



Seed propagation protocols

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The following protocols describe how to collect seeds, how to break seed dormancy (if necessary) and how to sow seeds of 20 pine rockland species. The species descriptions were adapted from species profiles on the website “Natives for your Neighborhood”.

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Seed collection of *Croton linearis* (photo by B. Harding)

Species included in this document:

- Angadenia berteroi* (Pineland-allamanda)
- Argythamnia blodgettii* (Blodgett's silverbush)
- Asclepias viridis* (Green antelopehorn)
- Chamaecrista deeringiana* (Deeringpartridge pea)
- Chaptalia albicans* (White sunbonnets)
- Croton linearis* (Pineland croton)
- Dalea carnea* var. *carnea* (Whitetassels)
- Echites umbellatus* (Devil's potato)
- Guettarda scabra* (Rough velvetseed)
- Ipomoea tenuissima* (Rockland morning glory)
- Jacquemontia curtissii* (Pineland clustervine)
- Koanophyllon villosum* (Florida shrub thoroughwort)
- Liatris chapmanii* (Blazing star)
- Metastelma blodgettii* (Blodgett's swallowwort)
- Netpunia pubescens* (Tropical puff)
- Physalis walteri* (Walter's groundcherry)
- Piloblephis rigida* (Wild pennyroyal)
- Ruellia succulenta* (Thickleaf wild petunia)
- Senna mexicana* var. *chapmanii* (Bahama senna)
- Zamia integrifolia* (Coontie)



Photo: R. L. Hammer

Angadenia berteroi

Common Name(s): Pineland-allamanda

Synonym(s): *Rhabdadenia corallicola*

Family: Apocynaceae

Legal status: Threatened

Description: Small to medium erect wildflower that is taller than broad. It has showy yellow flowers and seeds can be found in slender cylindrical pods (NFYN).

Range in the US: Florida (NFYN)

Habitat: Pineland and marl prairies (NFYN)

Growing from seed

Seed collection: Seeds can be collected when pods turn dark brown

Seed dormancy: Seeds germinate well without any pre-treatment.

Seed sowing: Seeds can be sown into standard potting soil or Turface (a chipped clay product). Seeds should be covered lightly with soil/Turface and sowing medium should be kept consistently moist.

Citation (NFYN):

Gann GD, Stocking CG, Brennan KM, Hines KN and Collaborators. 2005-2020. Natives For Your Neighborhood. The Institute for Regional Conservation. Delray Beach, Florida.



Photo: J. Possley (left) and K. Wendelberger (right)

Argythamnia blodgettii

Common Name(s): Blodgett's silverbush

Synonym(s): *Aphora blodgettii*, *Ditaxis blodgettii*.

Family: Euphorbiaceae

Legal Status: Endangered

Description: Erect perennial herb, 1-3 feet in height. Usually taller than broad. Leaves are often colored a distinctive metallic bluish green and are 3-nerved. Flowers are green and inconspicuous. Three-lobed capsules containing one seed in each lobe (NFYN).

Range: Endemic to Monroe County Keys and Miami-Dade County (NFYN)

Habitat: Pine Rockland and coastal hammocks (NFYN)

Growing from seed

Seed collection: There are 3 seeds in each capsule (right picture above). Capsules split open once seeds are mature and eject seeds with force. Organza jewelry bags can be used to catch the ejected seeds.

Seed dormancy: Without pre-treatment the germination rate of *A. blodgettii* seeds is very low (~10%). However, treating seeds with smoke solution (which is commercially available) leads to germination rates as high as 80%. Seeds should be soaked in smoke solution for 24h. Afterwards they can be sown without rinsing.

Seed sowing: Seeds can be sown into standard potting soil or Turface (a chipped clay product). Seeds should be covered lightly with soil/Turface. The sowing medium should be kept moist consistently. Seedlings can be repotted as soon as the first real leaves start to grow.

Citation (NFYN):

Gann GD, Stocking CG, Brennan KM, Hines KN and Collaborators. 2005-2020. Natives For Your Neighborhood. The Institute for Regional Conservation. Delray Beach, Florida.



Photo: D. Powell

Asclepias viridis

Common Name(s): Green antelopehorn

Synonym(s): *Asclepiadora viridis*

Family: Apocynaceae

Description: Rare small to medium understory herb with erect or sprawling stems and oblong leaves. About 6-24 inches in height. Taller than broad, but then falling over and spreading. Showy green flowers with purple hoods. Seed pod wide at the base and tapering toward the tip (NFYN).

