start to dry, a fabric bag like those that garlic are sold in, can be used to cover the flower head and capture the seeds as they fall from the flower head.
Presentation References

• Biological and genetic relationships
  University of Arizona Tree of Life
• Natives For Your Neighborhood
  RegionalConservation.org
• United States distribution
  USDA - Natural Resource Conservation Service
• Florida distribution
  Atlas of Florida Vascular Plants
• Herbarium specimen
  FSU Robert K. Godfrey Herbarium
Presentation References (cont.)

• Growing conditions & general information
  
  Flora of North America
  
  ZipCodeZoo.com

• FNPS – Natives for Landscaping
  
  FNPS.org This Link will take you to the profile for this plant on the FNPS website

• Florida Plants by zone and habitat, use your county name or zip-code to see native habitat classifications and appropriate plants.
For more in-depth study:


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