1. Record Nr. UNINA9910789390003321

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Titolo Seeds: ecology, biogeography, and evolution of dormancy and

germination / / Carol C. Baskin Jerry M. Baskin

Pubbl/distr/stampa London, England:,: Academic Press,, [2014]

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ISBN 0-12-416683-0

Edizione [Second edition.]

Descrizione fisica 1 online resource (1601 p.)

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Disciplina 575.6/8

Soggetti Seeds - Dormancy

Germination

Llavors - Dormició

Germinació

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Note generali Description based upon print version of record.

Nota di bibliografia Includes bibliographical references and indexes.

Nota di contenuto Front Cover; Seeds: Ecology, Biogeography, and Evolution of Dormancy

and Germination; Copyright Page; Contents; Preface to the Second

Edition; Preface to First Edition; 1 Introduction; Purpose; Seed Germination Ecology; A Book on Seed Dormancy and Germination from

a Different Perspective; Need; Content; 2 Ecologically Meaningful

Germination Studies; Purpose; Definition of Seed Dormancy; Guidelines for Laboratory Studies on Germination Ecology; Collect Seeds at Maturity; Check Seeds for Presence of Embryo; Test and Use Seeds

Immediately after Harvesting; Check for Imbibition of Water

Use Intact Natural Dispersal UnitsReplications; Statistical Analyses; Petri

Dishes; Substrate; Placement of Seeds on/in Substrate; Water; pH; Disinfectants and Fungicides; Constant vs. Alternating Temperature Regimes; Light and Darkness; Store Seeds under Natural or Simulated Habitat Conditions; Test Seeds Frequently; Percentages and Rates of Germination; Very Fast Germinating Species; Length of Germination Test Period; Test Viability of Nongerminated Seeds; Germinating Seeds

You Know Nothing About: 3 Types of Seeds and Kinds of Seed

Dormancy; Purpose; Types of Seeds

Classification of Seed DormancyHierarchical Classification System:

Nikolaeva's Formula System: Dichotomous Key for Seed Dormancy: Overview of Classes of Seed Dormancy: Physiological Dormancy: Abscisic Acid and Development of Dormancy; Nondeep Physiological Dormancy (PD): Description; Nondeep Physiological Dormancy: Causes; Intermediate Physiological Dormancy; Deep Physiological Dormancy; Epicotyl Physiological Dormancy; Chemical Dormancy, a Part of Physiological Dormancy; Mechanical Dormancy, a Part of Physiological Dormancy; Morphological Dormancy New Plant Comes from a Differentiated, Underdeveloped EmbryoNew Plant Comes from an Undifferentiated Embryo; Morphophysiological Dormancy; New Plant Comes from a Differentiated, Underdeveloped Embryo; Differentiated, Underdeveloped Embryos: A Special Case with Palms; Undifferentiated Embryos that Develop into Differentiated Embryos; New Plant Comes from an Undifferentiated Embryo; Physical Dormancy: Physical Plus Physiological Dormancy: 4 Germination Ecology of Seeds with Nondeep Physiological Dormancy; Purpose; Discovery of Dormancy Cycles; Changes in the State of Dormancy The Dormancy ContinuumEnvironmental Factors Causing Changes in Dormancy States; Temperature; Dormancy Loss at High Temperatures; Dormancy Loss at Low Temperatures; Models Related to Changes in Dormancy State and Temperature: Darkness: Light: Gases: Water:

Hydrothermal Time Model and Germination; Inorganic Chemicals; Organic Chemicals; 5 Germination Ecology of Seeds with Morphophysiological Dormancy; Purpose; Levels of Morphophysiological Dormancy; Nondeep Simple Morphophysiological Dormancy; Intermediate Simple Morphophysiological Dormancy; Deep Simple Morphophysiological Dormancy

Deep Simple Epicotyl Morphophysiological Dormancy

Sommario/riassunto

The new edition of Seeds contains new information on many topics discussed in the first edition, such as fruit/seed heteromorphism, breaking of physical dormancy and effects of inbreeding depression on germination. New topics have been added to each chapter, including dichotomous keys to types of seeds and kinds of dormancy; a hierarchical dormancy classification system; role of seed banks in restoration of plant communities; and seed germination in relation to parental effects, pollen competition, local adaption, climate change and karrikinolide in smoke from burning plants. <p