

1930

Polyembryony in Alfalfa and Sweet Clover

John R. Watt
Iowa State College

J. N. Martin
Iowa State College

Let us know how access to this document benefits you

Copyright ©1930 Iowa Academy of Science, Inc.

Follow this and additional works at: <https://scholarworks.uni.edu/pias>

Recommended Citation

Watt, John R. and Martin, J. N. (1930) "Polyembryony in Alfalfa and Sweet Clover," *Proceedings of the Iowa Academy of Science*, 37(1), 100-100.

Available at: <https://scholarworks.uni.edu/pias/vol37/iss1/19>

This Research is brought to you for free and open access by the Iowa Academy of Science at UNI ScholarWorks. It has been accepted for inclusion in Proceedings of the Iowa Academy of Science by an authorized editor of UNI ScholarWorks. For more information, please contact scholarworks@uni.edu.

cata B. & S., as reported by Savage, should appear as *P. Schimperii* R. & C.

In this and a subsequent paper ⁷ the same author reported these species, with the exception of *Pylaisia Schimperii*, as new to the state. In the former list Dr. Savage is also credited with *Rhodobryum roseum* (Weis.) Limpr., but this species, though rather common in Iowa, is found neither in his list, nor in his collection which is deposited in the Herbarium of the State University.

In a recent paper ⁶ the writer reported *Bryhnia novae-angliae* Sull. & Lesq. as new to the state. This species appears in a paper published by Miss Blagg,⁷ which was not available at the time the writer's list was sent in because of the unfortunate delay in the publication of the Proceedings of the Academy.

STATE UNIVERSITY OF IOWA,
IOWA CITY, IOWA.

POLYEMBRYONY IN ALFALFA AND SWEET CLOVER

JOHN R. WATT AND J. N. MARTIN

In the germination tests of alfalfa seed in the spring of 1930, one seed was discovered with two embryos. They were both normal in all structures, equal in size and behaved normally in germination. Multiple embryo sacs in the ovules of alfalfa are frequent, but it has been supposed that not more than one is able to mature and function. The presence of two embryos is evidence that two embryo sacs may mature and function.

In biennial white sweet clover, one ovule was found with a normal embryo and a second structure much smaller but resembling an embryo in early stage of development. The normal embryo was about two-thirds mature with cotyledons, hypocotyl, and radicle differentiated. The second embryo-like structure was borne on well defined suspensor but no parts were differentiated. It occupied a region enclosed by a membrane which was separate from but in contact on one side with the normal embryo sac. Here we have evidence of the occurrence and functioning of more than one embryo sac in sweet clover, which, like alfalfa, is also irregular in number of embryo sacs occurring in an ovule.

IOWA STATE COLLEGE,
AMES, IOWA.

⁶ Cavanagh, Lucy M. *The Bryologist*, vol. XXXII, pp. 112-113; Nov., 1929.
⁷ Blagg, Betty. *Proc. Ia. Acad. Sci.*, vol. XXXV, pp. 113-116; dated 1928, but published nearly two years later.