



महाराष्ट्र MAHARASHTRA

© 2022 ©

37AA 502002

जे.ए.ए.ए. - 2 / Annexure-II

दस्तावेज क्रमांक/अनुसंधान क्रमांक -	२५११११११ २५
हा दस्तावेज को प्रमाणित करणेसाठी कोणत्या कायद्याचा अर्थ आहे?	-
हा दस्तावेज कोणत्या अर्थाने प्रमाणित करणेसाठी कोणत्या कायद्याचा अर्थ आहे?	-
हा दस्तावेज कोणत्या अर्थाने प्रमाणित करणेसाठी कोणत्या कायद्याचा अर्थ आहे?	-
हा दस्तावेज कोणत्या अर्थाने प्रमाणित करणेसाठी कोणत्या कायद्याचा अर्थ आहे?	-
हा दस्तावेज कोणत्या अर्थाने प्रमाणित करणेसाठी कोणत्या कायद्याचा अर्थ आहे?	प्राचीन वाचिरे महाविद्यालय
हा दस्तावेज कोणत्या अर्थाने प्रमाणित करणेसाठी कोणत्या कायद्याचा अर्थ आहे?	-
हा दस्तावेज कोणत्या अर्थाने प्रमाणित करणेसाठी कोणत्या कायद्याचा अर्थ आहे?	गणेश त्र्यंबक मठ, सासवड
हा दस्तावेज कोणत्या अर्थाने प्रमाणित करणेसाठी कोणत्या कायद्याचा अर्थ आहे?	२००८
हा दस्तावेज कोणत्या अर्थाने प्रमाणित करणेसाठी कोणत्या कायद्याचा अर्थ आहे?	२९ ए एप्रिल २०२३
हा दस्तावेज कोणत्या अर्थाने प्रमाणित करणेसाठी कोणत्या कायद्याचा अर्थ आहे?	२९ ए एप्रिल २०२३
हा दस्तावेज कोणत्या अर्थाने प्रमाणित करणेसाठी कोणत्या कायद्याचा अर्थ आहे?	श्री. एस. एस. जगताप
हा दस्तावेज कोणत्या अर्थाने प्रमाणित करणेसाठी कोणत्या कायद्याचा अर्थ आहे?	श्री. एस. एस. जगताप
हा दस्तावेज कोणत्या अर्थाने प्रमाणित करणेसाठी कोणत्या कायद्याचा अर्थ आहे?	श्री. एस. एस. जगताप



MEMORANDUM OF UNDERSTANDING
THIS MEMORANDUM OF UNDERSTANDING MADE AT SASWAD ON THE 29th April 2023

BETWEEN

Department of Microbiology, Waghire College, Saswad and Internal Quality Assurance Cell (IQAC) Waghire College, Saswad, both located at Pune District Education Association's (PDEA), Waghire College of Arts, Commerce and Science, Saswad, Tal: Purandar, Dist: Pune - 412301. The College was established in 1972 and spread over of

11 acres. College has actively involved in various research activities and also received DBT Star College grant from Department of Biotechnology.

KanBiosys Research & Education Foundation [KREF], a Non-Government Organization, having its registered office at 917/17, 12 Ganeshwadi, Deccan Gymkhana, Pune 411004, Maharashtra, India, having Registration no. PTR No. F- 22019/Pune, Represented through its Authorised Signatory.

Whereas, KREF is a NGO working with a mission to improve the awareness about use of Microbials and other safe biosolutions in soil health management, crop nutrition and crop pest/disease management. All over the globe, biologicals have been developed to ensure sustainability of agriculture for better food security as well as food safety. However, farmers/ children in farmers' families need to be educated regarding the benefits of these biologicals, how they can improve the soil fertility, how they can increase fertilizer use efficiency and in turn how they result in higher yield as well as income of the farmers. Considering the ill effects of pesticide residues on our health and health issues in new generation, awareness about the residue-free farming practices is the need of the hour.

And whereas, KREF proposes to carry out the Lecture series on use of microbials/biosolutions as well as field application studies of different biological products. This is to increase the awareness about need and use of biologicals in agriculture. The bio inoculants as well as bio pesticides provided by Kanbiosys Pvt Ltd, Pune will be used in different field crops to conduct the demonstration trials at various fields available with the students of Waghire College, Saswad. The products and data sheets will be provided to the students of Waghirecollege by KREF.

NOW THIS DEED WITNESSETH AS UNDER:-

1. OBJECTIVES UNDER THE MEMORANDUM OF UNDERSTANDING

- i. It is hereby agreed by and between the parties that KREF will provide the products, data sheets and infrastructure for research purpose of students and staff of Waghire College.
- ii. It is hereby agreed that the College will support for the activities of KREF like helping to conduct field experiments in which students/ staff will participate. This will also help to generate curiosity and to inculcate research activities among the students.
- iii. It is hereby agreed between the parties that all parties will promote for the use of bio inoculants and bio pesticides and will provide the potential benefits arising from them to local farmers and students.

2. COVENANTS BY THE KREF

- i. KREF will arrange lectures of experts in soil health management, Use of Biofertilizers, Biopesticides, biostimulants, residue free agriculture practices, etc.
- ii. KREF will provide Bio-products for the field experiments carried out by Waghire college students on their fields.
- iii. KREF assures the College that KREF is legally and validly organised and is in existence as on the date of this MOU.
- iv. KREF shall ensure that the beneficiaries to derive the full benefit under this MOU.
- v. Waghire College shall maintain and keep accurately the records of utilization of facilities of KREF by the college from time to time.

- vi. KREF ensures that the benefits of this Memorandum of Understanding are for a non-commercial purpose and for the benefit of the community at large.
- vii. KREF will provide the Expertise and basic Resources which are available and required for the different activities under this MoU.
- viii. Common interest is to increase awareness about use of bio-products in sustainable agriculture
- ix. Exchange of the Experience, knowledge, specialization, mutually beneficial to meet the objectives.
- x. Planning, development and implementation of the Joint projects and programmes.

3. COVENANTS BY THE COLLEGE

- i. The College will provide knowledge support for research activities.
- ii. Some experiments which require farm land or field can be conducted by the College with mutual understanding and work distribution.
- iii. The college will provide major inputs to spread the knowledge of Kan Biosys products and their potential to local farmers as well as students, will also help to conduct some activities which KREF is doing for common people.
- iv. College will provide the Expertise and Resources which are available and required for the different activities under this MoU.
- v. The representative staff nominated by the College shall visit different farms to assess the progress made by Students in respect of the terms and conditions under this Memorandum of Understanding. KREF shall co-operate with the representatives so as to achieve the objectives of this Memorandum of Understanding.

