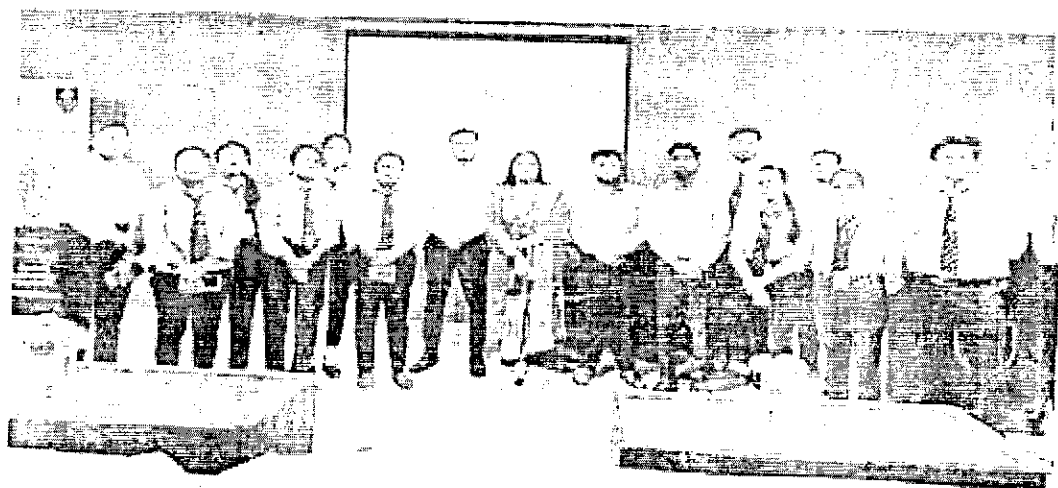
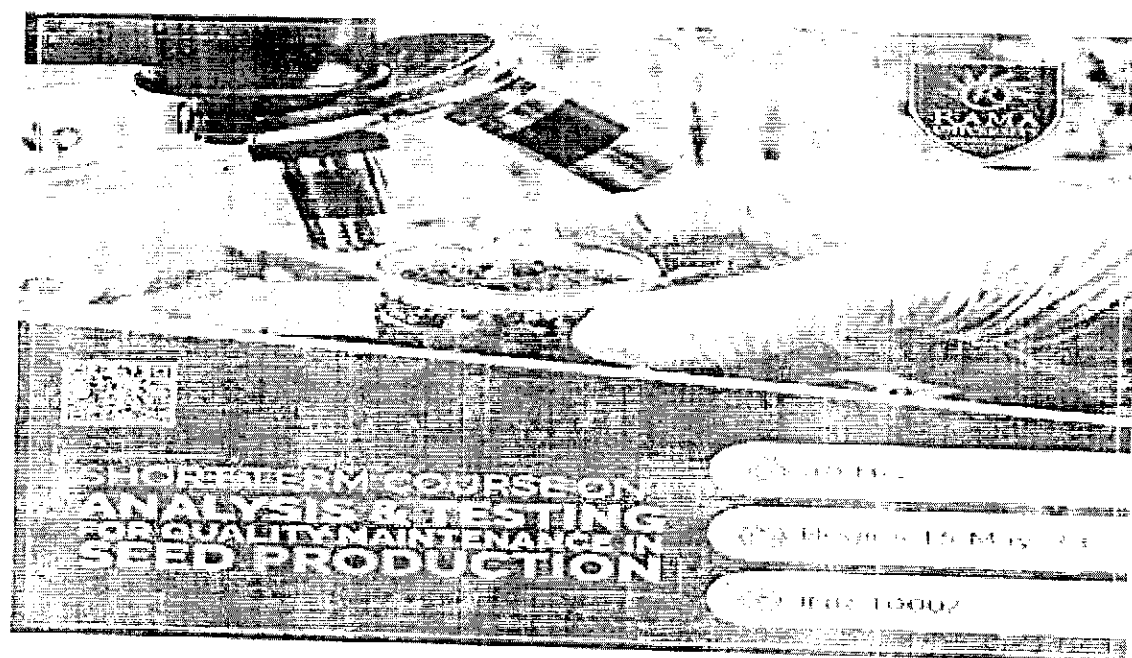


Report on Short term certificate course on "Analysis and testing for quality maintenance in seed production".



Fifteen day (30:00Hours) short certificate course. Held from 15 May 2023 to 29 May 2023.

Organized By

Faculty of Agricultural Sciences and Allied Industries, Rama University

Mancham, Kanpur- 209217 (Uttar Pradesh)



# Rama University Uttar Pradesh, Kanpur

Ref: RU/FAG/BOS/2022/01

Dated: 29/04/2022

## Faculty of Agricultural Sciences & Allied Industries

### Minutes of Meeting

### Boards of Studies

A meeting of Boards of Studies for B.Sc. (Agriculture) and M.Sc. Agriculture (Genetics and Plant Breeding/Agronomy/Horticulture/Soil Science/Plant Pathology/Agriculture Extension) held on 29<sup>th</sup> April 2022 at 3:00 PM in Dean Office. The following members were present:

- |                         |               |
|-------------------------|---------------|
| 1. Dr. Aneeta Yadav     | - Chairperson |
| 2. Dr. Kartikay Bisen   | - Member      |
| 3. Dr. A.S. Yadav       | - Member      |
| 4. Dr. Raghvendra Singh | - Member      |
| 5. Dr. Jitendra Kumar   | - Member      |
| 6. Dr. Neha             | - Member      |
| 7. Dr. Anuj Tiwari      | - Member      |

*Aneeta Yadav*  
*Bisen*  
*A.S. Yadav*  
*Raghvendra Singh*  
*Jitendra Kumar*  
*Neha*  
*Anuj Tiwari*

The following member agreed to review the minutes.

1. Dr. V.K. Verma - External Member

*V.K. Verma*  
29/04/2022

#### Agenda:

#### 1. Action Taken Report (ATR) on Minutes of Previous Meeting.

The BOS committee confirmed the minutes of the BoS meeting held on April, 2021.

