



# HOW TO GROW NARROW-LEAF MILKWEED FROM SEED

Western monarch butterflies are flying towards extinction. Marin County residents can help the population recover. The most important action that **coastal residents**, those who live within 1 miles of the coast, can take is to plant nectar plants which bloom in the fall, winter, and spring and support monarchs as they overwinter in coastal areas. For those who live in **inland areas**, one mile or more away from the coast, an important action that residents can take is to include narrow-leaf milkweed (*Asclepias fascicularis*) to their gardens. It's important that coastal residents not plant milkweed near overwintering grounds.

Narrow-leaf milkweed is the only milkweed which is truly locally native to inland areas in Marin County. Narrow-leaf milkweed is an attractive herbaceous perennial plant. It begins to grow in the spring and the stalks reach the full height of 2 to 4 feet tall in the summer. In late summer the plant blooms with nectar-rich white and pink flowers which are attractive to native bees and butterflies. Another species of milkweed which is native to the region is Showy milkweed (*Asclepias speciosa*), and while this species is a fine choice for gardens, we do not recommend planting it in wild areas. Please do not plant non-native milkweeds, such as tropical milkweed (*Asclepias curassavica*). This plant can cause serious problems, such as disruption of the monarch breeding cycle, and commonly host a protozoan parasite. If you already have non-native milkweed plants be sure to cut it back in October.



**Starting from Seed** The most critical step in the process of growing milkweed is to wait until spring has arrived to sow your seeds! The seeds require sunlight and consistently warm temperatures to break dormancy, so we typically sow our milkweed seeds in February and place our seed trays in a greenhouse where the seeds will receive plenty of light and warmth. If you are growing the seedlings without a greenhouse then please wait until March and place your seed trays in full sun. We have not found it to be necessary to stratify our seeds, but we do soak our seeds for approximately 8 hours before sowing. We sow our seeds into a well-draining soil mixture which is composed of the following blend: 50% soil, 20% coir, 20% perlite, 10% sand. We sow the seeds into 6" deep trays, but any shallow pot, seed plug tray, or seeding flat will work just fine. Seeds should be placed on the surface of the potting mix and then lightly covered with between 1/8" and 1/4" of soil. After sowing the seeds be sure to check them often and do not allow the seed trays to dry out. In our greenhouse we use a mist system to keep the surface of the trays moist. You do not want the seeds to dry out and yet it is also important that the seeds are not over-watered, which can cause the seeds to rot. In general, it is best to lightly water the seed trays every other day if you are hand-watering. The soil should be kept damp but not overly wet. Also, please cage your seeds and seedlings to offer protection from rodents.

**Planting** If you prefer to sow the seeds directly into the ground then follow basically the same instructions as those given above for planting in a container. You will need to find a sunny open spot, ideally choosing a place where there is groundwater present, such as a seep area, a ditch, or swale. Narrow-leaf milkweed can tolerate the presence of salt in soil and grows in a soil PH range of 6-8, doing best with a neutral PH. Narrowleaf milkweed can grow in any type of soil, from clay to loamy to sandy, and no amendment is necessary for local soils unless the soil nutrients have been depleted from agriculture or other causes, in which case it may be helpful to supplement soil nutrients by mixing in a small amount of organic compost. Remove any mulch or leaf litter which may prevent the sun from reaching the soil and sow the seeds directly into the ground in late winter or early spring. Cover the seeds with a light layer of soil. Wet the ground every few days upon sowing the seeds until the seeds germinate, and then follow up with watering occasionally to help the soil stay moist throughout the first summer and fall as the seedlings become established. There is no hard guideline that can be given for how often to water the out-planted seedlings, as this depends on how much groundwater is present and how hot the sun is over the planting site. In dry and sunny spots, you may need to water the seedlings during the second dry season following planting, but there should be no need to water the plants following the second summer. Please follow the same instructions as those given above for planting seedlings. Seedlings can be planted any time during the rainy season but planting in late spring, in February, March, or April is most ideal.

**Milkweed Care** Following planting, follow up with watering for one or two summers, keeping the ground moist but not overly wet. Adding mulch to the planting area can help to retain moisture and reduce competition from invasive plants. Milkweed does not need care following establishment, and there is no need to apply fertilizers or other amendments to the soil. If you prefer to keep your garden tidy then you may cut back the stalks in October or November. A common insect pest that frequently appears on milkweed, the oleander aphid (*Aphis nerii*), can be controlled with natural methods. Please do not apply chemicals which control pests or organic pest-controls such as neem or essential oils to milkweed plants, as these methods of insect control will cause harm to monarch larvae. To reduce aphid populations, first try cutting back stalks that have aphids; you can place the cut stalks in a compostable bag and then dispose of the bag in a green waste bin. If there are just a few aphids on a stalk, or monarch eggs or caterpillars are feeding on the stalk and leaves, then simply remove the aphids by hand or kill the aphids by touching them with a Q-tip that is saturated with isopropyl alcohol. Milkweed naturally goes dormant in October or November and the stalks can be cut back in the fall or winter. New stems will emerge with the arrival of spring, typically in late February or March.



**Collecting Seeds** Narrowleaf milkweed blooms through the late summer and seeds are ready for harvest beginning around early September. Milkweed pods ripen over a period of several weeks, and it's necessary to harvest the pods individually as they mature. Pods are green as the seeds develop and then turn brown and split open when the seeds become mature. Milkweed seeds are wind-dispersed and the window of opportunity for harvesting individual pods is short. To collect seeds, check your milkweed patch often and use a brown paper bag to collect ripened seeds. You can place the bag over the pod and capture the seeds directly in the bag to prevent seeds from blowing away as you harvest. Upon taking the seed bag indoors, use a plate or tray to separate the seeds from the floss. Store your seeds in a paper envelope, write the species name and date of collection on the envelope, and store the envelope in a cool, dark place such as a cabinet or your refrigerator. Be sure that the seeds are protected from rodents. Properly stored seeds will stay viable for several years but do lose a small percentage of viability with each year that they are stored.