Tracheophytes (Vascular Plants)

Triaperturate pollen
Floral parts in 4s & 5s

Adult root system wholly adventitious

Loss of eustele organization, loss of 2° growth
Parallel venation in leaves

Two integuments
Loss of 2nd cotyledon
Reduced megagametophyte
Endosperm

Carpels

Angiosperms

Triaperturate pollen
Floral parts in 4s & 5s

Endosperm
Loss of 2nd cotyledon
Parallel venation in leaves
Loss of eustele organization, loss of 2° growth
Adult root system wholly adventitious
RAIMAL GROWTH IN BEAUCARNEA RECUNATA

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Abstract

An essentially unidirectional lateral expansion results in the cone-shaped form. The expansion arises from the meristem declining towards the shoot apex. It produces a concave inner surface that eventually becomes a convexity. The meristem becomes more convex as it moves outward. The rate of expansion increases as it moves outward. The rate of expansion decreases as it moves inward. The rate of expansion is constant in the meristem.

Reman, in his discussion of the growth of plants, states that the plant grows in the direction of the purest light. This is supported by the observations of Sturgeon (1954) and Ellis (1955).
PTM + STM

Secondary Thickening Meristems

Secondary Vascular Bundles

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Magnified Transverse View of the Fibrous Vascular Bundles. These are produced by the Secondary Thinning Meristems. A periderm is present on the outside of the stem.