



Plant Pest Factsheet

Identification of Colorado beetle *Leptinotarsa decemlineata* and insects frequently mistaken for it



Figure 1. Adult Colorado beetle. © Crown copyright.

Background

The Colorado beetle (*Leptinotarsa decemlineata*) (Coleoptera: Chrysomelidae) is a serious pest of potato and is not established in the UK. This is why it is a regulated quarantine pest, whose introduction and release is prohibited under plant health legislation. Colorado beetles are occasionally imported into the UK as “hitchhikers” on non-host plant material, such as leafy vegetables, salad leaves, fresh herbs, and grain, which have been grown in fields previously planted with potato, as well as being imported with potatoes. Such accidental introductions most commonly occur in spring and early summer. The adult beetles overwinter in the soil and emerge in the following spring, to feed and mate. The larvae and adults feed on several cultivated and wild members of the Nightshade family (Solanaceae), such as potato, tomato, aubergine, and pepper. As each female can lay up to 2000 eggs a breeding colony could be established by a single fertilised beetle escaping detection.

Although adult Colorado beetles are highly distinctive in appearance, there are several beetles that are frequently mistaken for them. This guide aims to help you separate the Colorado beetle from some of our native and introduced species. The first 7 photos compare adult beetles, and the last two photos compare a Colorado beetle larva with a Harlequin ladybird pupa.

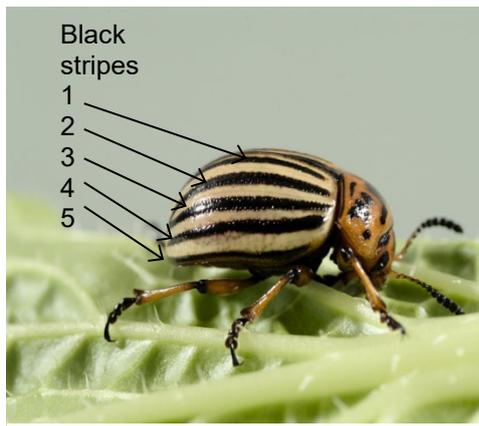


Figure 2. Colorado beetle, *Leptinotarsa decemlineata* © Crown copyright.

- **Wing cases (main body)**- Yellow/cream with ten straight black longitudinal stripes (5 on each side, the 5th stripe is narrow and runs along the margin).
- **Head and area just behind it**- Orange marked with irregularly shaped black spots
- **Antennae (feelers)**- Not clubbed (they have no increase in width at the tips).
- **Overall appearance** - Oval shaped and very shiny. Wing cases cover the whole abdomen



Figure 3. Harlequin ladybird, *Harmonia axyridis* © Crown copyright.

- **Wing cases (main body)**- Very variable in colour and markings. However, no known colour form has a yellow body with straight black stripes.
- **Head and area just behind it**- Again, very variable, but never with an orange background and small black spots
- **Antennae (feelers)** - Slightly clubbed if examined very closely.
- **Overall appearance**- Hemispherical, the body very humped, rounded and shiny. Wing cases cover the whole abdomen.



Figure 4. 14-spot ladybird, *Propylea quatuor-decimpunctata* © Crown copyright.

- **Wing cases (main body)**- Yellow background, with variable black dots, which frequently join up to make patterns, but never form straight stripes
- **Head and area just behind it**- Yellow and black, never orange with black spots.
- **Antennae (feelers)** - Slightly clubbed if examined very closely.
- **Overall appearance**- Hemispherical, the body very humped, rounded and shiny. Wing cases cover the whole abdomen.



Figure 5. Burying beetle, *Nicrophorus investigator* © Crown copyright.

- **Wing cases (main body)** - Black with orange stripes running across the body, the edges of these stripes very jagged.
- **Head and area just behind it** - Black with no markings.
- **Antennae (feelers)** - Clubbed.
- **Overall appearance** - More elongate, with the end of the abdomen protruding in a point beyond the wing cases.



