



Department of Botany

Govt. Degree College, Kargil

About the Department: The Department of Botany was established in the year 2004.

Vision: Our vision is continued well-being of the peoples through excellence in studies, exploration, conservation and sustainable utilization of the plant world.

Mission: The Department mission is to foster an environment of excellence by attracting and supporting the outstanding students, faculty and staff needed to sustain our vision.

Aim: The Department aim is to instigate quality learning and teaching process in the field of Botany and to make students familiarize with Botanical concepts, terms and phenomenon by making use of practical teachings and encourage students to continue higher studies and research in the field of Botany.

Future plan:

- To start Diploma/Certificate courses in:
 - *Tissue Culture
 - *Mushroom technology
 - *Allelopathy
- Department is going to send a proposal for starting integrated M. Sc. Course in Botany through UOL.
- To arrange infrastructure for the proper functioning of the Museum and Herbarium
- Department is planning to organize state level workshops on the topic Conservation Strategies of Medicinal Plants of Kargil District.
- To conduct outreach programs and collaborations with different institutes (Viz. Satellite Campus, Kargil. CSIR, DIHAR, Leh etc.)
- To organize workshop/seminar/conferences
- Promotion of organic manure and vermicomposting, also constructed bio degradable pit
- To enrich the Herbal and Botanical Gardens with local flora
- Promotion of traditional medicinal practices

Faculty

Name	Qualification	Designation	Specialization	Experience
Dr. Imtiyaz Hussain	M. Sc., GATE, CSIR-NET-JRF, Ph. D. Title: "Plant responses to allelopathy and nanoparticles".	Assistant Professor	Plant Physiology and Plant nanoparticle interaction	3 years
Prof. Ashan Ali	M.Sc., CSIR-NET-JRF	Assistant Professor	Cytology	3 years
Mr. Khadim Hussain	M.Sc., M.Phil,	C. lecturer	Plant Tissue Culture	2 years

Memorandum of Understanding

MEMORANDUM OF UNDERSTANDING BETWEEN DIVISIONAL FOREST OFFICE, LAHDC, KARGIL AND DEPARTMENT OF BOTANY, GOVERNMENT DEGREE COLLEGE, KARGIL	MEMORANDUM OF UNDERSTANDING BETWEEN KRISHI VIGYAN KENDRE, KARGIL AND DEPARTMENT OF BOTANY, GOVERNMENT DEGREE COLLEGE, KARGIL
<p>This MOU is made on 25 of May 2017 between Divisional Forest Office and Department of Botany, Govt. Degree College Kargil confirm collaboration and agree to promote the following activities:</p> <ul style="list-style-type: none"> • Student exchange and internship programme • Opportunities for faculty development exposure visits • joint research and publication of projects • exchanges of ideas thoughts and resources • other activities as mutually agreed <p>For Divisional Forest office <i>Mohd Ali</i> date 25/05/2017</p> <p>For Govt. Degree College Kargil <i>Imtiyaz Hussain (Asst Prof. Botany)</i> date 25/05/2017</p>	<p>This memorandum of understanding is made on 19th of April 2017 between Department of Krishi Vigyan Kendre, Kargil and Department of Botany, Government Degree College, Kargil confirm collaboration and agree to promote the following activities</p> <ol style="list-style-type: none"> Students exchange and internship programme Joint skill development training programme Opportunity for faculty development exposure visits Joint research projects Exchange resources Others activities as mutually agreed <p>For Krishi Vigyan Kendre, Kargil <i>Dr. Mohd. Mohd</i> Dt 19-12-2018</p> <p>For Govt. Degree College Kargil <i>Imtiyaz Hussain (Asst Prof. Botany)</i> Dt 19/12/2018</p>

Courses

Semester	Course title	Theory	Practical
1 st	Diversity (Microbes, Algae, Fungi and Archegoniate)	70	30
2 nd	Plant Ecology and Taxonomy	70	30
3 rd	Plant Anatomy and Embryology	70	30
3 rd SEC	Nursery and Gardening	3 credits	1 credits
4 th	Plant Physiology and Metabolism	70	30
4 th SEC	Medicinal Botany	3 credits	1 credits
5 th	Cell and Molecular Biology	70	30
5 th SEC	Mushroom Cultivation	3 credits	1 credits
6 th	Economic Botany and Biotechnology	70	30

Facilities

1. Botanical Garden is established in an area of about 200 sq. feet for collection, cultivation, preservation and display of wide range of plants labeled with their botanical names. Besides this, the material pertaining to the practical exercises and class work of different Semester of Botany is also grown.