Range in the US: Eastern and central United States (NFYN)

Habitat: Pineland rockland (NFYN)

Growing from seed

Seed collection: Seed pods contain multiple seeds that are wind dispersed. Either seed pod can be collected right when it starts to split open or seed pod can be covered with organza jewelry bags to catch seeds when they are released. Germination trials have shown that only seeds that are mature (darker brown) and not wrinkled will germinate.

Seed dormancy: Seeds germinate reasonably well without any pre-treatment, but the germination rate can be improved (up to 100%) by desiccating the seeds 3 days before sowing. Seeds can be desiccated by placing them in a paper envelope inside a sealed plastic bag filled with silica gel.

Seed sowing: Seeds can be sown into standard potting soil or Turface (a chipped clay product). Seeds should be covered lightly with soil/Turface and sowing medium should be kept consistently moist.

Citation (NFYN):

Gann GD, Stocking CG, Brennan KM, Hines KN and Collaborators. 2005-2020. Natives For Your Neighborhood. The Institute for Regional Conservation. Delray Beach, Florida.



Photo: J. Possley

Chamaecrista deeringiana

Common Name(s): Deering partridge pea

Synonym(s): Cassia deeringiana

Family: Fabaceae

Description: Medium herbaceous wildflower. Sometimes as tall as broad, but often spreading. Showy yellow flowers with red anthers. Inconspicuous pod containing multiple seeds (NFYN).

Range in the US: Southeastern United States (NFYN)

Habitat: Pineland rockland (NFYN)

Growing from seed

Seed collection: Seed pods contain multiple seeds and split open when seeds are ripe. Organza jewelry bags around the seed pod can be used to collect mature seeds.

Seed dormancy: Without pre-treatment seed germination is low and slow. Mechanical scarification with sandpaper and a 24h water soak leads to almost 100% germination within 2-3 days.

Seed sowing: Seeds can be sown into standard potting soil or Turface (a chipped clay product). Seeds should be covered lightly with soil/Turface and sowing medium should be kept consistently moist.

Citation (NFYN):

Gann GD, Stocking CG, Brennan KM, Hines KN and Collaborators. 2005-2020. Natives For Your Neighborhood. The Institute for Regional Conservation. Delray Beach, Florida.



Photo: L. Cuni

Chaptalia albicans

Common Name(s): White sunbonnets

Synonym(s): *N/A*

Family: Asteraceae

Legal status: Threatened

Description: Small herb with semi-showy flowering heads. Flowers are white and develop into an inconspicuous achene after pollination. (NFYN).

Range in the US: Florida (NFYN)

Habitat: Pine rocklands (NFYN)

Growing from seed

Seed collection: Seeds are wind dispersed, but organza jewelry bags can be used to catch the seeds, or they can be collected by hand right before they get blown away.

Seed dormancy: Seeds germinate well without any pre-treatment. However, seed quality is very important. Seeds should be dark brown and feel firm when pressed with tweezers. Often there are a lot of non-viable seeds within a seed collection that are flat and soft.

Seed sowing: Seeds can be sown into standard potting soil or Turface (a chipped clay product). Seeds should be covered lightly with soil/Turface and sowing medium should be kept consistently moist.

Citation (NFYN):

Gann GD, Stocking CG, Brennan KM, Hines KN and Collaborators. 2005-2020. Natives For Your Neighborhood. The Institute for Regional Conservation. Delray Beach, Florida.



Photos: Jennifer Possley

Croton linearis

Common Name(s): Pineland croton

Synonym(s): N/A

Family: Euphorbiaceae

Description: Small shrub with leaves that are dark green above and silvery or coppery below. Typically, 1-3 feet in height. Semi-showy white flowers and fruits that are inconspicuous capsules (NFYN).

Range in the US: Florida and Texas (NFYN)

Habitat: Pineland and prairies (NFYN)

Growing from seed

Seed collection: Germination trials have shown that it is very important to collect mature seeds. There are 3 seeds in each capsule (bottom picture left). Capsules split open once seeds are mature and eject seeds with force. Organza jewelry bags can be used to catch the ejected seeds.

Seed dormancy: Mature seeds germinate to a relative high percentage (around 50%) without any pre-treatment. However, germination can be improved by treating the seeds with smoke solutions which are also commercially available.

