

ORGANIC FARMING ACTIVITY FOR 2021-22

Resolutions taken for continuation of Organic farming for 2021-22

18 82 2021-22

27.09.2021

All the faculty of the Botany department met in the Principal chamber at 3 PM on 27.09.21 to discuss on the following points.

Agenda:

1. Continuation of Organic farming activity for 2021-22 academic year.
2. Train up the organic farming techniques to students.
3. Selection of Green Corps for Organic farming activity (students)

Resolutions

1. It is resolved to run the organic farming activity for the academic year 2021-22 by the department of Botany.
2. It is resolved to select the students as Green Corps for Organic farming activity.
3. It is resolved to train up the organic farming activities (techniques) to students.

Signature of the In-charge

Signature of the Principal

Signature of the lecturers:-

1. Aditya
2. L. S. S. S.
3. B. Bhanu
4. Prady

List of Students of Green Corps for 2021-22

<u>S.No.</u>	<u>Regd.No.</u>	<u>Name of the student</u>
1.	1901002	D. Swapna
2.	1901004	G. Sravani
3.	1901010	S. Sumiya
4.	1901011	A. Uma Maheswari
5.	1901013	B. Mahalakshmi
6.	1901014	B. Rani
7.	1901015	B. Mariyamma
8.	1901016	B. Rani
9.	1901017	B. Jyothi
10.	1901022	C. Maheswari
11.	1901023	C. Ramanamma
12.	1901028	E. Deepthi
13.	1901031	E.L. Sri Vani
14.	1901033	G. Rajitha
15.	1901034	G. Yamuna
16.	1901036	J. Kamali
17.	1901039	K. Sandhya Rani
18.	1901040	K. Sumalatha
19.	1901042	K.V. Lakshmi
20.	1901043	M. Sumolthi
21.	1901045	M. Anuradha
22.	1901046	M. Hemalatha
23.	1901047	M. Haritha
24.	1901048	Chandana Gunavathi
25.	1901049	M. Sumakeerthi
26.	1901051	M. Sangeetha
27.	1901055	P. Uma Maheswari
28.	1901056	P. Bucla Rani
29.	1901057	P. Abhinaya D. Aameena

2021-22 GREEN CORPS



Sowing Palak Seeds: 26.10.21



Sowing Coriander (Kotthimeera) Seeds:20.11.21



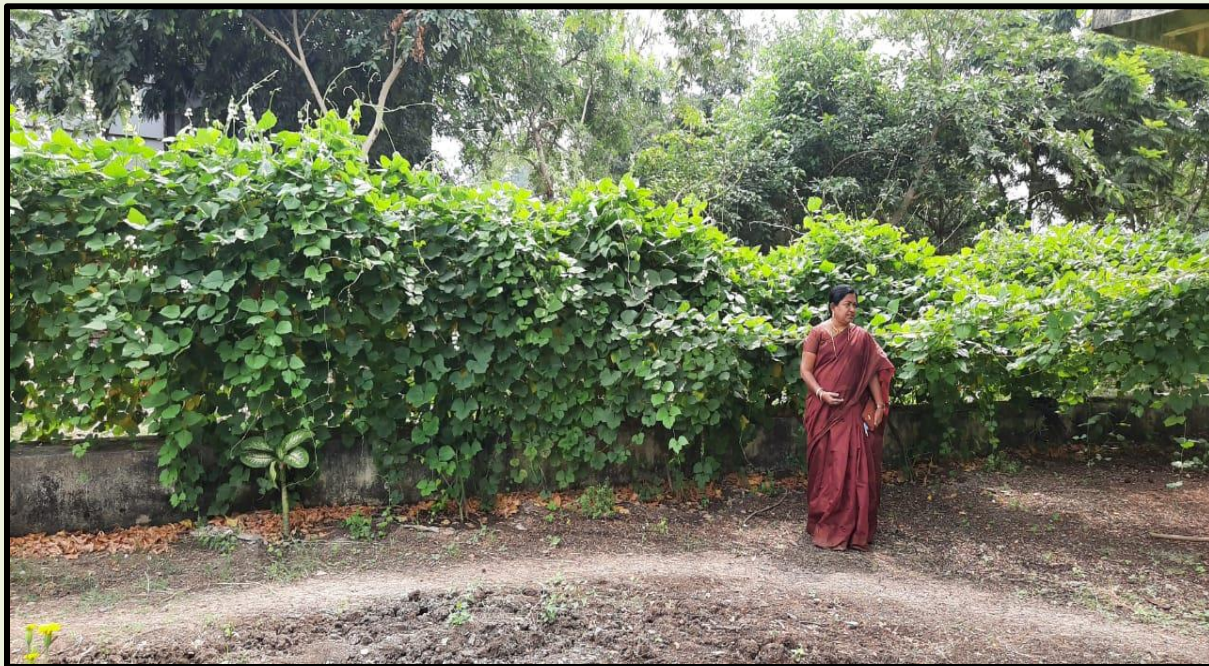
Removing weeds from Brinjal(Egg plant) Crop:25.11.21