#### 2. Review of the existing programs and their curricula

S. No.	Item No.	Existing	Recommendation /Action Taken
	<b>For B.Sc. (Ag)</b>		
1.	RU/FAG/BOS/2022/001 Implementation of Grading system in graduate courses as per Registrar letter RU/Reg./2022/259 date 20.4.2022	V <sup>th</sup> Dean's Committee as per the recommendation of ICAR	University followed course curricula based on V <sup>th</sup> Dean's committee as per the recommendation of ICAR. The ordinance already having higher criteria's for passing as well as grading in comparison to proposed as per letter no. RU/Reg./2022/259 dated

			20.4.2022 So no amendment needed in this regard.
	<b>For M.Sc. (Ag)</b>		
2.	<b>RU/FAG/BOS/2022/02 Master Seminar</b>	Master seminar has been allocated in different semesters in M. Sc. Agriculture disciplines.	Master seminar (1 credit) will be allocated in semester II First year of M.Sc. Agriculture (Genetics and Plant Breeding/Agronomy/Horticulture/Soil Science/Plant Pathology/Agriculture Extension)
3.	<b>RU/FAG/BOS/2022/003 Master's Synopsis</b>	Not existed in evaluation scheme	Master's Synopsis (1 credit) approval will be mandatory in semester II First year in M. Sc. Agriculture (Genetics and Plant Breeding/Agronomy/Horticulture/Soil Science/Plant Pathology/Agriculture Extension)
4.	<b>RU/FAG/BOS/2022/004 Master's Research</b>	Existed in IV <sup>th</sup> Semester evaluation scheme	Master's Research (1 credit) progress will be monitored in semester III First year in M. Sc. Agriculture (Genetics and Plant Breeding/Agronomy/Horticulture/Soil Science/Plant Pathology/Agriculture Extension)
5.	<b>RU/FAG/BOS/2022/005 Panel of External Examiners</b>	-	Panel of external examiners for semester final exams as well as practical exams is submitted for approval

### 3. Recommendation on New courses/Short term training

S. No.	Item No.	Feedback from Faculty/Student	Recommendation /Action Taken
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1	RU/FAG/BOS/2022/006 Conduction of career oriented short term courses (30 Hours)	Training/ certificate based short term courses for developing practical skills is suggested	Two short term courses are proposed for enhancing the knowledge and skills of students. 1. "Hands on training on basic Plant tissue culture techniques" 2. "Analysis and testing for quality maintenance in seed production"
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**4. Consideration of the curricula of the new programs**

S. No.	Item No.	Feedback from Faculty/subject experts/Industries	Recommendation /Action Taken
1	RU/FAG/BOS/2022/007 Exposure visits (Industry and Institutes)	Course is already based on entrepreneurship skills, practical based applications to enhance the knowledge of students.	Applicability of the courses will be thoroughly discussed along with exposure visits as per need of the subject.

**5. Review of Teaching Process/Pedagogy**

S. No.	Item No.	Existing	Recommendation /Action Taken
1	RU/FAG/BOS/2022/008 Enrichment in teaching Pedagogy for better understanding	Audio visible aids, Projectors, white board, Peaceful learning environment	Proper interaction with students, involve the students in training & learning program and experimental learning by doing principle must be adopted.

**6. Result Analysis:** — Summary of Result Analysis of the students' performance in the semester examination was presented and it was suggested that the course instructors should conduct remedial classes for the students whose performance was not found satisfactory and the subjects where results are below standards.

**7. Feedback Analysis:** — Analysis was performed based on summary of already collected feedback from students and the course instructors have been instructed for improvement in teaching pedagogy for better understanding of students in the cases where the feedback is below average.

**8. Any other issue with the permission of the Chair: --- No**

The meeting concluded with a vote of thanks to the chair. Date of the Next Meeting: to be decided and conveyed later

Dr. Aneeta Yadav  
(Chairperson)

**Encl.: Recommended Curricula attached for consideration and approval**

CC:

1. Dean, Academic Affairs
2. Registrar Office

Note Sheet

Rama University  
Uttar Pradesh,  
Kanpur,  
Department: Office of  
the Dean Academic  
Affairs

Ref No: RA/2023/049  
Date: 03/06/2023

... and all related evaluations & ...  
... completed and approved ...  
... short term course ... analysis and  
Testing for Quality Maintenance to feed feedback  
from 15.05.2023 to 29.05.2023.

Course coordinator evaluate the assessment  
and report by Dean ASAE and also ...  
by account ... we may ...  
for verification for the participant-  
process

06/23  
Dean- Academic Affairs  
Rama University Uttar Pradesh  
Kanpur

- Short term Course of ... of ...  
Sciences and allied ...  
successfully and ...  
... for certificate
- Account also ... the ...
- Out-of for ... and ...

Program/V


2

03/06/2023

**FACULTY OF AGRICULTURAL SCIENCES & ALLIED INDUSTRIES, Rama University,  
Kanpur (Uttar Pradesh)**

**Analysis and Testing for quality seed production and management  
From 15/06/2023 to 29/06/2023**

	Timing		
	01:30-2:30	02:30-03:30	
<b>Monday</b>		Lecture	Practical
<b>Tuesday</b>		Lecture	Practical
<b>Wednesday</b>		Lecture	Practical
<b>Thursday</b>		Lecture	Practical
<b>Friday</b>	Lecture	Lecture	Practical
<b>Saturday</b>	Lecture	Practical	Practical

  
 Head of Department  
 Faculty of Agricultural Sciences and Allied Industries  
 Rama University, Mandhana, Kanpur (U.P.)

**Attendancesummary**  
**“Analysis and Testing for quality seed production and management”**

S. No.	Name of Participant	15/6/23	16/6/23	17/6/23	18/6/23	19/6/23	20/6/23	22/6/23	23/6/23	24/6/23	25/6/23	26/6/23	27/6/23	29/06/23	Total Attendance (%)
1.	Koushik saha	P	A	P	A	P	P	P	A	A	P	P	P	P	80
2.	Kaushal Singh	P	A	P	P	P	P	P	A	P	P	P	P	A	76
3.	Sumit Kumar Singh	P	P	P	A	P	P	P	P	P	P	P	A	P	84
4.	Vikas Jha	A	P	P	P	P	P	P	P	P	P	P	P	P	92
5.	Rohit	P	P	P	P	A	P	P	P	P	P	P	P	P	92
6.	Mr. Raut Vijayakumar Kailasrao	P	P	P	P	A	A	A	P	P	P	A	P	P	61
7.	Vasavi Singh	P	P	P	P	P	P	P	P	P	P	P	P	P	84
8.	Akrati	P	A	P	P	P	P	P	P	P	P	P	A	P	84
9.	Monika Kumari	P	P	P	P	A	P	P	P	A	A	P	P	P	76
10.	Dr. Satya Prakash	A	P	P	A	A	P	P	P	P	P	P	P	A	69
11.	Dr. Suhel Mehandi	P	P	A	P	P	P	P	P	P	P	P	P	P	92
12.	Riya Shiv	P	P	P	P	P	P	P	P	P	P	P	P	P	100
13.	Vaibhav Shukla	P	A	P	P	P	P	P	A	P	A	P	P	P	76
14.	Sani gupta	P	P	P	A	P	P	P	P	P	P	P	P	P	92
15.	RUNA SINGH	P	P	A	P	P	P	P	P	P	P	P	P	P	92
16.	Vishal Pathak	A	P	P	P	P	P	A	P	P	P	P	P	A	76
17.	Nandan Singh	P	P	P	P	A	P	P	A	P	P	P	P	P	84

*(Signature)*  
Dean





**Lecture-1 (15/05/2023):**

**Quality seed and factor affecting the quality of seed:** Lecture conducted on Basic information of seed, Quality seed, cause of deterioration of quality of seed. Also discussed with the participants about the different quality parameters of seed.

