

Monitoring for pea weevils

Guidelines for pea growers outside the Wairarapa Controlled Area

BACKGROUND

The pea weevil (*Bruchus pisorum*) has been found in the Wairarapa where it is under an eradication programme.

A Controlled Area has been put in place restricting movements of peas and pea products in and out of the region. In addition, there is a ban on growing peas in the Controlled Area. Pea weevils need peas to reproduce. If pea crops are removed, the weevils will die out.

While there is currently no evidence that the weevil is present in any other parts of New Zealand, there remains a small possibility.

For this reason, MPI is searching approximately 300 pea crop fields outside the Wairarapa to make sure the insects are confined to that region only. We need two consecutive years with no pea weevil finds to be sure it is not present outside of the Wairarapa Controlled Area.

Pea growers outside the Controlled Area whose farms are not part of the MPI surveillance may wish to check their own properties and the following guidance will help with this.

Any suspected pea weevils should be captured if possible, and the detection reported to MPI on 0800 80 99.66.

PEA WEEVILS AND WHAT TO LOOK FOR

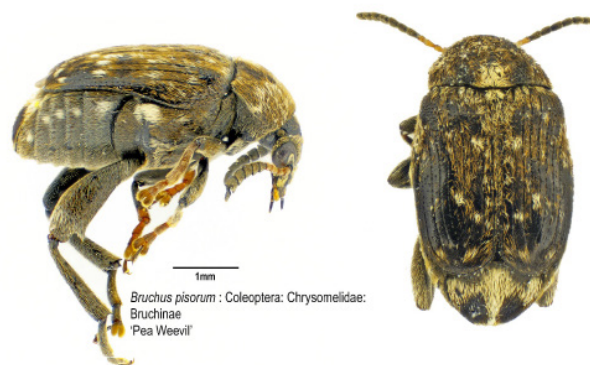
Pea weevil larvae live inside developing peas, severely damaging them. If allowed to establish here, pea weevils would endanger New Zealand's pea seed export market and the processed green pea industry. They would also be a nuisance pest in home gardens.

The adult weevils are small (4-4.5mm long), brownish-grey in colour and flecked with white. They have an oval shaped body and long legs. The exposed part of the abdomen has a white marking in an aeroplane shape. Larvae are crescent shaped, creamy/white in colour and up to 6mm long. The larvae have a brown head and mouthparts.

Full information is at: www.mpi.govt.nz/alerts

Find pea weevils by sweep netting in spring.

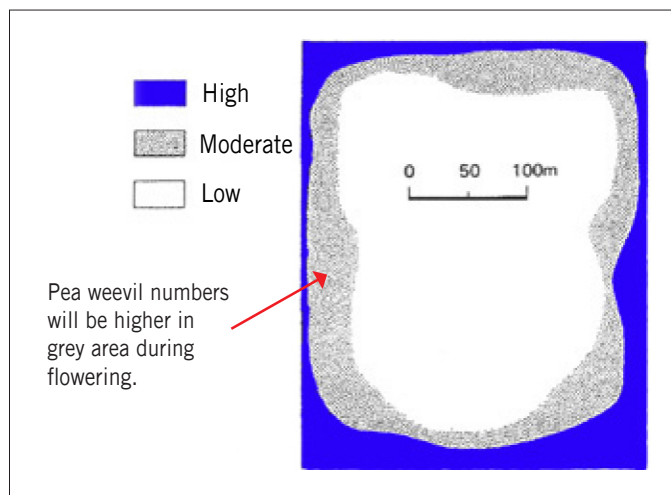
- Sweep your fields every 3-4 days from the start of flowering.
- Use a sweep net, these can be purchased from the following on line entomology store <http://www.entosupplies.com.au/equipment/field/nets/complete-net-insect-sweep-nets-australian-made> or may be available from your pea field rep, local farm supply store or garden centre.



- On these days, wait until temperatures reach 18°C before sweep netting.
- Pea weevils are strongly attracted to pea blossom and are easily found on the flowers.
- Sweep along the crop edge at one to two metres into the crop, starting next to to any areas where pea weevils would hibernate such as tree lines, sheds, hedges, fence posts, etc.
- Sweep in a 180° arc while walking forward. Angle the net as in the photo below.
- After every 25 sweeps, empty the contents of the net into a specimen jar and repeat the sweeping at five to 10 sites around the crop edge.