4. MONITORING

To implement this MoU Participants will Established Joint Committee which includes
Chairman: Principal, Dr. Pandit Shelke

Members: 1) HoDWaghire college: Mrs. Hemlata Sonawane
2) President KREF: Ms Sandeepa Kanitkar
3) Member KREF: Dr Medha Kulkarni

- 1) The committee will oversee the development and Implementation of the work programme.
- 2) Serve forum to take the policy decisions regarding the future developments.
- 3) Serve forum for the exchange of the information from both the participants.
- 4) Review achievements of cooperation according to the MoU
- 5) The committee continue will meet at least twice every Year to oversee the progress of the MoU.

College shall meticulously maintain by means of hard copies, record books or in an electronic format details monitoring the project in accordance with the terms and conditions set out in this Memorandum of Understanding.

5. ACTIVITIES:

- 1. Lectures on role of biologicals in sustainable agriculture
- 2. Demonstration trials of different Bio-products in different crops
- 3. Activity records will be keeping at both the places which will be helpful for further research-based activities.

4. Scientific projects will be conducted for students; they can get benefit from both the company and institution. It will be collaborative research work.

Sr.No.	Activities	Coordinator	Dates
1	Lecture on Concept and use of Bioinoculants	Ms. H. V. Sonawane Ms. V. N Ganvir	12/12/2022
2	Use of bioinoculants in feilds	Dr. N.B. Patil	18/02/2023
3	Foliar biofertilizer and micronutrient spray		17/03/2023

6. CONFIDENTIALITY AND PROTECTION OF INTELLECTUAL PROPERTY RIGHTS

KREF and the College shall ensure that any confidential information shall not be revealed or disclosed without permission of either party to the third parties unless it may be required by law. KREF and Waghire College, both the parties will ensure that KanBiosys Pvt Ltd shall retain and own intellectual property rights of bio-products used in the field studies during the implementation of various programmes under this Memorandum of Understanding. College agrees that it shall not be entitled to use, copy, modify, distribute, sell, license or do any act in connection with the material for any commercial purposes, whether profitable or not without the prior written consent of the KREF.

7. GENERAL

This MOU constitutes the total understanding of the parties and supersedes all previous MOU, communication and perception between the parties pertaining to the objectives under this MOU.

This MOU shall become effective upon signature by the authorised signatories from both the parties and will remain effective for the Academic Year 2022-23 until modified or terminated by KREF on occurrence of any events which are in contravention to any of the provisions as set out in this MOU, or on completion of the objectives under the MOU, whichever occurs first.

IN WITNESS WHEREOF the parties hereto, have hereunto set and subscribed their respective hands on date first hereinabove written.

SIGNED, SEALED AND DELIVERED
NAMED

Waghire College, Saswad



PRINCIPAL

Waghire College, Saswad
Tal. Purandar, Dist. Pune.

SIGNED, SEALED AND BY WITHIN
DELIVERED BY WITHIN NAMED

KanBiosys Research &
Education Foundation



Dr. Pandit Shelke
Principal

WITNESS : H. Senawale
NAME : H.V. Senawale
ADDRESS : Waghine College, Saswad

Ms Sandeepa Kanitkar
President

WITNESS : Medhe
NAME : M.P. Kulkarni
ADDRESS : KREF, Pune.

PDEA's Waghire College of Arts, Commerce and Science

Department of Microbiology

T. Y. B. Sc.

Field Activity Under MOU

attendance (2023-24)

28th February 2024

S.N.	Name of student	Sign.	S.N.	Name of student	Sign.
1	Adak Atharva G	<i>Adak</i>	29	Kumbhar Harshada N	<i>Kumbhar</i>
2	Ahire Manasi S.	<i>Ahire</i>	30	Kumbharkar Divya G.	<i>Divya</i>
3	Banker K D	<i>Banker</i>	31	Lekawale Mahesh Sanjay	<i>Lekawale</i>
4	Barati Sakshi S	<i>Barati</i>	32	Mahajan Shivani J	<i>Mahajan</i>
5	Barvkar Pooja L	<i>Barvkar</i>	33	Mehatre Abhishek R	<i>Abhi</i>
6	Bhondave Shankar D	<i>Bhondave</i>	34	Nigade Sakshi D	<i>Ab</i>
7	Bhongale Vaishnavi M	<i>Bhongale</i>	35	Patole Shital R	<i>Patole</i>
8	Borkar Harshada L	<i>Borkar</i>	36	Pawar Nutan Dattatraya	<i>Ab</i>
9	Chauhan Neelam M	<i>Chauhan</i>	37	Pawar Pradnya S	<i>Pawar</i>
10	Chavanhan Shruti S	<i>Chavanhan</i>	38	Phadtare Aditi M	<i>Aditi</i>
11	Gaikwad Ketan L	<i>Gaikwad</i>	39	Phadtare Aditi S	<i>Aditi</i>
12	Ghodase Pradnya R	<i>Pradnya</i>	40	Phule A.V	<i>Phule</i>
13	Jadhav A.D	<i>Ab</i>	41	Prajapati Manisha G	<i>Manisha</i>
14	Jadhav Snehal R	<i>Snehal</i>	42	Roman Omkar S	<i>Roman</i>
15	Jagdale Vaishnavi S	<i>Jagdale</i>	43	Shah S.G	<i>Ab</i>
16	Jagtap Pratiksha M	<i>Jagtap</i>	44	Shinde Poorva S	<i>Shinde</i>
17	Janrao Karnti D	<i>Janrao</i>	45	Shinde Sweety R	<i>Ab</i>
18	Jarande Prachi M	<i>Jarande</i>	46	Shirke Shradha S	<i>Shirke</i>
19	Kalane T.	<i>Kalane</i>	47	Shirsat Vaishnavi R	<i>Shirsat</i>
20	Kamthe Komal R	<i>Kamthe</i>	48	Takawale Shivani V	<i>Takawale</i>
21	Kamthe Sidhleshwari	<i>Kamthe</i>	49	Tekawade Dnyaneshwari	<i>Tekawade</i>
22	Kapare Sakshi S	<i>Kapare</i>	50	Tilekar Sakshi S.	<i>Ab</i>
23	Kapare Tanja R	<i>T.R.K</i>	51	Yadav Omkar A	<i>Yadav</i>
24	Katake Asmita S	<i>Ab</i>	52	Yadav Pratibha S	<i>Yadav</i>
25	Katake Sushama S	<i>Sush</i>	53	Yadav Shubham	<i>Yadav</i>
26	Kazi Simran J	<i>Kazi</i>	54	Zagade Manoj R	<i>Ab</i>
27	Kolate Aakanksha	<i>Kolate</i>	55	Sonawane Yash	<i>Ab</i>
28	Kolate Atharva S.	<i>Ab</i>	56		

Field efficacy studies of basal dose of Organic and biofertilizers on plant growth and yield of Coriander (Kothimbir)

