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Isometric Viruses; VIII. Enveloped Viruses; IX. Assembly of Icosahedral Viruses; X. Discussion and Summary; Chapter 6. Genome Organization; I. Introduction
II. General Properties of Plant Viral Genomes III. Plant Viral Genome Organization; IV. Double-Stranded DNA Viruses; V. Single-Stranded DNA Viruses; VI. Double-Stranded RNA Viruses; VII. Negative-Sense Single-Stranded RNA Genomes; VIII. Positive-Sense Single-Stranded RNA Genomes; IX. Summary and Discussion; Chapter 7. Expression of Viral Genomes; I. Introduction; II. Virus Entry and Uncoating; III. Viral Genome Expression; IV. Synthesis of mRNAs; V. Plant Viral Genome Strategies; VI. Discussion; Chapter 8. Virus Replication; I. Introduction; II. Host Functions Used by Plant Viruses
III. Methods for Studying Viral Replication IV. Replication of Positive-Sense Single-Stranded RNA Viruses; V. Replication of Negative-Sense Single-Stranded RNA Viruses; VI. Replication of Double-Stranded RNA Viruses; VII. Replication of Reverse Transcribing Viruses; VIII. Replication of Single-Stranded DNA Viruses; IX. Mutation and Recombination; X. Mixed Virus Assembly; XI. Discussion; Chapter 9. Induction of Disease 1: Virus Movement through the Plant and Effects on Plant Metabolism; I. Introduction; II. Movement and Final Distribution; III. Effects on Plant Metabolism
IV. Processes Involved in Symptom Induction V. Discussion; Chapter 10. Induction of Disease 2: Virus-Plant Interactions; I. Introduction; II. Definitions and Terminology of Host Responses to Inoculation; III. Steps in the Induction of Disease; IV. Inherent Host Response; V. Influence of Other Agents; VI. Discussion and Summary; Chapter 11. Transmission 1: By Invertebrates, Nematodes and Fungi; I. Introduction; II. Transmission by Invertebrates; III. Aphids (Aphididae); IV. Leafhoppers and Planthoppers (Auchenorrhyncha); V. Whiteflies (Aleyrodidae); VI. Thrips (Thysanoptera)
VII. Other Sucking and Piercing Vector Groups

Sommario/riassunto

It has been ten years since the publication of the third edition of this seminal text on plant virology, during which there has been an explosion of conceptual and factual advances. The fourth edition updates and revises many details of the previous edition, while retaining the important older results that constitute the field's conceptual foundation. Key features of the fourth edition include:*

- Thumbnail sketches of each genera and family groups*
- Genome maps of all genera for which they are known*
- Genetic engineered resistance strategies for virus disease control*
- Latest
