BEEKEEPING

ALL ABOUT AMERICA'S FAVORITE HOBBY

Your Honey Do' List

- Essential equipment
- Your hive calendar
- Harvesting how-to
- Products to make and sell

14 tasty recipes

appetizers, desserts & more

Keep your colony disease-free





BUZZyour back your bard

Create the ideal garden to attract and sustain

honeybees.

By Nancy Mann Jackson

ike all living things, bees must have nourishment to stay healthy and well — and to produce honey. For bees, that nourishment comes in the form of pollen and nectar from flowering plants, so it's crucial that you make sure your bees have plenty of sustaining plants near their hive. Planting your garden with bees in mind can help to ensure that your bees will remain healthy, and it will provide the aesthetic enjoyment of a yard that blooms all year.







"It is crucial to select a mix of plants that will provide a steady source of pollen and nectar, so keeping something blooming from early spring to late fall is important. Jim Fischer, a former commercial-scale beekeeper in Virginia and now an urban beekeeper in New York City, says, "Bees that can't make a living throughout the season will not be able to gather enough food to survive the winter. Gardeners should also like the idea of always having something blooming."

Choosing Plants

Just about any flowering plant offers a potential food source for honeybees, says Jeffrey Mello, a beekeeper for 20 years and owner of Aquidneck Honey in Middletown, R.I. Determining your plant choices really depends on your personal preferences.

Numerous flowers make good food for bees. Generally, "all the flowers classified as 'butterflygarden' flowers are good sources of pollen and



nectar for all pollinators, bees included," Fischer says. (Some hummingbird-garden flowers attract bees, too; bees might avoid red flowers, however, unlike hummingbirds, so not all plants will work.) "Bees love lavender (*Lavandula*), and a small patch will quickly become very popular with local bees. [Plants in the] *Sedum* genus (leaf succulents) also consistently attract bees. It is possible to spend money on native plants and other costly items, but bees are just as well-served with a set of generic wildflower and butterfly-garden seed mixes that can be bought very cheaply — sometimes with names like 'meadow in a can.' The trick is to water regularly so that the plants keep blooming all summer."

If you really want to make your honeybees happy, "[they] love bright white flowers," says Whitney Moore, a writer and organic farmer in Greensboro, N.C. "Some of the best are white clover (*Trifolium repens*), which can be used as a ground cover; arugula (*Eruca sativa*), which usually is grown as a salad green but offers a lovely, tall border and attracts many honeybees and other pollinators; and passionflower (*Passiflora incarnata*, which has very showy, large blossoms on a long

Because it is often impossible to determine its nectar source, most honey is called "wildflower honey." If you know its source, such as thyme, you can name the honey accordingly.



vine and also will produce fruit in zone 7 and warmer climates." (See "Resources" on page 125 for a link to United States Department of Agriculture's Plant Hardiness Zone Map.)

While carefully chosen flowers certainly will serve your bees well, a fancy flower garden isn't necessary. "A single, mature tree contains more blossoms than most home gardens," Fischer says, "so consider planting fruit trees, basswood (Tilia americana) or other flowering trees."

If tending to flowering plants isn't your favorite way to spend time, consider allowing your yard to become more like a meadow. "The single best sources for bees are clovers and dandelions (Taraxacum officinale) in a lawn that is only cut when the clover blossoms have turned brown and wilted so that they can rebloom," Fischer says. "Getting away from the idea that a lawn needs to look like a putting green is a major step in the right direction. Back in the 1960s, grass-seed companies used to advertise that their mixes included 'soilbuilding legumes,' [which were] mostly mixes of clover cultivars. Somehow, clover has been misclassified as a weed by those same companies in more recent times."

No matter which flowering plants you choose for your bees, keep in mind that something should

colors

According to scientists, bees have favorite colors - and for good reason. For instance, the buff-tailed bumblebee's favorite color is violet, which means that this species tends to find more nectar-rich flowers, say researchers Nigel Raine and Lars Chittka of Queen Mary, University of London, in a study published in 2007 in the scientific journal PLoS ONE. In addition to violet or purple, various types of bees favor blue, yellow and white.

Here are a few suggestions for plants of each color to add to your bee garden.

- Violet or purple: catnip (Nepeta cataria), foxglove (Digitalis) and violet (Viola)
- Blue: delphinium (Delphinium), forget-menot (Myosotis) and rosemary (Rosmarinus officinalis)
- Yellow: black-eyed Susan (Rudbeckia hirta), buttercup (Ranunculus), marigold (Tagetes) and sunflower (Helianthus annuus)
- White: apple (Malus domestica), camellia (Camellia), daisy (Asteraceae), elderberry (Sambucus) and white clover (Trifolium repens)

— N.M.J.





bloom throughout the year to keep your honey-makers satisfied. "There are several types of plants that will keep a honeybee happy throughout the year," says Angela England, founder of the "Untrained Housewife" blog and author of the upcoming book "Backyard Farming on an Acre (More or Less)" (Alpha). The season often starts with the first fruit trees blooming: plum (*Prunus*), pear (*Pyrus*) and apple (*Malus domestica*). Later, blackberries (*Rubus*), sage (*Salvia officinalis*) and earlier lavender plants will flower. "As you head

into summer, flowers like iris (*Iris*), echinacea (*Echinacea*), elderberry (*Sambucus*) and sunflowers (*Helianthus annuus*) become important," England says. "The toughest season on the bees is the fall, when choices are more limited, so gardeners can consider plants such as goldenrod (*Solidago*), aster (*Aster*) and milkweed (*Asclepias*), which can be important additions to the bee garden."

