



October 2014 Bee-Mail



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### ***In this issue:***

- Harvesting Results
- Notes from the Orchard Bee Association
- November meetings with NW orchardists
- Thinking through spring planting
- Two science studies need your support
- Protecting your cocoons for the winter

## **Harvesting results**

It's not too late to harvest your bee cocoons. It's actually quite easy, and you'll have bees for next season. We have received a ton of emails from various parts of the country. Many people are finding some really odd nesting insects (and bees) next to their mason bees. Don't throw them out! Rather, place them in your [HumidiBee](#) for overwintering. Then release them next spring/summer.

Why save unknown insects in your refrigerator? Until I learn otherwise, most all cavity nesting bees and wasps are valuable beneficial insects for your yard. Thus, I'm an advocate of saving them to help your yard next year.

### **Mystery Bees**

Here are examples of what your fellow Bee-Mail readers found during their harvest. The left photo is of an unknown bee in the Midwest with characteristics similar to a leafcutter. She chewed up leaf bits to separate her tightly packed egg chambers. The right picture (from Washington State) compares three white-tipped, very tiny cocoons to the larger male and female mason bees. The female mason bee is the largest on the far right.



I received Dennis's cocoons with the white end and will be sending that to a Bee Lab for identification. What is it???



This wood tray of cocoons was from Dan in Wisconsin. The left side has larva which most likely are beneficial wasps. The right filled hole has 6 mason bees.

I'd keep the solitary wasp larva as they control garden pests. Place them in your HumidiBee, and protect them in a BeeGuardian bag in the spring. You should see cocoon spinning in May/June. (*I think they should spin a cocoon in the bag.*)



Here's another beneficial wasp found in Michigan. If you were to open them today, you will find larva rather than an adult bee. This says that it's a mid-summer parasitic wasp.

### **Mason Bee Fans Join in Harvest Party**

Our harvesting party was well attended here in the Seattle area last Saturday. The warehouse was packed with people discovering what was in their wood trays, old paper tubes and reeds. We met a lot of really interesting mason bee fans. Two sets of gardeners just came to learn what to do for next year!

***Thanks to everyone who came, shared and helped harvest cocoons!***



## Bee BuyBack program

We're receiving boxes of excess bees from across the nation daily. Thank you!

The [Bee BuyBack program](#) rewards you with free nesting holes or a gift certificate to our store.

Help us rehome bees to other gardeners across the nation!



## Notes from the Orchard Bee Association conference

In September I attended the Orchard Bee Association (OBA) meeting just north of Salt Lake City. It's so fun to be among giants in this new pollination industry. What makes the organization so different is the progressive collaboration that occurs each time we're together.



Kimball Clark, this year's president, (just below the v in University) obtained a 501 3(c) non-profit classification for the organization. (Thanks Kimball) We can now receive and write grants! That's HUGE. We have so much more to learn about using mason bees in orchards. Clint Merrill, to Kimball's right is the new president.

What did I learn? ...Here's a summary of 3 days of intent listening, debate, and discovery:

- Mason bees in almond orchards produce more than 25% additional nuts than with just honey bee pollinators. To the farmer, that's an extra \$1,000-1,200/acre AFTER paying for the mason bees.
- Mason bees can over-pollinate trees, so that the tree self-thins down to its carrying capacity. This is important because the tree can have 70% of blooms pollinated, but the tree will only carry 33% of the fruit to maturity.
- We haven't dialed in exactly how to release mason bees in orchards yet. There will be experiments with one release point for 160 acres (wow) down to 1 release/acre. *When releasing bees in an orchard, less labor is a good thing.*
- The Japanese hornfaced mason bee is found in many parts of the country. Specifically where is yet to be determined. (See lower section where we need your support in a Purdue study.)
- Some mason bees hover over the front of their holes as they emerge, others vector straight out of there, potentially for distant holes. Why? How can we control dispersal?
- What are the best methods for releasing bees in an orchard setting? Thoughts range from placing mason bees on top of warm honey bee hives to pre-emerging bees three days before and releasing them at 10% bloom. We favor the latter solution.
- When releasing bees, have 1.5-2 holes available per female (roughly 1 hole/cocoon).
- When releasing bees, do so in the morning so they can orient themselves quickly and have time to find a nest.
- More houses/acre yields better pollination results.
- Houses located between waist to head height do better than higher houses.
- It's possible that when it's warm, females might not sleep in their holes at night. (Interesting!)
- Vinegar does NOT get rid of chalkbrood (my organic thought from last month.) Bleach is the solution.
- While neonicotinoids have "media's attention" today, the more common pyrethroids are far more lethal to bees. There are worse chemicals routinely used. We'll slowly learn how to substitute chemicals in years to come and let you know of alternate solutions.

## Reaching out to Orchard Managers in the NW

We've been talking about this for years as it's central to our "food on the table" mission.



