



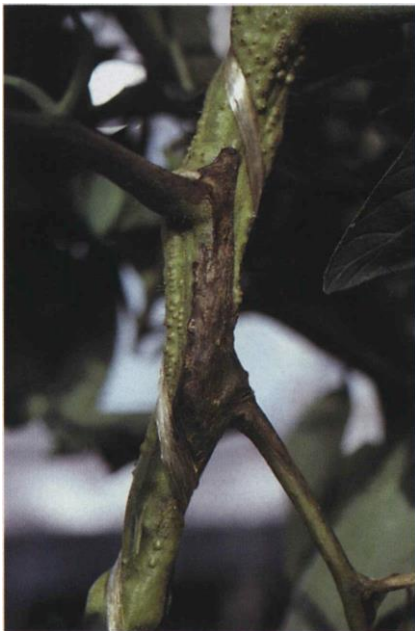
25.1 Bacterial canker; wilted plants; see also 18.1a-c.



25.3 Bacterial stem rot; petiole and leaf symptoms.



**25.4a** Pith necrosis; plant, showing chlorosis and wilt.



**25.4b** Pith necrosis; brown lesion on stem, often with many adventitious roots.



**25.4c** Pith necrosis; discoloration and collapse of pith tissues.



**25.5** Stem necrosis; stem lesion, internal discoloration.



**25.6a** Corky root; lesions on roots.



**25.6b** Corky root; corky lesion showing splits in surface tissue.



**25.7** Damping-off; affected seedlings.





25.8 *Didymella* stem canker; lesion on stem near soil line.



25.9a Early blight; "target spot" leaf lesions; see also 18.8.



25.9b Early blight (left) and septoria leaf spot (right); typical leaf symptoms.



**25.10a** Fusarium crown and root rot; basal stem canker.



**25.10b** Fusarium crown and root rot; internal browning of lower stem.



**25.10c** Fusarium crown and root rot; fruit rot caused by *Fusarium oxysporum* f. sp. *radicis-lycopersici*.



**25.10d** Fusarium crown and root rot; internal fruit rot.



**25.11a** Fusarium wilt; wilted plant, showing chlorotic leaves.



**25.11b** Fusarium wilt; wilted plant.

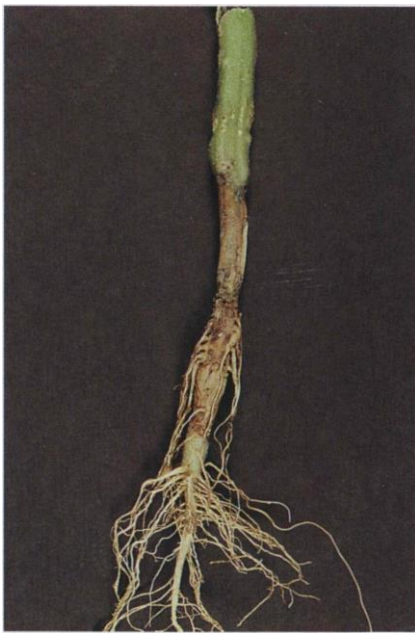


**25.11c** Fusarium wilt; brown vascular discoloration in stem.





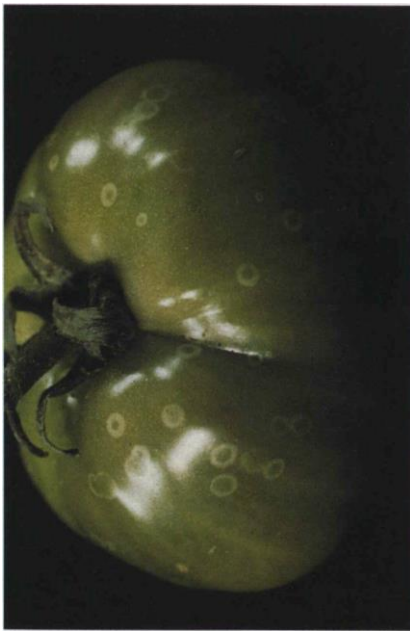
**25.12a** Gray mold; stem canker with sporulating *Botrytis cinerea*.



**25.12b** Gray mold; basal stem canker.



*25.12c* Gray mold; severely affected plants.



*25.12d* Gray mold; ghost spots on a green fruit; see also *18.11b*.



**25.13a** Late blight; leaf and fruit lesions.



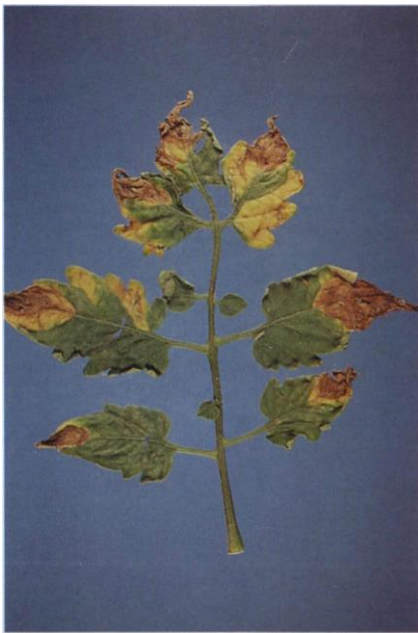
**25.13b** Late blight; fruit rot.