Seed sowing: Seeds can be sown into standard potting soil or Turface (a chipped clay product). Seeds should be covered lightly with soil/Turface. The sowing medium should be kept moist consistently, but it is also important not to water the seeds too much since *C. linearis* seems to be susceptible to fungal root infection as soon as seedlings emerge.

Citation (NFYN):

Gann GD, Stocking CG, Brennan KM, Hines KN and Collaborators. 2005-2020. Natives For Your Neighborhood. The Institute for Regional Conservation. Delray Beach, Florida.



Photo: J. Possley

Dalea carnea var. carnea

Common Name(s): Whitetassels
Synonym(s): *Petalostemon carneus*
Family: Fabaceae

Description: Small to medium herbaceous wildflower with fine textured foliage that is spreading and forming small, open patches. Showy inflorescence with pink flowers. Seeds are found in an inconspicuous pod (NFYN).

Range in the US: Georgia and Florida (NFYN)

Habitat: Pinelands (NFYN)

Growing from seed

Seed collection: Seeds can be collected when seed pods turn dark brown. Seeds can be removed from the small seed pods by rubbing them between fingers.

Seed dormancy: Without pre-treatment germination is slow and low. Mechanical scarification with sandpaper or nicking with a sharp knife will increase germination substantially. After scarification a 24h water soak is recommended.

Seed sowing: Seeds can be sown into standard potting soil or Turface (a chipped clay product). Seeds should be covered lightly with soil/Turface and sowing medium should be kept consistently moist.

Citation (NFYN):

Gann GD, Stocking CG, Brennan KM, Hines KN and Collaborators. 2005-2020. Natives For Your Neighborhood. The Institute for Regional Conservation. Delray Beach, Florida.



Photo: J. Possley

Echites umbellatus

Common Name(s): Devil's potatoe

Synonym(s): *Echites echites*

Family: Apocynaceae

Description: Clambering or climbing vine with stems 5 feet or more in length. It has showy white flowers and seeds develop in paired slender pods. (NFYN).

Range in the US: Florida (NFYN)

Habitat: Pine rocklands, hammock edges and coastal thickets (NFYN)

Growing from seed

Seed collection: Seeds are wind dispersed, but organza jewelry bags can be used to catch the seeds once the seed pod splits open, or they can be collected by hand once the seed pod starts to split.

Seed dormancy: Seeds germinate well without any pre-treatment. However, seed quality is very important. Seeds should be darker brown and not wrinkled. There are often seeds of different quality in one seed pod.

Seed sowing: Seeds can be sown into standard potting soil or Turface (a chipped clay product). Seeds should be covered lightly with soil/Turface and sowing medium should be kept consistently moist.

Citation (NFYN):

Gann GD, Stocking CG, Brennan KM, Hines KN and Collaborators. 2005-2020. Natives For Your Neighborhood. The Institute for Regional Conservation. Delray Beach, Florida.



Photo: E. Fleites (left) and J. Possley (right)

Guettarda scabra

Common Name(s): Rough velvetseed

Synonym(s): *Matthiola scabra*

Family: Rubiaceae

Description: Small tree or medium shrub with erect branches and an open, irregular crown. Leaves are leathery and very rough above. Semi-showy white flowers and seeds are within rounded red berries (NFYN).

Range in the US: Florida (NFYN)

Habitat: Pine rocklands and hammocks (NFYN)

Growing from seed

Seed collection: Fruits that contain one seed each should be collected when they are bright red and cleaned immediately so that it is easy to remove the flesh from the seed. Each seed contains four embryos.

Seed dormancy: Seeds germinate well without any pre-treatment, but they take almost three months to start germinating.

Seed sowing: Seeds can be sown into standard potting soil or Turface (a chipped clay product). Seeds should be covered lightly with soil/Turface and sowing medium should be kept consistently moist.

Citation (NFYN):

Gann GD, Stocking CG, Brennan KM, Hines KN and Collaborators. 2005-2020. Natives For Your Neighborhood. The Institute for Regional Conservation. Delray Beach, Florida.



Photo: J. Possley

Ipomoea tenuissima

Common Name(s): Rockland morning glory

Synonym(s): *N/A*

Family: Convolvulaceae

Legal Status: Endangered

Description: Twining and climbing herbaceous vine that often drapes over other vegetation and has showy purple flowers. Seeds can be found in inconspicuous capsules.

Range in the US: South Florida (FISF)

Habitat: Pine rockland (FISF)

Growing from seed

Seed collection: Seeds can be collected when capsules turn dark brown.

