

American Foulbrood Diagnostics

Beltsville Agricultural Research Center

The diagnosis of bee diseases has been a focus of this laboratory since its inception in 1891 and we operate a "Bee Disease Diagnosis Service" for beekeepers across the U.S.

There is no charge for this service.

Samples received of adult bees and beeswax comb (with and without bee brood) are examined for bacterial, fungal and microsporidian diseases as well as for two species of parasitic mites and other pests associated with honey bees (*i.e.*, small hive beetle, *Aethina tumida*).

When requested, American foulbrood samples are cultured and isolates are screened for their sensitivity to Terramycin (oxytetracycline) and Tylan (tylosin).

We **do not** analyze samples (bees, wax comb, pollen, etc.) for the presence of viruses or pesticide residue.

We **do not make determinations** about which species of *Nosema* (*N. apis* or *N. ceranae*) are present, when nosema disease is detected.

Diagnostic reports are transmitted to **both the beekeeper, submitter of the samples** and to the appropriate apiary inspectors.

We are only able to accept samples originating from the U.S. and its territories. We do not accept samples from other countries.

General Instructions

- Beekeepers, bee businesses, and regulatory officials may submit samples.
- Samples are accepted from the United States and its territories; samples are NOT accepted from other countries.
- Include a short description of the problem along with your name, address, phone number or e-mail address.
- There is no charge for this service.

How to Send Adult Honey Bees

- Send at least 100 bees and if possible, select bees that are dying or that died recently. Decayed bees are not satisfactory for examination.
- Bees should be placed in and soaked with 70% ethyl, methyl, or isopropyl alcohol as soon as possible after collection and packed in leak-proof containers.
- USPS, UPS, and FedEx do not accept shipments containing alcohol. Just prior to mailing samples, pour off all excess alcohol to meet shipping requirements.
- Do NOT send bees dry (without alcohol).

From Dr. Abban 10/10/2024: The vita test is more accurate than subsequent tests to confirm your initial diagnosis will be best.

You can sample the hive again and send it to me for confirmation.

Use cotton swabs to collect 5 suspected brood from individual cells.

Wrap each cotton swab individually and ship in a small box to our lab.

How to send brood samples

- A comb sample should be at least 2 x 2 inches and contain as much of the dead or discolored brood as possible.

NO HONEY SHOULD BE PRESENT IN THE SAMPLE.

- The comb can be sent in a paper bag or loosely wrapped in a paper towel, newspaper, etc. and sent in a heavy cardboard box.

AVOID wrappings such as plastic, aluminum foil, waxed paper, tin, glass, etc. because they promote decomposition and the growth of mold.

- If a comb cannot be sent, the probe used to examine a diseased larva in the cell may contain enough material for tests. The probe can be wrapped in paper and sent to the laboratory in an envelope.

Send samples to:

Bee Disease Diagnosis
Bee Research Laboratory
10300 Baltimore Ave. BARC-East
Bldg. 306 Room 316
Beltsville Agricultural Research Center - East
Beltsville, MD 20705

For additional information or questions
about your samples, contact Sam Abban
by phone at

(301) 504-8821 or e-mail:

samuel.abban@ars.usda.gov

Bee Disease Diagnosis Service

[https://www.ars.usda.gov/northeast-area/
beltsville-md-barc/beltsville-agricultural-r
eseach-center/bee-research-laboratory/
docs/bee-disease-diagnosis-service/](https://www.ars.usda.gov/northeast-area/beltsville-md-barc/beltsville-agricultural-research-center/bee-research-laboratory/docs/bee-disease-diagnosis-service/)

How to Submit Samples

[https://www.ars.usda.gov/northeast-area/
beltsville-md-barc/beltsville-agricultural-r
eseach-center/bee-research-laboratory/
docs/how-to-submit-samples/](https://www.ars.usda.gov/northeast-area/beltsville-md-barc/beltsville-agricultural-research-center/bee-research-laboratory/docs/how-to-submit-samples/)