



A⁺ GRADE, NAEAB-ICAR ACCREDITED



**SHORT COURSE CUM TRAINING
PROGRAMME**

ON

**SAMPLING, SURVEY, EXTRACTION, IDENTIFICATION AND NEMATODE DISEASE
DIAGNOSTICS**

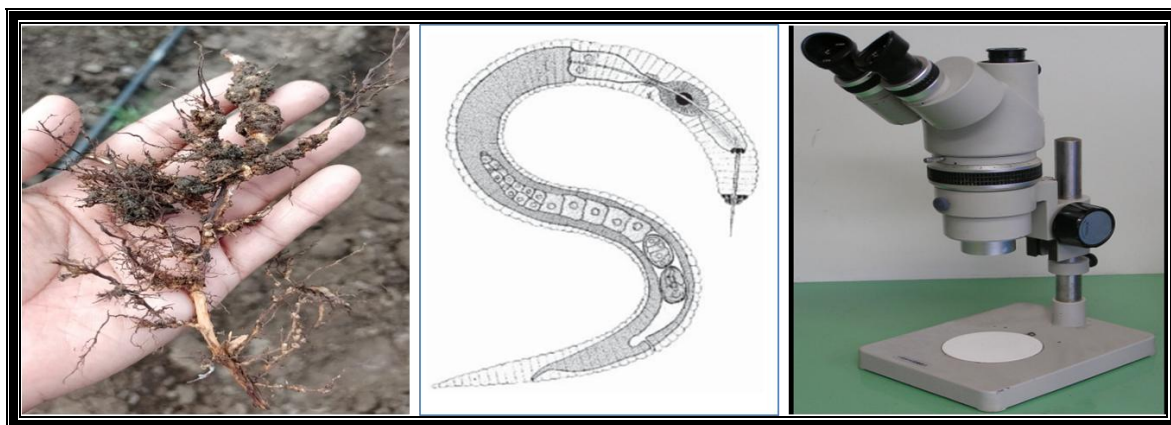
(28th Nov to 7th Dec 2024)

ORGANIZED BY

DEPARTMENT OF NEMATOLOGY, AAREM DHRM, CCS HAU, HISAR

AND

AICRP, NEMATODES, ICAR IARI NEW DELHI



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HOD, Nematology, CCS HAU Hisar

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About the University

Chaudhary Charan Singh Haryana Agricultural University (CCS HAU), Hisar is one of the oldest and leading agricultural universities of the country that has made rapid strides and occupies a position of prominence among the agricultural universities of the country. CCS HAU located at Hisar in the Indian state of Haryana, named after India's seventh Prime Minister Chaudhary Charan Singh, is one of the biggest agricultural universities of Asia that has made a special niche at global level. The university is proud to have created a splendid infrastructure for education, research and extension in the fields of Agriculture, Agri-business, Agricultural Engineering & Technology, Community Science, Fisheries Science, Biotechnology and Basic Sciences & Humanities through its well-developed colleges, research stations and KVKs. The University is a leader in agricultural research, in developing new technologies like conservation agriculture, direct seeded rice, herbicide resistance management for overall improvement in the crop productivity of the state. The University is contributing significantly towards achieving nutritional security, sustainability, wellness and is open for new partnerships in research, teaching and extension.



About the Department of Nematology

Prior to the establishment of a separate Deptt of Nematology at the fag end of 1977, the subject was dealt by the Deptt of Plant Pathology. As early as 1966, a scheme entitled “Coordinated scheme for work on nematode of fruits, vegetables and other field crops” was in operation in the Deptt of Plant Pathology with Dr. M. C. Mukhopadhyay as its Principal Invigilator. In 1971, when Dr. M. C. Mukhopadhyay left, Dr. D. S. Bhatti who had recently returned from USA after completing Ph.D. took over as technical incharge of this scheme. A section of Nematology was created in 1975 in the Deptt of Entomology.

In the meantime another scheme entitled “Breeding vegetable crops for resistance to root-knot nematodes” started functioning in Department of Vegetable crops in 1975. There were two posts of Assistant Nematologist in this scheme and Dr. Kriti Singh was its Principal Invigilator. This scheme terminated in 1980. The problems of root-knot nematodes (RKNs) of vegetable crops

and fruit trees, 'molya' disease of wheat & barley, ear cockle disease of wheat were the first to receive attention in the earlier phases of the development of the Deptt. Subsequently, general surveys revealed the preponderance of several plant parasitic nematodes (PPNs) affecting commercial crops and the research have been initiated by the Deptt. The section of Nematology in the Deptt of Entomology was elevated to the status of a full-fledged independent department in 1977 with Dr. D. S. Bhatti as its first Prof. & Head. Since, then the department has grown in size and at the moment it has developed its teaching, research and extension units. It has excellent infrastructure facilities, including five laboratories, seven screen houses and one research area. The department has a faculty of nine scientists working on various aspects of nematology. Several postgraduate students who passed out from this department have served and are serving in various organizations throughout India.