Seed dormancy: Without pre-treatment germination is slow and low. Mechanical scarification with sandpaper or nicking with a sharp knife will increase germination substantially. After scarification, a 24h water soak is recommended. Another way to increase germination is to place the seeds into a sieve and dip the sieve with the seeds into boiling water for 3-6s. After that seeds should be put into water at room temperature for 24h.

Seed sowing: Seeds can be sown into standard potting soil or Turface (a chipped clay product). Seeds should be covered lightly with soil/Turface and sowing medium should be kept consistently moist.

Citation (FISF):

Gann GD, Stocking CG and Collaborators. 2001-2020. Floristic Inventory of South Florida Database Online. The Institute for Regional Conservation. Delray Beach, Florida



Photo: B. Harding

Jacquemontia curtissii

Common Name(s): Pineland clustervine

Synonym(s): N/A

Family: Convolvulaceae

Legal Status: Threatened

Description: Herbaceous or semi-woody wildflower. About 3-6 inches in height. Stems can spread to 3 feet long or more. Showy flowers with white or blushed with purplish-pink flower. Fruits are inconspicuous capsules (NFYN).

Range in the US: Endemic to South Florida (NFYN)

Habitat: Pineland and prairies (NFYN)

Growing from seed

Seed collection: Capsules containing 3 seeds can be collected once they are dark brown. Seed color can vary between yellow/light brown to dark brown. Germination trials with closely related species *J. reclinata* showed that seed color does not influence germination rate.

Seed dormancy: Germination can be improved by scarifying seeds with sandpaper or nicking the seed coat carefully with a sharp knife. Afterwards soaking the seeds in water at room temperature for 24h is beneficial.

Seed sowing: Seeds can be sown into standard potting soil or Turface (a chipped clay product). Seeds should be covered lightly with soil/Turface and sowing medium should be kept consistently moist.

Citation (NFYN):

Gann GD, Stocking CG, Brennan KM, Hines KN and Collaborators. 2005-2020. Natives For Your Neighborhood. The Institute for Regional Conservation. Delray Beach, Florida.



Photo: J. Johnson

Koanophyllon villosum

Common Name(s): Florida shrub thoroughwort

Synonym(s): *Eupatorium villosum*

Family: Asteraceae

Legal status: Endangered

Description: Medium erect shrub with semi-showy flowering heads. Flowers are pinkish white and develop into inconspicuous achene after pollination. (NFYN).

Range in the US: Florida (NFYN)

Habitat: Pine rockland and rockland hammock edges (NFYN)

Growing from seed

Seed collection: Seeds are wind dispersed, but organza jewelry bags can be used to catch the seeds, or they can be collected by hand right before they get blown away.

Seed dormancy: Seeds germinate well without any pre-treatment. However, seed quality is very important. Seeds should be dark grey and feel firm when pressed with tweezers. Often there are a lot of non-viable seeds within a seed collection that are flat and soft.

Seed sowing: Seeds can be sown into standard potting soil or Turface (a chipped clay product). Seeds should be covered lightly with soil/Turface and sowing medium should be kept consistently moist.

Citation (NFYN):

Gann GD, Stocking CG, Brennan KM, Hines KN and Collaborators. 2005-2020. Natives For Your Neighborhood. The Institute for Regional Conservation. Delray Beach, Florida.



Photo: J. Possley

Liatris chapmanii

Common Name(s): Blazing star

Synonym(s): *Lacinaria chapmanii*

Family: Asteraceae

Description: About 2-3 inches in height; to 3 feet when in flower. Usually taller than broad, but sometimes falling over and forming open patches. Showy purplish (rarely white) flowers and seeds develop as inconspicuous achenes after pollination (NFYN).

Range in the US: Southeastern United States (NFYN)

Habitat: Pineland (NFYN)

Growing from seed

Seed collection: Seeds are wind dispersed, but they can be picked by hand before they get blown away.

Seed dormancy: Seeds germinate well without any pre-treatment. However, seed quality is very important. Seeds should be dark grey and thick, not soft and/or flat. Seeds should be sown not long after collection since they lose viability relatively fast.

Seed sowing: Seeds can be sown into standard potting soil or Turface (a chipped clay product). Seeds should be covered lightly with soil/Turface and sowing medium should be kept consistently moist.

Citation (NFYN):

Gann GD, Stocking CG, Brennan KM, Hines KN and Collaborators. 2005-2020. Natives For Your Neighborhood. The Institute for Regional Conservation. Delray Beach, Florida.



