## Epilachna beetles on solanaceae

**Epilachna spp.**

### Prevention
- Do not plant solanaceous crops in or near areas of known infestation to reduce the spread of the pests into new areas and new harvests.
- Collect plant residue left from previous harvest and burn to destroy any beetles present.
- Removal of weeds and alternate hosts (Solanaceae spp.) in the field and neighbouring areas.
- Use early maturing varieties at the start of the season to avoid periods of higher infestations once overwintering beetles come out of hibernation.

### Monitoring
- Actively monitor for beetles amongst crops, especially during growth periods as epilachna beetles feed on leaves.
- Eggs are yellow and oval (1 mm long) and are laid on the underside of leaves in batches of 10-20.
- Larvae are initially pale yellow with branched spikes on their back. Colouration darkens with development. Larvae can grow up to 6 mm long via moulting.
- Adult beetles are like common ladybird beetles, with orange wing cases and black spots. Identification of epilachna beetles can be achieved by observing fine downy hairs on the wing cases.
- Monitor for larvae on the underside of leaves and adult on the upper surfaces.
- Notable feeding of the leaves can be seen, with one surface of the leaf grazed upon and the other surface intact.
- Consider direct control actions as soon as beetles are identified in your field.

### Direct Control
- Handpick and remove any larvae or adults found on plants and destroy by burning.
- Use of ash dusted over leaves to control population levels as soon as an infestation is observed.
- Use of wood ash spray (half a cup of wood ash, half a cup of lime and 4 L of water) across all plants following identification of an infestation.
- Use of garlic spray (4 garlic cloves soaked overnight in vegetable oil, mixed with 2 L of water and 4 teaspoons of soap). Add some chilli extract to strengthen spray during high level infestations.

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Note: Pesticides may be available to control this pest. Please check with the Ministry of Agriculture in your country to find out which pesticides are registered in your country and the local restrictions for their use.

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