

DEPARTMENT OF BOTANY BY: DR. RANJANA  
D.B. COLLEGE, JAYNAGAR. ASST. PROFESSOR  
L.N.M.U. DARBHANGA. (GUEST)

LECTURE NO. 13

DATE: 12 NOV 2020

B.Sc. (H)

PART-II

PAPER-III

STRUCTURE OF SPOROPHYTIC PLANT BODY  
OF TAXUS :-

Taxus is an evergreen. densely branched trees are claimed to be 2000 years old of medium height which is known to be long living. About 7 or 8 species are distributed all over the Northern Hemisphere. *Taxus baccata* L. is the predominant species spreading from England to Japan over the Himalaya. The leaves are dark-green 2 to 4 cm long more or less broadly linear with a short stalk-like portion. All the leaves are of one type and the shoots also are uniform. The poisonous alkaloid taxin is present in the leaves and all parts of the plant excepting the aril. When present in large quantity it may be injurious to cattle. Scaly winter buds develop on shoots for overwintering.

Anatomy: The anatomy of the ~~leaf~~ and the stem generally resembles

pinus with certain differences. In the leaf the mesophyll is differentiated into palisade and spongy parenchymatous and there is a single vascular bundle. otherwise the leaf presents the same xerophytic structures. The stem anatomy differs in having no resin duct, in the medullary rays being simpler and always uniseriate and in the cortex and the pith occupying a lesser area of the stem. The tracheïdes have uniseriate bordered and they show a tertiary spiral thickening rendering the wood more elastic. This was the reason why yew was the favourite for construction of bows among the European medieval archers. The root structure is similar to that of pinus.

Taxus is dioecious although sometimes male or female shoots are found on the same tree. The flowering shoots are borne on the underside of the shoots of the previous year at the axils of leaves.

---