Photo: B. Harding (left) and L. Cuni (right)

Metastelma blodgettii

Common Name(s): Blodgett's swallowwort

Synonym(s): *Cynanchum blodgettii*

Family: Apocynaceae

Legal status: Threatened

Description: Creeping or short climbing vine with small leaves. Stems can get 3 feet or longer. The semi-showy flowers are white, and wind dispersed seeds can be found in a slender seed pod (NFYN).

Range in the US: South Florida (NFYN)

Habitat: Pine rocklands (NFYN)

Growing from seed

Seed collection: Seeds are wind dispersed, but organza jewelry bags can be used to catch the seeds once the seed pod splits open, or they can be collected by hand once the seed pod starts to split.

Seed dormancy: Seeds germinate well without any pre-treatment. However, seed quality is very important. Seeds should be darker brown and not wrinkled. There are often seeds of different quality in one seed pod.

Seed sowing: Seeds can be sown into standard potting soil or Turface (a chipped clay product). Seeds should be covered lightly with soil/Turface and sowing medium should be kept consistently moist.

Citation (NFYN):

Gann GD, Stocking CG, Brennan KM, Hines KN and Collaborators. 2005-2020. Natives For Your Neighborhood. The Institute for Regional Conservation. Delray Beach, Florida.



Photo: R. L. Hammer (left) and S. Wintergerst (right)

Neptunia pubescens

Common Name(s): Tropical puff

Synonym(s): *Neptunia floridana*

Family: Fabaceae

Description: Small creeping herb that is spreading and forms small open patches. It has yellow showy flowers with globose heads. Seeds ripen within brown flattened pods (NFYN).

Range in the US: Southeastern United States (NFYN)

Habitat: Pineland rockland, open coastal uplands and disturbed sites (NFYN)

Growing from seed

Seed collection: Seed pods contain multiple seeds and split open when seeds are ripe.

Seed dormancy: Without pre-treatment seed germination is low and slow. Mechanical scarification with sandpaper and a 24h water soak lead to almost 100% germination within 2-3 days.

Seed sowing: Seeds can be sown into standard potting soil or Turface (a chipped clay product). Seeds should be covered lightly with soil/Turface and sowing medium should be kept consistently moist.

Citation (NFYN):

Gann GD, Stocking CG, Brennan KM, Hines KN and Collaborators. 2005-2020. Natives For Your Neighborhood. The Institute for Regional Conservation. Delray Beach, Florida.



Photo: L.Cuni (left) and B. Harding (right)

Physalis walteri

Common Name(s): Walter's groundcherry
Synonym(s): *Physalis ellotii*, *Physalis maritima*
Family: Solanaceae

Description: Small herb with lanceolate leaves that is spreading and forming small patches that are broader than tall. Flowers are dull yellow. Seeds are within a green to yellow berry that is surrounded by a papery calyx (NFYN).

Range in the US: Southeastern United States (NFYN)

Habitat: Pinelands and open coastal areas (NFYN)

Growing from seed

Seed collection: Fruits that contain a large number of small seeds can be collected when the papery calyx starts to turn brown and the fruit is easy to remove. By squeezing and smashing the fruit in a fine sieve, seeds can be separated from the fruit.

Seed dormancy: No pre-treatment is needed for seeds to germinate, but experience shows that it is best to collect fruits and sow the seeds at the same day since they do not store well

Seed sowing: Seeds can be sown into standard potting soil or Turface (a chipped clay product). Seeds should be covered lightly with soil/Turface and sowing medium should be kept consistently moist.

Citation (NFYN):

Gann GD, Stocking CG, Brennan KM, Hines KN and Collaborators. 2005-2020. Natives For Your Neighborhood. The Institute for Regional Conservation. Delray Beach, Florida.



Photo: R. L. Hammer (left) and S. Denton (right)

Piloblephis rigida

Common Name(s): Wild pennyroyal

Synonym(s): *Pycnothymus rigidus*

Family: Lamiaceae

Description: Small to medium herbaceous wildflower that is about as broad as tall. It has showy light purplish flowers. The fruit consists of inconspicuous nutlets (NFYN).

Range in the US: Georgia and Florida (NFYN)

Habitat: Pinelands (NFYN)

Growing from seed

Seed collection: Seeds are mature when they turn black

Seed dormancy: Seed germination without pre-treatment is slow and very low. The germination rate can be improved by putting the seeds for 5 minutes into 5% (v/v) sulfuric acid. After that they should be rinsed in water for about 15 minutes.