Experimental Design

Team Members :-

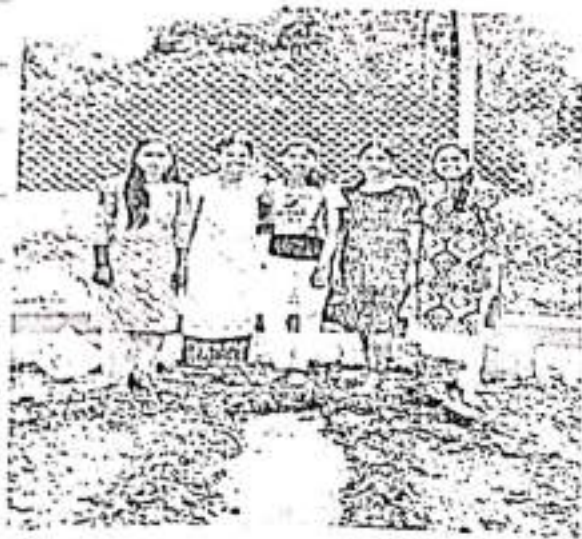
Bharati Sakshi Suresh

Baravkar Pooja Lalaso

Phadtare Aditi Madhukar

Phadtare Aditi Sunil

Kapare Tanuja Rajendra



Crop Name:- Coriander (Kothimbir).

Treatments:-

1) Control

Name of chemical Fertilizer No chemical
Other Biological input used.

2) Test -

Speed Kompost

Team Bio-3 Granules

TABA ZSB granules

TABA and Vitromone.

Application details -

Date of Sowing - 14 March 2024

Date of Fertilizer application - 28 March 2024

Dates of Observations - 19 March 2024

26 March 2024

1 April 2024

7 April 2024

15 April 2024

Observation Table -

1) Onset of seed germination -

Measure the no. of seeds germinated per plot and record the observations day wise in the table given below:

Day of observation	Control (Chemical Fertilizer)	Test (Kan Biosys Fertilizer)
After 15 days	After 15 days we observed the 5.2 cm long height of plant they are small than test.	After 15 days we observed the 6cm height of plant. This plant are larger than Control.
After 30 days	After 30 days the plant growth seen large and more heighted.	After 30 days the growth of plant is greater than Control was observed.
Last observation	We observed the healthy plant but less than test. 30 cm heighted plant are observed. Small leaf and also small roots are observed.	We observed the larger leaf and heighted plant. These plant are greater than Control and more healthy than Control.

Plant Vigor parameters

Randomly select 5 plants from Control and test plants. Uproot these plants on 15th day and record the below mentioned parameters and record the observation in table given below.

Plant No.	Plant height		Leaf Parameters		Root Parameters (length, etc)	
	Control	Test	Control	Test	Control	Test
1	30 cm	35.2 cm	2.2 cm	3.4 cm	5.4 cm	7.1 cm
2	28 cm	31 cm	2 cm	2.1 cm	4.2 cm	6.1 cm
3	25 cm	32 cm	1 cm	2.3 cm	4 cm	5 cm
4	29 cm	32.5 cm	1.2 cm	2 cm	3.2 cm	4.5 cm
5	27 cm	32.7 cm	1.5 cm	2.5 cm	4.2 cm	6 cm
Average	<u>27.8</u>	<u>32.68</u>	<u>1.58</u>	<u>2.46</u>	<u>4.2</u>	<u>5.74</u>
5						

Observation Table -

1) Onset of seed germination -

Measure the no. of seeds germinated per plot and record the observations day wise in the table given below.

Day of observation	Control (Chemical Fertilizer)	Test (Kan Biosys Fertilizer)
After 15 days	After 15 days we observed the 5.2 cm long height of plant they are small than test.	After 15 days we observed the 6 cm height of plant. This plant are larger than Control.
After 30 days	After 30 days the plant growth seen large and more heighted.	After 30 days the growth of plant is greater than Control was observed.
Last observation	We observed the healthy plant but less than test. 30 cm heighted plant are observed. Small leaf and also small roots are observed.	We observed the larger leaf and heighted plant. These plant are greater than Control and more healthy than Control.

Plant vigor parameters

Randomly select 5 plants from Control and test plants. Uproot these plants on 15th day and record the below mentioned parameters and record the observation in table given below.

Plant No.	Plant height		Leaf Parameters		Root Parameters (length, etc)	
	Control	Test	Control	Test	Control	Test
	30 cm	35.2 cm	2.2 cm	3.4 cm	5.4 cm	7.1 cm
	28 cm	31 cm	2 cm	2.1 cm	4.2 cm	6.1 cm
	25 cm	32 cm	1 cm	2.3 cm	4 cm	5 cm
	29 cm	32.5 cm	1.2 cm	2 cm	3.2 cm	4.5 cm
	27 cm	32.7 cm	1.5 cm	2.5 cm	4.2 cm	6 cm
Mean	<u>27.8</u>	<u>32.68</u>	<u>1.58</u>	<u>2.46</u>	<u>4.2</u>	<u>5.74</u>

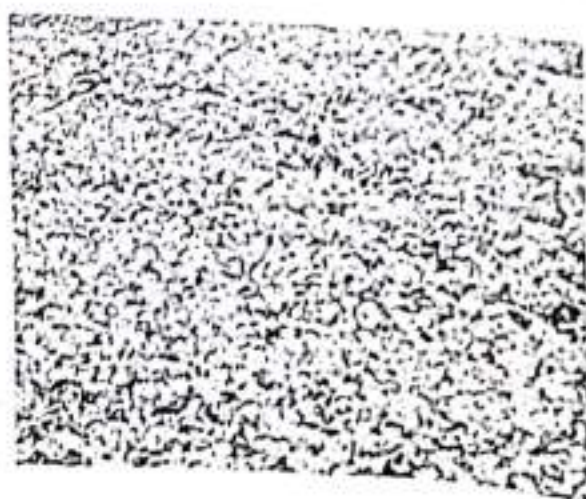
Harvesting Parameters

Day of observation	Onset of Flowering		Onset of Fruiting		Yield	
	C	T	C	T	C	T
Day - 15	-	-	-	-	-	-
Day - After 15 days	15	36			2	4

