

To,  
The Principal  
K. K. Wagh College of Agriculture,  
Nashik

Subject Regarding permission for Certificate Course.....

Respected Sir,

On behalf of the Department of Genetics and Plant Breeding, we humbly request permission to initiate a Certificate course titled **“Plant Genetic Resources: Collection, Conservation, and Utilization”**. This course is scheduled from 03/06/2019 to 10/06/2019 and will involve approximately 40 second-year students. It is anticipated that this course will greatly benefit our students in enhancing their knowledge on Plant genetic resources (PGRs) (synonymous with plant germplasm) comprise the genetic information encoded by genomes; the biological mechanisms for translating that information into phenotypes.

We kindly ask for your approval for the implementation of this course.

Thanking You,

Yours faithfully,



Dr.S.S.Bornare

Genetics and Plant Breeding  
(Course coordinator)





K. K. Wagh Education Society's  
**K. K. Wagh College of Agriculture,**  
(Affiliated to Mahatma Phule Krishi Vidyapeeth, Rahuri)  
Saraswati Nagar, Panchavati, Nashik- 422 003. Maharashtra  
College Code;11135 **AISHE Code: C-50690**

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Certificate course in

**“Plant Genetic Resources: Collection, Conservation, and Utilization”**  
Academic Year 2019-20

**Syllabus Committee**

Sr. No.	Name of teacher	Designation	Department	Role in course
1	Dr.S.S.Bornare	Assistant Professor	Genetics and Plant Breeding	Course coordinator
3	Mr. Y.R. Kadam	Assistant Professor	Horticulture	Committee member
5	Ms. S. K. Ahirrao	Assistant Professor	Plant Pathology	Committee member

  
Course Coordinator



  
**PRINCIPAL**  
K.K.Wagh College of Agriculture  
Saraswatinagar, Panchavati, Nashik



**Academic Year 2019-20**  
**Department of Genetics and Plant Breeding**  
**Minutes of the Board of Studies Meeting for the Short-Term Certificate Course**

A meeting of the Board of Studies for the Short-term Certificate Course “**Plant Genetic Resources: Collection, Conservation, and Utilization**”  
: was convened on 3 May 2019, at 12:00 PM in the Department of Genetics and Plant Breeding. The meeting was attended by the following Syllabus Design Committee members:

Sr no	Name of the expert	Designation	Sign
1	Dr. S. M. Hadole	Principal	
2	Dr. S. S. Bornare	Course Coordinator	
4	Mr. Y.R. Kadam	Member	
5	Ms. S. K. Ahirrao	Member	

**Minutes of Meeting**

The Board of Studies convened a meeting on 3 May 2019, at 12:00 PM in the Department of Genetics and Plant Breeding to address various aspects concerning the Short-Term Certificate Course in “Plant Genetic Resources: Collection, Conservation, and Utilization”  
The meeting focused on the following key points:

- **Understanding of Plant Genetic Resources:** Demonstrate a comprehensive understanding of the significance and global importance of plant genetic resources.
  - **Proficiency in Collection Methods:** Apply effective techniques for the collection and documentation of plant genetic resources in field and laboratory settings.
  - **Knowledge of Conservation Strategies:** Evaluate and implement both in-situ and ex-situ conservation methods to preserve plant genetic diversity.
  - **Expertise in Genetics and Plant Breeding:** Utilize advanced seed storage techniques and technologies to ensure the longevity and viability of plant genetic resources.
  - **Skills in Genetic Characterization:** Conduct genetic characterization and evaluation using molecular markers and other techniques to assess plant diversity and traits.
- The meeting concluded with a commitment to refine the course and its delivery methods to better meet the needs of students enrolled in the Certificate Course in “Plant Genetic Resources: Collection, Conservation, and Utilization”

Course coordinator



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## Department of Genetics and Plant Breeding

Certificate course in  
**“Plant Genetic Resources: Collection, Conservation, and Utilization”**  
Academic Year 2019-20  
**Schedule of the course**

Sr no	Topic	Description	Name of the teacher	Department
1	Introduction to Plant Genetic Resources	Topics include the definition of PGR, the significance of genetic diversity, and an overview of global and regional PGR initiatives.	Dr. S. S. Bornare	Genetics and Plant Breeding
2	Methods of Plant Collection and Documentation	Techniques and strategies for the collection of plant genetic resources, documentation practices.	Dr. S. S. Bornare	Genetics and Plant Breeding
3	Strategies for In-Situ and Ex-Situ Conservation	An in-depth look at the two primary approaches to conserving plant genetic resources: in-situ , ex-situ .	Dr. S. S. Bornare	Genetics and Plant Breeding
4	Genetics and Plant Breeding and Storage Techniques	Study of role of quality seed in improvement of yield and quality of produce.	Dr. S. S. Bornare	Genetics and Plant Breeding
5	Genetic Characterization and Evaluation of Plant Resources	Molecular markers, phenotypic evaluation, and data analysis techniques used to assess genetic diversity and identify valuable traits.	Dr. S. S. Bornare	Genetics and Plant Breeding
6	Utilization of Plant Genetic Resources in Crop Improvement	Role of PGR in developing new crop varieties, enhancing disease resistance,	Dr. S. S. Bornare	Genetics and Plant Breeding
7	Policy and Ethical Issues in Plant Genetic Resource Management	Convention on Biological Diversity (CBD) and the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA),	Dr. S. S. Bornare	Genetics and Plant Breeding

  
Course Coordinator



  
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**Department Of Genetics and Plant Breeding**  
Certificate course in  
**“Plant Genetic Resources: Collection, Conservation, and Utilization”**  
Academic Year 2019-20  
**Syllabus Outcomes:**

1. **Understanding of Plant Genetic Resources:** Demonstrate a comprehensive understanding of the significance and global importance of plant genetic resources.
2. **Proficiency in Collection Methods:** Apply effective techniques for the collection and documentation of plant genetic resources in field and laboratory settings.
3. **Knowledge of Conservation Strategies:** Evaluate and implement both in-situ and ex-situ conservation methods to preserve plant genetic diversity.
4. **Expertise in Genetics and Plant Breeding:** Utilize advanced seed storage techniques and technologies to ensure the longevity and viability of plant genetic resources.
5. **Skills in Genetic Characterization:** Conduct genetic characterization and evaluation using molecular markers and other techniques to assess plant diversity and traits.

