



Sanaa University

Faculty of Agriculture, Foods, and Environment

Department of Horticulture and Its Techniques



Department Mission:

Striving to make its graduates distinguished models in the local and regional community to achieve a better life.

Community services:

Community services provided by the department include the following:

Providing the community and the labor market with graduates with skills and competencies capable of addressing agricultural sector problems and developing them for the benefit of society.

Conducting seed inspection and testing for different types of horticultural crops.

Examining samples of medicinal and aromatic plants.

Conducting scientific studies and research related to addressing issues in the horticultural sector, developing it, improving production, and meeting the needs of the market and society.

Providing technical supervision for fruit, vegetable, medicinal, and aromatic plant farms.

Providing consultancy, holding seminars, and training in various areas, including:

Establishing fruit, vegetable, medicinal, and aromatic plant farms.

Establishing and managing nurseries and greenhouses.

Designing, landscaping, and maintaining gardens over the long term.

Establishing tissue culture and biotechnology laboratories.

Hydroponics and urban organic farming.

Department Aims:

Preparing and equipping a distinguished cadre of agricultural engineers in the field of horticulture and its techniques, aligned with the needs of the labor market.

Preparing and qualifying an exceptional cadre for postgraduate studies (Master's and Ph.D.) in various horticulture fields. The department was the first to initiate a Ph.D. program in the faculty.

Conducting scientific research related to improving and enhancing the production of various horticultural crops, addressing local challenges, and contributing to self-sufficiency.

Establishing channels of communication, cooperation, and knowledge exchange with relevant governmental and private entities, both locally and internationally.

Developing the students' awareness of the importance of horticultural crops and their participation in local development.

Organizing scientific seminars, conferences, and training courses to enhance the competence of the department's academic and administrative staff and graduates.

Providing scientific and technical consultations to various entities in different fields of the department.

Department Vision:

Excelling in teaching, learning, scientific research, and community service in the field of horticulture and its various techniques.

About the Department

The of Horticulture and its Techniques is one of the major and important departments in the Faculty of Agriculture, Foods, and Environment at Sana'a University. It was established in 1996/1997 and includes the following specializations:

Pomology

Olericulture

Floriculture

Medicinal and Aromatic Plants

Gardening and Landscapes

Forestry

The department takes pride in its exceptional academic staff, who are highly specialized and well-qualified, having graduated from renowned universities in the United States of America, the People's Republic of China, India, Malaysia, and countries in the Arab world, particularly Iraq and Egypt. It also has a teaching assistant staff of instructors and demonstrators, in addition to specialized technical staff. The department's staff carries out the tasks assigned to them, including teaching, supervision, and the practical application of the aforementioned specializations in bachelor's, master's, and doctoral degrees.

Department Infrastructure:

The department has its own sector within the farm, as well as a unit for clean agriculture, greenhouses, and nurseries. The department is responsible for overseeing the faculty gardens and also participates significantly in the management of the faculty's plant tissue culture unit. The department also has two laboratories in the department building, which also houses a number of offices for faculty members and assistants.

The department also offers postgraduate programs (Master's and Ph.D.).





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Study plan of Horticulture and Its Techniques Program (HRT)

Third Level Courses

First Semester	Second Semester
Fruit Trees Physiology	Nurseries and Horticultural Farms
Production of Cold and Moderate Season Vegetables	Production of Warm Season Vegetables
Irrigation and Fertilization of Horticultural Crops	Deciduous Fruit Production
Plant Biotechnology	Physiology of Vegetable Crops
Evergreen Fruit Production	Classification, Production and Uses of Ornamental Plants
Plant Tissue Culture	Agricultural Extension and Rural Community
Applications in Design and Analysis of Experiments	Horticultural Farms Management and Marketing
Urban and Organic Agriculture	Summer Training

Fourth Level Courses

First Semester	Second Semester
Forests Environment and Natural Yemeni Reserves	Breeding of Fruit Trees and Perennials
Viticulture Production	Production of Medicinal and Aromatic Plants
Vegetable Production Technology Under the Conditioned Environment	Production of Cut flowers and Ornamental Bulbs
Pests and Diseases of Horticultural Crops	Vegetable and Herbaceous Plants' Seed Production
Design and Landscape Gardening	Horticultural Plants in Arid Regions
Breeding of Vegetable and Herbaceous Plants	Stimulant Horticultural Trees
Post-Harvest Technology	Field Training and Research Project



Career Opportunities

Career Opportunities for Graduates of the Horticulture

Department:

Establishing and supervising fruit, vegetable, medicinal, and aromatic plant farms and orchards.
Working in the fields of tissue culture and biotechnology.
Supervising and managing greenhouses in general.
Cultivating and producing fruits, vegetables, and ornamental plants.
Designing and landscaping gardens, parks, and recreational areas inside and outside cities.
Working in the agricultural quarantine sector at land, sea, and air ports.
Working in local, regional, and international official institutions, bodies, and organizations.
Working in private projects and companies in various branches of horticulture.
Providing training and consultations in establishing fruit, vegetable, medicinal, and aromatic plant farms, as well as designing and landscaping gardens.
Providing training and consultations in establishing tissue culture and biotechnology laboratories, nurseries, and greenhouses.
Providing training and consultations in the fields of hydroponics and urban organic farming.
Providing training and consultations in seed testing, seed examination, and examining samples of medicinal and aromatic plants.

- **Ministry of Agriculture**
- **General Authority for Agricultural Research and Extension**
- **Agricultural Development Authority**
- **Quality and Standards Laboratories**
- **Tissue Culture and Biotechnology Laboratories**
- **Agricultural Quarantine**
- **Agricultural Supplies Quality Control Departments**
- **Seed Companies**
- **Small and Micro Enterprise Development Agency**
- **Private and Public Garden Design and Landscaping**
- **Various Types of Horticulture Production Farms**

Graduate Attributes:

Upon successful completion of their studies, the graduate will be able to:

Demonstrate a comprehensive understanding of the fundamental principles, applied sciences, and modern technologies relevant to agriculture, horticulture, and food science. They will also be able to identify the various types of horticultural crops and their classification systems, production techniques, improvement, handling, storage, and marketing of various horticultural products.

Grasp the principles and scientific methods of utilizing modern techniques for the quantitative and qualitative improvement of horticultural products and their various techniques while effectively utilizing all available plant resources.

Plan, establish, manage, and operate horticultural farms, nurseries, and greenhouses.

Efficiently manage and utilize horticultural and agricultural resources while conserving natural resources and biodiversity. Assess the status of horticultural production and use scientific and technical methods to address its challenges and elevate it by developing horticultural production techniques, handling, and marketing methods that align with the development of the country and society in the field of horticulture.

Successfully plan the adaptation of various horticultural techniques in accordance with quality and safety standards and diverse local conditions.

Demonstrate communication skills and the ability to work effectively within specialized teams with relevant stakeholders. Utilize modern technologies and their applications in addressing horticultural problems, both technically and economically.

Formulate plans and programs for the development of work in the horticultural sector in line with the changing requirements of the horticultural labor market and its techniques.

Contribute to raising awareness among farmers and community members to reduce the use of agricultural pollutants and educate the community about the importance of increasing green cover as a contribution to reducing environmental pollution and improving it and its impact on the health, psychological, and social well-being of the community. Demonstrate the ability to develop their skills and performance, engage in self-learning, critical thinking, effectively communicate with others, and work collaboratively within a team.

Pursue postgraduate studies and engage in research.