

Topic: Gnetum; Reproduction
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Dr. Sanjeev Kumar Vidyarthi

Department of Botany

Dr. L.K.V.D. College, Tajpur, Samastipur

L.N. Mithila University, Darbhanga

Female Cone:

- The female cones resemble with the male cones except in some definite aspects.
- A single ring of 4-10 female flowers or ovules is present just above each collar.
- Only a few of the ovules develop into mature seeds.
- In the young condition, there is hardly any external difference between female and male cones.
- All the ovules are of the same size when young but later on a few of them enlarge and develop into mature seeds.
- All the ovules never mature into seeds.

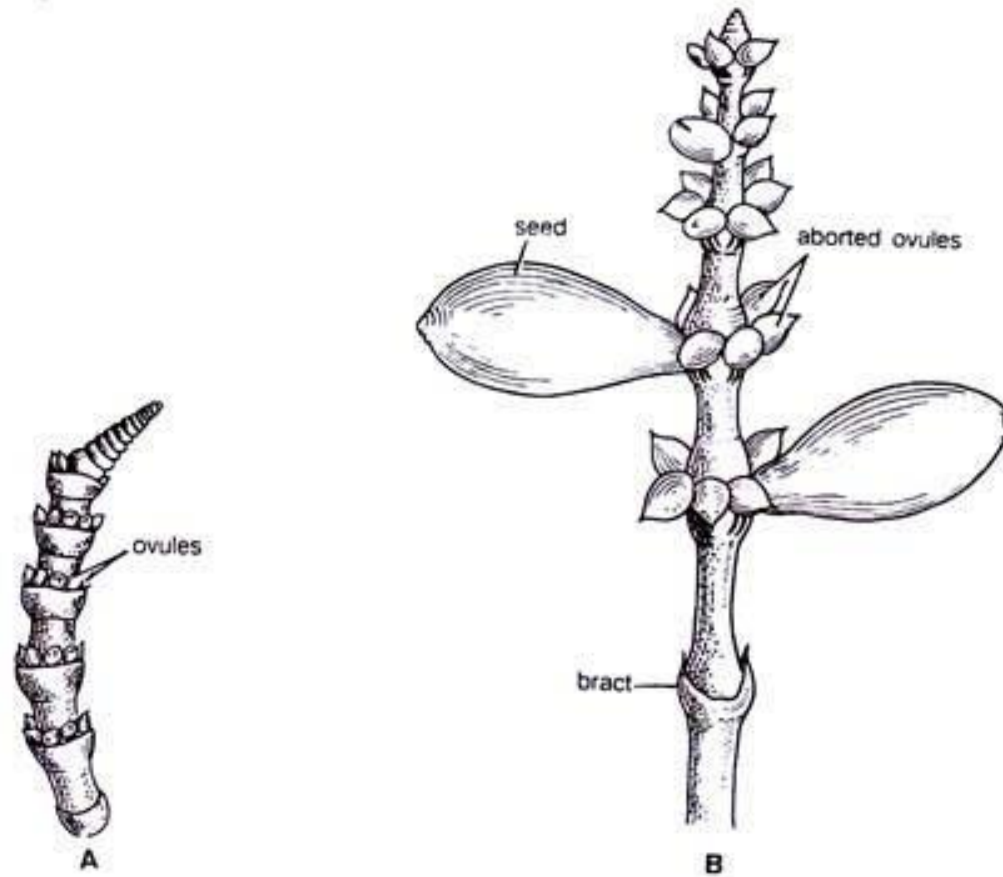


Fig. *Gnetum*. A, An old female cone of *G. ula*; B, A female cone of *G. gnemon* bearing two seeds.

Ovule or Female Flower:

- Each ovule consists of a nucellus surrounded of three envelopes.
- The nucellus consists of central mass of cells.
- The inner envelope elongates beyond the middle envelope to form the micropylar tube or style.
- The nucellus contains the female gametophyte.
- There is no nucellar beak in the ovule of *Gnetum*.
- Stomata, sclereids and laticiferous cells are present in the two outer envelopes.

Madhulata (1960) observed the formation of a circular rim from the outer epidermis of the inner integument in *G. gnemon*. Thoday (1921), however, observed the formation of a second such rim at a higher level. The ovules in *G. ula* are stalked.