Sr no	Topic	Description	No of Lectures
1	Introduction to Plant Genetic Resources	Topics include the definition of PGR, the significance of genetic diversity, and an overview of global and regional PGR initiatives.	03 hours
2	Methods of Plant Collection and Documentation	Techniques and strategies for the collection of plant genetic resources, documentation practices.	03 hours
3	Strategies for In-Situ and Ex-Situ Conservation	An in-depth look at the two primary approaches to conserving plant genetic resources: in-situ , ex-situ .	06 hours
4	Genetics and Plant Breeding and Storage Techniques	Study of role of quality seed in improvement of yield and quality of produce.	06 hours
5	Genetic Characterization and Evaluation of Plant Resources	Molecular markers, phenotypic evaluation, and data analysis techniques used to assess genetic diversity and identify valuable traits.	06 hours
6	Utilization of Plant Genetic Resources in Crop Improvement	Role of PGR in developing new crop varieties, enhancing disease resistance.	06 hours
7	Policy and Ethical Issues in Plant Genetic Resource Management	Convention on Biological Diversity (CBD) and the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA).	06 hours
<b>Total</b>			<b>36 hours</b>

  
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## Department of Genetics and Plant Breeding

Certificate course in

**“Plant Genetic Resources: Collection, Conservation, and Utilization”**

Academic Year 2019-20

### Time Table

Sr no	Date	Time		Topic
1	03/06/2019	10.00 am - 01.00 pm	03.00 pm - 05.00 pm	Topics include the definition of PGR, the significance of genetic diversity, and an overview of global and regional PGR initiatives.
2	04/06/2019	10.00 am - 01.00 pm	03.00 pm - 05.00 pm	Techniques and strategies for the collection of plant genetic resources, documentation practices.
3	06/06/2019	10.00 am - 01.00 pm	03.00 pm - 05.00 pm	An in-depth look at the two primary approaches to conserving plant genetic resources: in-situ , ex-situ .
4	07/06/2019	10.00 am - 01.00 pm	03.00 pm - 05.00 pm	Study of role of quality seed in improvement of yield and quality of produce.
5	08/06/2019	10.00 am - 01.00 pm	03.00 pm - 05.00 pm	Molecular markers, phenotypic evaluation, and data analysis techniques used to assess genetic diversity and identify valuable traits.
6	10/06/2019	10.00 am - 01.00 pm	03.00 pm - 05.00 pm	Role of PGR in developing new crop varieties, enhancing disease resistance,

  
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Date:07/05/2019

## Department Of Genetics and Plant Breeding

### Student Notice

All the students of B. Sc. (Hons.) Agriculture final year are informed that for the academic year 2019-20 the Certificate Course on

### “Plant Genetic Resources: Collection, Conservation, and Utilization”

is starting from 03/06/2019 to 10/06/2019. For this certificate course students should submit their names to the Certificate Course Coordinator Assistant Dr. S.S Bornare up to 02/06/2019.

Duration: 36 Hrs. 03/06/2019 to 10/06/2019  
Time: Morning Session: 10.00 am to 1.00 pm  
Afternoon session: 2.00 pm to 5.00 pm

Note: This course is free of cost to all students.

  
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**Department of Seed Science and Technology**  
**Certificate course in**  
**“Plant Genetic Resources: Collection, Conservation, and Utilization”**  
**Academic Year 2019-20**

**Enrolled Student List**

Sr no	Registration no	Name of students	SIGN
1.	AKN-2018/006	Bachhav Prasad Dilip	<i>Reels</i> -
2.	AKN-2018/008	Bagal Avinash Ramdas	<i>Avinash</i> -
3.	AKN-2018/013	Birade Aditya Rajendra	<i>Aditya</i> -
4.	AKN-2018/014	Burkul Akshada Sunil	<i>AKB</i> -
5.	AKN/D-2018/004	Damodar Pragati Dadarao	<i>Damodar</i> -
6.	AKN-2018/028	Gandhi Prajjwal Pramod	<i>Prajwal</i> -
7.	AKN-2018/038	Jagtap Akash Avinash	<i>Avinash</i> -
8.	AKN-2018/040	Kadam Vaibhav Jagdish	<i>Vaibhav</i> -
9.	AKN-2018/043	Kale Divya Chandrakant	<i>Kale</i> -
10.	AKN-2018/049	Karad Sandesh Tushar	<i>Sandesh</i> -
11.	AKN-2017/057	Mahale Dinesh Yashvant	<i>Dinesh</i> -
12.	AKN-2018/061	Mandlik Pranav Nitin	<i>Pranav</i> -
13.	AKN-2018/062	Mane Vishal Balasaheb	<i>Vishal</i> -
14.	AKN-2018/123	Mhaske Durga Gawaram	<i>Durga</i> -
15.	AKN-2018/068	More Sawari Pundalik	<i>More</i> -
16.	AKN-2018/069	Nagare Rushikesh Sopan	<i>Rushikesh</i> -
17.	AKN-2018/073	Netake Akash Tatya	<i>Netake</i> -
18.	AKN-2018/076	Pagar Chaitali Tukaram	<i>Pagare</i> -
19.	AKN-2018/077	Pande Rohit Rajendra	<i>Rohit</i> -
20.	AKN-2018/078	Parase Ganesh Hanumant	<i>Ganesh</i> -
21.	AKN/D-2019/012	Pardeshi Akshay Santosh	<i>Akshay</i> -
22.	AKN-2017/081	Patil Mayur Narayan	<i>Mayur</i> -
23.	AKN2018/081	Patil Narayan Ramdas	<i>Narayan</i> -
24.	AKN-2018/082	Patil Omkar Vinod	<i>Omkar</i> -
25.	AKN-2018/086	Patil Rohan Rajendra	<i>Rohan</i> -
26.	AKN-2017/084	Patil Shashank Arvind	<i>Shashank</i> -
27.	AKN-2018/090	Pawar Shubham Arun	<i>Shubham</i> -





