

Department of Botany
Amar Singh College Srinagar.

Subject: **Botany**

UG: 2nd Semester

Credits -04 (01 Theory + 03 Practical's)

Code: UGBOT22S202

Syllabus for Skill Enhancement Course (SEC)

Course Objective: To acquaint the students with propagation, harvesting and quality improvement methods.

Learning outcome: By the end of the semester, a student must be well acquainted with medicinal and aromatic plants and their uses.

Medicinal and Aromatic Plants-II

Theory

UNIT 1

Scope of medicinal and aromatic plants.

Micro propagation of medicinal and aromatic plants.

Hardening of medicinal and aromatic plants.

Threats to medicinal and aromatic plants

Conservation of Medicinal and Aromatic Plants:

In situ conservation, strategies (National parks, Sanctuaries, Biosphere Reserves)

Ex situ conservation (Botanical gardens, Ethno-medicinal herbal gardens).

Practical

UNIT 2

Demonstration of micropropagation techniques used for propagation of Medicinal and aromatic plants.

Sterilization of glassware, culture media, other substance material's and equipments.

Preparation of different media.

Types of Cultures

Inoculation.

Hardening

UNIT 3

Management practices in medicinal and aromatic plants

Preparation and raising of root and shoot cuttings.

Sowing, Grafting, Cutting, Layering.

Raising and harvesting of at least one crop: Artemisia, Lavender, Ocimum, Trigonella, Fennel and other local medicinal and aromatic plants.

UNIT 4

Demonstration of propagation techniques.

Transplantation techniques.

Irrigation techniques.

Hoeing, Deweeding and Integrated Pest management.

Suggested Readings:

- 1 Trivedi, P. 2006. Medicinal plants. Ethnobotanical approach, Agrobios, India.
- 2 Purohit and Vyas, 2008. Medicinal Plant Cultivation. A Scientific Approach, 42nd ed. Agrobios, India.
- 3 Narayan Das Prajapati, S.S. Purohit, Arun K Sharma, Tarun Kumar. A Handbook of Medicinal plants. A Complete Source Book
- 4 Alikhan i. and Khanum A. 2008. Role of Biotechnology in Medicinal and Aromatic Plants. UKAZ Publ.
- 5 Chandha K.L.. and Gupta R. 2006. Advances in Horticulture . Vol. XI Medicinal and Aromatic Plants