**Lecture-2 (16/05/2023):**

**Deterioration of Crop Varieties – Causes and Maintenance:** Maintenance of genetic purity of seed is very important activity of every seed industry/ seed producing agency. After development and release of the seed of improved kind of variety its maintenance and conservation are essential to protect the seed from physical as well as genetic impurities. For this lecture have been conducted on the following matter-

**Deterioration of Genetic Purity**

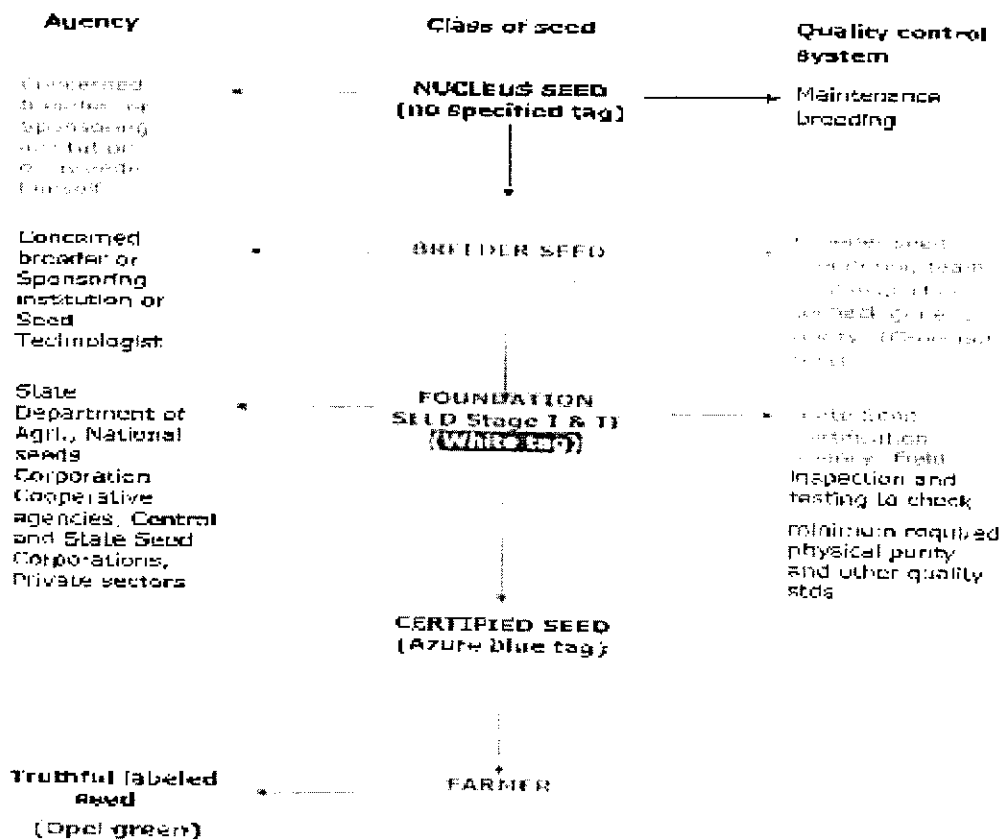
The genetic purity of a variety or trueness to its type deteriorates due to several factors during the production cycles. Kadam (1942) listed the following important factors responsible for deterioration of varieties.

1. Developmental variations
2. Mechanical mixtures
3. Mutations
4. Natural crossing
5. Minor genetic variations
6. Selected influence of pest and diseases
7. The techniques of the plant breeder

**Lecture-3 (17/05/2023)**

**Different classes of seeds produced in India:** A lecture were delivered on the classes of seed as categorised by seed certification agency on the basis of germination (%), Physical purity and genetic purity (%). The four generally recognized classes of seeds are: Breeder's seed, Foundation seed, Registered seed and Certified seed.

**GENERATION SYSTEM OF SEED MULTIPLICATION AND QUALITY CONTROL  
(NOTIFIED VARIETIES AND HYBRIDS)**



**Lecture-4 (18 May 2023):**

**Equipment used in Seed Analysis and quality testing:** In this lecture session knowledge have been provided about the different equipment. Numbers of machinery/ equipment are used in seed production industry for quality seed production. These equipment/ Tools/ Machinery have different and specific function. All participants got detail information about the each and every machinery including their hands on operational knowledge

To

Dean, Faculty of agriculture Sciences & Allied industries  
Rama University, Mandhana Kanpur-209217.

Subject: Regarding three days leave for bed rest to recover from chickenpox

Sir,

With due respect I want to bring it to your kind notice that Myself Mr. Raut Vijayakumar Kailasrao is the participant of short-term certificate course on "Analysis and testing for quality maintenance in seed production" is unable to attend the classes due to fever and chickenpox symptoms. Doctor has advised me to take rest for at least 3 days. So, kindly grant me leave from dated 18.05.2023 to 21.05.2023.

Therefore, I shall be highly obliged to you.

*Participants of STC & having STP  
inability due to medical reasons  
forwarded for kind consideration  
to Dean, Academic Affairs  
on the medical grounds.*

*Amuladev  
19/5/23*

Yours faithfully

*Raut Vijayakumar Kailasrao*  
Mr. Raut Vijayakumar Kailasrao  
PhD (GPB) Scholar  
RU, Mandhana Kanpur-209217

# प्रीती हॉस्पिटल

सी-16, न्यू आज़ाद नगर (धर्मा रोड/ल पन्थ के पीछे) जी टी रोड, कल्याणपुर, कानपुर-208 017

डॉ. प्रीती सिंह

(एम.बी.बी.एस., एम.एस.)  
स्त्री रोग विशेषज्ञ  
मो.: -91-8400403703  
+91-8387093375



डॉ. पवन कुमार सिंह

(एम.बी.बी.एस., एम.एस.)  
जनरल व लेथोस्कोपिक सर्जन  
मो.: -91-8400331082  
-91-9451686373

Rx

दिनांक: 19/05/2022

Diagnosis - Fever & vomiting.

Rx

Tab- zifi 200mg --- 80

Tab- Otabin 100 --- 100

Tab- Pantop 40mg. 05 रोज़ा (1) - 100

Tab- Utisocet --- 80s ज़रूरत परते पर

Dr. Singh

NOT FOR MEDICOLEGAL PURPOSE

निवास: न्यू टाउन IV/40 जी.एस.बी.एम. मेडिकल कॉलेज, कानपुर

To,

Dean, Faculty of Agriculture Sciences & Allied Industries  
Rana University, Mandhana Kangra-209217.