About the City

Once known as Hisar-e-Firoza by its founder ruler Firoz Shah Tughlaq in the year 1354 AD with several historical buildings such as fort, palaces, tombs, mosques, gates and gardens. Some of the monuments are still in good state of preservation. It is situated 180 km west to the National Capital Delhi at NH 09 in the state of Haryana and it is well connected by rail/road with all the nearby major cities. The nearest airport is Indira Gandhi International Airport, New Delhi. Several educational institutions including reputed universities like CCS Haryana Agricultural University, Guru Jambheshwar University of Science & Technology and Lala Lajpat Rai University of Veterinary & Animal Sciences are established in Hisar apart from ICAR institutes like CIRB, NRC Equines and Northern Region Farm Machinery Training & Testing Institute. Around the Hisar city, ancient site of Rakhigarhi, one of the five known biggest townships of Harappan civilization on Indian sub-continent, and ancient site of Agroha, traditionally believed to be the Capital of the legendary king Maharaja Agrasena can be visited. Ever since, the Government's positive policies have played a vital role in the economic development of the city. The industrial policy of the government has attracted large number of entrepreneurs and presently it is also known as the Steel City of Haryana.



Climate

The climate of Hisar owes to its continental location on the outer margins of the south-west (SW) monsoon region. It has tropical monsoonal climate and is characterized as arid type of climate. The weather at Hisar (Haryana) in the months of November-December remains cool. The

maximum temperature ranges from 21 to 25⁰C and minimum temperature from 6 to 8⁰C. Light fog may appear in morning and evening time during first fortnight of December. Therefore, light winter clothes are required.

How to reach

Hisar city is well connected with Delhi by road (NH-09- Delhi-Sirsa-Fazilka High Way) and is nearly 170 KM away from Delhi. The frequent bus service is available from ISBT, Kashmiri Gate, Delhi. It is also well connected with other parts of the country by road and railways.

Accommodation

Registered delegates will be accommodated in Faculty House at the university campus on first-come first served basis on official prescribed rates. The participants are expected to arrive at CCS Haryana Agricultural University, Hisar latest by 27th Nov, 2024 evening.

SHORT COURSE CUM TRAINING PROGRAMME

Title	:	SAMPLING, SURVEY, EXTRACTION, IDENTIFICATION AND NEMATODE DISEASE DIAGNOSTICS
Duration	:	10 days
Dates	:	28 th November to 7 th December, 2024
Objectives:-	:	<ul style="list-style-type: none"> ➤ To develop skill in techniques in Nematology ➤ Identification of important plant parasitic nematodes ➤ Diagnosis of diseases caused by plant parasitic nematodes

Brief Introduction: - Plant parasitic nematodes (PPNs) are microscopic, worm-like organisms that feed on roots or other plant parts. These nematodes are one of the most destructive groups of plant pathogens, affecting a wide range of agricultural crops, ornamentals, and forest trees worldwide. They significantly reduce crop yield and quality, often leading to annual economic losses of 77 billion dollars worldwide. PPNS possess specialized mouth parts called stylets, which they use to puncture plant cells and extract nutrients. They are typically microscopic, ranging from 300 um to a few millimeters in length. Their life cycle includes egg, juvenile, and adult stages. Most nematodes infect plants as juveniles. Ectoparasitic nematodes live outside the plant roots and feed by inserting their stylet into the root tissue. Endoparasitic nematodes penetrate and live inside the root tissue, causing more extensive damage. They can be migratory (moving through plant tissues) or sedentary (establishing feeding sites in the root). PPNS damage plant roots, reducing their ability to absorb water and nutrients. This can lead to stunted growth, wilting, and nutrient deficiencies. The wounds created by nematodes often serve as entry points for fungal, bacterial, and viral pathogens, compounding plant health issues.

Identifying and analyzing nematodes, especially PPNS, are essential for effective management and

control. Identifying nematodes requires a combination of morphological and molecular techniques. When morphological identification is challenging or unclear, molecular approaches enhance the speed and accuracy of nematode identification. Sampling, nematode extraction, identification, and estimation of their numbers are critical to ascertaining the cause of damage/losses and the changes in nematode population (s) over time. For researchers and extension workers, knowing these primary steps is absolutely essential for carrying out the experiments and recommending management practices to the farmers. Thus, the All India Coordinated Project on Nematodes in Agriculture, along with the Chaudhary Charan Singh Haryana Agricultural University, Hisar, is conducting a ten-day training (HRD) programme for scientists and researchers. The program will be held at the Department of Nematology, CCS HAU, Hisar. The programme has been developed with the objective of imparting/improving the skills of the researchers in nematode extraction, identification, and disease diagnosis.