Market Price of Crop	
Control	Test
20 ₹	40 ₹

Control

Test

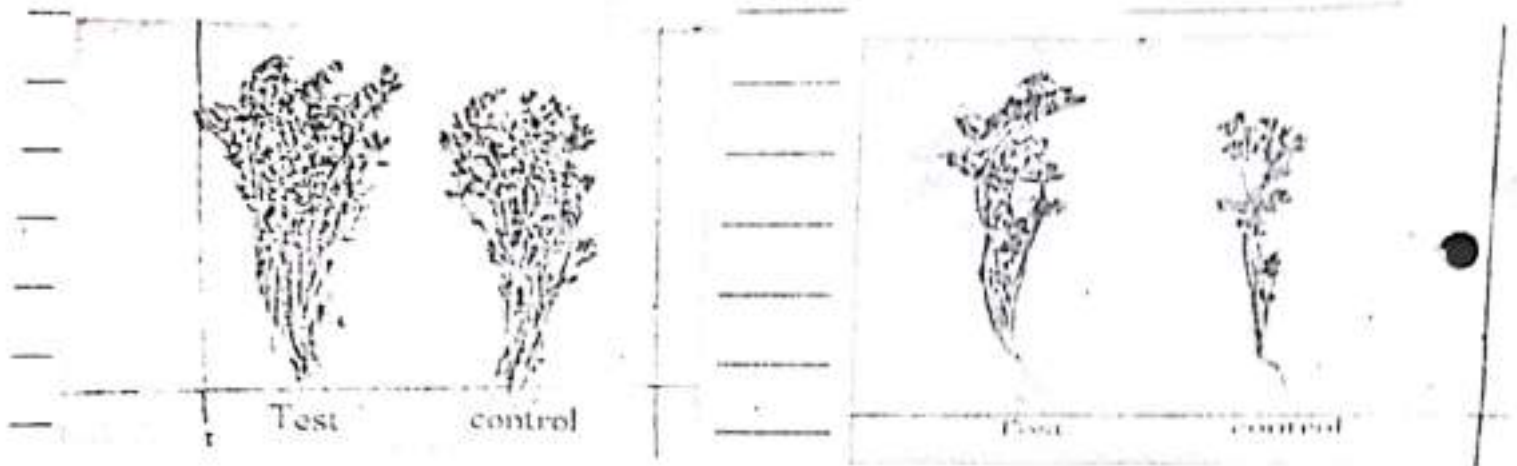


We observed control plant less heighted than Test plant.
After 30 days observation

We observed Test plant is more heighted and healthy than Control.
After 30 days observa.

Conclusion -

We observed the Control and test plant. The growth of test plant is more beighted and healthy than Control plant.



The Kan biosys Fertilizer is the helpful for the growth of plant and provide nutrition to plant than other normal Fertilizer. These test Fertilizer is important for the increase the yield and healthy growth of the plant.

Field efficacy studies of basal dose of organic & biofertilizers on plant growth & yield of Ground Nut

Experimental design

1) Group name- Group no.3

Team Members :- 1. Gaikwad Poonam Rajaram
2.Deshpande Anagha Umesh
3.Chivhe Vaishnavi Dashrath
4.Yadav Ravina Gorakh
5.Tilekar Snehal Ravindra

2) Crop name – Groundnut & Variety-Varad Lakshmi

3) Treatments-

a) Control- Name of chemical fertilizer – Urea 18:18

b) Test- 1. Shubharambh Dose (Speed compost, Team Bio 3 Granules,TABA G ZSB)
2.Vitormone & Taba(Products of Kan Biosys)

4) Application details- (Date of sowing- 1 jan 2023

5) Date of fertilizer application- 30 jan 2023, 20 Feb 2023

6) Dates of observations-12May 2023

P.D.E.A's
Waghire College of Arts, Commerce and Science
Saswad, Pune.

**Interactive Session
(Under DBT-Star scheme)**

**On
"The role of Biofertilizers in Integrated Nutrient Management of crops"**

Thursday, 02/02/2023

Guest Speaker: Dr. Medha Kulkarni
Dr. Prashant Pawar
Kan Biosys Pvt. Ltd., Pune

The department of Microbiology has organised a lecture series for T.Y.B.Sc. Microbiology students under DBT Star scheme. On February 2, 2023, at 1.30 pm, the interactive session was held based on a demonstration activity in fields. The topic was "The role of Biofertilizers in Integrated Nutrient Management of crops". The resource persons invited for the lecture were Dr. Medha Kulkarni and Dr. Prashant Pawar from Kan Biosys Pvt. Ltd., Pune. The lecture was very useful for all students having farming background. To learn more about their town, farms, crops, sowing season, etc., students were given Google Form developed by resources prior to this session. Based on this information, students were grouped to perform this field activity and to monitor crop on regular basis. This interactive workshop and demonstration-based exercise taught students how to effectively apply biofertilizers supplied by Kenbiosys in the field prior to, during, and after seed sowing, how to monitor the effect and to maintain soil health.

This session was conducted under the guidance of Principal Dr. Pandit Shelke and in an immense presence of Prof. H. V. Sonawane, Head, and the staff of microbiology dept. Formal welcome was done by Ms. Vishakha N. Ganvir and vote of thanks was given by the students of Microbiology Ms. Tejal B. Zende.


Head
Department of Microbiology
Waghire College, Saswad


Co-ordinator
DBT- STAR College


PRINCIPAL
Waghire College, Saswad
Tal. Purandar, Dist. Pune.

P.D.E.A's

Waghire College of Arts, Commerce and Science

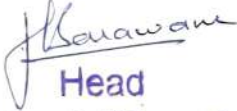
- **Saswad, Tal. - Purandar, Dist.- PunePune.**

Notice for Students

Date: 30/01/2023

This is to inform you that the Department of Microbiology is organising an interactive training session and demonstration on **2nd February 2023 from 1.30 pm** under DBT star scheme for T.Y.B.Sc. Microbiology students. The theme of this demonstration and training session is "**Role of biofertilizers in integrated nutrient management of crops**". Two renowned scientists and researchers Dr. Medha Kulkarni and Dr. Prashant Pawar, from Kan Biosys Pvt. Ltd., Pune, will lead this interactive training session.

Everyone is invited in the Department of Microbiology Laboratory to attend the event.



Head

Department of Microbiology
Waghire College, Saswad



PRINCIPAL

Waghire College, Saswad
Tal. Purandar, Dist. Pune.

Date - 21/2/2023 Activity Based programme
Dr. Medha Kulkarni & Dr. Prashant Pawar



Saswad, Maharashtra, India
Jyoti park housing society, MADCO, 922G→Q22, Seema Nagar,
Saswad, Maharashtra 412301, India
Lat 18.352296°
Long 74.026055°
02/02/23 02:26 PM



Saswad, Maharashtra, India
926J+5M3, Hivarkarmala, Saswad, Maharashtra 412301, India
Lat 18.360486°
Long 74.032399°
02/02/23 02:26 PM



Saswad, Maharashtra, India
926J+5M3, Hivarkarmala, Saswad, Maharashtra 412301, India
Lat 18.360486°
Long 74.032399°
02/02/23 02:24 PM



INDIA MADE ORALLY ADMIN
TABAG
Granules
NON TOXIC RESIDUE FREE
HIGH YIELD

Particulars	1st session	2nd session
Quantity of the dose of feeding	10-15 ml after feeding	10-15 ml after feeding
Frequency	Once daily	Once daily
Duration of the course	10-15 days	10-15 days
Precautions	1. Do not feed after feeding	1. Do not feed after feeding
2. Do not feed after feeding	2. Do not feed after feeding	2. Do not feed after feeding
3. Do not feed after feeding	3. Do not feed after feeding	3. Do not feed after feeding
4. Do not feed after feeding	4. Do not feed after feeding	4. Do not feed after feeding
5. Do not feed after feeding	5. Do not feed after feeding	5. Do not feed after feeding
6. Do not feed after feeding	6. Do not feed after feeding	6. Do not feed after feeding
7. Do not feed after feeding	7. Do not feed after feeding	7. Do not feed after feeding
8. Do not feed after feeding	8. Do not feed after feeding	8. Do not feed after feeding
9. Do not feed after feeding	9. Do not feed after feeding	9. Do not feed after feeding
10. Do not feed after feeding	10. Do not feed after feeding	10. Do not feed after feeding

Manufactured & Marketed by: **KVP INDUSTRIES**

DATE	
DATE	02/02/2023

Interaction session

by

Dr. Medha Kulkarni

&

Dr. Prashant Pawar

(Kan Biosys)

Date: 02/02/2023

Time: 2:00 pm onwards.