**Subject:** Regarding 2 days leave for bed rest to recover from fever

Sir,

With due respect I want to bring it to your kind notice that Myself **Dr. Satya Prakash** is the participant of short-term certificate course on "Analysis and testing for quality maintenance in seed production" is unable to attend the classes due to fever and chikhenpox. Doctor has advised me to take rest for at least two days. So, kindly grant me leave from dated 18.05.2023 to 19.05.2023.

Therefore, I shall be highly obliged to you.

The participant of STC is having  
chikhenpox. Attendance sheet is attached  
forwarded for kind consideration  
to Dean, Academic Affairs on  
the medical grounds.

Dr. Satya Prakash  
19/05/23

Yours faithfully,

Dr. Satya Prakash

Assistant professor (SST)

LPU, Jalandhar (Punjab)

# प्रीती हॉस्पिटल

सी-16, न्यू आजाद नगर (धर्मा पेट्रोल पम्प के पीछे) नीड टी रोड, कल्याणपुर, कानपुर-208 017

डॉ. प्रीती सिंह

(एम.बी.बी.एस., एम.एस.)

स्त्री रोग विशेषज्ञ

मो.: +91-8400403703

+91-6387093375



डॉ. पवन कुमार सिंह

(एम.बी.बी.एस., एम.एस.)

जनरल व लेप्रोसिकोपिक सर्ज

मो.: +91-840033108

+91 945168637

Rx

दिनांक: 12/05/20

Pt - DR. S. K. Singh

Pt Diagnosis - Fever & cough

Rx

Tab - Fluconazole 150 mg - OD

Tab - Paracetamol 500 mg - BD

Tab - Pantoprazole 40 mg - OD

Tab - Cefixime 500 mg - BD

Tab - Fedmocef ev. - BD

4 days

Dr. P. K. Singh

NOT FOR MEDICOLEGAL PURPOSE

निवारा: न्यू टाइम IV/40 जी.एस.वी.एम. मेडिकल कॉलेज, कानपुर

**Transaction ID of participant of STC Course on Analysis and Testing for Quality Maintenance in Seed Production**

S. No.	Name of Participant	Transaction ID No	Date	Mobile no	Email ID	Remarks by Accounts
1.	Kaushik soha	313062006842	5/10/2023 14:32	9803758856	kaush423@gmail.com	Done
2.	Kaushal Singh	31036964330	5/13/2023 9:48	9459400079	kaushalsingh5723@gmail.com	Done
3.	Surjit Kumar Singh	313361506111	5/13/2023 11:41	9352307252	singhs_mitkumara85@gmail.com	Done
4.	Vikas Jha	313374383833	5/13/2023 10:41	8729935447	shwikas2888@gmail.com	Done
5.	Rohit	312350405600	5/13/2023 17:22	8217065388	ro093977@gmail.com	Done
6.	Mr. Raut Vijaykumar Kalsano	323371611800	5/13/2023 17:51	8870171407	vijayvaut56@rediffmail.com	Done
7.	Vaswani Singh	3134000424897	5/14/2023 10:54	8630547203	vaswvdsingh31@gmail.com	Done
8.	Akshai	3500127913962	5/14/2023 17:03	72239 90884	ak026020@gmail.com	Done
9.	Monika Kumari	313448722562	5/14/2023 20:28	9350035891	monika180@gmail.com	Done
10.	Dr. Satya Prakash	313537112861	5/15/2023 9:14	95657 7358	satya_20830@hau.co.in	Done
11.	Dr.Sudhe Mchandi	313516435489	5/15/2023 16:34	7860150083	s_khal7696@gmail.com	Done
12.	Riya Shiv	313547282150	5/15/2023 19:01	62641 11174	shvsnays2217@gmail.com	Done
13.	Vaishav Shukla	313563704013	5/15/2023 22:47	96285 73888	vaishavshukla19@gmail.com	Done
14.	Sani Gupta	313557265942	5/15/2023 23:04	945120345	sani_gupta805@gmail.com	Done
15.	HURVA SINGH	313686703471	5/16/2023 13:21	63903 07275	runasingh0710@gmail.com	Done
16.	Vishal Patilok	315076429175	5/30/2023 12:25	8188806212	bansupathak54@gmail.com	Done
17.	Nandan Singh	3152261112873	6/1/2023 10:18	82284620051	singh_nandan1004@gmail.com	Done

*(Handwritten signature)*

*(Handwritten signature)*

*(Handwritten signature)*



# Faculty of Agricultural Sciences & Allied Industries

Kumaon University, Uttar Pradesh, Kampur

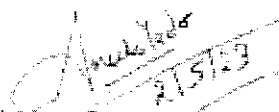
(Vide U.P. Act No. 1 of 2014 in pursuance of State Legislature and notified by LGC U/s 2 (E))

Date: 21/5/2023

Subject: Seeking approval on the ordinance (attached) for running a short term certificate course from FASAI (15 - 30 May 2023).

With reference to the letter no. KU/Exam/2020-21/254, dated 02/03/2021, I am hereby unavailably conducting in a short term course from Faculty of Agricultural Sciences & Allied Industries. The course will be started from 15 May 2023. The short term certificate entitled "Analyze the quality maintenance in seed production" will be of 30 hours. The suggested fees for running the course are Rs. 1000 only.

Kindly seek your P.T. approval to start this course.

  
21/5/23

(Dr. Anshu Yadav)

Dean

Faculty of Agricultural Sciences  
& Allied Industries





Ref. No: RU/BGG/2023/2576

Date: 04.05.2023

## Office Order

To,


Dean,  
Faculty of Agricultural Sciences & Allied Industries

Dear Ma'am,

With reference to your submitted proposal Ref. No – Agri/Dean/2022/242 dated 02.05.2023, Vice Chancellor has been pleased to accord permission to conducting a short-term certificate course on "Analysis and testing for quality maintenance in seed production" (as per course ordinance) by the Department of Agricultural Sciences & Allied Industries subject to approval of Academic Council.

### Copy to:-

1. Secretary to Hon'ble Vice-Chancellor.
2. Director Sir
3. Dean Academic Affairs
4. Controller of Examinations
5. Deputy Registrar/Asst. Registrar
6. Guard File

  
(Registrar)  
Registrar  
Rama University  
Kanpur (U.P.)

### Note Sheet

Rama University

Uttar Pradesh,

Kanpur

Department: Office of  
the Dean Academic  
Affairs

Ref No. RA/2023/023

-032- (02/05/2023)

The career oriented short term course/value added course on "Analysis and Testing for Quality Maintenance in Seed Production" is proposed by Dr. Anceeta Yadav, Associate Professor, Faculty of Agricultural Sciences & Allied Industries.

The said course will commence from 15<sup>th</sup> May 2023 and having 30 hours' duration.

The proposed course fee will be Rs. 1000/- per participant.

I request to kindly approve the same.

