

Pear Branch Canker and Dieback

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Symptoms

- Dieback: progressive death of twigs and branches which generally starts at the tips (Fig 1A).
- Canker: localized dead (necrotic) area on branches or trunks (Fig 1B,C).
- Sunken or discolored lesions around old pruning wounds (Fig 2).
- Reddish-brown canker with margins separated from healthy tissue (Fig 1, 2, 3)
- Cankered tissues can extend to main branches and the trunk (Fig 3).
- Sometimes, dieback can start with fire blight (*Erwinia amylovora*) or typical sunburn on green shoots and progress into branches.

Causal Agents

Pear branch canker and dieback is associated with several fungal species, including:

- Diplodia malorum
- Diplodia mutila
- Diplodia seriata
- Dothiorella iberica
- Kalmusia variispora
- Eutypa lata
- Neofusicoccum parvum

Current Management

- Prune dead branches to remove spore-forming structures (pycnidia) of fungal pathogens .
- Sanitation of equipment between each tree during pruning will reduce the spread of fungal pathogens.
- Prior to cutting/pruning, remove organic debris off equipment (hand and power tools used for cutting (e.g. pruning shear, chainsaws), then spray or wipe with either Lysol® or 70% ethanol. Clorox® bleach diluted to 5% may be used.
- Never use disinfectants on pruning wounds, as they could be phytotoxic.
- Treat pruning wounds with registered (synthetic or biofungicides) to prevent secondary infection.



Figure 1. Pear Branch Canker and Dieback symptoms. A, dieback on pear tree. B, Sunken canker on pruning wound . C, Reddish-brown canker under the bark.



Figure 2. Necrotic tissue on pruning wound.



Figure 3. Canker on the main branches of pear trees.