**25.14** Leaf mold; lesions on underside of leaf.



**25.15** Septoria blight; blighted tomato seedlings; see also 18.13.



**25.16a** Verticillium wilt; leaf chlorosis and dieback.



**25.16b** Verticillium wilt; wilted tomato plant.



**25.18a** Cucumber mosaic; severe "shoestring" symptom; leaf blade is reduced or absent; see also 18.18a.

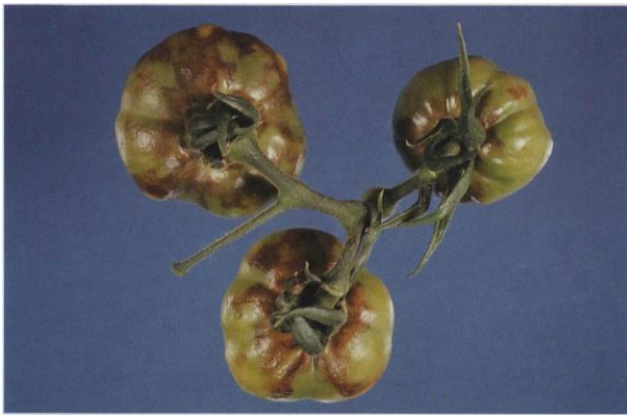


**25.18b** Cucumber mosaic; mosaic symptoms on leaf.





**25.19a** Double streak; brown streaks on stem infected by potato virus X and tomato mosaic virus.



**25.19b** Double streak; dark lesions on fruit.



**25.21a** Tomato mosaic; stunted growth and pale-colored foliage.



**25.21b** Tomato mosaic; mosaic symptoms on leaves; see also 18.18a.



**25.21c** Tomato mosaic; infected plants (between tall, healthy ones) are stunted and have small, fern-like leaves.



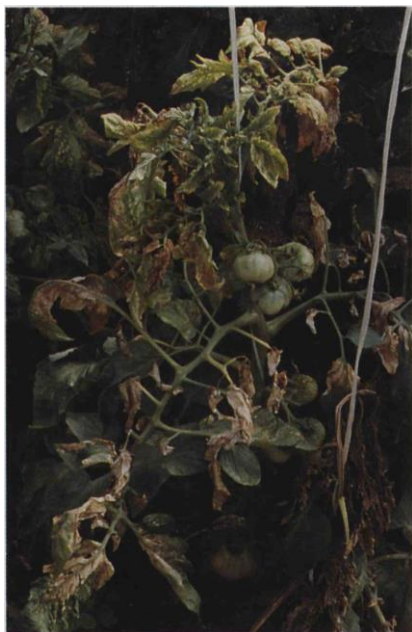
**25.21d** Tomato mosaic; internal and external symptoms on fruit.



**25.21e** Tomato mosaic; severely affected (right) and healthy fruit.



**25.22a** Tomato spotted wilt; foliar chlorosis and necrosis.



**25.22b** Tomato spotted wilt; severe foliar symptoms (leaf bronzing).

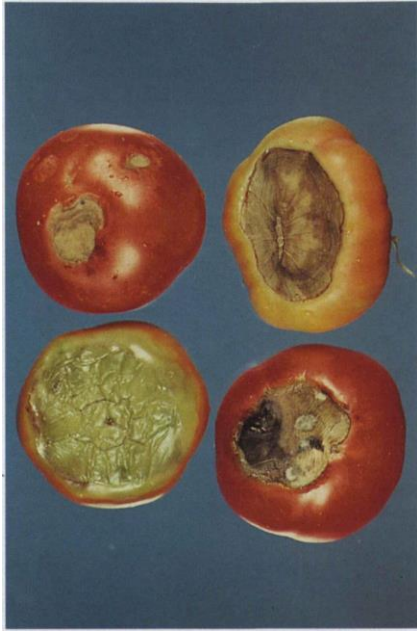


**25.22c** Tomato spotted wilt; discoloration of ripening fruit.



**25.22d** Tomato spotted wilt; blemished fruit of cultivar Jumbo.





25.23 Blossom-end rot; affected fruit.



25.24a Magnesium deficiency; leaf symptoms; note upward cupping of margin.