To, Registrar Sir, *[Signature]*  
Dean-Academic Affairs  
Rama University Uttar Pradesh  
Kanpur

*VE*  
*[Signature]*  
*[Signature]*  
*[Signature]*

# RAMA UNIVERSITY UTTAR PRADESH KANPUR

Faculty of Agricultural Sciences & Allied Industries

## ORDINANCE

For

Short Term Certificate Course

On

"Analysis and testing for quality maintenance in seed production".

### Background

Seed testing is the science of determining whether or not a seed is suitable for planting. Seed testing aids in determining the quality attributes of seed lots that must be sold and reduces the risk of sowing low-quality seeds. Seed testing determines a seed lot's requirements, such as physical purity, moisture, germination, and ODV, allowing farmers to obtain high-quality seeds. The Seed Testing Laboratory is the control centre for seed quality. Seed testing services are occasionally necessary to obtain information on the planting value of seed batches. Seed testing is available to anyone who makes, sells, or uses seeds. All strategies used in seed analysis and its quality testing are skill-based, and systematic study can prepare a person to apply them effectively in a variety of settings, including basic research, environmental challenges, and potential uses. This course provides full hands-on instruction for learning the fundamentals as well as an understanding of procedures for analysis of seed and maintenance of seed quality. The goal of the course is to give basic and applied training on the topic in order to develop skills for a successful career in entrepreneurship, as well as to produce technically trained human resources for the seed industry and as instructors in schools and junior colleges.

Details as per SOP are as follows:

- (a) Name of Course: "Analysis and testing for quality maintenance in seed production"
- (b) Duration (in hours/weeks/months/credit): 30 hours (2weeks)

**(c) Pre-requisites/who should enroll:** Farmers/ Student/ Research Scholar/ JRF/ SRF/ Assistant Professor/ Scientist

**(d) Contents/Module of Courses (Verified by HoD & Dean):**

1. Introduction to Seed Quality
2. Role of seed testing laboratory
3. Handling of laboratory equipments
4. Sampling in seed testing lab
5. Physical purity analysis
6. Seed germination test
7. Determination of moisture contents of seed
8. Seed viability and vigor test
9. Genetic purity test: Grow out test
10. Seed certification procedures
11. Visit to Uttar Pradesh Seed Development Corporation

#### **Hands on Training**

This training will be based on "Learning by doing principles" and trainees will learn the techniques of various lab and field procedures that play an important role in seed analysis and seed quality testing.

**(e) Expected outcomes / benefits on completion of course:**

1. To impart knowledge on the experimental methods in seed analysis.
2. To provide a practical reference to the production of high quality seeds.

**(f) Assessment Method:** Written test (Multiple Choice Question)

**(g) Criteria for successful completion of Course:** The registered students have to get minimum 50% marks to get the course certificate.

**(h) Minimum number of enrollments to run the course:** 10

**(i) Requirement for running short term course:** As per requirement of the course well equipped Seed technology lab with all the facilities needed.

(The requirement will be provided as per need only after confirmation of total registrations in the course)

Transaction Analysis and History of the Transactions in Social Production

No	Account Name	Transaction ID No	Date	Participan	Email ID	Remarks by Accounts
1	Kontributor	512070313132	2016-03-22	2016-03-22	kolaborasi@ppl.com	Uang
2	SA MIL KURUS SIRGAN	512070313138	2016-03-28	2016-03-28	kolaborasi@ppl.com	Dump
3	Waher Sisa	512070313141	2016-03-28	2016-03-28	kolaborasi@ppl.com	Dump
4	RIKHA	512070313150	2016-03-28	2016-03-28	kolaborasi@ppl.com	Dump
5	Waher Sisa	512070313151	2016-03-28	2016-03-28	kolaborasi@ppl.com	Dump
6	Waher Sisa	512070313152	2016-03-28	2016-03-28	kolaborasi@ppl.com	Dump
7	Manika Purwati	512070313153	2016-03-28	2016-03-28	kolaborasi@ppl.com	Dump
8	Dr SENA PRASOJA	512070313154	2016-03-28	2016-03-28	kolaborasi@ppl.com	Dump
9	Dr Samsulbahari	512070313155	2016-03-28	2016-03-28	kolaborasi@ppl.com	Dump
10	RIKHA	512070313156	2016-03-28	2016-03-28	kolaborasi@ppl.com	Dump
11	Waher Sisa	512070313157	2016-03-28	2016-03-28	kolaborasi@ppl.com	Dump
12	Waher Sisa	512070313158	2016-03-28	2016-03-28	kolaborasi@ppl.com	Dump
13	Waher Sisa	512070313159	2016-03-28	2016-03-28	kolaborasi@ppl.com	Dump
14	Waher Sisa	512070313160	2016-03-28	2016-03-28	kolaborasi@ppl.com	Dump

Handwritten signature and date: 2016/11/13

Handwritten signature and date: 2016/11/13

Handwritten signature and date: 2016/11/13

Official stamp: PPL (Pusat Penelitian dan Pengembangan) with date 2016/11/13

Participant Name	Qualification	Institute/University/Organization Name	City
1. Koushik Sana	M.Sc. Agr. GPB	Rama University	Kanpur
2. Kaushal Singh	Ph. D. Scholar	DDU Gorakhpur University, Uttar Pradesh	Gorakhpur
3. Sumit Kumar Singh	Ph. D. Scholar	JDU Gorakhpur University	Gorakhpur
4. Vikas Jha	M. Sc in Genetics and Plant Breeding	Rama University	Kanpur
5. Rohit	Bsc agriculture	Rama University Kanpur	Kanpur
6. Mr. Prant Vijayakumar Kallare	Analysis and Testing for Quality Maintenance	FAS & AI Rama University Kanpur	Kanpur
7. Vasav Singh	Analysis & testing for Quality Maintenance	Rama University	Kanpur
8. Akshai	B.Sc (Ag)	Rama University	Kanpur
9. Monika Kumari	B.sc agriculture	Rama University	Kanpur
10. Dr. Satya Prakash	Analysis and testing for quality maintenance	Lovely Professional University, Phagwara, Punjab	Jalandhar
11. Dr. Subel Meharaj	STC on Analysis and testing for quality maintenance	OVELY PROFESSIONAL UNIVERSITY, JALANDHAR, PUNJAB	Jalandhar
12. Riya Shiv	B. So. (Ag) 3rd year	Rama University FASAI	Kanpur
13. Valbhav Shukla	B.Sc.	Rama University	Kanpur
14. Sani Gupta	B.Sc Ag	Rama University	Kanpur
15. RUMA SINGH	Genetics and plant breeding	Indian Institute of Pulses Research Kanpur	Kanpur
16. Vishal Patilak	B.Sc.	Rama University	Kanpur
17. Nandan Singh	Research Scholar	ICAR- Indian Institute of Pulses Research	Kanpur

*[Handwritten Signature]*

C. DR. Ananta Yadav  
 Assoc. Prof & Dean

Course - Convener  
 P. H. I. I.