Mason bees, when used properly in an orchard, produce superior results to the farmer through increased pollination and more fruit on their trees.

It's that simple. Yet... few orchards consider anything beyond the honey bees. Why? The honey bee industry is mature and farmers know what to expect when asking for their orchards to be pollinated.

We were pleased to work with some orchard owners to trial mason bees in parts of their acreage. Their results were awesome. ALL are planning to add mason bees to their

entire orchards next season. That's great to hear.

One organic orchard produced 4 times the amount of cherries from her record year.

We're teaming with 3 other mason bee pollination companies to reach out to farmers in WA, ID, UT, and CA early November. The focus is on cherry farmers this year. However, we'll also work with plums, apples, and other spring crops, as requested.

For these trials, we have enough mason bees for about 1,000 acres. That acreage of pollination requires about 1 million mason bees. 🐝 We're reaching out to farmers through various communication sources: state extension services, Natural Resources Conservation Service (NRCS), word of mouth, etc. Our website will be the central connection for farmers to learn, share and reach out to mason bee experts for advice.

### **We Need Innovative Farmers to Trial a "Different Bee"**

We are looking for farmers who are:

- Progressive and constantly striving to provide more/better production.
- Challenged by poor pollination. Cross-pollination of trees is vital to fruit set.
- Focused on organic production practices.
- Experiencing a tough time hiring honey bee pollinators.

Are you aware of an orchard with an owner who wants to see better pollination and increased yield? Please send us an email introducing he/she to us. We'll send a personal invite to one of our upcoming information meetings. Also included with this invitation, will be access to the "orchard" side of our website for program details.

## **Spring flowers**

While it's still fall, you have the opportunity to think through spring plants that will benefit your mason bees and other pollinators.



One concept that might make a few of you shudder is the introduction of clover back to your lawns. Here's an excerpt I found on a great organic website ([Organicgardening.com](http://Organicgardening.com)):

The secret to having a [great lawn without chemicals](#) is Dutch clover. For the past 50 years, clover has been considered a noxious lawn weed, but before that it was an important component in fine lawns—and for good reason. Clover is drought-tolerant, virtually immune to diseases, and distasteful to common turf insects. And it generates its own food by [fixing nitrogen in the soil](#).

I find it interesting and disheartening that we don't want beneficial clover in our yards. In a quick survey of friends, no one wanted that "nasty" weed in their yard. In my opinion, this view is a testament to the many years of careful marketing from chemical companies. Clover in yards used to be a wonderful haven for bees. Today, stark, uniform lawns are now just green-colored deserts to our pollinators...

**What are you doing to change that?** Consider adding a variety of low growing clover.

## A science study and experiment

Purdue University wants to know how far the hornfaced bee has spread across the US. It was introduced years ago in the 1980's, then disappeared for about a decade.



Today, it is more wide spread in pockets across the country. Purdue would like to track its progress with your help.

If you have the hornfaced bee in your yard, please fill out this short [form on our website](#). We won't pass your email to anyone, but will provide your zip code and bee statistics to the researchers in this study.

### Is the Hornfaced Bee a Pest?

Is it an invasive pest? Sure it is invasive, but it pollinates well like the blue orchard. Pesty? Since there's nothing we can do to stop it, our choice at Crown Bees is to embrace it, understand it, and work with it.

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### Send Us Your Mud!



Mud is the number one reason mason bees fail in gardens. Without good mud, bees will not nest in your yard. Crown Bees recently applied for a federal grant to analyze mud types for mason bee success in nest building. The grant application was submitted to US grant system two weeks ago.

IF you haven't harvested your cocoons yet, we'd like about 15-20 of the mud end caps from your mason bee holes. If you know where your mason bees were gathering mud from (it's not easy to determine), we'd love to receive 1/2 cup of that mud.

If you want to participate, please [fill out this form](#) please.

We'll share what we learn next year (provided that we receive funding)!

## Protecting your overwintering cocoons

You have a few choices for protecting your overwintering mason and leafcutter cocoons.

1. Leave them alone outside
2. Protect them in a cool garage or crawl space
3. Protect them in a refrigerator

We believe #3 is wisest as it lowers the metabolism of your bees so that they can handle a long winter with the least consumption of fats by late spring. This preferred option will require that add water each month or so to your HumidiBee.

Option #2 has it cooler than a yard where the sun's radiant heat can warm up the hibernating bees, causing them to consume fats quicker. ...not as cool as a refrigerator, but not that bad.

Option #1 is natural, but it does allow hungry birds/squirrels/rodents access to the bees, plus the higher consumption of fats.

However, if you are in the southern states where the temperatures never get down to the 30's, then I'd consider option 2. I met a researcher at the OBA conference who had me rethink what current "science" says to do. Natural might be better for bees in warmer climates.

## **In our next issue...**

- We'll introduce an appealing: Adopt a Bee program. Stay tuned!

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

Dave Hunter, Owner

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