

Pest Alert: beet curly top virus (BCTV)



Figure 1. Tomato plant infected with beet curly top virus © Bob Hammon, Colorado State University, Bugwood.org



Figure 2. *Circulifer tenellus* adult. © Paul Langlois, Museum Collections: Cicadas, Planthoppers, & Allies, USDA APHIS PPQ, Bugwood.org



Figure 1. Black longitudinal concentric rings in sugarbeet tuber. © Oliver T. Neher, The Amalgamated Sugar Company, Bugwood.org

- **Beet curly top virus (BCTV)** is a plant pathogenic virus, which is spread extensively across the USA and is present in limited parts of Asia, Europe, other regions of North America and South America. It is spread by the beet leafhopper *Circulifer tenellus* (figure 2).
- Both the leafhopper and the virus are absent from the UK and as the virus is not seed or tuber borne, **infected plants for planting** are considered the main pathway for the virus into the UK.
- BCTV has a wide host range, but the majority of these hosts do not show signs of disease. The main hosts of concern are **sugarbeet** and **tomato** in which significant crop losses are reported from the known distribution. *Circulifer tenellus* also has a wide host range, but direct feeding damage is not significant in comparison to damage caused by transmitting BCTV.
- Symptoms of BCTV can include severely **stunted** growth with leaves becoming **thick, brittle, crinkled, rolled and yellow** with **blistered swollen veins** (figure 1). Additionally, in sugar beet, tubers can have **excessively hairy roots** and **black longitudinal concentric rings** when cut (figure 3), whilst tomato plants become **rigid, stunted and fruits can prematurely ripen**. Younger plants often die when infected.

If you suspect the presence of the pest, please inform the relevant authority (see over for details).

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

For Scotland, contact the Scottish Government's Horticulture and Marketing Unit or RPID officer:

Agricultural crops contact the local RPID officer: <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: www.daera-ni.gov.uk/topics/plant-and-tree-health