

Establishing Milkweed for Monarch Butterflies and other Native Pollinators

About Monarch Butterflies

Monarch butterflies are an iconic species, recognizable by their bright orange wings with black veins. The wide black borders contain two rows of white spots with a 10 cm wingspan. Their caterpillars are yellow, black, and white striped, and are 5 cm in length. The chrysalis of a monarch butterfly is golden-green in color and hangs from a milkweed leaf or branch.



Figure 1: Monarch butterfly

Planting milkweed seeds

Milkweed and Monarch butterflies have a special relationship as the butterflies only lay their eggs on milkweed species.

It is important to select Swamp Milkweed (*Asclepias incarnata*) seed as opposed to Common Milkweed (*Asclepias syriaca* L.) as Common Milkweed is a noxious weed in Nova Scotia due to its aggressive root system and is prone to spreading into unwanted areas.

Autumn is the best time to collect and sow Swamp Milkweed seeds as it best mimics what is happening

naturally in the landscape. You can scatter the seeds in planting areas in the fall or keep them dry indoors for later sowing or sharing. Milkweed seeds need a cold period to prompt germination (stratification) and planting them outdoors in autumn is the easiest way to provide that cold treatment, but they can also be stored in a refrigerator to mimic winter exposure. If fall planting, press the seeds into the soil surface to ensure good soil-seed contact, but don't bury them too deep. If you plant them deeply, they may not germinate.

Winter sowing seeds

Winter sowing is another effective technique for germinating milkweed seeds. Winter sowing can increase germination rates versus indoor germination and is best done in late autumn, so the seeds receive the full impact of winter weather.



Figure 2: Winter sown milkweed seedlings

Plastic salad containers can be used to make miniature greenhouses for winter sowing. Poke some drainage

holes in the bottom of the container and a handful of ventilation holes in the top. Add two to three inches of moist potting mix and spread the seeds, pressing them gently into the growing medium. Close the container and place it outdoors, where it will receive some sun. Check it every few weeks to make sure the soil is still lightly moist. If it feels dry to the touch, add water. By April, there should be plenty of new milkweed seedlings to move to your garden.

Cold stratification

If seeds are not planted in the fall, it is important to provide a cold period to break seed dormancy.

Step 1: Wet a paper towel and gently wring it out so it is damp but not dripping with water. Too much water may cause the seeds to mold inside the bag.

Step 2: Sprinkle the seeds onto half of the paper towel so when you fold it, the seeds will not overlap.

Step 3: Fold the paper towel into quarters.

Step 4: Label the bag with the date and type of seed. It may be helpful to set a reminder on your phone or in a calendar to remember to check them in 30 days.

Step 5: Store the mixture in the refrigerator (0.5–3.5 °C) for the recommended time (typically 4 to 6 weeks for Swamp Milkweed).

Make sure to put your seeds somewhere safe in the fridge where they will not be disturbed. The bag can be placed in a rigid container to ensure they don't get damaged. When checking on the seeds, if the seeds are starting to sprout in the bag, remove for planting.

Planting indoors (early April)

Step 1: After stratifying, it's time to plant your seeds. You can plant them in seed trays, peat pots, small pots or any other container that allows for water drainage. Dampen your soil with a spray bottle full of water and place 1-2 seeds into each 2" container. Sow seeds lightly on the top of the soil. You may press in gently for improved soil

contact, but they need light to germinate so don't bury them deeply in the soil.

Step 2: Be gentle when watering new seedlings because they are very delicate. It is recommended to water from the bottom by adding water to a tray and placing the pots inside the tray or use a spray mister to water the seedlings.

You can check the soil moisture simply by touching it to see if it feels damp. Take care not to overwater your seeds which can lead to fungus growth. It is helpful to have the seedlings in an area with adequate airflow and ventilation.

Step 3: Make sure your milkweed has enough light to grow whether that be under an artificial grow light or near a sunny window. If your seedlings start to become "leggy" (e.g., long, thin stems), move to a location with more light.

Step 4: Milkweed seeds can be sown outdoors after the danger of frost has passed and the seedlings have grown around 1-5 inches high. To make the transition from indoors to outdoors less stressful, start by putting the seedlings outdoors for a few hours a day for up to a week before planting them outdoors.

Spring Planting (after risk of frost)

Plant transplants 12-24" apart. True to their name, they are tolerant of wet ground, but also thrive in well-drained soil. Plants do best in areas of full sun to partial shade and will grow to be 3-4' tall.

References:

- [How to Cold Stratify and Grow Milkweed Seeds](#)
- [Savvy Gardening - Planting Milkweed Seeds](#)
- [Nova Scotia Noxious Weeds – Common Milkweed](#)

To request seeds or other resources:

Contact EFP program: 902-893-2293; efp@nsfa-fane.ca

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