**Short term certificate course on "Analysis and testing for quality maintenance in seed production"**

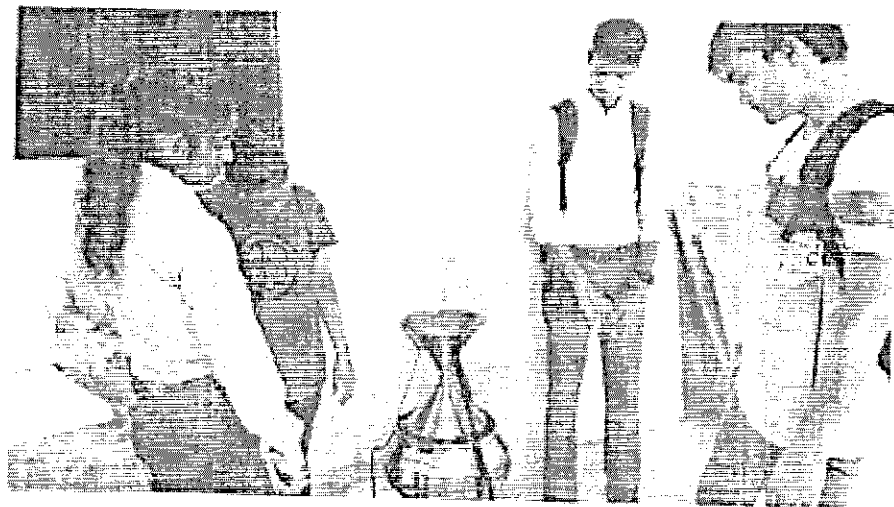
**Evaluation (part-1) Quiz**

**Maximum marks: 20**

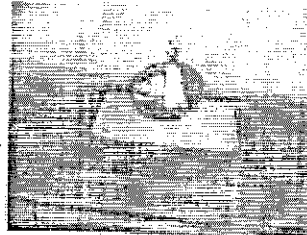
1. Progeny of breeder seed is referred to as
  - A. Breeder seed
  - B. Nucleus seed
  - C. Foundation seed
  - D. Certified seed
  
2. Wheat varieties KML 7404, MILKS-II are
  - A. Pure line cultivars
  - B. Multiline cultivars
  - C. Mass selected cultivars
  - D. Exotic cultivars
  
3. Lysine is limiting amino acid in
  - A. Cereals
  - B. Pulses
  - C. Green vegetables
  - D. Fish
  
4. The objectionable weed in wheat is
  - A. *Convolvulus arvensis*
  - B. *Phalaris minor*
  - C. *Oryza sativa*
  - D. *Cuscuta* sp.
  
5. Seed multiplication rate for Ragi is
  - A. 176
  - B. 420
  - C. 380
  - D. 450

6. Rescue variety of wheat is released in
- A. USA
  - B. Canada
  - C. Mexico
  - D. England
7. In Turkey, *Cirsium* is the serious parasitic weed of
- A. Cotton
  - B. Sorghum
  - C. Sugarbeet
  - D. Sugarcane
8. Atlas 66 is an important source of high protein in
- A. Barley
  - B. Maize
  - C. Wheat
  - D. Sorghum
9. Tetrazolium test is conducted for
- A. purity
  - B. moisture
  - C. Seed viability
  - D. Robinson (1971)
10. When the composite sample is reduced to required size which is to be submitted to seed testing lab is
- A. Primary sample
  - B. Composite sample
  - C. Submitted sample
  - D. Working sample





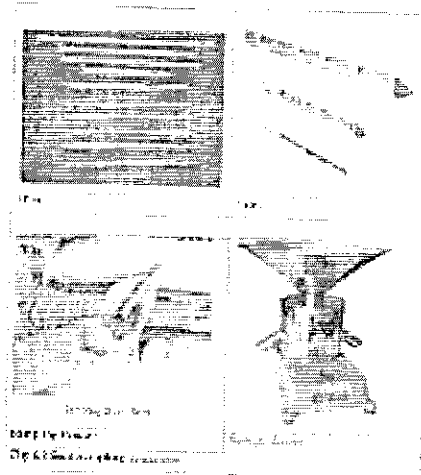
Air Screen cleaner



Purity work Boards



Grinding Mill



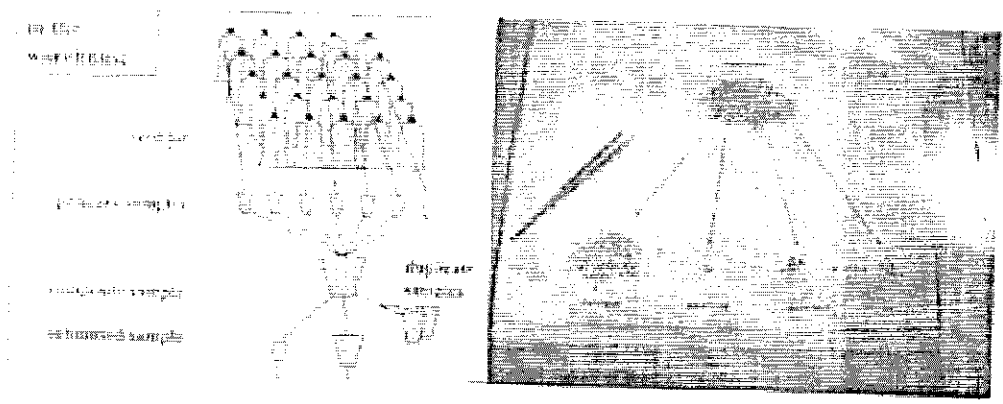
**Lecture-5 (19 May 2023):**

**Handling of lab equipment and chemicals used in Seed quality analysis and testing:**  
In this class participants got knowledge about identification and handling of lab equipment and chemical used in seed testing.



**Lecture-6 (20 May 2023):**

**Seed procurement and sampling according to International Seed testing Agency:** In this lecture and lab experiment participant got knowledge of different method of seed sampling by hand and by trier method. Also did hands on training of seed sampling of cereals, oil seeds and pulses.



