

Department of Botany By:
D.B. College, Jaynagar .. DR. RANTANA
L.A.M.V. DBCI. ASST. PROFESSOR
(GUEST)

Lecture No. 15

Date: 18 Sept. 2020

B.Sc PART I

CORE CONCEPT OF BRYOPHYTA

Capsule of Sphagnum: The external sterile layer derived from the amphithecium forms the capsule wall eventually composed of 3 to 7 layers of cells. The outermost layer of wall is differentiated as an epidermis, which bears many non-functional rudimentary stomata. The epidermal cells become thick-walled in the mature capsule. The cells of the capsule wall contain chlorophyll until the sporogonium is nearly mature. The foot becomes large and bulbous, but the seta does not develop further and is represented by a short neck-like connection between the foot and capsule and is commonly called the neck.

The developing sporogonium remains enclosed for a time within the lower part of

The archegonium, which also grows as the young sporogonium grows and forms the calyptra. The seta never elongates and the sporogonium remains until mature, enclosed by the calyptra and the perichaetial leaves. The function of the sun-pressed seta is taken up by a new structure, the pseudopodium. It is a leafless stalk. The dehiscence of the ripe capsule is by means of a circular slit which separates the disc shaped operculum from the capsule. The horizontal circular line of cleavage is structurally distinguished by the thin-walled cells of the capsule wall in the groove. This usually takes place in sunny days. As the sun dries the ripe capsule, the delicate capsule columella is dried up and shrivels, and is replaced by air.