

DUTCH ELM DISEASE (*Ophiostoma ulmi*)**Refer to:**

Table 2; Group 2 (Page 61)

Monitoring Season

All season (April – October)

Control Season

Periodic for non-pesticide control activity

Rating

Pathogen; eventually fatal to host if left untreated

Hosts and Damage

- All species of elm
- Dutch elm disease (DED) can kill a mature elm tree in one season

Damage and Hosts

- Fungus affecting *Ulmus* species transmitted by elm bark beetles
- A deadly fungus that can kill a mature tree in one season
- DED is currently not found in this area; pruning restrictions apply

Physical Characteristics

- Primary symptoms include loss of water conducting ability
- Secondary symptoms include leaf wilting and browning early in the season
- Yellowing and defoliation in summer and branch death
- All branches may die within a few weeks or over several years

Biology

- Beetles are attracted to the scent of dead wood
- Infection begins when leaves reach full size
- Preventative pruning in the winter season from October 1 to March 31
- Disinfect tools after each cut; material must be buried or burnt

Why Manage

- Government mandate
- Control spread to private property
- Control spread from private property using enforcement
- To maintain native species balance and variety (biodiversity)

Monitoring Procedures (Not currently found in the Red Deer area)

- Pre-control monitoring
- Post-control monitoring
- Spot checking

Control Procedures (Eradicate)

- Physical/mechanical: Preventative deadwood pruning October 1 to March 31
- Pesticide: None used at present
- Biological: None used at present



A*



B



C*



D*

A) American Elm tree showing DED 'yellow flagging' symptoms. B) Educating the public is crucial in preventing the spread of DED. C) Details of a flagged branch in the summer timeframe. D) Infection spreads to the rest of the tree increasing branch dieback and eventual tree mortality. Important Note: Photographs A*, C* and D* indicate flagging that is similar to DED (for illustrative purposes only); there is currently no DED present in Red Deer.