

Sclerotinia and white blister rust

Sclerotinia (SC)

- Summary** SC, also known as watery soft rot, is a fungal pathogen with a wide range of hosts including all brassicas. Infection occurs from air-borne spores or from over-wintering sclerotia (dormant survival spores) in the soil.
- Identification** SC is characterised by a soft watery rot of stems and bulbs. It produces extensive white mycelium under humid, wet conditions, and black overwintering sclerotia develop on and in the diseased tissue.
- Importance** In many crops, only scattered infected plants are seen. But SC can build up in areas where consecutive susceptible crops are used.
- Spread** Sclerotia can survive in the soil for up to 20 years, and spread by physical contact with infected tissues. Thus patches of infection can occur in dense moist crops. Sclerotia are often the same size and shape as brassica seeds, so contaminated lines can account for introduction into a crop.
- Prevention and management** Sowing certified disease free seed along with good crop rotations minimises SC. Good cultivation is also essential, to ensure that crop debris is broken down and out of the planting zone when re-sowing into crop.



Watery soft rot/sclerotinia on swedes.



Sclerotia in kale stems.

White blister rust (WBR)

- Summary** WBR is a common fungal disease of weed brassicas that can spread to crops, caused by the fungus *Albugo candida*.
- Identification** White blisters form on the underside of leaves that produce white spores. Chlorotic spots occur on the upper leaf surface. Infection of the seed stalk and head produces twisting and swelling (called “stag’s head”). Leaf infection can often be found in association with downy mildew (see page 144).
- Importance** WBR is uncommon in leafy turnips.
- Spread** Spores are readily airborne, with cool wet conditions favouring WBR development. Seedlings are particularly susceptible. WBR over-winters on volunteers and weeds.
- Prevention and management** Sowing certified seed minimises infection, while keeping weed populations in check (especially shepherd’s purse) is extremely beneficial. If young crops are infected, a light grazing may be considered to reduce infection.



WBR symptoms on underside of turnip leaf.