



April 2015 Bee-Mail



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For best viewing download the pictures, or visit www.crownbees.com

Thank you! We're over \$10,000!

We are still driving toward our goal of raising \$100,000 to revolutionize the way food is pollinated in North America.

We need more people like you, raising millions of native bees that can be rehomed to thousands of local farmers.

If you've already given to our campaign, THANK YOU! But we still have a long way to go.

[Help us to help you](#). If you haven't contributed yet, I'm personally asking for your support. Please give \$1, \$10 or \$50 today - and then spread the word to others.

As a Bee-Mail reader, you know that Crown Bees is dedicated to your success. We answer every question with a smile. We teach you everything you need to know about gentle pollinators – **for free**.

So now, I need YOU to help keep the momentum going.

- **Contribute:** Please give to the [Indiegogo campaign](#), at any level. Consider \$25.
- **Share:** Please forward this email to your friends and family.
- **Post:** Please post about this campaign on social media. Here's a short link: <http://igg.me/at/crownbees>
#BeeBooster #BeeWithMe @CrownBees

Thank you,

Dave

In this issue:

- [Mason Bees should be flying](#)
- [How to delay releasing mason bees](#)
- [Protecting your bees from birds](#)

- [Leafcutter bees are in!](#)
- [Orchard news](#)
- [A study on Bee Hotels was published](#)

Mason bees should be flying...

It's April.

Your bees are ready to emerge, mate, pollinate, lay eggs, and protect their young.

Remember, make sure there is pollen is available outside, the daytime temperatures are at least in the low 50's (17°C), and the bee cocoons are placed behind or on top of the nesting material.

Your bees have emerged. How can you be sure? Look for signs of this are empty cocoon husks or mason bee poop on the house or holes.

If you are nervous about bees not emerging right away, this is natural. However, you can open a cocoon or two to check on their health. See this video on [opening a cocoon with a pair of scissors](#). (It's easy.) Not all bees make it through the winter!



The bees don't always nest right away. We find that mason bees, once they emerge, will search out the area for pollen, mud, and holes. Once each female finds what she likes, she claims her hole. (She lays a scent down the entrance of the hole that says "MINE!!!"). This way, as she enters a hole and it doesn't smell like her scent, she backtracks and finds her hole.



Females will mate. You may notice males typically emerge first and wait impatiently for the females to emerge. Males have the longer antenna.

If you find a romantic couple, look closely at the middle legs of the female. She reaches up to hold the male in position.

Females may mate with several different males.

If you have both hornfaced and blue orchard mason bees, you may see males from one species on top of females of another. This is a waste of time because they can't mix genetically, but it is interesting nonetheless!

Nesting begins! Females will gather pollen from a 300' (100m) radius around the nest. She'll make about 25-30 trips to gather pollen/nectar to create a pea-size pollen ball in the back of her hole. She then backs in and lays an egg (about the size of a rice grain) on that pollen/nectar mass and cements it in place with a bit of nectar/spit. Her egg chamber is complete!



The egg chamber must be protected with mud... About 6-8 trips of moist, good clayey mud, will be plopped down to seal that chamber. She may also seal cracks in wood trays that she found.

The pollen/egg/mud process continues until she nears the end of the hole. She then caps the end of the hole with a thick mud plug. ...and on to the next hole!



You can delay placing out mason bees

Mason bees should be placed out by the end of April. Their stored fats will have expired. If you hold them much past this date, they will have weakened or die. Bees can be held longer, but it's risky.

Males and some females will emerge in your refrigerator (and definitely during shipping). This is fine. It indicates that the bees are alive and healthy.

What if you're not ready for the bees to be placed outside yet?

First, turn your refrigerator down to just above freezing (34F/1C). This will hold the bees a bit longer and slow down their metabolism.

Second, place a cotton ball dipped into 50/50 solution of honey & water and place any emerged bees on top of that cotton ball.

Your bees should be fine for a while.



Mason bees will continue pollinating for about six weeks. Bees that are flying in late April will continue to pollinate flowers throughout May and even into early June.

Protect your bees from common dangers

Bird feeders placed near mason bee nests are a conflict or disaster waiting to happen.

First, consider moving the bird feeder out of sight of the nesting mason bees. The birds will easily find the bird food and may not notice the bees going in and out.

Second, place chicken wire over the face of your mason bee house leaving about 2" or so between the holes and the wire. Have holes in the wire no smaller than 3/4" (20mm).