Sr.	Name	Sign
1	Mulik Tanuja Jalindar.	<u>Tanuja.</u>
2.	Kale Saloni Sandeep	<u>Kaleni</u>
3.	Kale Shweta Sanjay	<u>Kale</u>
4.	Gaikwad Sakshi Uttam	<u>Gaikwad</u>
5.	Thopate Ravina Rohidas.	<u>Thopate.</u>
6.	Gaikwad Sonali Ramesh	<u>Gaikwad</u>
7.	Mame Sushiti Ajit	<u>Mame</u>
8.	Borawake Isha Anil	I.A. Borawake
9.	Takawale Mayuri Shrirang	M.S. Takawale
10.	Mhetre Ankita Vijay	<u>Mhetre</u>
11.	Kazi Alfiya Ajaj	<u>Kazi</u>
12.	Surve. Sakshi. Nitin	<u>Surve</u>
13.	Prajapati. Meenakshi. Gopal	<u>Prajapati</u>
14.	Kharade Shweta Prakash	<u>Kharade</u>
15.	Pangare Dipali Dattatray	<u>Pangare</u>
16.	Kolte Tanuja Vikas	<u>Kolte</u>
17.	Kamthe Vaishnavi Sambhaji	<u>Kamthe.</u>
18.	Pawar Sakshi Nandkumar	<u>Pawar</u>
19.	Tilekar Snehal Ravindra	<u>Tilekar</u>
20.	Gaikwad Poonam Rajoram	<u>Gaikwad</u>
21.	Yadav Ravina Gorakh	<u>Yadav</u>
22.	vishwakarma Laxmi Dinesh	<u>Laxmi</u>
23.	Deshpande Anagha Umesh	<u>Deshpande</u>
24.	chivhe Vaishnavi Dashrath	<u>Chivhe.</u>
25.	Zende Tejal Bajirao	T.B. Zende
26.	Botre Neha Namdev	<u>Botre</u>
27.	Gurav Viraj Vijay	<u>Gurav</u>
28.	Barkade Rutvik Subhash	<u>Barkade</u>
29.	Shinde Prashant Pralhad	<u>Shinde</u>
30.	Kale Pratik Sanjay	<u>Kale</u>
31.	Vedpathok Pratik Dinesh	<u>Vedpathok</u>
32.	Shirke Sandip Ganesh	<u>Shirke</u>
33.	Pawar Pranav Subhash	<u>Pawar</u>
34.	More Aditya Pandurang	<u>More</u>

Boys

- | | | |
|------|----------------------------|----------------|
| 35. | Khatwadi Vaibhav Bhanudas | <u>Vaibhav</u> |
| 36. | Mhetre Aditya Sunil | <u>Aditya</u> |
| 37. | Pawar Gaurav Rohidas | <u>Gaurav</u> |
| 38. | Choudhary Rutik Ravindra | <u>Rutik</u> |
| 39. | Kapare Yash Arun | <u>Yash</u> |
| 40.) | Barkade Prasad Balu | <u>Prasad</u> |
| 41.) | More Mayur Somnath | <u>Mayur</u> |
| 42.) | Chavan Kunal Balashiv | <u>Kunal</u> |
| 43.) | Gavade Nishal Ramchandra | <u>Nishal</u> |
| 44.) | Shaikh Sehaaj Meharaj Khan | <u>Sehaaj</u> |
| 45.) | Dhumal Apeksha Ramesh | <u>Apeksha</u> |

J. B. Waghare
Head
 Department of Microbiology
 Waghare College, Saswad

PDEA'S

Waghire College of Arts, Commerce and Science,

Saswad, Tal-Purandar, Dist-Pune (2022-23)

GUEST LECTURE

(Under DBT STAR scheme)

On 'Soil Study and Use of Bioinoculants'

Date: 12/12/2022

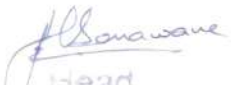
Guest speaker: **Dr. Medha Kulkarni,**

Head, Production and Product Development
KanBiosys, Pvt. Ltd., Pune

Under DBT Star scheme, the department of Microbiology had organised a guest lecture on "Soil Study and Use of Bioinoculants" for T. Y. B. Sc. microbiology students, on 12th December 2022 at 11.30 a.m. The lecture was organized to make students understand the concepts of bioinoculants and its application in soil to get better crop yield. We had an immense presence of an eminent personality **Dr. Medha Kulkarni**, Head, Production and Product Development, KanBiosys, Pvt. Ltd., Pune, as a resource person to share her knowledge and expertise in the said topic.

She talked about the necessity to study soil. Before applying large quantity of fertilisers, it is necessary to understand about micronutrients and various elements present in soil. She discussed with students about the methods of Soil study and how these methods are important in improving the soil structure. She explained students how in the recent years, use of various bioinoculants is becoming important for increasing crop yield which otherwise we were not able to get by using chemical fertilisers.

Lastly she urged & motivated students to come forward & work in the field of Bioinoculants. All faculty members of Microbiology departments were present for a lecture. Introduction of the program and vote of thanks was given by Ms. Hemlata V. Sonawane.


Head
Department of Microbiology
Waghire College, Saswad


Co-Ordinator:
DBT- STAR College


PRINCIPAL
Waghire College, Saswad
Tal. Purandar, Dist. Pune.

PDEA's

Waghire College of Art's, Commerce & Science, Saswad

Department of Microbiology

Notice for Students

All the T.Y.B.Sc Microbiology students are hereby informed that under DBT Star College Scheme, an interactive lecture is arranged on **Monday, 12/12/2022 at 11.30 am** and will be delivered by **Dr. Medha Kulkarni** from Kan biosys, Pune on topic "**Soil study & use of Bio fertilizers**". This lecture will be very useful to you all as it is based on your T.Y.B.Sc Microbiology curriculum and it will help you to understand concept of Soil & use of Bio fertilizers. Attendance is compulsory.