2. Culture Lab is established with a vision to explore students with different techniques and methodology related to tissue culture. Furthermore, allelopathic experiments are also conducted for weed management and crop rotation.



3. Greenhouse or glasshouse is a structure with walls and roof made chiefly of transparent material, in which plants requiring regulated climatic conditions are grown. It is established in the college for growing plants during winter season. In summer season cucumber plant is grown and on average every year 150 kg of cucumber are produced. It is used to overcome shortcomings in the growing qualities of a piece of land, such as short growing seasons. It is used for growing nursery of vegetables in the march month and transplants.



4. Department has got an ethno-botanical section where local plant products from different sources of plants used in daily life are displayed. Department has got an ethno-botanical section where local plant products from different sources of plants used in daily life are displayed.



Learning Resources in the Department

Laboratory: 01

Botanical Garden,: 01

Botanical Research Centre : 01

Green House :01

Culture Lab : 01

Books (College Library) :

Compound Microscope : 50

Dissection Microscope: 25

Binocular microscope: 05

Herbarium Chambers: ..(01)

Microtome: 01

B.O.D Incubator: 01

Chromatographic Chamber: 02

Autoclave: 02

pH meter digital: 02

Centrifugal machine (electrical):01

Charts: 200

Models: 10

Video Camera: 01

Publications:

Till date the faculties of this department has published more than 30 research articles and review articles in reputed national and international journals

1. **Imtiyaz Hussain**, Ajey Singh, N. B. Singh, Aishwarya Singh and Pooja Singh. Plant-nanoceria interaction: Toxicity, accumulation, translocation and biotransformation. *South African journal of Botany*. 121:239–247 (2019). ISSN 0254-6299. **Impact factor- 1.542.**
2. Ajey Singh, **Imtiyaz Hussain**, NB Singh, Himani Singh (2019). Uptake, translocation and impact of green synthesized nanoceria on growth and antioxidant enzymes activity of *Solanum lycopersicum L.* *Ecotoxicology and Environmental Safety* 182 (2019) 109410. ISSN: 0147-6513. **Impact factor- 3.62.**
3. **Imtiyaz Hussain**, NB Singh, Ajey Singh, Himani Singh, SC Singh and Vijaya Yadav (2017). Exogenous application of phytosynthesized nanoceria to alleviate ferulic acid stress in *Solanum lycopersicum*. *Scientia Horticulturae* 214 (2017) 158–164. ISSN 0304-4238. **Impact factor- 1.62.**
4. **Imtiyaz Hussain**, NB Singh, Ajey Singh and Himani Singh (2017). Allelopathic potential of sesame plant leachate against *Cyperus rotundus L.* *Annals of Agrarian Science*: 15 (2017) 141-147. ISSN 1512-1887.
5. **Imtiyaz Hussain**, NB Singh, Ajey Singh, Himani Singh and SC Singh (2016). Green

synthesis of nanoparticles and its potential application. *Biotechnology letters*: 38(4), 545-560. ISSN 1573-6776. **Impact factor- 1.9.**

Activities conducted by department of botany during last two years

1. Conducted Science Olympiad examination (2019) at district level where more than 150 students of different Higher Secondary School participated.
2. Botany Department of Govt. Degree College, Kargil conducted botanical exploration of UG 1st Semester of 120 students on 19/06/2019 to Minamarg, Drass. During the tour, the students explored the local flora of and assessed the structural pattern of vegetation at high altitude & the mountain slopes.
3. Botany Department of Govt. Degree College, Kargil conducted botanical exploration of UG 4th Semester of 150 students on 08/06/2019 to Minamarg, Drass. During the tour, the students collected the grass for botanical garden and explored the local flora.
4. In connection with World Forestry Day 2019 Deputy Commissioner, Kargil Mr. Baseer ul-haq Choudary (IAS), launched a plantation drive at Degree College Kargil. During the drive, plantation of 1 lac saplings is to be undertaken at various locations within a period of two months.
5. WORKSHOP ON AGRICULTURE (2019): Organized by GDC, Kargil in collaboration with District Agriculture Office, Kargil The entire programme was divided into two sub programmes: Lecture Series by eminent experts from Agriculture Department and Hands on training programme.