

Restoring habitat for Monarch in eastern Ontario

Increasingly, private landowners are interested in restoring areas of their property to provide improved habitat for Monarch and other pollinators. While there is abundant information on small-scale gardening with native plants, there is far less information available for restoration plantings at a larger scale. Here is a brief introduction for landowners in eastern Ontario interested in restoring an area of an acre or in a cost-effective way. More detailed information is in progress, so keep in touch for updates. Another great resource from the Xerces Society is Establishing Pollinator Meadows from Seed.

Choosing and preparing a site

Choose a site in full sun. Sites can range from moist to dry; wet sites are generally harder to prepare and maintain. If possible, choose a bare, weed-free site or recently cropped land, because the weed pressure is lowest. Sites that are former lawns or pastures can be the most difficult to prepare because they are dominated by aggressive non-native grasses. If this is your situation, you could simply allow the site to regenerate naturally by reducing mowing (refer to other CWF factsheet). To prepare a pasture site for seeding, it is fastest to treat the aggressive grasses with herbicide, but it is also possible to use herbicide-free methods such as sod cutting or covering with UV-stable plastic. For more detail, see Establishing Pollinator Meadows from Seed. Before seeding, the soil surface should be smooth, weed-free, and firmly packed. This will probably require follow-up weeding after initial treatments.

Buying Native Plants

For an area of an acre or more, using seeds is more economical. There are very few suppliers of native seed mixes in Ontario. For best results, you want seeds of native species that are found in our area, and provide nectar for native pollinators. To purchase seed for a small area, try Beaux Arbres Native Plants near Bristol, Quebec. For larger areas, you will want to order bulk seed. At present, the best supplier of bulk native Ontario-sourced seed we have found is St. Williams Nursery in southwestern Ontario. CWF also maintains a searchable database of native plant suppliers. Be sure to ask a supplier where native seeds originated.

For faster results, seeds are often supplemented with seedlings ("plugs") of wildflower species. Native plant plugs are much more widely available. In Eastern Ontario, the <u>Ferguson Tree Nursery</u> in Kemptville now offers plugs, and in Ottawa, the Fletcher Wildlife Garden holds an <u>annual native plant sale</u> where you can purchase seedlings, and also get advice on what to grow.

Choosing and Ordering a Seed Mix

Native seed mixes provide a mixture of native grasses (to give structure and to help establish the site), and a diverse mix of wildflowers (to provide nectar through the entire season). Ideally, choose a mix that only contains species native to our area (i.e., Ottawa, Lanark, Leeds & Grenville) and has at least one species of Milkweed (*Asclepias* sp.).

- For a dry site, St Williams' <u>Pollinator Garden mix</u> has *mostly* species native to our area.
- For a moister site in the area, the <u>Bobolink & Meadowlark Wet meadow mix</u> is a good option, especially if it can be supplemented with additional wildflower species.

Custom mixes can be ordered at a higher cost. If you prefer this route, you can use a very good list of plants native to our area in <u>Selecting Plants for Pollinators: St. Lawrence Lowlands Ecoregion</u> developed by Pollinator Partnership Canada. You can use this list, combined with a local checklist such as Vascular



<u>Plants of the City of Ottawa</u> (Brunton 2005) or <u>Plants of Lanark County</u> (White 2016) to make sure you select local species. Finally, call as early as possible to order seed – six months ahead for large orders of 10 kg or more — because supplies of some species are limited.

Staff at nurseries will be able to advise how much seed to buy. A seeding rate of 8-20 kg/ha (3-8 kg/acre) is recommended. Native seed mix is fairly expensive: typical mixes cost \$100-200/kg.

Another economical option is to collect your own seed from sites nearby. Although it takes a bit of time and expertise, it is very enjoyable. The Xerces Society has an excellent guide, <u>Collecting and Using Your Own Wildflower Seed</u>, with clear instructions. You could also buy a base mix, and supplement that with additional species collected locally, or swapped with neighbours. It is best to start early to collect a diversity of seed through at least one season.

Planting your site

Sites can be seeded in spring or fall, although fall seeding is usually preferred because some species will germinate and develop sooner. Typical dates for a fall planting would be from mid-October to late November. In our area, spring plantings are best done in mid to late May. For best results, make sure your site is weed-free, firmly packed, with a smooth surface to ensure the best possible seed-to-soil contact. Some recommend mixing the seed with a volume thinner such as sawdust, to help distribute it evenly. For residential sites, seeds can be broadcast or scattered onto the soil. Planted sites can then be packed with a lawn roller or a **clean** ATV or tractor to press the seed into the soil.

Managing your site

Watering and fertilizing should not be necessary. If you have planted plugs, these may need watering in times of drought. Watch for germination of weed plants and remove them before flowering and setting seed. Over the long term, only mow your new meadow with clean equipment, every two years at the most. Burning is another way to regenerate it, but check local regulations. Rotating the mown area will allow recolonization.