Figure 6. Wasp beetle, *Clytus arietis* © Crown copyright.

- **Wing cases (main body)** - Black with yellow stripes across the width of the body, not along the length.
- **Head and area just behind it** - Black and yellow, never orange and black.
- **Antennae (feelers)** - Not clubbed.
- **Overall appearance** - Very elongate body, never short and rounded. Wing cases cover almost whole abdomen.



Figure 7. Spotted longhorn beetle, *Rutpela maculata* © Crown copyright.

- **Wing cases (main body)** - Yellow with variable black spots and bands.
- **Head and area just behind it** - Black.
- **Antennae (feelers)** - Long, half the length of the body; not clubbed.
- **Overall appearance** - Very elongate body. Wing cases cover the whole abdomen.



- **Wing cases (main body)** - Brown wing cases with ridges running from front to back. This can give the appearance of darker stripes, but they are never black and yellow.
- **Head and area just behind it** - Grey/brown, never orange with black markings.
- **Antennae (feelers)** - Clubbed. It may look like fingers, or the individual elements may be held close together.
- **Overall appearance** – More elongate, with the end of the abdomen protruding in a point beyond the wing cases. It is dull, not shiny.

Figure 8. Cockchafer beetle, *Melolontha melolontha* © Crown copyright.



- **Wing cases (main body)** - Metallic green with longitudinal purple stripes
- **Head and area just behind it** - Metallic green and purple.
- **Antennae (feelers)** - Not clubbed.
- **Overall appearance** - Oval shaped and very shiny. Wing cases cover the whole abdomen.

Figure 9. Rosemary beetle, *Chrysolina americana* © Crown copyright.



Figure 10. Size comparison of all six adult beetles with a 1p coin, shown approximately life-size. Colorado beetle is on far left of image. Please be aware that these beetles are dead, and the colours have faded. © Fera Science Ltd



Figure 11. Colorado beetle (larva) © Crown copyright.

- **Body-** Pink, red or orange with two rows of equal sized black spots along each side, and a plain red back. Smooth and shiny.
- **Head-** Black, distinct from the rest of the body.
- **Overall-** Clearly visible black legs. Larvae are active and mobile.



Figure 12. Harlequin ladybird pupa © Crown copyright.

- **Body-** Orange or red, with two longitudinal rows of black spots along the back, variable in extent. Spines often visible at one end (the remains of moulted skin).
- **Head-** Curled position, hard to distinguish the head.
- **Overall-** This is an inactive life-stage, with no easily visible legs, it does not feed. It is wrinkled in appearance and firmly attached to a solid surface.

What to do next

If you find a suspected Colorado beetle, and have ruled out each of the other beetles covered here, please keep the beetle in a secure container and notify the relevant authority:

For any findings including on farms, pack houses, processing sites, garden centres, plant nurseries or private gardens in England and Wales, contact your local APHA Plant Health and Seeds Inspector, or the PHSI headquarters, in York:

Tel: 0300 1000 313 (please select option 3 when calling)

Email: planthealth.info@apha.gov.uk

Web: <https://www.gov.uk/plant-health-controls>

For Scotland:

Contact the local RPID officer if found in agricultural crops

Web: <http://www.gov.scot/Topics/farmingrural/Agriculture/AOcontacts/contacts>

For non-agricultural crops, email: hort.marketing@gov.scot

For Northern Ireland, contact DAERA Plant Health Inspection Branch:

Tel: 0300 200 7847

Email: planthealth@daera-ni.gov.uk

Web: <https://www.daera-ni.gov.uk/topics/plant-and-tree-health>

For additional information on UK Plant Health please see:

<https://planthealthportal.defra.gov.uk/pests-and-diseases/uk-plant-health-risk-register/>

<https://www.gov.uk/plant-health-controls>

<https://www.gov.scot/PotatoHealthControls>

www.daera-ni.gov.uk

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