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A Preliminary Report on the Developmental Anatomy of Red clover, Trifolium Pratense L. (Abstract)

H. J. Romm
Iowa State College

ARGYNNA POLYHEDRON (SCHEV.) MORGAN, AN ASCOMYCETE (ABSTRACT)

G. W. MARTIN

Although he did not see the asci, Morgan believed this species must be an Ascomycete since he felt it was impossible for the spores to be produced except in asci. Doubt has been cast on the accuracy of Morgan's description by European mycologists in spite of the fact that they had never seen the fungus, and certain American writers have accepted their decision. An additional collection from Missouri proves that Morgan was correct.

DEPARTMENT OF BOTANY,
UNIVERSITY OF IOWA,
IOWA CITY, IOWA.

A PRELIMINARY REPORT ON THE DEVELOPMENTAL ANATOMY OF RED CLOVER, *TRIFOLIUM PRATENSE* L. (ABSTRACT)

H. J. ROMM

The investigations include the anatomy of several strains of red clover grown in the corn belt.

The seed coat is of the typical legume type consisting of palisade, osteosclerid, and nutritive layers. There is a well defined light line across the palisade cells. The embryo is enclosed in endosperm consisting of two layers of cells. The endosperm swells and becomes gelatinous in water. The embryo consists of hypocotyl, cotyledons, plumular meristem and buds in the axils of the cotyledons.

The hypocotyl elongates in the seedling stage, elevating the cotyledons an inch or more; later the hypocotyl contracts, and in conjunction with the root, lowers the crown of the seedling below the surface of the soil.

The first leaf is simple and appears between five and ten days after germination. The second leaf is trifoliate and appears between ten and fifteen days after germination.

The primary root has a triarch stele and a relatively thick primary cortex; the transition zone in the hypocotyl is tetrach.

Cork cambium in the hypocotyl arises approximately twenty-five days after germination, and after thirty-five days in the root.

DEPARTMENT OF BOTANY,
IOWA STATE COLLEGE,
AMES, IOWA.