













Top Bee Plants - Do you "Know your 5"?

Bees and other pollinators are crucial to the production of many food crops. Wild bees are responsible for pollinating many Vermont grown vegetables and fruits, in addition to pollinating wild plants that create resilient landscapes. Native bees, as well as non-native, domesticated honey bees, benefit from a landscape with diverse native flowering plants. Presented below in order of bloom period from spring to fall, are five plant groups that support pollinators. Careful consideration has been made to suggest plant groups with minimal potential to host commercially important pests or diseases. When grown together, their season-long blooms provide critical food resources throughout the summer for bumble bees and other important native crop pollinators.

General considerations for selecting pollinator plants



With countless cultivated plants available from nurseries and thousands of native plant species growing wild, choosing the best for a given landscape or goal can be daunting. While most any flower is better than asphalt or turf grass, some plants are more valuable than others. On a farm, there are additional considerations based on the crops being grown, as each crop has a distinct suite of associated pollinators and some non-crop plants can serve as alternate hosts for pests and diseases.

When choosing plants, look for native species that are well suited to local soil and climate conditions. If possible, avoid buying those that have been treated with systemic pesticides,

which remain harmful or fatal to bees visiting flowers long after planting. Respectfully asking your plant vendor about pesticide use can help inform your purchases. In addition to feeding on the flowers, many plants provide nesting habitat for wild bees, either in the stems of pithy plants, like sumac and elderberry (photo above), or in the leaf litter created by dense herbaceous plants and shrubs.

Pollinator habitat on farms can take many forms - from planted rows of cut flowers to neglected field margins. All are viable options, and the USDA Natural Resources Conservation Service has programs to assist with several different types of habitat installations. The species below are self spreading, attractive, low-maintenance shrubs and perennials that can be planted or encouraged in non-production space.



Willows (genus *Salix*) - Small shrubs to medium trees depending on the species. Most species prefer moist soils and bloom in early spring, providing one of the first meals for bumble bees, mason bees, mining bees and other valuable crop pollinators. Leaf litter at the base provides nesting habitat. Available from conservation nurseries and some commercial garden centers. Some of the easiest plants to propagate from hardwood cuttings.



Sumac (genus *Rhus*) - Familiar shrubs often maligned for rapidly colonizing unmanaged areas. However, the inconspicuous flowers in June and July are abuzz with bees and other pollinators. Furthermore the pithy stems are among the best for stem nesting bees. Rarely available commercially, but present on many farms and straight-forward to propagate from seed.



Meadowsweet (genus *Spiraea*) - Short shrubs with white spires that fill a dearth of native flowers in July. Flowers are often swarming with bees and beneficial wasps. Tolerant of a wide variety of soil and moisture conditions. The native species are widespread, but not readily available from most nurseries. Easy to propagate from seed, hardwood, or softwood cuttings.



Sunflowers (genus *Helianthus*) - The native species and the common annual sunflower are often visited by bumble bees and other pollinators. Native species are perennial with smaller flowers and often found along forest edges and river banks. Bees will nest in the previous season's stems if they are left standing or cut back to 3-4' tall. Native species are available from some nurseries.



Goldenrods and Asters (*Solidago* and *Symphyotrichum*) - Both genera are fall blooming plants of old fields and among the most attractive pollinator plants for dozens of bees, wasps, and other insects. Some are available commercially and make attractive farmstead plantings. One of the easiest plants to incorporate into a pollinator support plan. Several species will readily colonize fields that are mowed on a two or three year cycle.

A project of the Vermont Pollinator Working Group, with funding from the Gund Institute's <u>Apis Fund</u>. For more information about bees or plants, email <u>shardy@vtecostudies.org</u>. For questions about pollinator support practices on farms, email <u>Laura.O.Johnson@uvm.edu</u>. All photos courtesy of Spencer Hardy. **Find the rest of the series at https://vtecostudies.org/know-your-5/**