Head
Department of Microbiology
Waghire College, Saswad


PRINCIPAL
Waghire College, Saswad
Tal. Purandar, Dist. Pune

Department of microbiology

Guest Lecture Soil study and use of biofertilizer

12-12-2022

Name of the students	Sign	Name of the students	Sign
Bahirat sumit mahadev		Khutwad Vaibhav Bhanudas	
Barkade Prasad Balu		Kolte Tanuja Vikas	
Barkade Rutvik Subhash		Kul Shubham Dadaso	
Bhongale Nikita Shantaram		Kulkarni Mrudula Dattatray	
Borawake Isha Anil		Mane srushti ajit	
Botre Neha Namdev		Memane Saurabh Narayan	
Chavan kunal sadashiv		Mhetre Aditya Sunil	
Chivhe Vaishnavi Dashrath		Mhetre Ankita Vijay	
Choudhari Rutik Ravindra		More Aditya Pandurang	
Dalvi Gorakh Janardan		More Mayur Somnath.	
Deshpande Anagha Umesh		Mulik Tanuja Jalindar	
Dhumal Apeksha Ramesh		Ombale Sayali Surykant	
Gaikwad poonam rajaram		Pangare dipali dattatray	
Gaikwad Sakshi Uttam		Pangare Tanuja Pandurang	
Gaikwad Sonali Ramesh		Pawar Gaurav Rohidas	
Gavade Vishal Ramchandra		Pawar kartik ramdas	
Gite Priti Vasudev		Pawar Pranav Subhash	
Gurav viraj vijay		Pawar Sakshi Nandkumar	
Kale Pratik Sanjay		Prajapati meenakshi gopal	
Kale Saijoni Sandeep		Shaikh sehabaj meharajkhan	
Kale shweta sanjay		Shinde Prashant Pralhad	
Kamthe Vaishnavi Sambhaji		Shirke Sandip Tanaji	
Kapare Yash Arun		Surve Sakshi Nitin	
Kazi Alfiya Ajaj		Takawale Mayuri Shrirang	
Kharade shweta prakash		Thopate Ravina Rohidas	
Yadav Ravina Gorakh		Tilekar snehal Ravindra	
Zende Tejal Bajirao		Vedpathak Pratik Dinesh	
		Vishwakarma Laxmi Dinesh	

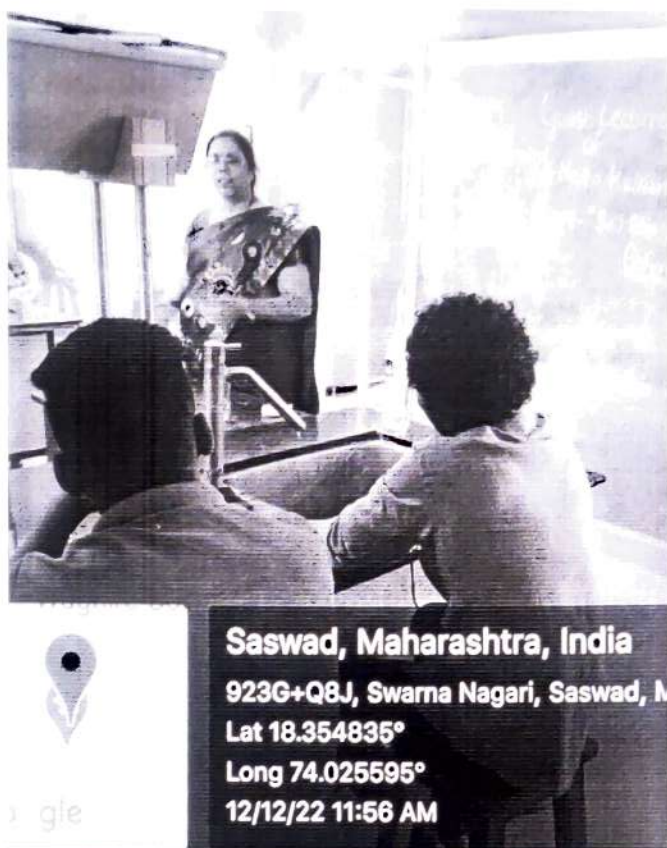
TY Botany -

- 1 Khomane Rutuja Rishikesh
- 2 Khedekar Harshada Bapu
- 3 Pawar Vaishnavi Vishwas

Guest Lecture - by Dr. Medha Kulkarni
 On 12/12/2022 at 11:30am
 Topic: Soil study & use of Biofertilizers.



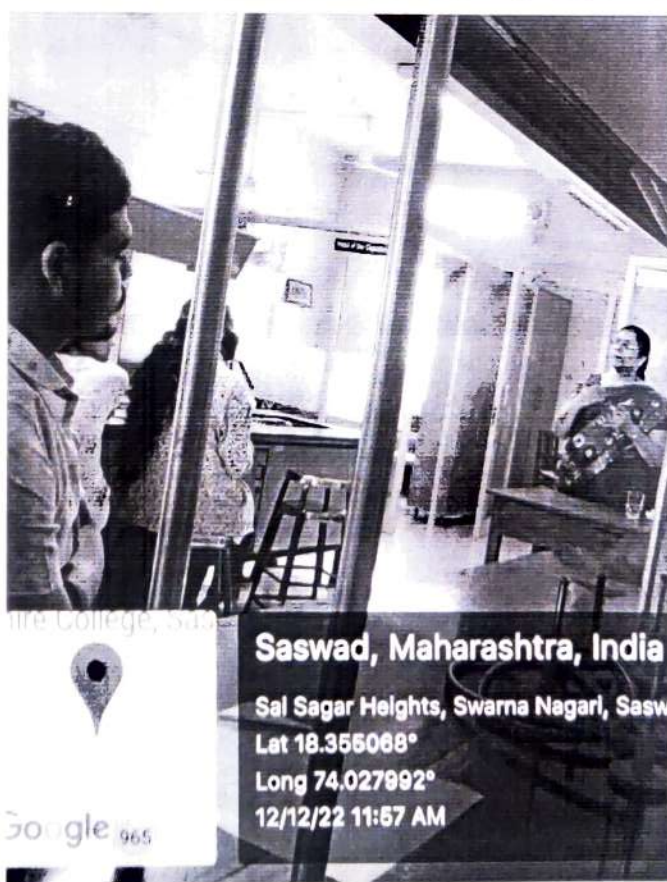
Saswad, Maharashtra, India
 923G+Q8J, Swarna Nagari, Saswad, Maharashtra 412301
 Lat 18.354845°
 Long 74.025636°
 12/12/22 11:59 AM



Saswad, Maharashtra, India
 923G+Q8J, Swarna Nagari, Saswad, Maharashtra 412301
 Lat 18.354835°
 Long 74.025595°
 12/12/22 11:56 AM



Maharashtra, India
 Swarna Nagari, Saswad, Maharashtra 412301, India
 18.354839°
 74.025636°
 12/12/22 11:49 AM



Saswad, Maharashtra, India
 Sal Sagar Heights, Swarna Nagari, Saswad, Maharashtra 412301
 Lat 18.355068°
 Long 74.027892°
 12/12/22 11:57 AM

O.W. NO - 1149/2022/23

Date - 12/12/2022

To,
Dr.-Medha Kulkarni
Head, production & product development
Kan Biosys, Pvt. Ltd. Pune.

