

SEED BIOLOGY

Group works on

- Morphotaxonomic studies of seeds
- Anatomical studies of seeds
- Reproductive biology of legumes and Indian Medicinal plants and multipurpose plant species (*Moringa oleifera*)
- Seed germination studies

Objectives

- Reproductive biology of Indian Medicinal plants, legumes and multipurpose plant species.
- Seed germination, dormancy and viability of legumes, Indian Medicinal plants and multipurpose plant species.

Achievements

- Reproductive biology of three fuel wood tree species i.e. *Prosopis*, *Acacia*, and *Albizia* for standard sites and two non-conventional wild species i.e. *Canavalia virosa*, *C. gladiata* and one medicinal plant species i.e. *Rauvolfia serpentina* have been worked out. Results thus obtained can be profitably utilized in obtaining increased amount of seed production and can help in the conservation and breeding programmes.
- Morphotaxonomical studies of seeds of about 150 species of eighteen genera namely *Acacia*, *Prosopis*, *Cassia*, *Dalbergia*, *Albizzia*, *Leucaena* clitoria, *Atylosia*, *Rhynchosia*, *Flemingia*, *Phaseolus*, *Dolichos*, *Medicago*, *Bauhinia*, *Lupinus*, *Verbascum Canavalia*, *Euphorbia* and *Rauvolfia*, and microanatomical variability of 14 *Cassia* and 12 *Acacia* species have been carried out. The results may be used as an additional parameter for the identification and classification of taxa at species / generic level.
- About 40 legume and 10 non-legume taxa have been studied for their germination, storage, dormancy and viability. The study will help in germplasm collection of high yielding species.

International Relevance

Some results were exchanged for comparative analysis and cited in the International Books. Seed-Morphotaxonomical studies are likely to help internationally resolving some of the existing taxonomic confusions.

Feed Back Required

National Level

Literature and reproductive biological studies related to non-conventional legumes and Indian medicinal plants are still meager; therefore, research on domestication and germplasm collection of high proteinaceous wild legumes and conservation of important Indian Medicinal plants are required.

International Level

Online database related to reproductive biology, upto date knowledge of germplasm collection and Seed Bank of non-conventional legume crops, important Indian Medicinal plants and multipurpose plant species are required.

Publications : 111