

DISEASE CONTROL RECOMMENDATIONS FOR TULIPS

Disease Control Recommendations For

# Tulips

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## DISEASE CONTROL RECOMMENDATIONS FOR TULIPS

Disease	Causal Agent	Fungicide*	Timing
Virus—transmitted by aphids	Tulip Breaking Virus Cucumber Mosaic Virus	FIELD—Spray for aphid control with insecticide or oil	Begin at flowering when aphids appear and repeat weekly.
		BULBS—Fumigate in storage with methyl bromide or dust with an aphicide	Storage
Virus—transmitted by nematodes	Tobacco Ringspot Virus Tobacco Rattle Virus	SOIL—Fumigate with DD, Telone, methyl bromide, or chloropicrin	According to label
Virus—transmitted by fungus (Olpidium)	Tobacco Necrosis Virus	SOIL—Fumigate with methyl bromide or chloropicrin	According to label
Botrytis Blight (Fire)	<i>Botrytis tulipae</i>	FIELD—Spray mancozeb or zineb	Every 10-14 days beginning when 3 inches high
		BULBS—Dip in benomyl	Dip as soon as dug
		GREENHOUSE—Fumigate with Exotherm or Termil	Fumigate as soon as disease is observed
Bulb or Stem Nematode	<i>Ditylenchus dipsaci</i>	SOIL—Fumigate with DD, methyl bromide, chloropicrin, or apply Nematicur over bulbs in furrow at time of planting	Follow manufacturer's recommendations
Nematode		BULBS—Consult your local specialist for latest recommendations	
Topple	Calcium deficiency in greenhouse	SOIL—Water with 0.06% calcium nitrate solution regularly CUT FLOWERS—Place in 1% calcium nitrate solution for 12 hours before shipping	
Pythium Root and Bulb Rot	<i>Pythium ultimum</i> and other species	GREENHOUSE—Fumigate with methyl bromide or chloropicrin	
Root Rot	<i>Phytophthora</i> spp.	SOIL—Steam sterilize or fumigate with methyl bromide or chloropicrin. Bulb cellars, benches, etc., disinfect with formalin. Add 1 gallon of formalin (37%) to 9 gallons of water	Whenever possible
Blue Mold	<i>Penicillium</i> spp.	BULBS—Use Benlate*, Mertect**, or Busan 72 dip	Before precooling or planting
Basal Rot	<i>Fusarium oxysporum</i> sp. <i>tulipae</i>	BULBS—Dip in Benlate**, Mertect**, or Busan	Within 48 hours after early digging
Crown Rot	<i>Corticium rolfsii</i>	SHED, FLATS, ETC.—Dip or spray with formalin. Add 1 gallon of formalin (37%) to 9 gallons of water	During off season
		BULBS—Dust or spray with PCNB (Terraclor)	Before planting
		SOIL—Fumigate with methyl bromide or dust over bulbs in furrow with PCNB (Terraclor)	
Black Slime	<i>Sclerotinia bulborum</i>	As for Crown Rot	
Gray Bulb Rot	<i>Rhizoctonia tuliparum</i>	As for Crown Rot	

\*Follow manufacturer's recommendations on rates, etc., listed on label.

\*\* Do not use repeated applications of benzimidazole fungicides (benomyl, TBZ, thiophanate). Alternate with other fungicides or use tank mixtures with other fungicides. This should help to avoid buildup of strains of the fungus resistant to these materials.