Subject: Invitation as Guest lecturer under DBT Star College Scheme

Dear Madam,

It is an immense pleasure to invite you as a guest lecturer to deliver a talk on "Soil study & use of Bio fertilizers ". This lecture is arranged for our T.Y.B.Sc. Microbiology student. Your lecture would be very useful for these students to understand the concepts of Soil & use of Bio fertilizers. As per your telephonic conversation with Ms. H. V. Sonawane we have scheduled the lecture on **Monday, 12/12/2022 at 11.30 am.**

Looking forward for this interactive session.

Thanks and Regards


PRINCIPAL
Wagholre College, Saswad
Tal. Purandar, Dist. Pune

PDEA's Waghire College of Arts, Commerce and Science

Department of Microbiology

T. Y. B. Sc.

Field Activity Under MOU

attendance (2023-24)

28th February 2024

S.N.	Name of student	Sign.	S.N.	Name of student	Sign.
1	Adak Atharva G	<i>Adak</i>	29	Kumbhar Harshada N	<i>Kumbhar</i>
2	Ahire Manasi S.	<i>Ahire</i>	30	Kumbharkar Divya G.	<i>Divya</i>
3	Banker K D	<i>Banker</i>	31	Lekawale Mahesh Sanjay	<i>Lekawale</i>
4	Barati Sakshi S	<i>Barati</i>	32	Mahajan Shivani J	<i>Mahajan</i>
5	Barvkar Pooja L	<i>Barvkar</i>	33	Mehatre Abhishek R	<i>Abhi</i>
6	Bhondave Shankar D	<i>Bhondave</i>	(34)	Nigade Sakshi D	<i>Ab</i>
7	Bhongale Vaishnavi M	<i>Bhongale</i>	35	Patole Shital R	<i>Patole</i>
8	Borkar Harshada L	<i>Borkar</i>	(36)	Pawar Nutan Dattatraya	<i>Ab</i>
9	Chauhan Neelam M	<i>Chauhan</i>	37	Pawar Pradnya S	<i>Pawar</i>
10	Chavanhan Shruti S	<i>Chavanhan</i>	38	Phadtare Aditi M	<i>Aditi</i>
11	Gaikwad Ketan L	<i>Gaikwad</i>	39	Phadtare Aditi S	<i>Aditi</i>
12	Ghodase Pradnya R	<i>Pradnya</i>	40	Phule A.V	<i>Phule</i>
(13)	Jadhav A.D	<i>Ab</i>	41	Prajapati Manisha G	<i>Manisha</i>
14	Jadhav Snehal R	<i>Snehal</i>	42	Roman Omkar S	<i>Roman</i>
15	Jagdale Vaishnavi S	<i>Jagdale</i>	(43)	Shah S.G	<i>Ab</i>
16	Jagtap Pratiksha M	<i>Jagtap</i>	44	Shinde Poorva S	<i>Shinde</i>
17	Janrao Karnti D	<i>Janrao</i>	(45)	Shinde Sweety R	<i>Ab</i>
18	Jarande Prachi M	<i>Jarande</i>	46	Shirke Shradha S	<i>Shirke</i>
19	Kalane T.	<i>Kalane</i>	47	Shirsat Vaishnavi R	<i>Shirsat</i>
20	Kamthe Komal R	<i>Kamthe</i>	48	Takawale Shivani V	<i>Takawale</i>
21	Kamthe Sidhleshwari	<i>Kamthe</i>	49	Tekawade Dnyaneshwari	<i>Tekawade</i>
22	Kapare Sakshi S	<i>Kapare</i>	(50)	Tilekar Sakshi S.	<i>Ab</i>
23	Kapare Tanja R	<i>T.R.K</i>	51	Yadav Omkar A	<i>Yadav</i>
(24)	Katake Asmita S	<i>Ab</i>	52	Yadav Pratibha S	<i>Yadav</i>
25	Katake Sushama S	<i>Sush</i>	53	Yadav Shubham	<i>Yadav</i>
26	Kazi Simran J	<i>Kazi</i>	(54)	Zagade Manoj R	<i>Ab</i>
27	Kolate Aakanksha	<i>Kolate</i>	(55)	Sonawane Yash	<i>Ab</i>
(28)	Kolate Atharva S.	<i>Ab</i>	56		

Field efficacy studies of basal dose of Organic and biofertilizers on plant growth and yield of Coriander (Kothimbir)

Experimental Design

Team Members :-

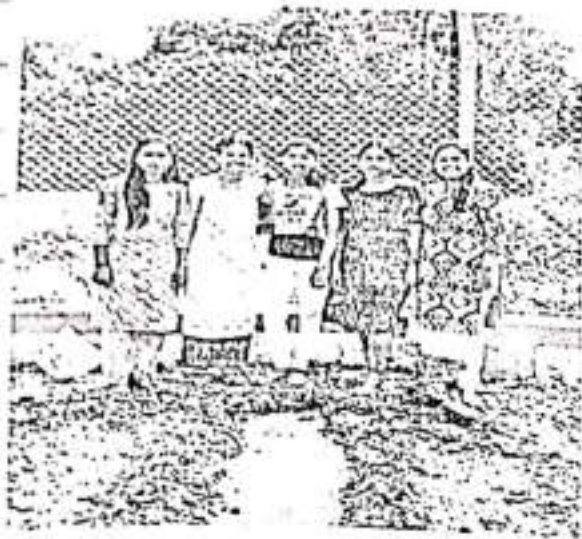
Bharati Sakshi Suresh

Baravkar Pooja Lalaso

Phadtare Aditi Madhukar

Phadtare Aditi Sunil

Kapare Tanuja Rajendra



Crop Name:- Coriander (Kothimbir).

Treatments:-

1) Control

Name of chemical Fertilizer No chemical
Other Biological input used.

2) Test -

Speed Kompost

Team Bio-3 Granules

TABA ZSB granules

TABA and Vitromone.

Application details -

Date of Sowing - 14 March 2024

Date of Fertilizer application - 28 March 2024

Dates of Observations - 19 March 2024

26 March 2024

1 April 2024

7 April 2024

15 April 2024

Observation Table -

1) Onset of seed germination -

Measure the no. of seeds germinated per plot and record the observations day wise in the table given below:

Day of observation	Control (Chemical Fertilizer)	Test (Kan Biosys Fertilizer)
After 15 days	After 15 days we observed the 5.2 cm long height of plant they are small than test.	After 15 days we observed the 6 cm height of plant. This plant are larger than Control.
After 30 days	After 30 days the plant growth seen large and more heighted.	After 30 days the growth of plant is greater than Control was observed.
Last observation	We observed the healthy plant but less than test. 30 cm heighted plant are observed. Small leaf and also small roots are observed.	We observed the larger leaf and heighted plant. These plant are greater than Control and more healthy than Control.

