

Creating the Best Water Sources for Bees

How to Make a Safe and Effective Bee Waterer



Like all animals, honey bees need a dependable source of water year round. The best water sources for bees are ones that won't go dry in the summer, won't drown the bees, and won't be shared with livestock or pets. Although honey bees adore a nice salt water pool, it's a good idea to establish your water source before your bees begin chasing away the sunbathers.

Honey bees drink water like other animals, but they also use it for other purposes. In winter especially, honey bees use water to dissolve crystallized honey and thin honey that has become too thick and viscous. In summer, they spread droplets of water along the edges of brood comb, and then fan the comb with their wings. The rapid fanning sets up air currents that evaporate the water and cools the nest to the right temperature for raising baby bees.

Honey Bees Collect Four Things

In a healthy honey bee colony, foragers collect four different things from the environment. Depending on what the colony needs at a particular time, the bees may collect nectar, pollen, [propolis](#), or water. Both pollen and propolis are carried in pollen baskets on the bees' hind legs, whereas water and nectar are carried internally in the crop.

In most cases, a bee will collect the same thing all day, one trip after another. So once a water-carrying bee transfers her load of water to a house bee, she goes back to the same source and fills her crop again. However, sometimes a forager can't find a house bee willing to accept her load of water. If that happens, she knows the colony now has all the water it needs, so she begins to forage for something else instead.

Honey bees often choose water that says "Yuck!" to the rest of us. They may choose stagnant ditch water, slimy flower pots, muddy mole holes, or a pile of wet leaves. Unfortunately for rural and backyard beekeepers, they are also attracted to the smell of salt and chlorine, which are frequently added to swimming pools. While it seems logical to supply sparkling clean water for your bees, they will probably ignore it.

The Best Water Sources for Bees Have a Smell

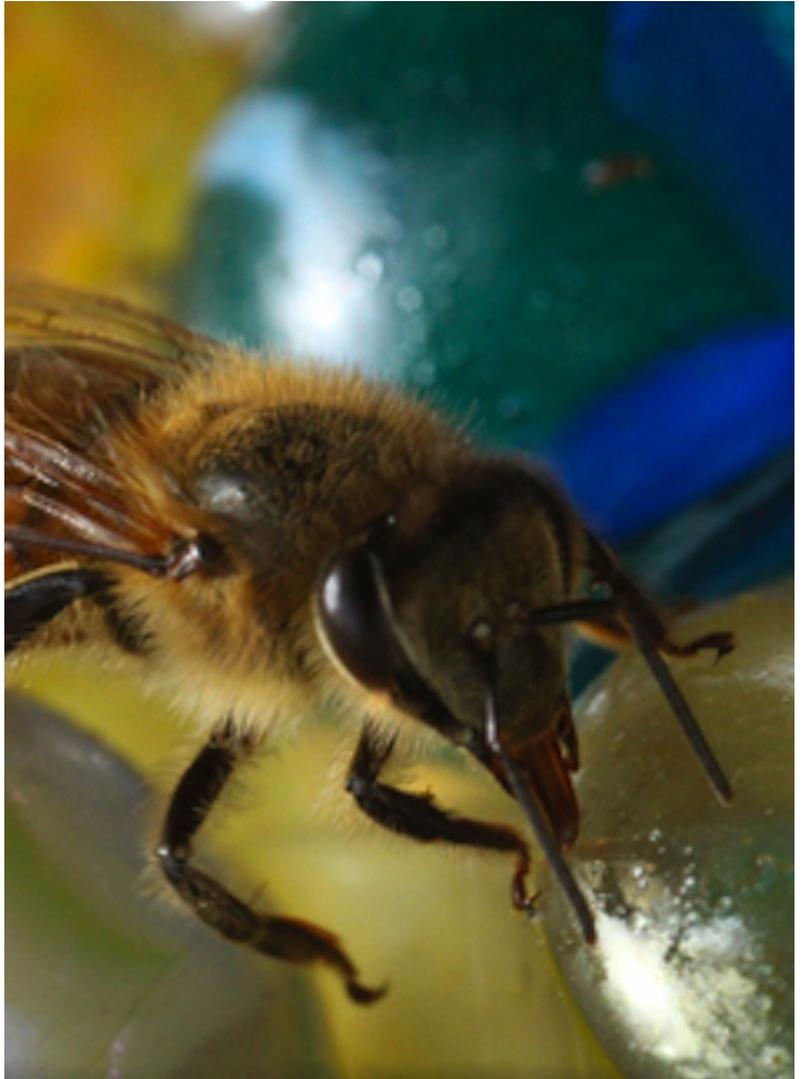
When deciding on the best water sources for bees, it helps to think like a bee. Although every bee has five eyes, bee eyes are attuned to detecting motion and changes in light levels, not the detail we are accustomed to seeing. In addition, bees travel high and fast, so they may easily overlook potential water sources.