**Lecture-7 (22 and 23 May 2023, ):**

**Seed physical Purity analysis:** Physical purity analysis tells us the proportion of pure seed component in the seed lot as well as the proportion of other crop seed, weed seed and inert matter by weight in percentage for which Seed Standards have been prescribed. Thus, it helps in:

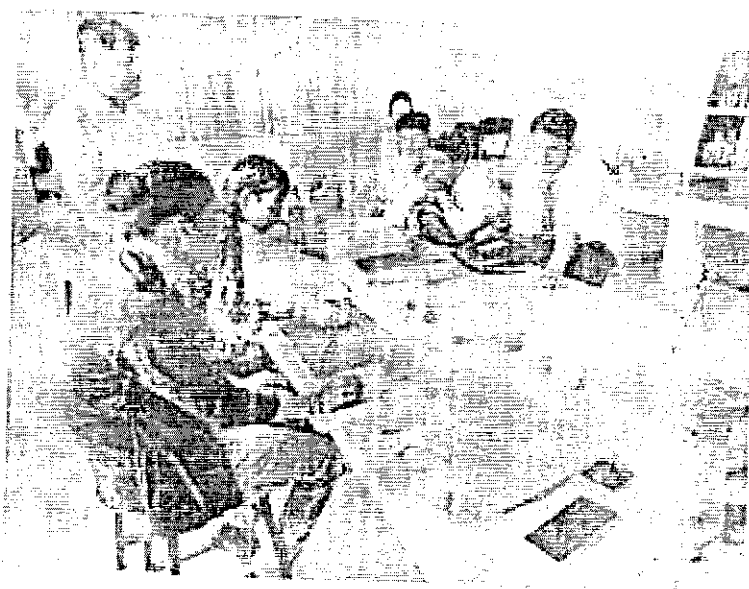
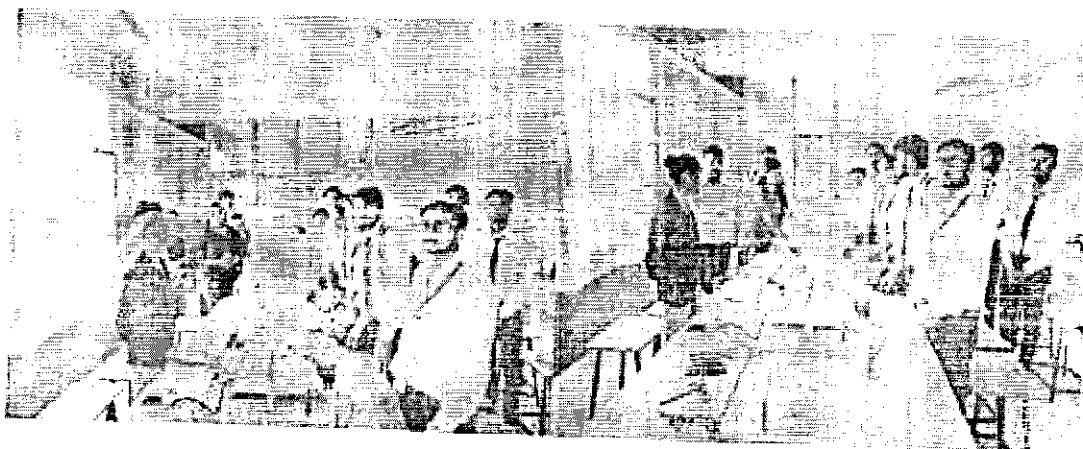
1. Improving the plants and (by increasing the pure seed component).
2. Raising a pure crop (by eliminating other crop seed and weed seeds).
3. Raising a disease free-crop (by eliminating inert matter).
4. In the use of seed drill (by selecting uniform particles).

This this lecture module participants got knowledge and also learned about the physical purity analysis of different classes of seed.



Lecture-8 (24 & 25 May 2023):

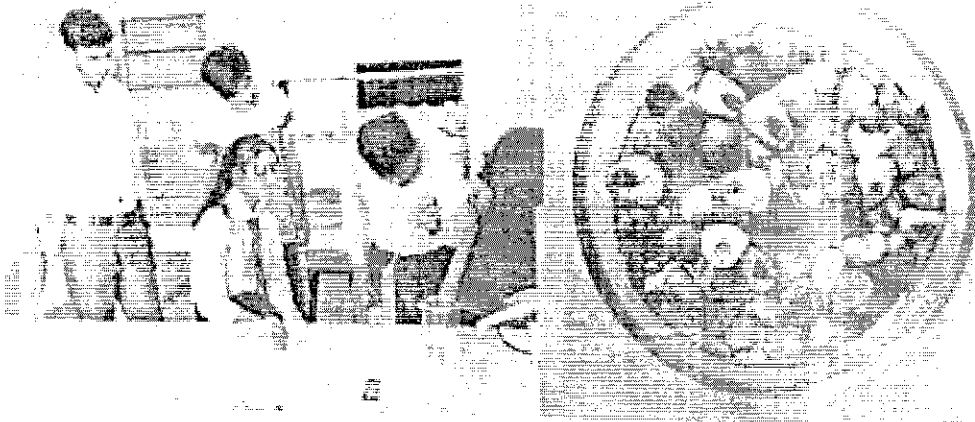
Seed germination and viability test method was given to the participants about the seed germination physiology, chemistry and factors affecting seed germination also did experiments about the seed germination percentage analysis and seed viability and vigour analysis.



Lecture-9 (26 May 2023):

Chemical analysis of seed viability: Very popular and universal method of seed viability analysis called Tetra Zolium (TZ) test regarding detail information have been provided to

the participants. They learned about the salt dilution method of TZ chemical and did seed conditioning and soaking in the solution to test the seed viability of Pulses, Cereals and oil seeds.



#### Lecture-10 (27 and 29 May 2023):

Genetic purity analysis by Grow out test (GOT): The tests in which appropriate sample of seeds are grown to determine the genetic purity of a given seeds lot of released and notified variety/hybrid in the field and the extent to which the submitted sample conforms to prescribed standards.

- ✓ Morphological characters are studied in details and compared with the authentic sample at proper stage of crop growth.
- ✓ The seeds are sown in the main field in a prevailing environment after proper land preparation.
- ✓ The check and authenticated samples are also grown along with the test samples.
- ✓ The crop is grown up to peak flowering and fruiting stage. Based on distinguishable characters, the varieties/hybrids are identified.
- ✓ This serves as the standard test for genetic purity examination under seed certification programme.

**Genetic purity:** It is the true-ness of the cultivar, where it should reproduce or resemble its mother plant in all the characteristics.