Plant Vigor parameters

Randomly select 5 plants from Control and test plants. Uproot these plants on 15th day and record the below mentioned parameters and record the observation in table given below.

Plant No.	Plant height		Leaf Parameters		Root Parameters (length, etc)	
	Control	Test	Control	Test	Control	Test
1	30 cm	35.2 cm	2.2 cm	3.4 cm	5.4 cm	7.1 cm
2	28 cm	31 cm	2 cm	2.1 cm	4.2 cm	6.1 cm
3	25 cm	32 cm	1 cm	2.3 cm	4 cm	5 cm
4	29 cm	32.5 cm	1.2 cm	2 cm	3.2 cm	4.5 cm
5	27 cm	32.7 cm	1.5 cm	2.5 cm	4.2 cm	6 cm
Average	<u>27.8</u>	<u>32.68</u>	<u>1.58</u>	<u>2.46</u>	<u>4.2</u>	<u>5.74</u>
5						

Observation Table -

1) Onset of seed germination -

Measure the no. of seeds germinated per plot and record the observations day wise in the table given below.

Day of observation	Control (Chemical Fertilizer)	Test (Kan Biosys Fertilizer)
After 15 days	After 15 days we observed the 5.2 cm long height of plant they are small than test.	After 15 days we observed the 6 cm height of plant. This plant are larger than Control.
After 30 days	After 30 days the plant growth seen large and more heighted.	After 30 days the growth of plant is greater than Control was observed.
Last observation	We observed the healthy plant but less than test. 30 cm heighted plant are observed. Small leaf and also small roots are observed.	We observed the larger leaf and heighted plant. These plant are greater than Control and more healthy than Control.

Plant vigor parameters

Randomly select 5 plants from Control and Test plants. Uproot these plants on 15th day and record the below mentioned parameters and record the observation in table given below.

Plant No.	Plant height		Leaf Parameters		Root Parameters (length, etc)	
	Control	Test	Control	Test	Control	Test
	30 cm	35.2 cm	2.2 cm	3.4 cm	5.4 cm	7.1 cm
	28 cm	31 cm	2 cm	2.1 cm	4.2 cm	6.1 cm
	25 cm	32 cm	1 cm	2.3 cm	4 cm	5 cm
	29 cm	32.5 cm	1.2 cm	2 cm	3.2 cm	4.5 cm
	27 cm	32.7 cm	1.5 cm	2.5 cm	4.2 cm	6 cm
Average	<u>27.8</u>	<u>32.68</u>	<u>1.58</u>	<u>2.46</u>	<u>4.2</u>	<u>5.74</u>

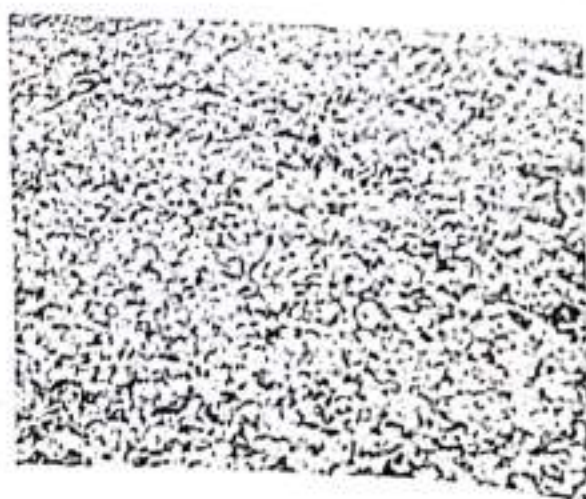
Harvesting Parameters

Day of observation	Onset of Flowering		Onset of Fruiting		Yield	
	C	T	C	T	C	T
Day - 15	-	-	-	-	-	-
Day - After 15 days	15	36			2	4

Market Price of Crop	
Control	Test
20 ₹	40 ₹

Control

Test

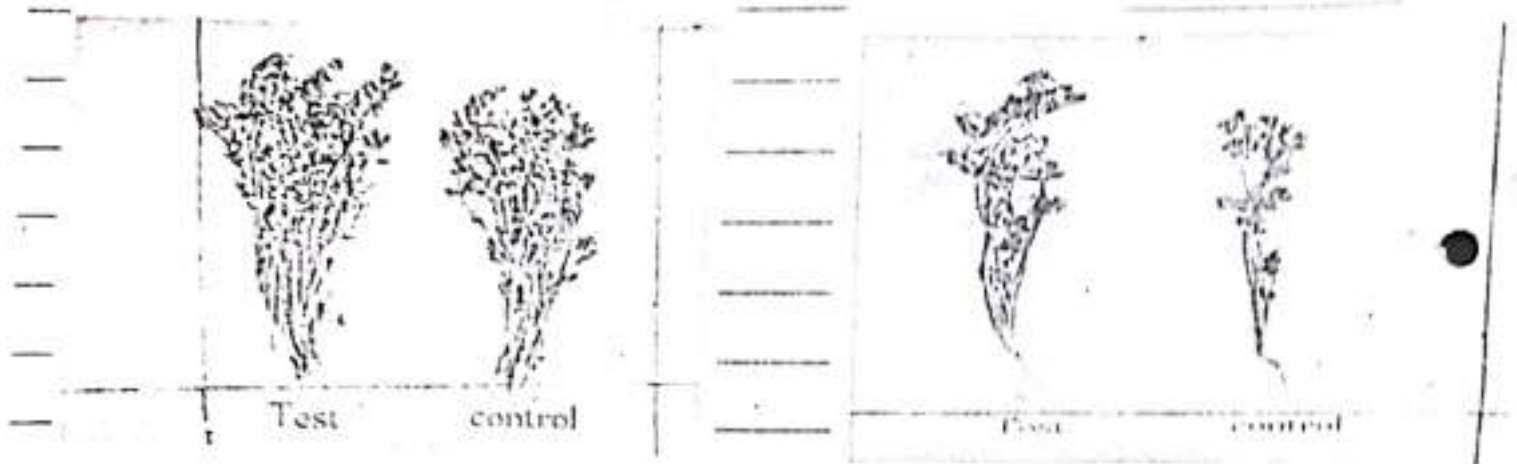


We observed control plant less heighted than Test plant.
After 30 days observation

We observed Test plant is more heighted and healthy than Control.
After 30 days observa.

Conclusion -

We observed the Control and test plant. The growth of test plant is more beighted and healthy than Control plant.



The Kan biosys Fertilizer is the helpful for the growth of plant and provide nutrition to plant than other normal Fertilizer. These test Fertilizer is important for the increase the yield and healthy growth of the plant.