Luxuriant growth of Brinjal and Kenaf (gongura)



Beans(Lima bean)- *Phaseolus lunatus*



Make the students learn the preparation of ‘Jeevamrutham’, a natural fertilizer for better growth of crops on 30.12.21- for IIBZC EM & TM Students







**Adimoolapu Stella Satish Garu-Visited the Botanical Garden-
24.01.2022**







Sowing of Fenugreek(Menthulu)26.03.22



Sowing of Tomato seedlings: :26.03.22





Preparation of 'jeevamrutham', a natural fertilizer- by II M.Sc Botany students



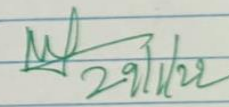


Luxuriant growth of *Lagenaria siceraria* (Bottle gourd)



Organic Farming Amount

1

S.No.	Date	Items sold out	Amount (Rs.)	Signature
1.	18.10.21	నీలగిర, మంచినీటి	200	B. మధురకృష్ణ
2.	25.10.21	వసారాలు, మంచినీటి, నీలగిర	220	B. మధురకృష్ణ
3.	02.11.21	వసారాలు, నీలగిర, మంచినీటి	580	B. మధురకృష్ణ
4.	24.11.21	వసారాలు, నీలగిర, నీలగిర	360	B. మధురకృష్ణ
5.	13.12.21	నీలగిర, వసారాలు, మంచినీటి	350	B. మధురకృష్ణ
6.	21.12.21	వసారాలు, బెల్లూడు, కృత్రిమం మంచినీటి	540	C. నిరంజయ
7.	29.1.22	వసారాలు, బెల్లూడు, మంచినీటి, కృత్రిమం	685	B. మధురకృష్ణ
Total Amount As on 29.1.22.			2935	
8.	5.2.22	కుంభనూలు	560	C. నిరంజయ
9.	11.2.22	వసారాలు, కేసరి, బెల్లూడు, నీలగిర, బెల్లూడు, కుంభనూలు, మంచినీటి, కృత్రిమం	550	C. నిరంజయ
10.	28.2.22	కుంభనూలు	300	C. నిరంజయ
11.	28.2.22	బెల్లూడు	1100	C. నిరంజయ
12.	23.03.22	బెల్లూడు + కుంభనూలు	1350	C. నిరంజయ
13.	28.03.22	కుంభనూలు	200	C. నిరంజయ
Total as on 28.3.22.			6995	

