

Specific Objectives:

To make students familiar with breeding techniques and methodologies in vegetable crops.

Theory:

Objectives of vegetable breeding, Planning breeding programmes, Development of inbred lines, Combining ability, Exploitation of male sterility, Hybrid seed production, Breeding for diseases and stress resistance, Breeding of commercially important vegetables, Improvement of asexually propagated vegetables.

Practical:

Study of floral characters of self and cross-pollinated vegetables, Crossing techniques for important self and cross pollinated vegetables, Selection procedure in cultivars development, Methods of hybrid seed production.

Learning Outcomes:

Students must be skilled in different breeding techniques and their application in vegetable crops.

Books Recommended:

- Bassett, M.J. 1986. Breeding Vegetable Crops. Avi. Pub. Co. Inc., Westport, Connecticut.
- Singh, P.K, S.K. Dasgupta and S.K. Tripathi (Eds.). 2005. Hybrid Vegetable Development. CRC Press, Boca Raton, USA.
- Singh, A.P. 2003. Vegetable Breeding and Seed Production. Kalyani Publishers, New Delhi.
- Basra, A.S. 2000. Hybrid Seed Production in Vegetables. CRC Press, Boca Raton, USA.
- Ram, H.H. 2005. Vegetable Breeding, Principles and Practices. Kalyani Publisher, New Delhi.
- Peter, K. V. and T. Pradeepkumar. 2008. Genetics and Breeding of Vegetable Crops. Indian Council of Agricultural Research, New Dehli, India.
- Acquaah, G. 2012. Principles of Plant Genetics and Breeding. Blackwell publishing, Oxford, UK.
- Kumar, N. 2006. Breeding of Horticultural Crops: Principles and Practices. New India publishing Agency, new Dehli, India
- Rai, N. and M. Rai. 2006. Heterosis Breeding in Vegetable Crops. . New India publishing Agency, new Dehli, India.