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28.	AKN-2018/097	Sadgir Ganesh Rohidas	<i>Sadgir</i> -
29.	AKN-2017/096	Sanap Sourabh Shivaji	<i>Sanap</i>
30.	AKN/D-2019/020	Shinde Prasad Dattu	<i>Shinde</i>
31.	AKN-2018/102	Shirsat Aishwarya Sambhaji	<i>Shirsat</i> -
32.	AKN-2018/105	Supekar Vinay Raju	<i>Supekar</i> -
33.	AKN/D-2019/024	Surude Dewang Tukaram	<i>Surude</i> .
34.	AKN-2018/108	Udamale Komal Tukaram	<i>Udamale</i> -
35.	AKN-2018/110	Varade Kushal Prakash	<i>Varade</i>
36.	AKN-2018/114	Waghmare Prachi Mukund	<i>Waghmare</i> -
37.	AKN-2018/116	Walzade Manish Mahesh	<i>Walzade</i> -
38.	AKN-2018/117	Waman Chaitanya Ashok	<i>Waman</i> -
39.	AKN-2018/118	Watpade Prasad Deepak	<i>Watpade</i> -
40.	AKN-2018/119	Watpade Rushikesh Atul	<i>Watpade</i> -

*Sudhakar*  
Course Coordinator



*[Signature]*  
**Principal**  
K.K.Wagh College of Agriculture  
Saraswatinagar, Panchavati, Nashik

**K K WAGH COLLEGE OF AGRICULTURE, NASHIK**

Department of Genetics and Plant Breeding.

Certificate course in **“Plant Genetic Resources: Collection, Conservation, and Utilization”**

Academic Year 2019-20

Sr no	Registration no	Name of students	Date:		03/06/2019		04/06/2019		06/06/2019		07/06/2019		08/06/2019		10/06/2019	
			Time:	10.00-1.00	2.00-5.00	10.00-1.00	2.00-5.00	10.00-1.00	2.00-5.00	10.00-1.00	2.00-5.00	10.00-1.00	2.00-5.00	10.00-1.00	2.00-5.00	
1	AKN-2018/006	Bachhav Prasad Dilip	Pras	Pras	Prasad	Prasad	Prasad	Prasad	Prasad	Prasad	Prasad	Prasad	Prasad	Prasad	Prasad	Prasad
2	AKN-2018/008	Bagal Avinash Ramdas	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
3	AKN-2018/013	Birade Aditya Rajendra	Adi	Adi	Aditya	Aditya	Aditya	Aditya	Aditya	Aditya	Aditya	Aditya	Aditya	Aditya	Aditya	Aditya
4	AKN-2018/014	Burkul Akshada Sunil	ASB	ASB	ASB	ASB	ASB	ASB	ASB	ASB	ASB	ASB	ASB	ASB	ASB	ASB
5	AKN/D-2018/004	Damodar Pragati Dadarao	Dad	Dad	Dad	Dad	Dad	Dad	Dad	Dad	Dad	Dad	Dad	Dad	Dad	Dad
6	AKN-2018/028	Gandhi Prajwal Pramod	Pras	Pras	Pras	Pras	Pras	Pras	Pras	Pras	Pras	Pras	Pras	Pras	Pras	Pras
7	AKN-2018/038	Jagtap Akash Avinash	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
8	AKN-2018/040	Kadam Vaibhav Jagdish	Kadam	Kadam	Kadam	Kadam	Kadam	Kadam	Kadam	Kadam	Kadam	Kadam	Kadam	Kadam	Kadam	Kadam
9	AKN-2018/043	Kale Divya Chandrakant	Kale	Kale	Kale	Kale	Kale	Kale	Kale	Kale	Kale	Kale	Kale	Kale	Kale	Kale
10	AKN-2018/049	Karad Sandesh Tushar	Skarad	Skarad	Skarad	Skarad	Skarad	Skarad	Skarad	Skarad	Skarad	Skarad	Skarad	Skarad	Skarad	Skarad
11	AKN-2017/057	Mahale Dinesh Yashvant	Mah	Mah	Mah	Mah	Mah	Mah	Mah	Mah	Mah	Mah	Mah	Mah	Mah	Mah
12	AKN-2018/061	Mandlik Pranav Nitin	Pran	Pran	Pran	Pran	Pran	Pran	Pran	Pran	Pran	Pran	Pran	Pran	Pran	Pran
13	AKN-2018/062	Mane Vishal Balasaheb	Vish	Vish	Vishal	Vishal	Vishal	Vishal	Vishal	Vishal	Vishal	Vishal	Vishal	Vishal	Vishal	Vishal
14	AKN-2018/123	Mhaske Durga Gawaram	Mhas	Mhas	Mhas	Mhas	Mhas	Mhas	Mhas	Mhas	Mhas	Mhas	Mhas	Mhas	Mhas	Mhas

