

# POWDERED SUGAR ROLL TEST

For Monitoring Varroa Mites on Honey Bees



To keep your honey bees healthy, it is important to monitor the varroa mite infestation level in each colony.

This test kit allows you to accurately estimate the number of varroa mites present in a colony—without harming the bees. Follow the instructions to take a sample of adult bees and use powdered sugar to dislodge and count the mites.

Proceeds from mite testing kit sales will go towards MiteCheck, a citizen science project.

For more information visit us online  
[z.umn.edu/mitecheck](http://z.umn.edu/mitecheck)



Photo by Judy Griesedeck



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# VARROA MITE TESTING KIT

For Honey Bee Health



Photo by Scott Bauer



Photo by Judy Griesedeck



## Mite Kit Contributors

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# INSTRUCTIONS

1



Shake bees from a brood frame into the large white tub. Don't forget to check for the queen. If the queen is present, select a different frame.



2

Pour or scoop bees into the measuring cup and tap it on a hard surface. Your goal is to fill the cup to 100 ml, approximately 300 bees, for your mite test.

3

Pour the measured bees into the plastic jar and seal with the screened lid.



4



Using your hive tool, press 2 tablespoons of powdered sugar through the screened lid, and shake/roll the jar until all bees are coated. Set the bees in the shade for 2 minutes.



5

Tip the sealed jar over the white tub, and shake vigorously up and down for at least 1 minute, allowing all mites to dislodge from the bees and fall into the large container.



6



Photo by Paul Kozac

Count the number of mites you find on the bottom of the white tub. For a clearer view, add some water to the tub to dissolve the sugar, revealing the oval-shaped, reddish-brown mites.\*

7

Return the sample of bees to their colony. Don't worry, their sisters will clean them off and they'll go back to work.



8

Your mite kit measuring cup holds about 300 bees. To estimate the number of mites per 100 bees, divide the total mites found in your sample by 3.



**Consult your local beekeeping experts for treatment options. Treating your bees keeps them healthy and also decreases the likelihood that neighboring colonies will become infested. Make sure you test again after treatment to monitor results.**

*\*Make sure your tub is dry before performing your next mite test.*

Ellis, Marion D. and Macedo, Paul A., "G01-1430 Using the Sugar Roll Technique to Detect Varroa Mites in Honey Bee Colonies" (2001). *Historical Materials from University of Nebraska-Lincoln Extension*. Paper 1173.

<http://digitalcommons.unl.edu/extensionhist/1173>

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