**Field of applicability:**

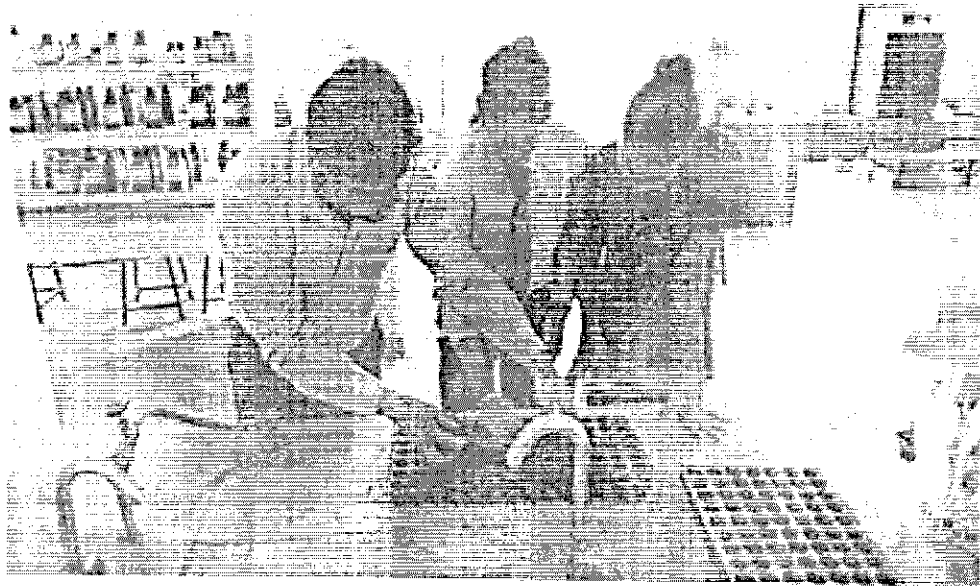
Grow-out Test is the official measure for controlling the genetic purity of the seed lot. It serves as a pre-control as well as a 'post-control' test for avoiding genetic contaminations.

The test is required to be conducted for checking the seller's label with respect to genetic purity status of the seed lot under the provisions of the seeds Act 1966. In addition grow-out test can also be used as a measure to judge the efficacy of the certification agency or the inspector.

**Sampling:**

The samples for "grow-out test" shall be drawn simultaneously with the samples for the seed quality tests in accordance with the prescribed sampling procedures.





Attendance records were maintained throughout the short term course and all the participants fulfilled the criteria and were eligible for appearing in the evaluation process.

*(All participants were having more than 75% attendance)*


Evaluation was done based on quiz as well as viva-voce examination after completion of 30 Hours course. All the candidates (17) having minimum 50% marks have been recommended for getting the course completion certificates.

Course Completion Report

Short-term certificate course on "Analysis and testing for quality maintenance in seed production"


A committee was constituted for planning and execution of this short term course. The committee members from the Faculty of Agricultural Sciences and Allied Industries, Rama University were committed to ensure the proper monitoring and successful completion of the course and maintenance of all the records needed to verify the participation of the candidates, their evaluation and report submission.

1. Course convenor:

  
Dr. Anveta Yadav

Associate professor & Dean  
FASAI, Rama University Kanpur

2. Co convenor:

  
Mr. Syed Mohd Qutadah


Assistant professor (GPB)  
FASAI, Rama University, Kanpur

3. Head:

  
Dr. Karanika Bisra

Assistant professor & HoD  
FASAI, Rama University, Kanpur

4. Dean:

  
Dr. Anveta Yadav

Associate professor & Dean  
FASAI, Rama University Kanpur



Short term certificate course on "Analysis and testing for quality maintenance in seed production"  
Evaluation (part-2) Viva-voce

Max marks 30

Viva-voce examination was conducted for evaluating the participant's learning and experiences about the hands on training and marks were given accordingly.

S. No.	Name of Participant	Maximum marks	Marks obtained
1	Koushik saba	50	45
2	Kaushal Singh	50	44
3	Sureit Kumar Singh	50	47
4	Vikas Jha	50	47
5	Rahil	50	44
6	Mr. Rami Vijayakumar Kallayrago	50	49
7	Yasvi Singh	50	47
8	Akshai	50	41
9	Monika Kumari	50	49
10	Dr. Satya Prakash	50	48
11	Dr. Suhel Mehandi	50	44
12	Riya Shiv	50	43
13	Vaibhav Shukla	50	45
14	Sani gupta	50	47
15	RUTNA SINGH	50	46
16	Vishal Pathak	50	44
17	Nandan Singh	50	45

1. Course convenor:

Dr. Anceeta Yadav

Associate Professor & Dean  
FASAI, Rama University, Kurpur

2. Co convenor:

Mr. Syed Mohd Quadir  
Assistant professor (GHS)

FASAI, Rama University, Kurpur

3. Head:

Dr. Kurliley Bisen

Assistant Professor & HOD

FASAI, Rama University, Kurpur

4. Dean:

Dr. Anceeta Yadav

Associate Professor & Dean  
FASAI, Rama University Kurpur

# Faculty of Agricultural Sciences & Allied Industries

Rama University, Uttar Pradesh, Kanpur

(Vide U.P. Act No. 1 of 2014 as passed by State Legislature and recognized by UGC U/s 2 (f))

F.N.Agril./Dcan/2023/341

Date: 11/6/2023

To,

Dean, Academic Affairs,

Rama University, Kanpur

**Subject: Report submission of successful completion of short term certificate course organized by FASAI on "Analysis and testing for quality maintenance in seed production" (15<sup>th</sup> May to 29<sup>th</sup> May 2023).**

Respected Sir,

This is for your kind information that Faculty of Agricultural Sciences and Allied Industries, Rama University, Kanpur has successfully organized short term Certificate course on "Analysis and testing for quality maintenance in seed production" from 15<sup>th</sup> May to 29<sup>th</sup> May 2023.

It's a Privilege for me to inform you that we received 17 Registration for this course. It was a 30 hour session (15<sup>th</sup> May to 29<sup>th</sup> May 2023) and the participants were exposed to practicals and procedures.

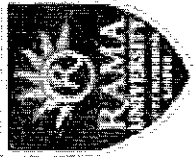
Detailed report, list of participants and evaluation report is attached herewith for your reference and perusal so that certificate can be prepared and issued to the participants.



(Dr. Anjeeta Yadav)

Dean

Faculty of Agricultural Sciences  
& Allied Industries



RAMA  
UNIVERSITY

Serial 1334

Website: www.ramauniversity.ac.in

CERTIFICATE OF SHORT TERM COURSE

This is to certify that

Mr / Ms. Dr. Satya Prakash

has successfully completed more than 30 hours short term course on

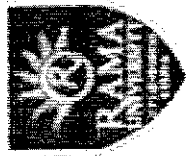
Analysis and Testing for Quality Maintenance in Seed Production

conducted from 15 May, 2023 to 29 May, 2023 in the department

of \_\_\_\_\_ Faculty of Agricultural Sciences and  
Allied Industries

Dean/Principal

Registrar/Controller of Examinations



RAMA  
UNIVERSITY

SET No. 1633

CERTIFICATE OF SHORT TERM COURSE

This is to certify that

Mr / Ms *Monika Kumari*

has successfully completed more than 30 hours short term course on

" *Analysis and Testing for Quality Maintenance in Seed Production* "

conducted from *15 May, 2023* to *29 May, 2023* in the department

of *Agricultural Sciences and Allied Industries* Faculty of *Agricultural Sciences and Allied Industries*

*[Signature]*  
Dean/Principal

*[Signature]*  
Registrar/Controller of Examinations



