

# Pest Alert: Zebra chip disease of potato



**From L to R.** Raw and fried potato slices infected with Lso. Lso symptoms in potato (note leaf curl and discoloration). Tomato-potato psyllid adult. Symptoms of Zebra chip in a cut potato tuber. All photos courtesy of Joe Munyaneza USDA/ARS.

- Zebra chip is a very serious disease of **potato** in the Americas and New Zealand. It is caused by the **bacterium ‘*Candidatus Liberibacter solanacearum*’ (Lso)** which is spread very effectively by the [tomato-potato psyllid](#) (*Bactericera cockerelli*). Even if the bacterium is not present, the psyllid is a serious pest of potato. This psyllid is absent from Europe.
- In Europe strains of Lso present are normally found on celery or carrot and the vectors that spread the disease are native psyllids (*Bactericera* and *Trioza* species) that do not normally feed on potato. There is no effective vector into potatoes present in Europe.
- The disease in the haulm is difficult to distinguish from other diseases affecting potato. Symptoms include **stunting, scorching, chlorosis and purpling of foliage, upward rolling** and the **production of aerial tubers** (Figure 2).
- Symptoms in tubers are more distinctive. Infected tubers often have **brown or pink coloured collapsed stolons**. When cut open, the classic brown streaking symptoms can be seen (Figure 4), although in raw potatoes such symptoms can be **indistinct or absent**.
- Symptoms are much more apparent in **fried potato** tubers (Figure 1). This irregular dark brown streaking of tuber tissue gives rise to the name **‘zebra chip’**.

**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](mailto:planthealth.info@apha.gov.uk)

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

**For Scotland, contact your local RPID officer:**

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

Email: [potatoexports@sasa.gov.scot](mailto:potatoexports@sasa.gov.scot)

**For Northern Ireland, contact DAERA Plant Health Inspection Branch:**

Tel: 0300 200 7847

Email: [planthealth@daera-ni.gov.uk](mailto:planthealth@daera-ni.gov.uk)

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