### About Neonicotinoids

Neonicotinoids\* are a group of insecticides that are used widely on farms, as well as around our homes, schools, and city landscapes. They are systemic chemicals, which means they are absorbed by the plant and dispersed through plant tissues, including pollen and nectar.

Products containing neonicotinoids can be applied at the root (as seed coating or soil drench) or sprayed onto crop foliage. Imadacloprid and clothianidin, common ingredients in garden pesticides, can linger in the soil for months and even years. Because neonicotinoids target nerve impulses in insects and other invertebrates, harm to humans and other mammals is minimal. However, recent studies have shown that neonicotinoids are toxic to bees and many other beneficial insects.

#### Why Are Bees at Risk?

Bees are exposed to neonicotinoids in many ways, including contact with spray residue on plants or by eating contaminated pollen or nectar. Even when used according to printed instructions, garden products containing neonicotinoids can be applied to plants in concentrations dozens of times greater than on farm crops. This means that bees can be exposed to lethal doses of neonicotinoids in gardens.

\*Source: Xerces Society for Invertebrate Conservation. To learn more, visit: www.xerces.org



## Lake Valley Seed

Lake Valley Seed is a full line garden seed company that specializes in supporting local independent retail stores. For 30 years we've been a trusted resource to passionate home and community gardeners for untreated (including no neonicotinoids), non-GMO, herb, vegetable and flower seeds.



#### We've Taken The Safe Seed Pledge

Lake Valley Seed was among the first companies to take the Safe Seed Pledge. The Pledge was created in 1999 by the Council for Responsible Genetics as a way to assure customers that they are not purchasing GMO seeds. Since then, more than 70 companies have taken the Safe Seed Pledge.





## Attract Butterflies and Bees to Your Garden

# A Guide to Planting for **POLLINATORS**



#### Why pollinators matter

At least one out of every three bites of food you eat depends on the work of pollinating animals like birds, bats, and insects. 80% of all flowering plants need help from pollinators to produce seeds, fruits, and vegetables. Be a pollinator partner! Plan your garden with bees, butterflies, and other garden helpers in mind.

#### **Helpful tips**

- Provide a diversity of plants that flower at different times to provide a steady supply of pollen and nectar throughout the entire growing season.
- Plant clumps of the same varieties.
- Include sun-loving plants. Bees favor sunny spots and shelter from wind.
- Choose a variety of flower colors, especially blue, purple, white, and yellow.
- Provide a range of shapes to meet the feeding habits of a variety of pollinators.
- Avoid using pesticides. Pesticides affect both harmful and beneficial insects alike.

# Choose flowers that are rich in nectar and pollen

Alyssum (Lobularia maritima) Aster (Callistephus chinensis) Bachelor's Button (Centaurea cyanus) Black-Eyed Susan (Rudbeckia fulgida) Blazing Star (Liatrus spicata) Butterfly flower (Asclepias tuberosa) Calendula (Calendula officinalis) Clary Sage (Salvia sclarea) **Common Milkweed** (Asclepias syriaca) Coreopsis (Coreopsis) **Cosmos** (Cosmos bipinnatus) Daisy—all varieties Echinacea (Echinacea purpurea) Flax (Linum) Four O'Clock (Mirabalis jalapa) Foxglove (Digitalis purpurea) Gaillardia (Gaillardia) Hollyhock (Alcea rosea) Lupine (Lupinus) Maltese Cross (Lychnis chalcedonica) Penstemon (Penstemon) Poppy—all varieties Rudbeckia (Rudbeckia hirta)



# Plant herbs and allow them to produce blossoms

Basil (Ocimum basilicum) Borage (Borage officinalis) Catnip or Catmint (Nepeta) Cilantro (Coriandrum sativum) Fennel (Foeniculum vulgare) Horehound (Marrubium vulgare) Lavender (Lavandula angustifolia) Lemon Balm (Melissa officinalis) Marjoram (Origanum majorana) Mint (Mentha) Rosemary (Rosmarinus officinalis) Thyme (Thymus vulgaris)



# Hummingbirds and bats are pollinators, too.

While the vast majority of pollinators are insects (bees pollinate the largest number of plant species), about 1,000 species of pollinators include birds (especially hummingbirds), together with bats and other small mammals.