*S. S. Wagh*  
Course Coordinator



*S. S. Wagh*  
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15	AKN-2018/068	More Sawari Pundalik	<del>more</del>	<del>More</del>	<del>more</del>	<del>more</del>	<del>mor</del>	<del>mor</del>	<del>more</del>	<del>mor</del>	<del>more</del>	<del>mor</del>	<del>mor</del>	<del>mor</del>
16	AKN-2018/069	Nagare Rushikesh Sopan	<del>cul</del>	<del>cul</del>	<del>cul</del>	<del>cul</del>	<del>cul</del>	<del>cul</del>	<del>cul</del>	<del>cul</del>	<del>cul</del>	<del>cul</del>	<del>cul</del>	<del>cul</del>
17	AKN-2018/073	Netake Akash Tatya	<del>Netake</del>	<del>Netake</del>	<del>Netake</del>	<del>Netake</del>	<del>Netake</del>	<del>Netake</del>	<del>Netake</del>	<del>Netake</del>	<del>Netake</del>	<del>Netake</del>	<del>Netake</del>	<del>Netake</del>
18	AKN-2018/076	Pagar Chaitali Tukaram	<del>Pagar</del>	<del>Pagar</del>	<del>Pagar</del>	<del>Pagar</del>	<del>Pagar</del>	<del>Pagar</del>	<del>Pagar</del>	<del>Pagar</del>	<del>Pagar</del>	<del>Pagar</del>	<del>Pagar</del>	<del>Pagar</del>
19	AKN-2018/077	Pande Rohit Rajendra	<del>Rohit</del>	<del>Rohit</del>	<del>Rohit</del>	<del>Rohit</del>	<del>Rohit</del>	<del>Rohit</del>	<del>Rohit</del>	<del>Rohit</del>	<del>Rohit</del>	<del>Rohit</del>	<del>Rohit</del>	<del>Rohit</del>
20	AKN-2018/078	Parase Ganesh Hanumant	<del>Par</del>	<del>Par</del>	<del>Par</del>	<del>Par</del>	<del>Par</del>	<del>Par</del>	<del>Par</del>	<del>Par</del>	<del>Par</del>	<del>Par</del>	<del>Par</del>	<del>Par</del>
21	AKN/D-2019/012	Pardeshi Akshay Santosh	<del>AKS</del>	<del>AKS</del>	<del>AKS</del>	<del>AKS</del>	<del>AKS</del>	<del>AKS</del>	<del>AKS</del>	<del>AKS</del>	<del>AKS</del>	<del>AKS</del>	<del>AKS</del>	<del>AKS</del>
22	AKN-2017/081	Patil Mayur Narayan	<del>Mayur</del>	<del>Mayur</del>	<del>Mayur</del>	<del>Mayur</del>	<del>Mayur</del>	<del>Mayur</del>	<del>Mayur</del>	<del>Mayur</del>	<del>Mayur</del>	<del>Mayur</del>	<del>Mayur</del>	<del>Mayur</del>
23	AKN2018/081	Patil Narayan Ramdas	<del>Narayan</del>	<del>Narayan</del>	<del>Narayan</del>	<del>Narayan</del>	<del>Narayan</del>	<del>Narayan</del>	<del>Narayan</del>	<del>Narayan</del>	<del>Narayan</del>	<del>Narayan</del>	<del>Narayan</del>	<del>Narayan</del>
24	AKN-2018/082	Patil Omkar Vinod	<del>Opatil</del>	<del>Opatil</del>	<del>Opatil</del>	<del>Opatil</del>	<del>Opatil</del>	<del>Opatil</del>	<del>Opatil</del>	<del>Opatil</del>	<del>Opatil</del>	<del>Opatil</del>	<del>Opatil</del>	<del>Opatil</del>
25	AKN-2018/086	Patil Rohan Rajendra	<del>BE</del>	<del>BE</del>	<del>BE</del>	<del>BE</del>	<del>BE</del>	<del>BE</del>	<del>BE</del>	<del>BE</del>	<del>BE</del>	<del>BE</del>	<del>BE</del>	<del>BE</del>
26	AKN-2017/084	Patil Shashank Arvind	<del>Shank</del>	<del>Shank</del>	<del>Shank</del>	<del>Shank</del>	<del>Shank</del>	<del>Shank</del>	<del>Shank</del>	<del>Shank</del>	<del>Shank</del>	<del>Shank</del>	<del>Shank</del>	<del>Shank</del>
27	AKN-2018/090	Pawar Shubham Arun	<del>Shubham</del>	<del>Shubham</del>	<del>Shubham</del>	<del>Shubham</del>	<del>Shubham</del>	<del>Shubham</del>	<del>Shubham</del>	<del>Shubham</del>	<del>Shubham</del>	<del>Shubham</del>	<del>Shubham</del>	<del>Shubham</del>
28	AKN-2018/097	Sadgir Ganesh Rohidas	<del>Ganesh</del>	<del>Ganesh</del>	<del>Ganesh</del>	<del>Ganesh</del>	<del>Ganesh</del>	<del>Ganesh</del>	<del>Ganesh</del>	<del>Ganesh</del>	<del>Ganesh</del>	<del>Ganesh</del>	<del>Ganesh</del>	<del>Ganesh</del>
29	AKN-2017/096	Sanap Sourabh Shivaji	<del>Sanap</del>	<del>Sanap</del>	<del>Sanap</del>	<del>Sanap</del>	<del>Sanap</del>	<del>Sanap</del>	<del>Sanap</del>	<del>Sanap</del>	<del>Sanap</del>	<del>Sanap</del>	<del>Sanap</del>	<del>Sanap</del>
30	AKN-2018/020	Shinde Prasad Dattu	<del>Prasad</del>	<del>Prasad</del>	<del>Prasad</del>	<del>Prasad</del>	<del>Prasad</del>	<del>Prasad</del>	<del>Prasad</del>	<del>Prasad</del>	<del>Prasad</del>	<del>Prasad</del>	<del>Prasad</del>	<del>Prasad</del>
31	AKN-2018/102	Shirsat Aishwarya Sambhaji	<del>Shirsat</del>	<del>Shirsat</del>	<del>Shirsat</del>	<del>Shirsat</del>	<del>Shirsat</del>	<del>Shirsat</del>	<del>Shirsat</del>	<del>Shirsat</del>	<del>Shirsat</del>	<del>Shirsat</del>	<del>Shirsat</del>	<del>Shirsat</del>
32	AKN-2018/105	Supekar Vinay Raju	<del>Vinay</del>	<del>Vinay</del>	<del>Vinay</del>	<del>Vinay</del>	<del>Vinay</del>	<del>Vinay</del>	<del>Vinay</del>	<del>Vinay</del>	<del>Vinay</del>	<del>Vinay</del>	<del>Vinay</del>	<del>Vinay</del>

*S. N. Nare*  
Course Coordinator



*[Signature]*  
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Saraswatinagar, Panchavati, Nashik

33	AKN-2018/024	Surude Dewang Tukaram	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>
34	AKN-2018/108	Udamale Komal Tukaram	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>
35	AKN-2018/110	Varade Kushal Prakash	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>
36	AKN-2018/114	Waghmare Prachi Mukund	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>
37	AKN-2018/116	Walzade Manish Mahesh	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>
38	AKN-2018/117	Waman Chaitanya Ashok	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>
39	AKN-2018/118	Watpade Prasad Deepak	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>
40	AKN-2018/119	Watpade Rushikesh Atul	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>	<del>tsurude</del>



*S.B. Wagh*  
Course Coordinator

*[Signature]*  
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Saraswati Nagar, Panchavati, Nashik- 422 003. Maharashtra  
College Code;11135 AISHE Code: C-50690

☎: (0253)2555221, 2555224 ✉ - principal-bscagri@kkwagh.edu.in 🌐 https://agri-bsc.kkwagh.edu.in

## STUDENT REGISTRATION FORM

**Academic Year: 2019-20**

(Department of Genetics and Plant Breeding)

Affix recent  
passport size  
photograph  
(colour )

### CERTIFICATE COURSE

**“Plant Genetic Resources: Collection, Conservation, and Utilization”**

For Department Use Only

Registration No.: .....