Here's a small "nature" note to consider: While feeding birds does attract the bird to your yard for viewing, "do we alter the bird's ability to get food for themselves?" The birds should be looking for worms, caterpillars, inch worms, and other tasty things from your yard. Letting birds fend on their own might create a more naturally balance environment.

Leafcutter bees are in!

We just received our leafcutter bees in from our Saskatchewan producers! See our various [leafcutter bee kits](#).

Gardeners can pollinate their summer flowers and vegetables with the gentle leafcutter bee.

In the past, we sent out leafcutter bee cocoons with larva inside. We learned that most gardeners don't have the patience to wait 4-5 weeks for the bees to develop from larva to bees. Rather, they'd like bees ready to pollinate! So we now incubate the bees before sending them out.





Hundreds of summer gardeners have already ordered leafcutter bee that will be mailed between May and July. We're turning on our incubators and will start developing the leafcutter bees next week.

If you have leafcutter bees from last season, they should be ready to pull out of your refrigerator soon. Here are a few options:

- Keep the cocoons safe as you warm them up. Place the leafy cocoons into a container or LeafGuardian bag and find a really warm 84°F (29°C) for 3-4 weeks. When the first bees begin to emerge, put out the entire LeafGuardian bag on top of your nesting holes. Please understand that it can take 5-6 weeks for bees to emerge if your temperatures are below 80°F (27°C).
- Purchase an [IncuBee](#), designed for incubating your leafcutter bees. Its thermostat is set to the correct temperature and has a built in timer for you to know when the bees should emerge.



Orchards News

Mason bees have been placed in about 40 orchards in California, Oregon, Washington, Pennsylvania, New York, and a few other states. **Thank you for participating in our Bee BuyBack program!**



We have learned a few lessons:

- We found that imported mud works well in sandy/loamy orchards. Bees are nesting and finding the mud holes in each acre. The farmers listened to our advice and have drip emitters or other water sources to keep the mud moist. 😊
- Some of the mason bees have emerged too slowly. We were trying to wake them out of hibernation 6 weeks ahead of schedule. We will alter some of our development practices this summer to have these bees go into hibernation earlier.

- Quite a few farmers have said they'd like to go from a trial 10 acres to their full orchard (300 acres or more). While this is great news, it's fairly scary. Will we be able to provide them with enough bees next spring?

Please strongly consider our [Bee BuyBack program](#) in the fall!

A study on *Bee Hotels* has interesting results

An [interesting study on Bee Hotels](#) was just published yesterday by Scott MacIvor and Laurence Packer.

Here's their abstract:

Society is increasingly concerned with declining wild bee populations. Although most bees nest in the ground, considerable effort has centered on installing 'bee hotels'—also known as nest boxes or trap nests—which artificially aggregate nest sites of above ground nesting bees. Campaigns to 'save the bees' often promote these devices despite the absence of data indicating they have a positive effect.

From a survey of almost 600 bee hotels set up over a period of three years in Toronto, Canada, introduced bees nested at 32.9% of sites and represented 24.6% of more than 27,000 total bees and wasps recorded (47.1% of all bees recorded).

Native bees were parasitized more than introduced bees and females of introduced bee species provisioned nests with significantly more female larva each year. Native wasps were significantly more abundant than both native and introduced bees and occupied almost 3/4 of all bee hotels each year; further, introduced wasps were the only group to significantly increase in relative abundance year over year.

More research is needed to elucidate the potential pitfalls and benefits of using bee hotels in the conservation and population dynamics of wild native bees.



In the conclusion was a note to Crown Bees and competitors:

We advocate for due diligence on the part of retailers and promoters of bee hotels to avoid "bee-washing"; that is, green-washing as applied to potentially misleading claims for augmentation of native

and wild bee populations. To ensure “bee-washing” is minimized, it is imperative that more research be performed on the design and effectiveness of bee hotels

I learned a few lessons:

- Our designs and instructions hopefully help people know how to prevent pest build up. All holes can be opened.
- Our [pollination pack](#) has a variety of hole sizes. We're going to add a eastern pollination pack that will include very small 3.5mm tube for the pumila mason bee that nests in the Eastern states. So tiny, but a prolific garden pollinator that we'd love for gardeners to use in their yards.

In our next issue...

- Do you have enough holes?
- Succeeding with leafcutters bees

Thank you for caring about raising solitary mason bees! Your success is important to us.

Dave Hunter, Owner