## Rye - Genetics, Breeding & Cultivation, 1st ed.

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Chapter 1 Introduction

Chapter 2 Botany

Origin, Taxonomy and Cytotaxonomy, Gross Morphology, Root System, Seeds, Flowering, Fertilization, and Apomixis, Rye Genebanks and Collections

Chapter 3 Physiology

Life Cycle, Cold Tolerance, Drought Tolerance, Nutrition, In Vitro Behavior, Preharvest Sprouting, Vernalization

Chapter 4 Cytology

Genome Structure, Chromosome Number, Karyotype and Homeology, Chromosome Pairing, Sporogenesis, Primary Aneuploids, Reciprocal Translocations, Genetic Donor for Other Crops

Chapter 5 Genetics

Nomenclature and Designation of Genes, Chromosomal and/or Regional Localization of Genes, Linkages, QTL Mapping, Physical Mapping, Comparative Mapping, Gene Regulation, DNA and Gene Transfer, Glutenin

Chapter 6 Cytoplasm

Cytoplasmic Male Sterility, and Restorer — Cytoplasm, Alloplasmic Rye

Chapter 7 Breeding

Diploid Rye, Tetraploid Rye, Dual-Purpose Rye, Breeding Activities, Varieties, and Institutions Worldwide Chapter 8 Rye Cropping

No-Till Rye, Seeding, Diseases, Susceptibility, and Resistance, Growth Regulators, Incorporation in Crop Rotation, Allelopathic Effects, Volunteering, and Allergenic Pollen

Chapter 9 Utilization

Nutritional Value, Feeding, Bread Making, Biomass and Biogas Production, Catch Crop, Ethanol Production, Other Uses

**Epilogue** 

References