--	--	--	--	--	--	--	--

Student ID:

Name of the Student: .....

Mother's Name: .....

Father's Name: ..... Year: 1<sup>st</sup> /2<sup>nd</sup> /3<sup>rd</sup>/4<sup>th</sup>

E-Mail ID: .....

Address: .....

State:.....PIN Code:.....

Mobile No: .....Alternate contact number:.....

Gender: Male  Female  Other

Religion:

Date of Birth:.....

Educational Qualification (at the time of admission):

HSC ..... Other .....

**Signature of Student**

Place:

Date:



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## STUDENT REGISTRATION FORM

Academic Year: 2019-20  
(Department of Seed Science and Technology)



CERTIFICATE COURSE

“Plant Genetic Resources: Collection, Conservation, and Utilization”

For Department Use Only

Registration No.: AKN-2018/068

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Student ID:

Name of the Student: More sawari pundalik

Mother's Name: Rekha pundalik more

Father's Name: More pundalik Bhaskar Year: 1<sup>st</sup> / 2<sup>nd</sup> / 3<sup>rd</sup> / 4<sup>th</sup>

E-Mail ID: sawarimore@gmail.com

Address: Saivishw Rowhouse, Maulinagar, Chinchhed Road, Pimpalg...

State: Maharashtra PIN Code: 422209

Mobile No: 9370049133 Alternate contact number: 9281688709

Gender: Male  Female  Other  Religion: Hindu

Date of Birth: 15/11/2000

Educational Qualification (at the time of admission):

HSC 81.23% Other .....

More  
Signature of Student

Place: Nashik

Date: 7/5/19



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**Department of Seed Science and Technology**

Certificate course in

**“Plant Genetic Resources: Collection, Conservation, and Utilization”**

Academic Year 2019-20

**Exam Block Report**

**Class- Final Year Date- 15/06/2019**

**Subject: Theory Paper of “Plant Genetic Resources: Collection, Conservation, and Utilization”**

**Block no: 02**

Sr no	Registration no	Name of students	SIGN
1.	AKN-2018/006	Bachhav Prasad Dilip	
2.	AKN-2018/008	Bagal Avinash Ramdas	
3.	AKN-2018/013	Birade Aditya Rajendra	
4.	AKN-2018/014	Burkul Akshada Sunil	
5.	AKN/D-2018/004	Damodar Pragati Dadarao	
6.	AKN-2018/028	Gandhi Prajwal Pramod	
7.	AKN-2018/038	Jagtap Akash Avinash	
8.	AKN-2018/040	Kadam Vaibhav Jagdish	
9.	AKN-2018/043	Kale Divya Chandrakant	
10.	AKN-2018/049	Karad Sandesh Tushar	
11.	AKN-2017/057	Mahale Dinesh Yashvant	
12.	AKN-2018/061	Mandlik Pranav Nitin	
13.	AKN-2018/062	Mane Vishal Balasaheb	
14.	AKN-2018/123	Mhaske Durga Gawaram	
15.	AKN-2018/068	More Sawari Pundalik	
16.	AKN-2018/069	Nagare Rushikesh Sopan	
17.	AKN-2018/073	Netake Akash Tatya	
18.	AKN-2018/076	Pagar Chaitali Tukaram	
19.	AKN-2018/077	Pande Rohit Rajendra	
20.	AKN-2018/078	Parase Ganesh Hanumant	
21.	AKN/D-2019/012	Pardeshi Akshay Santosh	
22.	AKN-2017/081	Patil Mayur Narayan	
23.	AKN2018/081	Patil Narayan Ramdas	
24.	AKN-2018/082	Patil Omkar Vinod	
25.	AKN-2018/086	Patil Rohan Rajendra	



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26	AKN-2017/084	Patil Shashank Arvind	<i>Patil</i>
27	AKN-2018/090	Pawar Shubham Arun	<i>Shubh</i>
28	AKN-2018/097	Sadgir Ganesh Rohidas	<i>Sadgir</i>
29	AKN-2017/096	Sanap Sourabh Shivaji	<i>Sanap</i>
30	AKN/D-2019/020	Shinde Prasad Dattu	<i>Shinde</i>
31	AKN-2018/102	Shirsat Aishwarya Sambhaji	<i>Shirsat</i>
32	AKN-2018/105	Supekar Vinay Raju	<i>V. Supekar</i>
33	AKN/D-2019/024	Surude Dewang Tukaram	<i>Surude</i>
34	AKN-2018/108	Udamale Komal Tukaram	<i>Udamale</i>
35	AKN-2018/110	Varade Kushal Prakash	<i>Varade</i>
36	AKN-2018/114	Waghmare Prachi Mukund	<i>Waghmare</i>
37	AKN-2018/116	Walzade Manish Mahesh	<i>Walzade</i>
38	AKN-2018/117	Waman Chaitanya Ashok	<i>Waman</i>
39	AKN-2018/118	Watpade Prasad Deepak	<i>Watpade</i>
40	AKN-2018/119	Watpade Rushikesh Atul	<i>Watpade</i>

Total no of student:

No of student present:

No of students absent:



*P. M. Bedse*  
P.M. Bedse

Name and Sign of Jr. Supervisor

*[Signature]*  
Name and Sign of Sr. Supervisor





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## Department of Genetics and Plant Breeding

Certificate course in  
**“Plant Genetic Resources: Collection, Conservation, and Utilization”**  
Academic Year 2019-20

### Exam Time Table

All enrolled students of the Certificate Course are hereby informed that for the academic year 2019-20, the Certificate Course on 'Vegetable Grafting: Concept and Application' has been completed. The examination for this certificate course is scheduled to be conducted on 15/06/2019. Therefore, all students are required to be present without exception.

