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# Flower Bud Development in Some Varieties of Tulip

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each of which lays down a series of leaf primordia. Each growing point becomes encircled by its laterally overlapping young leaves. The procambium strands of the two young axes converge into the stele of the mesocotyl (first internode), which is common to the two potential stems.

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## FLOWER BUD DEVELOPMENT IN SOME VARIETIES OF TULIP

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A study is being made of the time of initiation and development of the flower bud in three classes of tulips. All floral organs are present in November. The flower bud is twice as large in the earliest (Mendel) class than in the latest (Darwin) class, but the cytological condition in the anthers and ovules is strikingly similar; pollen is in the late quartet to early microspore stage, ovules are very small primordia with no evidence of integuments or megaporocyte. Expansion of flower bud size is in proportion to earliness, pollen development is virtually parallel, and megagamentophyte development is slightly more rapid in the earliest class.

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## PHOTOPERIODIC AND LIGHT INTENSITY EFFECTS ON EXTERNAL STRUCTURES OF CERTAIN MEMBERS OF THE SOLANACEAE

MILDRED NELSON

Plants grown (*Capsicum frutescens, Salvia splendens, Lycopersicon pimpinellifolium, Lycopersicon esculentum*) show some striking differences when compared with control plants grown under normal conditions. Some of these differences are: 1. Amount of vegetative foliage produced. 2. Size of vegetative shoots. 3. Rate of