



Beet Cyst Nematode

Key Points:

- ▶ BCN can severely affect yield and losses of between 30% and 60% have been recorded in susceptible varieties.
- ▶ Sandy/black land is most at risk due to ease of nematode movement through coarse soils when wet, although BCN is found in all factory areas.
- ▶ Long rotations, greater than five years without a suitable host, is the only reliable form of BCN control.
- ▶ It is very important to test land if soil conditions, length of rotation, and host crops are conducive for BCN infestation. BCN may well go unnoticed for several cropping cycles until populations reach damaging levels.
- ▶ Limiting the cultivation of host crops (mainly beet and brassica species) will minimise reproduction of BCN.
- ▶ At the 2017 beet price of £22.00* (before any market bonus) a 30% yield reduction on a 70t/ha crop = £462/ha revenue loss if a susceptible variety is grown on BCN infested land.

* Beet price before any market bonus.

Common host plants include:

- Fodder Beet, Weed Beet, Red Beet.
- Orache, Fat-hen.
- OSR, Cabbage Species, Shepherd's Purse.

Symptoms

- Wilting yellow patches (showing drought and nutrient deficient symptoms).
- Bearded roots with immature white cysts visible on lateral roots.
- Cysts on lateral roots (differentiate from a grain of sand by squeezing and popping the cyst or using hand lens).

Yield loss

Sandy/black land is most at risk due to ease of nematode movement through coarse soils when wet.

It is important to control BCN to prevent build-up of the pest in the soil.

No current chemical control approved for BCN.

Avoid alternative host crops and weeds, lengthen rotations where possible.

Grow a tolerant variety.

Trials have shown tolerant varieties yield very well in BCN infested soil compared to susceptible varieties.

BCN life cycle



Each cyst contains more than 200 eggs and two or three generations can occur each year, resulting in very rapid population multiplication.

Importance of soil sampling

It is very important to test land if soil conditions, length of rotation, and host crops are conducive to BCN infestation:

- Sampling results give information on the concentration of BCN infection which will assist in the selection of a suitable BCN tolerant beet variety.
- Cost-effective considering potential yield losses (sampling and analysis costs between £45 and £60 per sample).