Note: Time Table is as follow

Sr no	Date	Time	Certificate course subject
1	15/06/2019	01:00 to 02:00 pm	Theory exam: “Plant Genetic Resources: Collection, Conservation, and Utilization”
2		02:00 to 03:00 pm	Practical Exam: “Plant Genetic Resources: Collection, Conservation, and Utilization”



  
Course Coordinator

  
Exam Incharge

  
Principal  
K.K.Wagh College of Agriculture  
Saraswatinagar, Panchavati, Nashik



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Certificate course in  
**“Plant Genetic Resources: Collection, Conservation, and Utilization”**  
Academic Year 2019-20

**Examination Methodology**

Sr no	Nature of exam	Marks
1	Written	30
2	Practical	20
3	Total	50

**Reference:**

1. **Smith, C., & O’Connell, C.** (2020). *Plant Genetic Resources: A Global Perspective*. Cambridge University Press.
2. **Sauer, J. D.** (1993). *Historical Geography of Crop Plants: A Selected List of References*. CRC Press.
3. **Harris, D. R., & Vavilov, N. I.** (2011). *Plant Genetic Resources: In Situ and Ex Situ Conservation*. Springer.
4. **Ellis, R. H., & Roberts, E. H.** (1980). *Towards a Universal Classification of Seed Storage Behaviour*. FAO Plant Production and Protection Paper No. 14.
5. **Rafalski, J. A.** (2017). *Genotyping for Plant Breeding and Genetic Diversity Analysis*. Wiley-Blackwell.
6. **Caldwell, B. S.** (2020). *Plant Breeding: Principles and Prospects*. Academic Press.
7. **Rao, V. R., & Hodgkin, T.** (2002). *Managing Plant Genetic Diversity*. CABI Publishing.



  
Course Coordinator

  
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Saraswatinagar, Panchavati, Nashik

# K. K. Wagh College of Agriculture, Nashik

Department of Seed science and Technology

Certificate course in : "Plant Genetic Resources: Collection, Conservation, and Utilization"

Academic Year 2019-20

## THEORY EXAMINATION

Class:	S.V.B.S.C. Agr.	Semester :	III
Day & Date:	15/6/2019	Time:	1-2 PM
Subject:	DGR	Marks:	
Name of student:		Registration no:	

### Multiple Choice Questions

Q 1. What is the primary goal of conserving plant genetic resources?	
a) To increase crop yield	b) To preserve genetic diversity for future use
c) To reduce agricultural costs	d) To enhance aesthetic value of plants
Q 2. Which of the following is NOT a method of conserving plant genetic resources?	
a) In situ conservation	b) Ex situ conservation
c) Genetic engineering	d) Seed banks
Q.3 In situ conservation refers to:	
a) Preserving plants in their natural habitats	b) Storing seeds in gene banks
c) Cultivating plants in controlled environments	d) Cryopreservation of plant tissues
Q.4 Which organization is known for its global efforts in plant genetic resource conservation?	
a) World Wildlife Fund (WWF)	b) Food and Agriculture Organization (FAO)
c) National Aeronautics and Space Administration (NASA)	d) International Union for Conservation of Nature (IUCN)
Q.5 Which of the following is a major challenge in the conservation of plant genetic resources?	
a) Climate change	b) High cost of seeds
c) Lack of plant species	d) Excessive water availability
Q.6 What does ex situ conservation involve?	
a) Protecting plants in their natural ecosystem	b) Storing plant genetic material outside their natural habitats
c) Breeding plants in natural environments	d) Transplanting wild plants into urban areas
Q.7 Seed banks are important for plant genetic resource conservation because they:	
a) Provide a constant supply of fresh seeds	b) Enable long-term storage of seeds for future use
c) Help increase plant species diversity	d) Facilitate immediate germination of

in urban areas	seeds
Q 8. Which of the following is a benefit of using plant genetic resources in agriculture?	
a) Decreasing biodiversity	b) Reducing crop varieties
c) Increasing soil erosion	<b>d) Enhancing resistance to pests and diseases</b>
Q 9. Cryopreservation is a technique used to:	
a) Preserve seeds at room temperature	<b>b) Store plant genetic material at very low temperatures</b>
c) Grow plants in high temperatures	d) Increase seed germination rates
Q.10 The main purpose of plant genetic resource characterization is to:	
a) Develop new plant species	b) Improve soil quality
c) Increase agricultural production	<b>d) Assess and document the genetic diversity of plant materials</b>
Q.11 Which of the following is a method used for in situ conservation?	
<b>a) Establishing protected areas and reserves</b>	b) Cryopreserving seeds
c) Maintaining seed banks	d) Developing plant breeding programs
Q.12 What is the role of plant breeding in the utilization of plant genetic resources?	
a) To replace traditional plant species with genetically modified ones	<b>b) To enhance desirable traits in crops using genetic diversity</b>
c) To reduce the number of plant species	d) To prevent the use of genetic resources
Q.13 Which organization is responsible for the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA)?	
a) International Monetary Fund (IMF)	b) World Health Organization (WHO)
<b>c) Food and Agriculture Organization (FAO)</b>	d) United Nations Environment Programme (UNEP)
Q.14 Which of the following is a key feature of a gene bank?	
a) Germinating seeds in the field	<b>b) Storing plant genetic material in a controlled environment</b>
c) Growing plants in natural habitats	d) Enhancing the photosynthesis rate of plants
Q.15 The concept of "genetic erosion" refers to:	
a) The improvement of genetic traits in crops	b) The increase in genetic variation due to breeding
<b>c) The loss of genetic diversity within plant populations</b>	d) None of above
Q 16. Which of the following is a common method for assessing genetic diversity in plants?	
<b>a) Using genetic markers</b>	b) Measuring plant height
c) Counting the number of leaves	d) Evaluating soil quality
Q 17. The term "landrace" in plant genetic resources refers to:	
a) A genetically uniform plant variety	b) A wild plant species
<b>c) A traditional, locally adapted plant</b>	d) A genetically modified plant species

