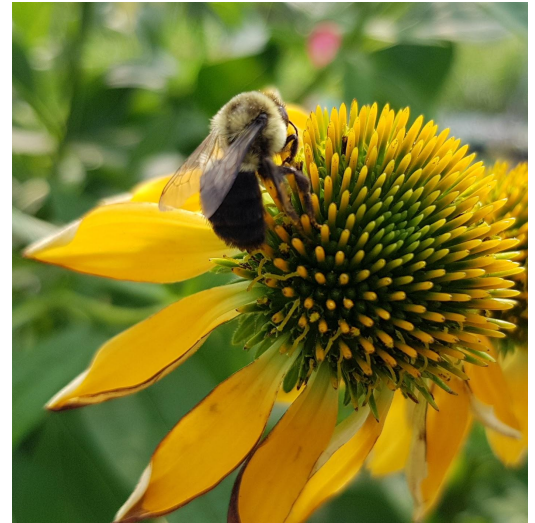


REEMS CREEK NURSERY

Pollinator-Friendly Gardening

A Garden Guide



Why be concerned about pollinators?

- One out of every 3 bites we eat (and drink) depends on a pollinator! That includes chocolate!
- Honeybees & native bees pollinate about 18 BILLION dollars' worth of agricultural crops.
- Pollinators are responsible for creating the seeds and fruits that feed many different kinds of animals (from songbirds to bears).
- 75% of the flowering plants on Earth rely on a pollinator to set seed or fruit.
- Pollinator conservation is critical for preserving the biodiversity of our planet and protecting food security for humankind.

Who are the pollinators?

- Honey bees, native bees, butterflies & moths, birds & bats, beetles, and other insects.
- Plants and pollinators have evolved together, starting about 100 million years ago. Some particular plants and particular pollinators rely on each other for survival of the species.

What's the problem?

- Loss of habitat, habitat destruction, habitat degradation - *"In real estate it's location, location, location and for monarchs and other wildlife it's habitat, habitat, habitat"* (Chip Taylor, Director of Monarch Watch)
- Lethal and sub-lethal effects of pesticides (insecticides kill insects and most pollinators are insects)
- Other factors - nutritional stress, tainted pollen, disease, parasites, varroa mites, beetles, nosema
- A complex mix of issues may be causing pollinator loss and Colony Collapse Disorder

Think about this!

- According to some experts, the average lawn has 10 times more chemical pesticides applied per acre than farmland.
- According to the Xerces Society, in home gardens and landscapes, neonicotinoid insecticides are often applied at rates 16 to 60 times the agricultural application rate. Neonicotinoids are systemic insecticides that are drawn into all parts of the plant, including the nectar and pollen (nectar and pollen are bee food!).

Create a pollinator-friendly habitat in your yard – THE BASICS:

- **Choose a sunny, sheltered spot if possible.** Pollinators prefer sunshine and habitat that is sheltered from wind, but will also visit shady areas if food is present.
- **Use pollinator-friendly plants** in your landscape. Include flowers, shrubs, and trees. Many trees provide pollinator food in early spring when food is scarce.
- **Choose a succession of blooming plants** for spring, summer, and fall. Select different flower colors, shapes, heights, and scents to attract a wide variety of pollinators. Include host plants for butterflies. 3-4' wide clumps of each flower type and single-type flowers are more attractive to pollinators than double.
- **Site your pollinator garden for your enjoyment too** – watch the action from your favorite spot.
- **Be willing to accept some plant damage.** If caterpillar damage will bother you, plant Butterfly/moth host plants away from the main garden. Hand picking pest bugs is a great option.
- **Eliminate or reduce pesticide use** in your garden, lawn, and landscape. Pesticides include insecticides, fungicides, and herbicides. Incorporate plants that attract beneficial insects for pest control. If you do use pesticides – (1) use the softest method first (2) use them sparingly, responsibly, and as a last resort (3) always follow directions and 4) NEVER spray during bloom time. Remember, some systemic insecticides can persist for 3+ years and increase in concentration if used annually.
- **Provide clean water** for pollinators in a shallow dish, bowl, or birdbath with half-submerged stones for perches. A moist sponge also works well to supply the water needs of many pollinators.
- **Nesting sites** – dead tree trunks, bare patches of soil, leaf debris, nest blocks, tube bundles – locate nesting spots in sheltered locations w/ holes facing east/southeast. **Flat rocks and evergreens** allow butterflies to warm themselves so they are able to fly.



