

Topic: Gnetum; Seed Development
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Seed Development

- Gnetum seeds are oval to elongated in shape and green to red in colour.
- It remains surrounded by a three-layered envelope which encloses the embryo and the endosperm.
- Outer envelope is fleshy, and consists of parenchymatous cells.
- It imparts colour to the seed.
- The middle envelope is hard, protective and made up to three layers, i.e., outer layer of parenchymatous cells, middle of palisade cells and innermost fibrous region.
- The inner envelope is parenchymatous.
- Branched vascular bundles traverse through all the three envelopes.

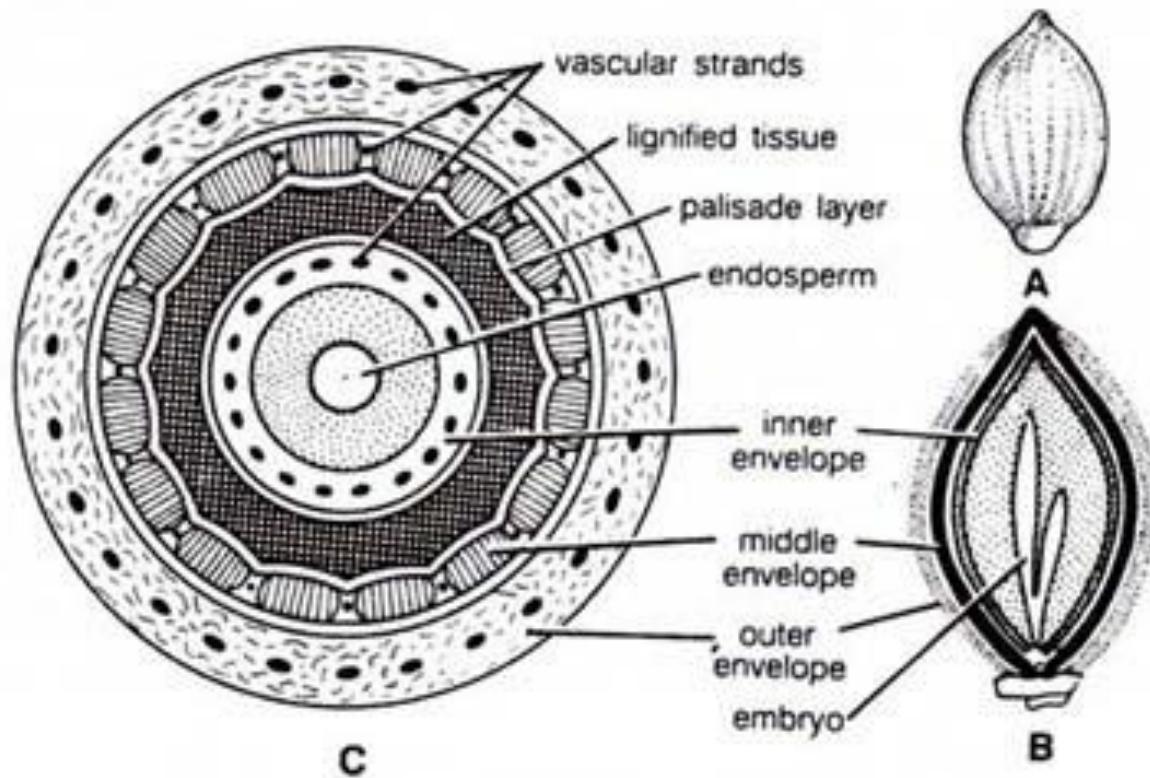


Fig. *Gnetum*. A, An entire seed; B, L.S. seed; C, T.S. seed.

Germination of Seed:

- Germination is of epigeal type.
- The cotyledons are pushed out of the seed.
- The hypocotyl elongates, and this brings the cotyledons out of the soil.
- The first green leaves of the plant are formed by the cotyledons.
- The first pair of foliage leaves is produced by the development of plumule.
- A persistent feeder is present up to a very late stage in the seed.

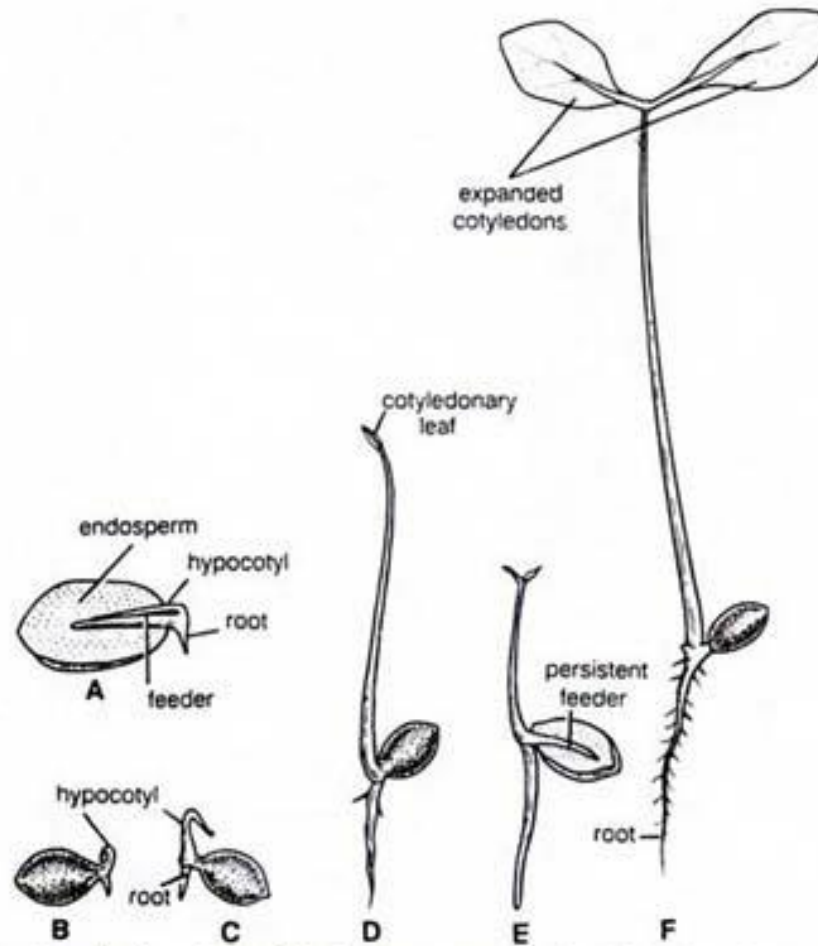


Fig. Germination of seed in *Gnetum gnemon*. (modified after Madhulata, 1960).