

5th SEMESTER
AGRICULTURE TECHNOLOGY
(SEED PRODUCTION AND PROCESSING)
SKILL ENHANCEMENT COURSE (SEC)

SPP520S: SEED PRODUCTION AND PROCESSING – II: SEED PRODUCTION IN FIELD, HORTICULTURAL AND OTHER CROPS

CREDITS: THEORY: 2, PRACTICAL: 2
MAX MARKS: THEORY: 30, PRACTICAL: 30
MIN MARKS: THEORY: 12, PRACTICAL: 12

Objectives: To educate and train the students about the techniques of seed production of agricultural and horticultural crops

THEORY (2 CREDITS)

UNIT I

Floral structure, pollination mechanism, varietal description and methods and techniques of seed production of Agriculture crops grown in Kashmir Viz. Rice, Maize, Wheat, Barley, Oats, Mustard, Potato, Pea, Beans and Moong

UNIT II

Floral structure, pollination mechanism, varietal description and methods and techniques of seed production in Horticultural crops Viz. Tomato, Kale, Carrot, Capsicum, Knolkhol, Brinjal, Chilli, Bhindi, Bottle Gourd, Ridge Gourd, Onion, Cabbage, Cauliflower, Cucumber and Watermelon; Hybrid seed production in Maize, Tomato, Brinjal, Chillies, Bottle Gourd, Carrot, Capsicum and Cucumber. Maintenance of A.B and R line

PRACTICALS (2 CREDITS)

- Studies on floral morphology, emasculation and pollination studies of some important major field crops of Kashmir
- Studies on floral morphology, emasculation and pollination studies of some important major vegetable crops of Kashmir
- Seed production in cross pollinated crop with special reference to land, isolation, planting ratio of male and female lines.
- Detasseling in Maize, identification of rogues and pollen shedders.
- Study of Minimum seed certification standards and taking of field counts and filling of inspection reports of important field crops
- Determination of planting ratios for hybrid seed production in different crops.
- A, B and R line in hybrid seed production and its maintenance
- Visits to seed production plots/ Fields

SUGGESTED READINGS:

1. Agrawal, P.K. & M. Dadlani, 1995. Techniques: In Seed Science and Technology (2nd Ed.)
2. South Asian Publ. New Delhi.
3. Agarwal RL. 1997. Seed Technology (IInd Ed.) Oxford & IBH Publ. Co. Daryaganj, New Delhi.
4. Baill R Gregg, Alvin, G. Law, S.S. Virde and Balis, J.S. Seed Processing. Cooperatively published by NSC, New Delhi and Mississippi State University and UNSAID.
5. McDonald MB Jr & Copeland LO. 1997. Seed Production: Principles and Practices. Chapman & Hall.