variety	
Q.18 Which plant tissue culture technique is commonly used for conservation and propagation?	
a) <b>Somatic embryogenesis</b>	b) Photosynthesis enhancement
c) Soil fertilization	d) Leaf pruning
Q.19 Which of the following practices can contribute to the loss of plant genetic resources?	
a) <b>Habitat destruction</b>	b) Establishing protected areas
c) Sustainable agricultural practices	d) Seed saving and exchange programs
Q.20 The main purpose of the International Plant Genetic Resources Institute (IPGRI), now part of Bioversity International, is to:	
a) Promote commercial plant breeding	b) <b>Facilitate global conservation and use of plant genetic resources</b>
c) Focus on plant disease control	d) Increase agricultural productivity through synthetic methods
Q.21. Which of the following is an example of a technique used to enhance crop varieties using plant genetic resources?	
a) <b>Traditional breeding methods</b>	b) Soil pH adjustment
c) Isogamy	d) None of above
Q.22. Which international agreement aims to protect plant genetic resources and promote fair and equitable sharing of benefits?	
a) Kyoto Protocol	b) Land races
c) <b>Convention on Biological Diversity (CBD)</b>	d) None of above
Q.23 What role do farmer-managed seed systems play in plant genetic resource conservation?	
a) They rely solely on commercial seed companies	b) <b>They contribute to the conservation and enhancement of local crop varieties</b>
c) Trap crop	d) None of above
Q 24. Which type of genetic material is typically preserved in a seed bank?	
a) Whole plant	b) <b>Plant seeds</b>
c) Often cross pollinated	d) None of above
Q 25. Which strategy is often used to conserve plant species that are critically endangered?	
a) <b>Controlled environment cultivation and reintroduction programs</b>	b) Large-scale commercial farming
c) Genetic modification and release into the wild	d) Ignoring their conservation needs
Q.26. Which term describes the practice of collecting and preserving plant seeds from diverse sources?	
a) Genetic drift	b) <b>Germplasm collection</b>
c) Nuclear seed	d) Foundation seed
Q.27. What is the primary purpose of using molecular markers in plant genetic resource studies?	
a) To measure plant growth	b) <b>To identify and track genetic variation</b>
c) To increase crop yield	d) To enhance plant aesthetics

Q.28 Head quarter of NBPGR is located at...	
a) Hydrabad	b) Mumbai
<b>c) Delhi</b>	d) Kolkata
Q.29. What does the term "genetic bottleneck" refer to in the context of plant genetic resources?	
a) The introduction of new genetic materia	<b>b) A sharp reduction in genetic diversity</b>
c) The expansion of plant populations	d) The development of new traits
Q.30 Which technique is often used to restore and conserve endangered plant species in their natural habitats?	
a) Gene splicing	<b>b) Habitat restoration</b>
c) Tissue culture	d) Genetic modification

30

**K. K. Wagh College of Agriculture, Nashik**

**Department of Seed science and Technology**

Certificate course in : **"Plant Genetic Resources: Collection, Conservation, and Utilization"**

Academic Year 2019-20

**THEORY EXAMINATION**

Class:	2nd year	Semester :	III Sem
Day & Date:	15/08/19	Time:	1.00 - 2.00 Pm
Subject:	Plant Genetic Resources	Marks:	
Name of student:	More Sawari pandalik	Registration no:	AKN - 2018 / 068

**Multiple Choice Questions**

Q 1. What is the primary goal of conserving plant genetic resources?	
a) To increase crop yield	<input checked="" type="checkbox"/> b) To preserve genetic diversity for future use
c) To reduce agricultural costs	d) To enhance aesthetic value of plants
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a) In situ conservation	b) Ex situ conservation
<input checked="" type="checkbox"/> c) Genetic engineering	d) Seed banks
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c) Breeding plants in natural environments	d) Transplanting wild plants into urban areas
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3. Increasing soil erosion	4. Reducing crop varieties
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variety

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a) Promote commercial plant breeding

b) Facilitate global conservation and use of plant genetic resources

c) Focus on plant disease control

d) Increase agricultural productivity through synthetic methods

Q.21. Which of the following is an example of a technique used to enhance crop varieties using plant genetic resources?

a) Traditional breeding methods

b) Soil pH adjustment

c) Isogamy

d) None of above

Q.22. Which international agreement aims to protect plant genetic resources and promote fair and equitable sharing of benefits?

a) Kyoto Protocol

b) Land races

c) Convention on Biological Diversity (CBD)

d) None of above

Q.23 What role do farmer-managed seed systems play in plant genetic resource conservation?

a) They rely solely on commercial seed companies

b) They contribute to the conservation and enhancement of local crop varieties

c) Trap crop

d) None of above

Q.24. Which type of genetic material is typically preserved in a seed bank?

a) Whole plant

b) Plant seeds

c) Often cross pollinated

d) None of above

Q.25. Which strategy is often used to conserve plant species that are critically endangered?

a) Large-scale commercial farming

b) Controlled environment cultivation and reintroduction programs

c) Genetic modification and release into the wild

d) Ignoring their conservation needs

Q.26. Which term describes the practice of collecting and preserving plant seeds from diverse sources?

a) Genetic drift

b) Germplasm collection

c) Nuclear seed

d) Foundation seed

Q.27. What is the primary purpose of using molecular markers in plant genetic resource studies?

a) To measure plant growth

b) To identify and track genetic variation

c) To increase crop yield

d) To enhance plant aesthetics

Q.28 Head quarter of NBPGR is located at...	
a) <del>Hydrabad</del>	b) Mumbai
<u>c) Delhi</u>	d) Kolkata
Q.29. What does the term "genetic bottleneck" refer to in the context of plant genetic resources?	
<u>a) The introduction of new genetic materia</u>	b) A sharp reduction in genetic diversity
c) The expansion of plant populations	d) The development of new traits
Q.30 Which technique is often used to restore and conserve endangered plant species in their natural habitats?	
a) Gene splicing	<u>b) Habitat restoration</u>
c) Tissue culture	d) Genetic modification



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College Code;11135 AISHE Code: C-50690

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## Department of Genetics and Plant Breeding

