

HOME & STYLE



Planting for bees

A bee on an allium plant. In Peter Lindtner's book, he includes a 5-star rating of each plant for both pollen and nectar, with notes about each.

Former Hagley horticulturist fulfills lifelong love of bees with book about how to feed them



BACKYARD GARDENER
MOIRA SHERIDAN

Peter Lindtner remembers standing under a 400-year-old linden tree in his native Czechoslovakia as a boy, listening to it hum with bees.

The beekeeper who lived nearby harvested so much honey that year he and his wife ran out of containers to hold it and eventually resorted to wine barrels.

Bees and bee culture have held a lifelong fascination for Lindtner, who undertook apiculture with his first hive at age 14. Although he would go on to become the head horticulturist at the E.I. DuPont garden at Hagley Museum for 35 years, his care and study of honey bees has remained his passion.

The culmination of that love is "Garden Plants for Honey Bees," the book Lindtner calls his lifetime accomplishment.

"I dreamed of doing this book for 35 years, of zeroing in on what is the most important ingredient to be a successful beekeeper. I wrote it to help beekeepers, or anyone who has a little land to plant so the bees will visit," he says.

Laid out according to the bee calendar - February until November - it combines his love and skill with bees, horticulture and photography, as

Bees

Continued from Page E1

well as focusing on that key ingredient to attracting honey bees to your garden - the right plants.

Through years of observation and study, not only at Hagley, but at numerous public gardens and arboreta, especially Longwood Gardens, Lindtner discovered that bees prefer plants that provide abundant pollen and nectar. They're very efficient insects, going after the most convenient and accessible sources available.

What constitutes a good nectar and pollen source may surprise readers. Big saucer magnolias? No good. Weedy black locust trees? The best.

The sugar content of nectar and the amount of pollen present in the flowers determines their attraction to bees. Locust flowers, for example, have a 60 percent sugar content in their nectar, irresistible to bees. (In his book, Lindtner suggests one locust tree per hive on a beekeeper's property.)

Month by month, Lindtner uses exquisite photographs and minimal text to illustrate the bee foraging year. Because bees are floral constant, meaning they visit only one species of plant all day, he includes a 5-star rating of each plant for both pollen and nectar, with notes about each.

One of the plants that knocks it out of the park as both a pollen source and a nectar source is the native tulip tree (*Liriodendron tulipifera*), whose large May-blooming flowers draw bees into its well of sweets. The lowly white clover likewise strongly attracts bees, but they must work much harder to collect the clover's nectar and pollen due to the size of the flowers, and the insects sometimes pay with their lives during mowing season.

Some of the most fascinating of the more than 700 photographs Lindtner took for the book are electron micrographs and microscopic images of pollen grains.

While working on his master's degree at the University of Delaware in the late '70s, he was asked to research the pollen collection in beehives on the property. From that research, he created a pollen atlas and a pollen color chart, by which he was able to identify types of plants from their pollen.

"I felt like an astronomer discovering stars," he says, adding, "I began photographing from microscopes and noticed endless variety of shapes and textures."

In the book, some of these images look other-worldly, but there is often a good reason.

"Some grains have projections that make it easier to cling to the bees' legs and bodies," says Lindtner of the more bizarre-looking examples.

To this day, Lindtner brings plain envelopes with him when he visits gardens to collect pollen samples and still goes "microscoping" at the University's entomology department.

Pollination by honey bees is a free-by-product, Lindtner emphasizes, although for humans it accounts for 95 percent of their significance. Honey production, on the other hand, accounts for 5 to 10 percent of their significance. And while it is free for us, often honeybees pay a huge cost.

"We are living in a time of chemical warfare," says Lindtner. He believes bees are the canaries in the coal mine, the most sensitive animals to chemicals. Many of the problems that plague bee colonies, such as colony collapse disorder, are the result of tearing down the bees' immune systems.

"You will better resist any disease if you are well. The key troubleshooting is herbicides. Don't spray anything," he suggests, adding that bees need water as well as nectar and will seek it up to 30 times a day.

While at Hagley, he employed "old world" practices that always worked for him, using compost and pruning to care for his plants. He upholds this organic approach to beekeeping as well.

Of today's "bee for hire" mentality, he references the tractor trailer accident this past May on I-95 that spilled more than 450 hives.



Bee on asters, which are Piedmont region native plants. Lindtner became enthralled with bees at a young age.

COURTESY OF PETER LINDTNER



In his book, Lindtner uses more photos than text to illustrate the bee foraging year.

COURTESY OF PETER LINDTNER



A bee favorite: Winter sweet branch.

COURTESY OF PETER LINDTNER

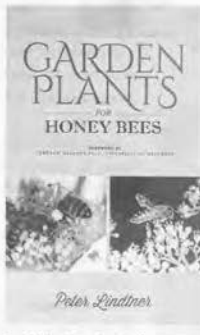
Peter Lindtner's tips for beginner beekeepers

- Join the Delaware Beekeepers Association (www.delawarebeekeepers.com)
- Study and learn about bee culture.
- Start with at least two hives.
- Plant a "bee pasture" including trees and shrubs as nectar and pollen sources.
- Provide a water source for bees.
- Refrain from using chemical herbicides anywhere on your property.

"Bees are not robots. It's better to have 10,000 beekeepers with two hives each than one with 20,000 hives," he says.

The best thing a beekeeper can do is provide bee "pasture," year-long nectar and pollen sources through the plants in his garden, or those nearby. Lindtner includes a suggested bee pasture at the end of his book, listing trees, shrubs and perennials for hobbyists and gardeners alike.

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Peter Lindtner's "Garden Plants for Honey Bees."

TO DO LIST

- If your poinsettia is wilting, check to see if there is drainage at the bottom of the pot. You may be overwatering. Remove any dried or dying material and place a saucer underneath to make sure water is percolating through. Keep it out of drafts and water once a week.
- Use evergreen bought from the Christmas tree as much for perennial beds.
- Mix and turn houseplants at least weekly. Keep protected from fluctuating temperatures.
- Plan which plants - vegetables and flowers - you will start from seed and order now.