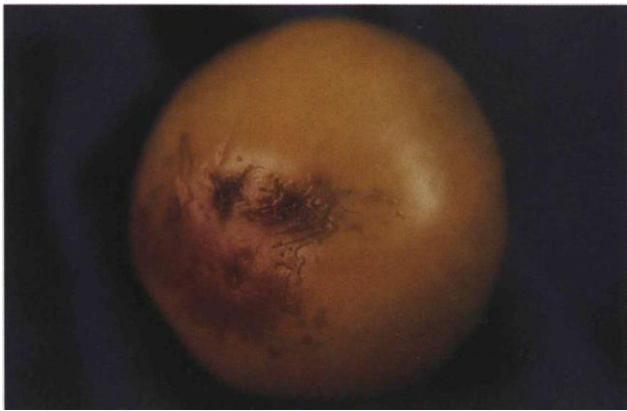
**25.24b** Magnesium deficiency; severe symptoms; veins, margins remain green.



**25.25a** Blotchy ripening; moderately severe symptoms; see also 18.22.



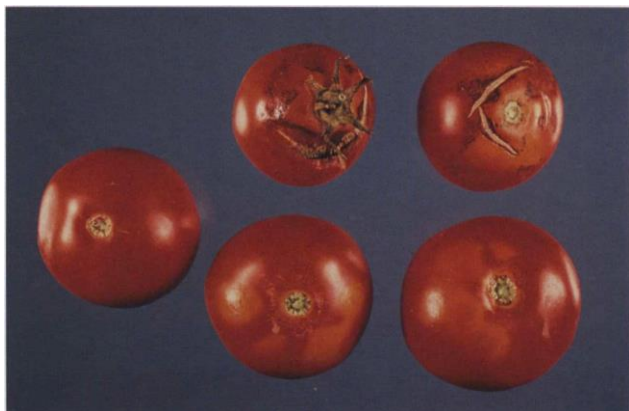
**25.25b** Edema; blistered areas on underside of leaf.



**25.25c** Edema; blisters on blossom-end of fruit.



**25.25d** Edema; on ripe fruit.



25.25e Growth cracks; healthy and affected fruit.



25.26 Root-knot nematodes; southern (left) and northern (right); note larger galls on plant at left.



25.27a Greenhouse whitefly; infested leaf.



**25.27b** Greenhouse whitefly; adult; length  $\pm$  1.5 mm.

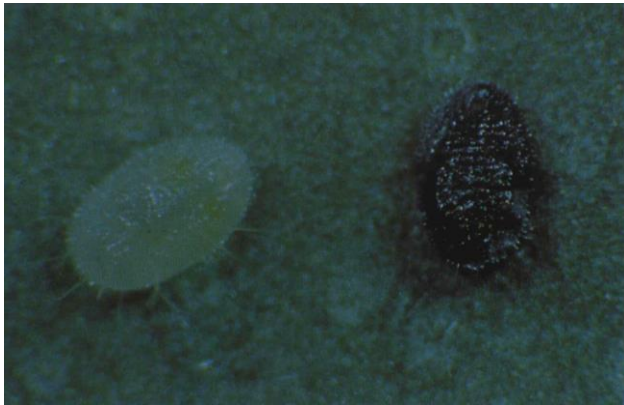


**25.27c** Greenhouse whitefly; eggs.

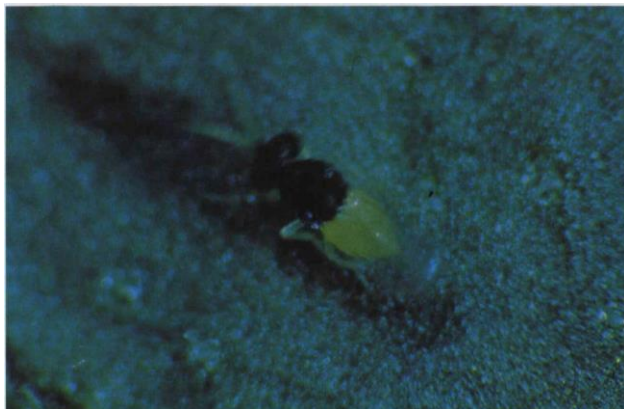


**25.27d** Greenhouse whitefly; immature (nymphal and pupal) stages.





25.27e Greenhouse whitefly; pupae, parasitized by *Encarsia formosa* (black), non-parasitized (white).



25.27f *Encarsia formosa*, adult; a parasite of the greenhouse whitefly.



25.27g Black sooty mold growing on honeydew produced by greenhouse whitefly.





**25.28a** Chrysanthemum leafminer; adults feeding, and egg-laying scars.



**25.28b** Chrysanthemum leafminer; infested (mined) leaves.



**25.28c** Chrysanthemum leafminer; damaged tomato leaf.



**25.28d** Chrysanthemum leafminer; adult fly; length  $\pm 2.5$  mm.



**25.28e** Braconid wasp; a leafminer parasite resting on a mined leaf; note leaf mine with frass (dark line).



25.29 Western flower thrips; adult; length 1-2 mm.



25.32 Two-spotted spider mite; summer phase (below), and its predator *P. persimilis*.



25.31 Tomato russet mite; leaf damage.



26.1 Brown blotch; yellow to brown discoloration of caps.



26.2 Mummy; mushrooms dwarfed with slightly curved stem, tilted cap, and mycelial overgrowth of swollen base.