

ASYMMETRY IN PLANTS

Plants exhibit forms of asymmetry analogous to "handedness" in bilaterally symmetrical animals. This book explores the evolutionary significance and development of asymmetry. Examples of genetic control include the direction of tendril or stem coiling of many climbing plants; the so-called spiral phyllotaxy and floral taxy; and contorted petal arrangement is another kind of left-right symmetry in plants; the direction of contortion is fixed in some but not in other plants. Many plants show the Fibonacci numbers in the arrangement of the leaves around the stem. The book underscores that all phenomena related to handedness start during embryogenesis itself, coincident with the occurrence of embryo rotation.

Key Features:

- First consolidated book on plant asymmetry.
- Relates handedness, asymmetry and chirality to the evolution of different organizational levels in plant biology.
- Emphasizes asymmetry as a vital governing force in plant functional evolution.
- Provides a new perspective, hitherto ignored, into plant development and evolution.
- Describes how an age-old phenomenon can give scope for investigation using a modern interdisciplinary approach.

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