Spring Beekeeping in Pennsylvania: Pollen Substitute for Honeybees

Welcome back, homesteaders!

It's March on the homestead, and my honey bees are finally stirring after a long winter.

What you're seeing here is a still shot of them hard at work, collecting pollen substitute from a plate I put out. A friend of mine suggested this pollen substitute to get the bees "jump started" for the season. I'm typically not a huge fan of using "substitutes", but the bees really had a rough winter this year.

Early spring is a big moment for bees—they're emerging from their hives, and the queen's starting to lay eggs again. But with little to no flowers blooming yet, natural pollen is scarce, and their winter stores might be running low. That's where this pollen substitute comes in. It's a chance to give the bees a protein boost and keep the colony strong.

Take a close look at the bees. These are worker bees—all female, and the backbone of the hive. Their bodies are covered in branched hairs that grab pollen like magnets. The hind legs have pollen baskets, or corbiculae, plus tiny combs and presses to pack pollen in. You can see them loading up the substitute right now, turning it into neat little bundles for the flight home. It's amazing how nature equips them for this—one bee can visit 600 flowers a day when things really get going!

These workers live short, busy lives—about six weeks in the active season, because they literally work themselves to death. Over winter, though, they hang on for months, clustering in the hive and living off stored honey. Right now, they're in transition—survivors from winter stepping up as the queen ramps up egg-laying. Inside the hive, younger house bees will take this substitute, pack it into cells near the broodnest, and mix it with honey to make 'bee bread.' Bee bread is what feeds the larvae—those little grubs that'll grow into the next generation of workers. A healthy hive can use pollen fast, so this early boost is key.

Pollen's more than just food—it's the hive's protein, vitamins, and minerals all rolled into one. When they're out foraging later, they'll pick up grains from thousands of plants, bringing back a rainbow of nutrients. Some of that pollen rubs off on flowers, too, kickstarting pollination. Pollination is a big deal because strong bees mean better crops down the line. This substitute doesn't pollinate, but it keeps them ready for the real thing.

As a beekeeper, I love watching this teamwork in action. From the foragers you see here to the house bees storing it, every worker has a role. When a worker bee emerges from its cell, it's first job is to clean it's own cell to make room for more eggs. It's a life cycle of purpose we can all admire. Supporting them now sets the stage for a thriving season.

So that's the story of this plate of pollen substitute—a little help from me, and hopefully a big impact for them. As spring unfolds, I'll share more—maybe a peek inside the hive or what happens when the wildflowers bloom. For now, I'm just soaking in the buzz of these tough little workers. They remind me why I homestead: to work with nature, not against it. Thanks for watching, and Make It a Great Day!

Sources of Information

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