Duration and Venue: - The course will be organized from 28th November to 7th December, 2024 (10 Days) at Directorate of Human Resource Management and Department of Nematology, CCS Haryana Agricultural University, Hisar-125 004, (Haryana) India.

Eligibility: - All teachers/Scientists/Extension Specialists at SAUs and ICAR Institutes, working with nematodes of agriculture importance, in the departments of nematology, entomology, plant pathology, plant protection etc. are eligible for participation. **Preferences will be given to those scientists which are working in AICRP, Nematodes ICAR scheme.**

Nomination: - The candidates interested to join this course must send their nomination in the prescribed format through proper channel positively by **20th Nov, 2024**. Application send to be on email Id: hodnematology@gmail.com and copy to aicrpnema@gmail.com

Registration: - The registration fee for the programme is **Rs. 2500/-** per participant and will be paid by the participants at the time of registration on **28th Nov, 2024**. Number of participants will be limited to **30**. The participants will be evaluated on last day of the course duration.

Expanses: - The expenses (T.A & D.A.) for participation in the course will be borne by the parent institute.

DEPARTMENT OF NEMATOLOGY
CHAUDHARY CHARAN SINGH HARYANA AGRICULTURAL UNIVERSITY
HISAR-125 004 (HARYANA), INDIA

Dr. Anil Kumar
HOD, Nematology

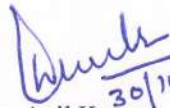
No.: Nema/24/590-601
Dated: 30/10/2024

Dear Sir/Madam,

The Department of Nematology, AAREM DHRM, CCS HAU, Hisar and AICRP, Nematodes, ICAR IARI New Delhi is organizing a short course cum training programme on "**Sampling, Survey, Extraction, Identification and Nematode Disease Diagnostics**" from **28th Nov to 7th Dec 2024**. This course is open for Scientists/Teachers and extension personnel working in SAUs/ICAR Institutes and related organizations.

Nominations of scientists/teachers and extension personnel working in your University/Institute/Department are invited for participation in this course. The nominations should reach the undersigned latest by 20th Nov, 2024.

The course details and application proforma are enclosed.


30/10/2024
Dr. Anil Kumar

Encls: as above

CC:

1. Vice-Chancellors, State Agricultural Universities/State Universities of Haryana
2. Director of Research and Director Extension Education, State Agricultural Universities
3. Director, ICAR Institutes
4. All Deans/Directors/Heads of Departments, CCSHAU, Hisar
5. Principal, College of Agriculture, Kaul & Bawal
6. Principal, Extension Education Institute, Nilokheri
7. All RRS/KVKs, CCSHAU, Hisar
8. Vice-Chancellors, all State Universities of Haryana.
9. S.V.C. for the information of the Vice-Chancellor, CCSHAU, Hisar
10. Public Relations Officer, CCSHAU, Hisar
11. In-charge, Computer Centre, CCS HAU, Hisar for uploading on website.

**DEPARTMENT OF NEMATOLOGY
CHAUDHARY CHARAN SINGH HARYANA AGRICULTURAL UNIVERSITY
HISAR-125 004 (HARYANA), INDIA**

**SHORT COURSE CUM TRAINING PROGRAMME
“SAMPLING, SURVEY, EXTRACTION, IDENTIFICATION AND NEMATODE
DISEASE DIAGNOSTICS**

(28th November to 7th December, 2024)

FORMAT FOR NOMINATION (Make copies if required)

Name	:	
Designation	:	
Department/Office	:	
Date of joining the present post	:	
Date of birth	:	
Address for communication	:	
Telephone	:	
E-mail	:	
Qualifications	:	
Graduation	:	
Post graduation	:	
Ph. D.	:	
Name of Scheme for reimbursement	:	
Signature	:	

CERTIFICATE OF THE SPONSORING AUTHORITY

Ms./Mr./Dr..... is hereby nominated for participation in the short course cum training programme on “Sampling, Survey, Extraction, Identification and Nematode Disease Diagnostics” from 28th November to 7th December, 2024 being organized by the Department of Nematology, AAREM DHRM, CCS HAU, Hisar and AICRP, Nematodes, ICAR IARI New Delhi. He/She will be relieved by the Department/office and treated on official duty during the period of the course.

Signature of the Competent Authority
(Office seal)