Certificate course in

### “Plant Genetic Resources: Collection, Conservation, and Utilization”

Academic Year 2019-20

#### Student Result

Sr. No.	Registration no	Name of the students	Theory marks (30)	Practical Marks (20)	Mark Out of Total 50
1	AKN-2018/006	Bachhav Prasad Dilip	27	19	46
2	AKN-2018/008	Bagal Avinash Ramdas	27	18	45
3	AKN-2018/013	Birade Aditya Rajendra	20	17	37
4	AKN-2018/014	Burkul Akshada Sunil	26	19	45
5	AKN/D-2018/004	Damodar Pragati Dadarao	27	18	45
6	AKN-2018/028	Gandhi Prajjwal Pramod	27	17	44
7	AKN-2018/038	Jagtap Akash Avinash	28	17	45
8	AKN-2018/040	Kadam Vaibhav Jagdish	27	18	45
9	AKN-2018/043	Kale Divya Chandrakant	23	19	42
10	AKN-2018/049	Karad Sandesh Tushar	27	18	45
11	AKN-2017/057	Mahale Dinesh Yashvant	29	19	48
12	AKN-2018/061	Mandlik Pranav Nitin	27	17	44
13	AKN-2018/062	Mane Vishal Balasaheb	27	19	46
14	AKN-2018/123	Mhaske Durga Gawaram	26	18	44
15	AKN-2018/068	More Sawari Pundalik	28	19	47
16	AKN-2018/069	Nagare Rushikesh Sopan	25	18	43
17	AKN-2018/073	Netake Akash Tatya	30	19	49
18	AKN-2018/076	Pagar Chaitali Tukaram	27	17	44
19	AKN-2018/077	Pande Rohit Rajendra	29	19	48
20	AKN-2018/078	Parase Ganesh Hanumant	26	18	44
21	AKN/D-2019/012	Pardeshi Akshay Santosh	28	19	47
22	AKN-2017/081	Patil Mayur Narayan	25	17	42
23	AKN2018/081	Patil Narayan Ramdas	28	18	46



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24	AKN-2018/082	Patil Omkar Vinod	28	19	46
25	AKN-2018/086	Patil Rohan Rajendra	27	18	45
26	AKN-2017/084	Patil Shashank Arvind	28	17	45
27	AKN-2018/090	Pawar Shubham Arun	29	18	47
28	AKN-2018/097	Sadgir Ganesh Rohidas	20	19	39
29	AKN-2017/096	Sanap Sourabh Shivaji	28	17	45
30	AKN/D-2019/020	Shinde Prasad Dattu	27	18	45
31	AKN-2018/102	Shirsat Aishwarya Sambhaji	27	19	46
32	AKN-2018/105	Supekar Vinay Raju	28	17	45
33	AKN/D-2019/024	Surude Dewang Tukaram	29	18	47
34	AKN-2018/108	Udamale Komal Tukaram	27	19	46
35	AKN-2018/110	Varade Kushal Prakash	24	17	41
36	AKN-2018/114	Waghmare Prachi Mukund	27	19	46
37	AKN-2018/116	Walzade Manish Mahesh	27	18	45
38	AKN-2018/117	Waman Chaitanya Ashok	27	19	46
39	AKN-2018/118	Watpade Prasad Deepak	29	18	47
40	AKN-2018/119	Watpade Rushikesh Atul	27	19	46



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## Department of Genetics and Plant Breeding

Certificate course in **“Plant Genetic Resources: Collection, Conservation, and Utilization”**

Academic Year 2019-20

### Report

K.K. Wagh Education Society's K.K. Wagh College of Agriculture, Saraswati nagar, Nashik which provide education in agriculture at U.G. level students. College has to decide introduce new Certificate Course in". Total 40 students are enrolled from department of Genetics and Plant Breeding. Due to this certificate course in **“Plant Genetic Resources: Collection, Conservation, and Utilization”**

Students get more knowledge on Plant genetic resources (PGRs) (synonymous with plant germplasm) comprise the genetic information encoded by genomes; the biological mechanisms for translating that information into phenotypes.


### Course outcome

1. **Understanding of Plant Genetic Resources:** Demonstrate a comprehensive understanding of the significance and global importance of plant genetic resources.
2. **Proficiency in Collection Methods:** Apply effective techniques for the collection and documentation of plant genetic resources in field and laboratory settings.
3. **Knowledge of Conservation Strategies:** Evaluate and implement both in-situ and ex-situ conservation methods to preserve plant genetic diversity.
4. **Expertise in Genetics and Plant Breeding:** Utilize advanced seed storage techniques and technologies to ensure the longevity and viability of plant genetic resources.
5. **Skills in Genetic Characterization:** Conduct genetic characterization and evaluation using molecular markers and other techniques to assess plant diversity and traits.

This course explores the essential aspects of plant genetic resources (PGR), including their collection, conservation, and practical applications. It provides a comprehensive overview of the methods and strategies used to preserve plant biodiversity and harness its potential for agriculture, research, and sustainability. In academic year 2019-20. 40 students are enrolled for this certificate course. Course structure had been divided into theory and theory practical. Theory has 30 marks while theory practical has 20 marks weightage examination has been conducted for total 50 marks. Duration for this certificate course is 03/06/2019 to 10/06/2019 (Total 36 hrs.). The students who successfully completed the certificate course were given a certificate as appreciation by the college. Course coordinator Dr. S. S. Bornare is and member for this certificate course are, Mr. Y.R. Kadam, and Ms. S.K. Ahirrao.

  
Course Coordinator



  
**PRINCIPAL**  
K.K. Wagh College of Agriculture  
Saraswatinagar, Panchavati, Nashik



K K Wagh Education Society's

# K K WAGH COLLEGE OF AGRICULTURE

(Affiliated to Mahatma Phule Krishi Vidyapeeth, Rahuri)

Saraswatinagar, Panchavati, Nashik - 422 003

## Certificate

This is to certify that *Mr./Ms. ...More... Sawari... Pundlik.....*

Class *...S.Y.....* has completed Certificate Course on *Hands...on...training...on...*

*Seed...quality...enhancement. from 03/06/2019... to 10/06/2019.....* organized by

Department of *...Seed...Science... & Technology in academic year ...2019-20.....*

Date : 21 /06 /2019

Place : Nashik

*S. Sawari*  
Course Coordinator



*[Signature]*  
Principal  
K K Wagh College of Agriculture  
Nashik