

#### **Center for Smart Agriculture**

**High value Cut flowers** 



Module 2: Dutch Rose Cultivation

Session 8: Identification and Management of

Disease in Dutch Rose



#### **Identification Powdery Mildew**

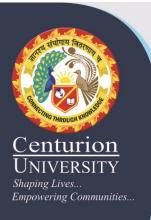
- The infected leaves show grayish powdery fungal growth
- Rolling of leaf margins with the onset of sprouting season
- Affected leaves become curled and distorted
- Badly infected flower buds fail to open
- Infected floral parts become discoloured, dwarfed and dried



# **Powdery Mildew in Dutch Rose**

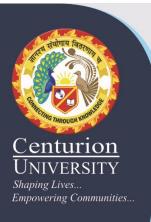






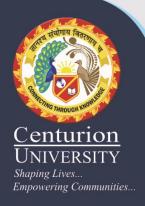
#### **Management of Powdery Mildew**

- Collect and destroy infected plant debris
- Four sprays with wettable S@0.3% or carbendazim@0.1% or Dinocap@0.1% at10 days interval
- karathane @0.05% or topsin-M @ 0.1%, or bavistin @0.1%, or sulphur 80WP @0.1%



## **Identification of Black spot**

- Dark brown tar coloured spots with fringed borders
- Spots coalesce forming large patches
- Infected leaves turn brown and defoliate
- Fungus may also attack stems and flowers of rose bushes



# **Black spot in Dutchrose**







## **Management of Black Spot**

- Affected parts should be collected and destroyed
- Spray Tridemorph @0.025% or benomyl @0.1% at weekly intervals starting with the sprouting of the plants till new foliage appears.
- Shade and extensive irrigation should be avoided.



#### **Identification of Dieback**

- Infection starts from the pruned surface of the twigs.
- The infected portion become brown to dark brown or black
- Infected twig dries from tip downwards
- Infection spreads from twig to main stem and roots and finally whole plant is killed
- Older plants and neglected bushes are more frequently attacked



#### **Dieback in Dutchrose**







#### **Management of Dieback**

- Diseased twigs should be carefully removed and destroyed
- After pruning the cut end should be protected with chaubattia paste
- Spray Difolatan@0.2% or mancozeb@0.2% or Chlorothalonil@0.2% in early September and late October



# THANK YOU