



# ECROTEK

## Varroa Checker How to perform an alcohol wash

For the latest information please visit your States Bio security website or Department of Primary industries.

**NSW DPI 1800 084 881 (9am - 5pm, 7 days a week)**

Instructional videos can be viewed at [www.ecrotek.com.au](http://www.ecrotek.com.au)



A varroa wash (mite wash or alcohol wash) should be an active part of your varroa surveillance program. Washes work by taking a sample (approx. 300 bees) and washing any mites off. Varroa washes on their own are not a complete surveillance solution. They can give a false negative result. However, when used repeatedly and widely the detection rate is greatly increased. Varroa washes should be completed in conjunction with Drone larvae inspection, and floor board inspections (sticky boards).

### DIRECTIONS

1. Record the details of the hive being checked, the date, hive location and any notes e.g. frames of bees, frames of brood, peculiar symptoms or behaviors.
2. Prepare your alcohol washer.
  - a. Fill with Ethanol to the bottom of the strainer cage.
  - b. For alternate liquids see below.
3. Following good Beekeeping practice access your hives brood box.
  - a. Nurse bees must be sampled. Do not test bees from honey boxes or foragers from open sources e.g. drum feeders.
4. Remove a brood frame and inspect both sides thoroughly for the queen.
  - a. At this point complete your Drone brood inspection also.
  - b. If the queen is present replace the frame and select another.
5. The bees on this frame will be Alcohol washed. This is fatal to the bees.
6. Shake the bees from the selected frame into a bucket. Take a half cup measure of bees (125mls) and put it into the alcohol washer basket.
7. Screw the lid onto the alcohol washer tightly and shake the Varroa washer for 60 seconds.



8. Leave the shaker to settle - any mites present will settle to the bottom of the cup.
  - a. See the image to the right for mite examples and how they can be identified.
9. If no mites are seen repeat steps 7 and 8.
  - a. Mites can lodge in the bee sample and repetition is best practice.
10. If the test is still negative record your result, discard the bees from the washing basket and repeat on the next hive.
11. The ethanol solution can be reused and strained to remove bee debris to help with visibility. Replace ethanol as needed.
12. If varroa are present please contact state bio-security authorities immediately and follow all instructions. If you are unsure of a potential mite in your sample, consider it positive and contact the relevant authorities.



## NOTES

- A negative alcohol wash does not definitively mean there are no varroa in a beehive.
- Alcohol washes are a surveillance tool and regular and repeat testing is required.
- Record all tests undertaken.
- An alcohol wash (or sugar shake) will reliably detect mites when there are several hundred in a hive. For this reason, Drone brood inspections and floorboard inspections should be carried out simultaneously.
- For a more sensitive method please consider testing for mite drop when paired with a registered chemical or oxalic treatment.
- If you have fewer than 8 hives in an apiary, test all of your hives.
- For large apiaries we recommend spot checking 10 or more hives, particular attention should be given to drift collector hives (e.g. end of rows, down wind) or hives that are weak for an unknown reason.
- Ethanol and therefore the discarded bees, will be flammable. Care must be taken with smokers or ignition sources.

## ALTERNATE WASHING LIQUIDS

Ethanol is the best liquid for this test, it can be purchased from hardware stores, chemists or online. Do not use other liquids that have not been tested as they may not detect mites as accurately. Other washing liquids:

- **Isopropyl alcohol, denatured alcohol, rubbing alcohol etc.**
- **These can be diluted for economy to 70% and reused several times.**
- **Meths, turps, spirits – we do not recommend kerosene.**
- **Window cleaner, Dilute non foaming washing detergent.**
- **Windscreen wiper fluid**

For more information and videos on how to use the alcohol washer please refer to

**[www.ecrotek.com.au](http://www.ecrotek.com.au)**