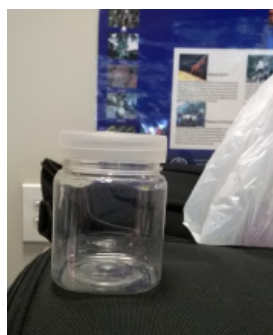


- Secure any suspect specimens in the jar by scooping the contents of the bottom of the net into the jar and contact MPI on 0800 80 99 66. When you call, say you are ringing about pea weevils. You will be referred to an investigator who will give you instructions on shipping the specimen/s to the MPI lab for identification.
- Photos of suspected weevils can be emailed to: christchurch@mpi.govt.nz. However a specimen will still be required at the lab
- The MPI, PHEL laboratory team will screen the samples submitted for pea weevil. Due to the busyness of the team, results will not be communicated, no news is good news.



Typical distribution of Pea weevil in a large pea field.

AUTUMN HARVEST SAMPLING



For all peas being grown for feed or seed: Draw a composite running sample of approximately 5kg from each paddock and/or seed line while seed is delivered to the storage facility.

From the 5 kg mixed composite sample, draw about 700g for soak testing. Place the peas in a bucket or tray of water at room temperature and let them soak overnight. Ensure that a

third of the water level is over the peas.

Once soaked, look for small dark flecks or entry holes caused by pea weevil larva, (see below). Infested peas are more likely to float to the top but it is important to scan the soaked pea seed carefully as not all infested seeds float to the surface.

For seed that has been in store or silo for four weeks after harvest, a dry inspection can easily reveal a 'window' in the pea seed left by the weevil larva before it pupates (turns into an adult insect).

After pupation, the adult weevil can push the thin membrane open and exit from the pea or remain inside the seed, see below. By four weeks after harvest, weevil larvae should be pupating.

Report any suspicious findings to MPI on 0800 80 99 66.

If any pea weevils are found at this stage, it is vital that the consignment is treated as soon as possible please contact MPI at the above number for direction on fumigation.

A similar sampling plan to the soak test method can be used.



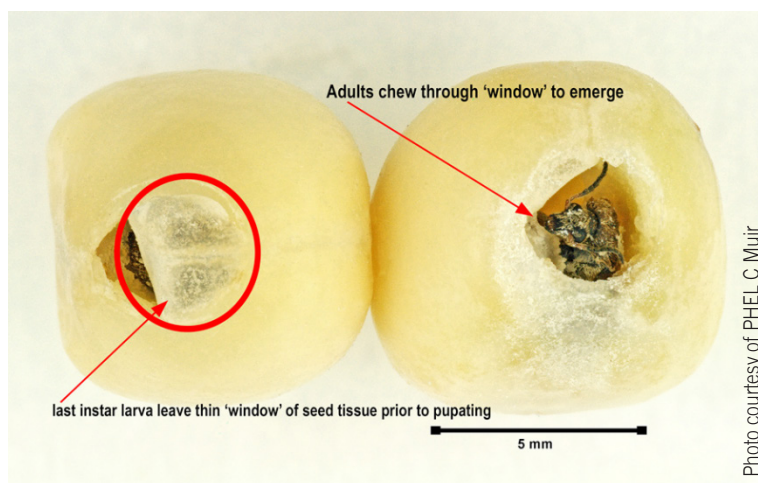
Entry point for *Bruchus pisorum*



A circular window in the surface of the pea seed skin would be a sign that pea weevil is present. (SARDI).

KEEP A WATCH ON EQUIPMENT

Keep an eye around seed cleaning machines. Vibration and heat tends to cause any weevils to leave the pea seed. They can then start crawling around onto other lines of seed or taking refuge in some corner of the seed store or even flying off.



Adult weevils under the membrane window

Photo courtesy of PHEL C Muir

IF YOU HAVE SEEN A PEA WEEVIL:
Contact MPI's free 24-hour pest and disease hotline 0800 80 99 66

www.mpi.govt.nz

