# Contents

# **UNIT-1: Field Crops**

# 1. Wheat 9-31

1. Rust: The Rust Fungi, (a) Brown or Leaf or Orange rust—Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Importance, Control/Management, (b) Stripe or Yellow—Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management, (c) Stem or Black Rust—Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management, 2. Loose Smut: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control Management, 3. Karnal Bunt: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management, 4. Powdery Mildew: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management, 5. Alternaria Blight: Symptoms, Causal Organism, Disease Cycle, Favourable Conditions, Detection and Inspection Methods, Control/Management, 6. Ear Cockle: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management.

## 2. Sugarcane

32-44

1. Red Rot: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Importance, Control/Management, 2. Smut: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management, 3. Wilt: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management, 4. Grassy Shoot: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management, 5. Ratoon Stunting: Symptoms, Causal Organism, Disease Cycle, Control/Management, 6. Pokkah Boeng: 1. Cholorotic Phase, 2. Acute Phase or Top-Rot Phase, 3. Knife-cut Phase, Causal Organism, Favourable Conditions, Control/Management.

# 3. Sunflower

45-52

1. Sclerotina Stem Rot: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management, 2. Alternaria Blight: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management.

#### 4. Mustard

53-59

1. Alternaria Blight: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management, 2. White Rust: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management, 3. Downy Mildew: Symptoms, Causal Organism, Favourable Conditions,

Disease Cycle, Control/Management, **4. Sclerotinia Stem Rot**: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management.

#### 5. Gram 60-63

1. Wilt: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management, 2. Grey Mould: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management, 3. Ascochyta Blight: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management.

#### 6. Lentil 64-70

1. Rust: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management, 2. Wilt: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management.

#### 7. Cotton 71-77

1. Anthracnose: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management, 2. Vascular Wilt: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management, 3. Verticillium Wilt: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management, 4. Black Arm or Bacterial Blight or Angular Leaf Spot: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management.

### 8. Pea 78-83

1. Downy Mildew: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management, 2. Powder Mildew: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management, 3. Rust: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management.

# **UNIT-2: Horticultural Crops**

# 9. Mango 84-92

1. Anthracnose: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Importance, Control/Management, 2. Malformation: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management, 3. Bacterial Blight: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management, 4. Powdery Mildew: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management.

#### 10. Citrus 93-96

1. Canker: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Importance, Control/Management, 2. Gummosis or Root Rot: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management.

11. Grape Vine 97-103

1. Downy Mildew: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Importance, Control/Management, 2. Powder Mildew: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management, 3. Anthracnose or Bird's-eye Disease: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management.

12. Apple 104-112

1. Scab: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Importance, Control/Management, 2. Powder Mildew: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control Management, 3. Fire Blight: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management, 4. Crown Gall: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Control/Management.

13. Peach 113-115

1. Leaf Curl: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Importance, Control/Management.

#### 14. Strawberry

116-1119

1. Leaf Spot: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Importance, Control/Management.

15. Potato 120-132

1. Early Blight: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Importance, Control/Management, 2. Late Blight: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Importance, Control/Management, 3. Black Scurf: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Importance, Control/Management, 4. Leaf Roll: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Importance, Control/Management, 5. Mosaics: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Importance, Control/Management.

16. Cucurbits 133-140

1. Downy Mildew: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Importance, Control/Management, 2. Powdery Mildew: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Importance, Control/Management, 3. Wilt: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Importance, Control/Management.

#### 17. Onion and Garlic

141-143

1. Purple Blotch: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Importance, Control/Management, 2. Stemphylium Blight: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Importance, Control/Management.

18. Chillies 144-149

1. Anthracnose: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Importance, Control/Management, 2. Fruit Rot: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Importance, Control/Management, 3. Wilt: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Importance, Control/Management, 4. Leaf Curl: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Importance, Control/Management.

19. Turmeric 150-151

Leaf Spot: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Importance, Control/Management.

20. Coriander 152-153

**Stem Gall:** Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Importance, Control/Management.

21. Marigold 154-156

**Botrytis Blight :** Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Importance, Control/Management.

22. Rose 157-160

1. Dieback: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Importance, Control/Management, 2. Powdery Mildew: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Importance, Control/Management, 3. Black Leaf Spot: Symptoms, Causal Organism, Favourable Conditions, Disease Cycle, Importance, Control/Management.