Seed sowing: Seeds can be sown into standard potting soil or Turface (a chipped clay product). Seeds should be covered lightly with soil/Turface and sowing medium should be kept consistently moist.

Citation (NFYN):

Gann GD, Stocking CG, Brennan KM, Hines KN and Collaborators. 2005-2020. Natives For Your Neighborhood. The Institute for Regional Conservation. Delray Beach, Florida.



Photo: L. Cuni

Ruellia succulenta

Common Name(s): Thicketleaf wild petunia

Synonym(s): *R. caroliniensis* ssp. *caroliniensis* var. *succulenta*

Family: Acanthaceae

Legal status: Endangered

Description: Small herbaceous wildflower that is spreading or erect and often as broad as tall. It has purple showy flowers and multiple seeds develop in inconspicuous capsules (NFYN).

Range in the US: Florida (NFYN)

Habitat: Pineland (NFYN)

Growing from seed

Seed collection: Capsules containing multiple seeds can be collected when they turn brown. Seeds are often affected by seed predation and many have only a few viable seeds left.

Seed dormancy: Seeds germinate well without any pre-treatment. However, seed quality is very important. Seeds should be round and not flat.

Seed sowing: Seeds can be sown into standard potting soil or Turface (a chipped clay product). Seeds should be covered lightly with soil/Turface and sowing medium should be kept consistently moist.

Citation (NFYN):

Gann GD, Stocking CG, Brennan KM, Hines KN and Collaborators. 2005-2020. Natives For Your Neighborhood. The Institute for Regional Conservation. Delray Beach, Florida.



Photo: G. Gann

Senna mexicana var. chapmanii

Common Name(s): Bahama senna

Synonym(s): *Cassia chapmanii*

Family: Fabaceae

Legal status: Threatened

Description: Small shrub or woody groundcover that is spreading and becomes much broader than tall. It has showy yellow flowers and seeds can be found within a brown, slender seed pod (NFYN).

Range in the US: Florida (NFYN)

Habitat: Pineland rockland and rockland hammock edges (NFYN)

Growing from seed

Seed collection: Seeds can be collected when pods turn dark brown and it sounds like seeds are loose when the pod gets shaken.

Seed dormancy: Without pre-treatment seed germination is slow and low. Germination rates can be improved by mechanical scarification of the seed coat, either by treating the seeds with sandpaper or by nicking the seed coat with a sharp knife or scalpel. After scarification, seeds should be soaked in water for 24h.

Seed sowing: Seeds can be sown into standard potting soil or Turface (a chipped clay product). Seeds should be covered lightly with soil/Turface and sowing medium should be kept consistently moist.

Citation (NFYN):

Gann GD, Stocking CG, Brennan KM, Hines KN and Collaborators. 2005-2020. Natives For Your Neighborhood. The Institute for Regional Conservation. Delray Beach, Florida.



Photo: J. Possley

Zamia integrifolia

Common Name(s): Coontie
Synonym(s): *Zamia angustifolia*
Family: Zamiaceae

Description: Medium shrub-like herb with an underground stem and fernlike leaves that is usual as broad as tall. This plant is dioecious with male and female flowers on separate individuals. The cone of males is much more slender compared to the cones of females. The seeds are orange. (NFYN).

Range in the US: Southeastern Georgia and Florida (NFYN)

Habitat: Pineland rocklands and hammocks (NFYN)

Growing from seed

Seed collection: Seeds are mature when they are bright orange. After collecting the seeds, the fleshy orange seed coat (sarcotesta) should be removed. One method to do this is to soak the seeds in water (ideally with a few drops of the enzyme pectinase) for several days and then scraping the sarcotesta of the seed either by hand or with a small knife. Another less labor intensive but much slower method is to leave the seeds on a sheet outside in full sun for several months. After that the sarcotesta has either fallen off completely or is easy to remove.

Seed dormancy: Seeds germinate well without any pre-treatment.

Seed sowing: Seeds can be sown into standard potting soil or Turface (a chipped clay product). Seeds should be covered lightly with soil/Turface and sowing medium should be kept consistently moist.

Citation (NFYN):

Gann GD, Stocking CG, Brennan KM, Hines KN and Collaborators. 2005-2020. Natives For Your Neighborhood. The Institute for Regional Conservation. Delray Beach, Florida.