Short Plant List

Early Season: *Acer rubrum* - Red Maple, *Baptisia* - False Indigo, *Betula nigra* - River Birch, *Cornus florida* - Flowering Dogwood, *Geranium maculatum* - Wild Geranium, *Halesia* - Carolina Silverbell, *Iris cristata* - Dwarf Crested Iris, *Leucothoe* - Dog Hobble, *Liriodendron tulipifera* - Tulip Poplar, *Magnolia acuminata* - Cucumber Tree, *Magnolia virginiana* - Sweetbay Magnolia, *Malus* - Apple, *Phlox divaricata* - Woodland Phlox, *Phlox stolonifera* - Creeping Phlox, *Prunus* - Cherry, Plum, Rhododendron, *Salix* - Willow, *Tiarella* - Foam Flower, *Trillium* - Wakerobin

Early to Mid Season: *Ajuga* - Bugleweed, *Allium* - Chives, *Amelanchier* - Serviceberry, *Aquilegia* - Columbine, *Calycanthus* - Sweet Shrub, *Campanula* - Bellflower, *Centaurea* - Mountain Bluet, *Cercis* - Redbud, *Coreopsis* - Tickseed, *Cornus alternifolia* - Pagoda Dogwood, *Cornus amomum* - Silky Dogwood, *Dianthus* - Fire Pink, *Euonymus americanus* - Hearts a Bustin', *Galax* - Wandflower, *Kalmia* - Mountain Laurel, *Nepeta* - Catmint, *Penstemon* - Beardtongue, *Rhododendron* - Rhododendron and Azalea, *Rubus* - Blackberry, *Scabiosa* - Pincushion Flower, *Sedum* - Stonecrop, *Stylophorum diphyllum* - Celandine Poppy, *Tradescantia* - Spiderwort, *Thermopsis villosa* - Carolina Lupine, *Trifolium incarnatum* - Crimson Clover, *Vaccinium* - Blueberry, *Viburnum*

Mid Season: *Achillea* - Yarrow, *Agastache* - Anise Hyssop, *Aruncus dioicus* - Goat's Beard, *Asclepias incarnata* - Swamp Milkweed, *Asclepias tuberosa* - Butterfly Weed, *Calamintha* - Calamint, *Clethra* - Summersweet, *Coreopsis* - Tickseed, *Cucurbita* - Pumpkins and Squash, *Diervilla* - Bush Honeysuckle, *Digitalis* - Foxglove, *Echinacea* - Coneflower, *Fagopyrum esculentum* - Buckwheat, *Gaillardia* - Blanket Flower, *Hemerocallis* - Daylily, *Hydrangea arborescens* - Smooth Hydrangea, *Kniphofia* - Red Hot Poker, *Lonicera sempervirens* - Coral Honeysuckle, *Lavandula* - Lavender, *Liatris spicata* - Blazing Star, *Monarda* - Bee Balm, *Origanum vulgare* - Oregano, *Pycnanthemum* - Mountain Mint, *Nepeta* - Catmint, *Rudbeckia* - Black-eyed Susan, *Salvia rosmarinus* - Rosemary, *Scabiosa* - Pincushion Flower, *Stewartia pseudocamellia* - Japanese Stewartia, *Phlox paniculata* - Tall Garden Phlox, *Trifolium repens* - White Clover, *Thymus* - Thyme, *Verbena bonariensis* - Tall Verbena