The Right Spot

Bees fly and will find blooms within a few miles of their hives, so deciding where to place your flowering plants is irrelevant, Fischer says, unless you are a beekeeper.

If you aim to raise bees on your own property, you will want to grow flowering plants near your hive. "The closer to the hive the food source is, the more trips to and from it are possible," Mello says. "This also helps ensure that the hive grows quickly, healthy and strong. The food, plant and flora are crucial when beginning a hive, because the idea is to plan out the garden so there is always a food source for the bees. This will help ensure that they remain [nearby] and do not swarm to find other food sources."

Because honeybees travel hundreds of feet from their hives, beginning beekeepers should "make sure [they] have something in the yard worth visiting," England says. "Try swapping out certain plants for those that are sure to provide nectar or





pollen to the bees. For example, thyme (Thymus) is an excellent ground cover that will tolerate partial shade, so try planting nectar-rich thyme instead of more commonly seen ground sedum."

If you grow food at home, you probably want to make sure your honeybees will pollinate your crops. "When you want to attract bees, planting highly attractive flowers nearby can help get them to your garden," England says. "There's a reason why you see many flowering herbs intermixed with the kitchen-vegetable garden. If you want to make sure local honeybees find your

vegetable garden, try adding borage (Borago officinalis), sage and basil (Ocimum basilicum) at the end of your vegetable rows. We line one side of our garden with sunflowers to accomplish the same honeybee attraction and have had great success with this technique."

In addition to food, honeybees need water. Moore recommends planting flowers that will attract honeybees or any native pollinators "near a vegetable garden or source of water such as a bird bath. If you don't have a water feature in your yard, consider placing a shallow dish some-

> where near the plants. Bees will naturally favor the locations that hold food and water."

Time it Right

Every plant has specific guidelines for when it should be planted in various parts of the country, so it's important to plant each during its optimal season. If you're gardening with bees in mind, however, "the prior year is the best time for the garden to be planted," Mello says. If flowering plants bloom the year

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before you start your hive, the plants will be wellestablished by the time your bees need them.

In general, plant annuals in the early spring, and plant hardier perennials in the fall. "Some frost-tender plants, like basil, will not tolerate any frost, so plant them well into spring after the chance of frost is over," England says. "Some perennial herbs — like rosemary (Rosmarinus officinalis), sage and lavender - can be pruned back a little in late winter or early spring, even though they won't need to be replanted."

If starting your garden a year in advance isn't feasible, you still can get something that blooms into the ground and feeds your bees. "Arugula and white clover can be sown from

seed any time of year when the ground is not frozen," Moore says. "Arugula is an annual and should be grown like lettuce (Lactuca sativa); however, white clover is perennial and can be grown throughout the yard wherever grass grows. Passionflower should be transplanted in April or May, but it is also perennial in zone 7 and warmer [climates]."

Garden with Care

Planting and maintaining a garden with bees in mind is a little different than planting flowers for your own pleasure. For instance, while you might normally use chemicals to keep your flowers blooming and free of weeds, that's not a good idea if you're gardening for bees. "It's important to realize that bees are highly sensitive to pesticides and toxic chemicals," England says. "Not only will chemicals kill the grass around your vegetable bed, they also will poison your honeybees. I strongly suggest that all beekeepers learn to implement effective organic-gardening techniques, which are healthier and will prevent bees from accidentally being killed."

Rather than relying on pesticides and fungicides, familiarize yourself with older methods of protecting plants. For instance, you can use a dormant oil spray on fruit trees during the early spring. These oil sprays, made of cottonseed oil or refined from petroleum oil, will kill exposed insects and mites, including eggs, without harming birds, humans or other mammals.



hile beekeeping is an enjoyable hobby, it's important to remain responsible, Mello says. For him, that means avoiding the use of pesticides in his 1,062 hives in Massachusetts and Rhode Island. In addition, responsible beekeeping means not worrying too much about how much honey you can take from the hives, Mello says. "Bees make honey to eat. It is far more important that they have the honey to eat in the months when there is no food for them to forage. Practice conscientious beekeeping, and you will never go wrong!" pt

Freelance journalist Nancy Mann Jackson writes regularly about gardening, preserving and cooking homegrown produce, and she blogs at www.growingfoodand kids.com. Contact her through her site, www.nancy iackson.com