Biologists believe that bees probably find most of their water by scent rather than sight, so a water source with a smell will be more attractive. Water that smells like wet earth, moss, aquatic plants, worms, decomposition, or even chlorine, has a better chance of attracting a bee than sparkling water straight from the tap.

Smelly or slimy water sources have the advantage of containing a wide range of nutrients as well. Although a bee gets most of her nutrients from nectar and pollen, some water sources are rich in vitamins and micronutrients that can boost honey bee nutrition.

Make Your Bee Waterer Safe

The other thing bees like is a safe place to stand. Water in a steep-sided container or water that flows quickly is dangerous to a bee because they can easily drown. To solve this problem, beekeepers have devised all kinds of bee watering stations. A saucer filled with marbles or stones makes an excellent water station. Equally good is a bucket of water with plenty of "bee rafts." These can be corks, sticks, sponges, or packing peanuts — anything that floats. If you are a gardener, you may have a hose with a slow leak or a drippy irrigation head that can be moved to a convenient location and allowed to seep into the ground. Others use hummingbird feeders filled with water or small ponds with lily pads.



Please Bees: Use This, Not That

Sometimes, though, honey bees are stubborn and no matter how many creative water features you design, they prefer your neighbor's place. Besides the pool, your bees may take a shine to your neighbor's pet bowl, horse trough, potted plant, birdbath, or even worse, the pinned up laundry.

Unfortunately, bees are creatures of habit and once they find a reliable source they will return again and again. Since getting your bees to change their source is nearly impossible, it is best to establish a source for them before they find one by themselves.

Close, But Not Too Close

Honey bees can travel long distances to find the resources they need. Normally, a colony forages within a couple miles of home. However, in times of stress when resources are in short supply, a bee may travel five miles to get what she needs. Of course, this is not ideal because the trip may require more resources than she collects. In short, the best water sources for bees will be reasonably close to the hive.

However, the bees' system of communicating the location of resources — the dance language — works best for things that are not too close to the hive. For things just a few feet away, a bee can say the source is close, but she has trouble explaining exactly where it is. If the thing is a bit further away, she can give a direction. So for best results, have the bee waterer a short flight from home, perhaps 100 feet, not right under the hive.

Attracting Bees to Your Waterer

When first establishing a water source, it can help to spike it with chlorine. A teaspoon of chlorine bleach in a bucket of water may be enough to get the bees' attention. Other beekeepers add a handful of ground oyster shells to a pie pan of water, which gives the water a faintly salty ocean smell the bees find attractive. Alternatively, you can use a weak sugar solution in a bee waterer. Once the bees find it, they will empty it quickly and come back for more.

When luring the bees with chlorine, salt, or sugar, you can stop adding the attractant as soon as the bees become accustomed to the source. After a few days, they will "forget" what was there and simply think of it as water. The most important thing is to establish a pattern early, as soon as your bees arrive before they develop bad habits.

Source: Countryside Daily