Mid to Late Season: *Chelone* - Turtlehead, *Eutrochium* - Joe Pye Weed, *Fagopyrum esculentum* - Buckwheat, *Helenium* - Sneezeweed, *Hylotelephium* syn. *Sedum* - Upright Sedum, *Liatris spicata* - Blazing Star, *Lobelia cardinalis* - Cardinal Flower, *Lobelia siphilitica* - Great Blue Lobelia, *Malva sylvestris* - Mallow, *Oxydendrum arboreum* - Sourwood, *Physostegia virginiana* - Obedient Plant, *Rhododendron arborescens* - Sweet Azalea, *Vernonia* - Ironweed



Late Season: *Angelica* - Wild Celery, Asters, *Chrysanthemum x morifolium* - Daisy-type perennial Chrysanthemum, *Fagopyrum esculentum* - Buckwheat, *Helenium* - Sneezeweed, *Helianthus angustifolius* - Swamp Sunflower, *Helianthus salicifolius* - Willow-Leaf Sunflower, *Solidago* - Goldenrod

Long-blooming Annuals: *Borago officinalis* - Borage, *Cleome hassleriana* - Spider Flower, *Cosmos bipinnatus* - Garden Cosmos, *Dianthus*, *Helianthus annuus* - Sunflower, *Lantana*, *Penta lanceolata* - Egyptian starcluster, *Petunia*, *Tithonia* - Mexican Sunflower, *Zinnia elegans* - Elegant Zinnia

Host Plants: *Aesculus pavia* - Red Buckeye, *Alcea* - Hollyhock, *Amelanchier canadensis* - Serviceberry, *Anethum graveolens* - Dill, *Antirrhinum majus* - Snapdragon, *Asclepias incarnata* - Swamp Milkweed, *Asclepias tuberosa* - Butterfly Weed, *Asimina triloba* - Pawpaw, *Asters*, *Betula* - Birch, *Callicarpa americana* - American Beautyberry, *Ceanothus* - New Jersey Tea, *Cephalanthus occidentalis* - Buttonbush, *Cercis* - Redbud, *Cleome hassleriana* - Spider Flower, *Coreopsis* - Tickseed, *Cornus* - Dogwood, *Crataegus* - Hawthorn, *Diospyros virginiana* - American Persimmon, *Echinacea* - Coneflower, *Foeniculum vulgare* - Fennel, *Humulus* - Hops Vine, *Ilex opaca* - American Holly, *Lindera benzoin* - Spicebush, *Liriodendron tulipifera* - Tulip Poplar, *Magnolia virginiana* - Sweetbay Magnolia, *Passiflora incarnata* - Passion Flower Vine or Maypop, *Petroselinum crispum* - Parsley, *Physocarpus opulifolius* - Ninebark, *Ruta graveolens* - Rue, *Quercus* - Oak, *Salix* - Willow, *Sambucus canadensis* - Elderberry, *Sassafras albidum* - Sassafras, *Trifolium repens* - White Clover, *Viola* - Violet, *Vernonia* - Ironweed

Resources:

REEMS CREEK NURSERY has a Certified Pollinator Habitat Garden and Monarch Waystation, along with numerous staff members who are passionate about nurturing pollinators and wildlife.

At our production farm, we do not use any neonicotinoids, and practice Integrated Pest Management, including the use of beneficial insects.

- **Bee City USA-Asheville/Asheville Greenworks**

[Bee City Plant List](#) - Native Pollinator-Friendly Plants and Local Suppliers -

<https://www.ashevillegreenworks.org/native-pollinator-plants-and-nurseries.html>

- **Debbie Roos/Chatham County NC Cooperative Extension** - Growing Small Farms, [Resources Link](#) -

<http://growingsmallfarms.ces.ncsu.edu/growingsmallfarms-pollinatorconservation/>

- **National Resources Conservation Service** - Insects and Pollinators -

<https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/plantsanimals/pollinate/>

- **Sustainable Agriculture Research and Education** - Managing Alternative Pollinators -

<https://www.sare.org/wp-content/uploads/Managing-Alternative-Pollinators.pdf>

- **The Xerces Society** - <http://www.xerces.org/pollinator-resource-center/>

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