

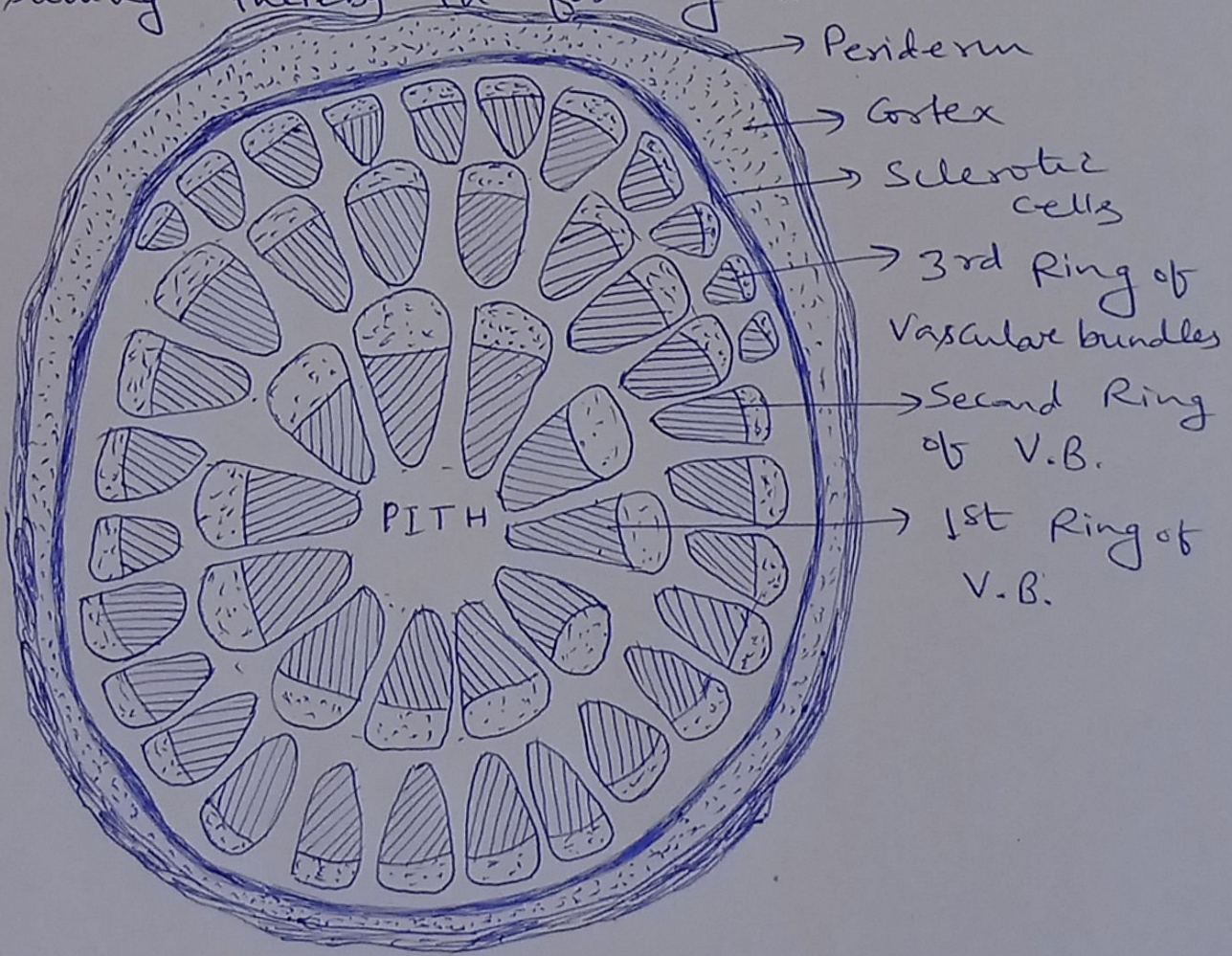
Dr. Rachana Shalini  
 Department of Botany  
 Class : Deg. II (Hons.)  
 Paper : III (Gymnosperms)  
 Topic : Gnetum (Contd.)  
 Lecture No. - 105  
 Date : 3/10/2020

• Anomalous Secondary Growth in Gnetum :

- In the climbing species of Gnetum, the cambium is short-lived, moreover, its activity all around is not similar.
- In the beginning, the secondary growth is normal, but in a later stage successive rings of cambium appear one after another in the deeper layers of cortex.
- These isolated strips of cambium cut off secondary phloem and secondary xylem. This results in the formation of wedge-shaped vascular bundles of secondary origin. Inter-vascular regions develop broad medullary rays.
- When the first ring of fascicular cambium stop functioning, the second ring of isolated strips of cambium appear in the cortex and produces a second ring of vascular bundles. Likewise, when it ceases its activity, a third ring of bundles develop external to the second ring.



- But, in all the rings, the size of secondary bundles may not be equal simply due to an uneven activity of cambial strips.
- The aforesaid process goes on indefinitely but the successive rings of bundles are incomplete resulting thereby in forming the eccentric rings.



(Fig: T.S. of Old stem of Gnetum showing eccentric secondary growth)

==