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# Center for Smart Agriculture

## High value Cut flowers



**Module 2: Dutch Rose Cultivation**  
**Session 8: Identification and Management of  
Disease in Dutch Rose**



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## 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



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# Powdery Mildew in Dutch Rose





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## 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% at 10 days interval
- karathane @0.05% or topsin-M @ 0.1%, or bavistin @0.1%, or sulphur 80WP @0.1%



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## 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



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# Black spot in Dutchrose





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## 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.



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## 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





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# Dieback in Dutchrose





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## 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



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**THANK YOU**