Organic farming amount from 18.10.22 to 28.03.22 is deposited to
CPDC Account

केनरा बैंक / Canara Bank	जमा पर्ची / DEPOSIT / PAY IN SLIP
शाखा / Branch	N.R. / K.A. Kurnool
दिनांक / Date	08 04 20 22
SB/CA/OD/CC/RD/TL/DL A/c. No. / Credit Card No.	
बचत / बाल खाता / जेडी / सीडी / क्रेडिट कार्ड नं. / डीएल खाता नं. / क्रेडिट कार्ड नं.	3394220600 / 067-
नाम / Name	रविशंकर प्रसाद (A) एन
क्रेडिट नं. / मोबाइल नं. / Tel No. / Mobile No.	944893707
राशि / Amount	₹ 7000
रुपये शब्दों में / Rupees in words	Seven Thousand only
चेक नं. / दिनांक तथा बैंक व शाखा का नाम / Cheque No. / Date / Name of Bank & Branch	
कुल / Total	
अधिकारी / रोकड़िया / एस डब्ल्यू ओ / Officer / Cashier / SWO	केनरा बैंक टोल फ्री 24 घंटे कॉल सेंटर Canara Bank Toll Free No. 1800 425 0018

Organic Farming Amount (Rs. 7000/-) is deposited to CPDC account.

M. L. Sule
PRINCIPAL
K.W.R. Govt. College for Women
(Autonomous)
KURNOOL.

JBW

AUDITED CERTIFICATE OF ORGANIC FARMING



N.V. Suresh & Associates

CHARTERED ACCOUNTANTS

PARTNER :

CA RAJA SEKHAR. S M.Com., FCA

Office : 40-321D, HGH Arcade, 2nd Floor, Abdullah Khan Estate, KURNOOL - 518 001. (A.P.)

H. O. : 8/239, Dwarakamayee, Sreeramula Peta, PRODDATUR - 516 360, Kadapa Dist. (A.P.)

CERTIFICATE OF ORGANIC FARM FUND

It is certified that the amount of Rs. 19375/- (Rupees Nineteen Thousands Three Hundred and Seventy Fifty only) was deposited in to KVR Government College for Women, Kurnool CPDC Account. This amount is derived out of sale of organic Farm Products cultivated in the College Premises. The organic farming activity is commenced in the College with effect from 30.12.2020. The Following are the two deposits in to the CPDC Account Rs 12,375/- (For the period from 30.12.2020 to 04.10.2021 and Rs 7000/- (For the period from 05.10.2021 to 08.04.2022)

S. Raja Sekhar
22/4/22

**K.V.R GOVT. COLLEGE FOR WOMEN (A),
KURNOOL.**



A REPORT

ON

**HYDROPONICS: HEART OF INCREDIBLE
FARMING**

MAINTAINED BY

DEPARTMENT OF BOTANY

Hydroponics: Heart of incredible farming

Welcome to the future

GROWING OF LEAFY VEGETABLES THROUGH HYDROPONIC SYSTEM

“You don't need a tractor or a plow or other big implements, and you don't need to inherit a farm. You can get in very quickly, and can maintain another job.”

Bob Hochmuth, Director of the Suwannee Valley Agricultural Extension Centre at [Florida](#). Hydroponics is the practice of growing plants with their root suspended in water containing mineral nutrients.

In other words, it is soil less cultivation of plants. In order to grow healthy leafy vegetables, hydroponic technique is being practiced in KVR Govt. College by M.Sc. Students as a part of Project Work. For this 7 varieties of leafy vegetables are selected to grow them through Hydroponic systems.

The objectives of hydroponic farming are

- To cultivate vegetables with minimal use of soil and water.
- To make the students learn the techniques of hydroponic farming.
- Discuss some of the challenges facing our food system and evaluate possible solutions
- Describe the potential ways of hydroponic farming and its impact on our community and environment

Plant Material:

Amaranth (Red&Green), Madras hemp (Gongura), Spinach, Coriander, Ponnagantikoora (*Alternanthera sessilis*) and Mint are selected for the present study. Seeds of these plants are purchased from Shudh Green Company.

Hydroponic set up:

Food grade Hydroponic NFT channels were used which can accommodate 348 saplings. 250 lit. Capacity reservoir will supply essential nutrients continuously by a submersible motor through these channels in the form of a thin film. Seeds of leafy vegetables were grown in cocopeat and were transferred into NFT channels. These saplings will grow in the channels and will be ready for harvest after 45 days.

Growing Medium:

Cocopeat mixed with Perlite is used as a growing medium for the better germination of seed and also for the growth of the plant. Cocopeat is a natural and inert media. It is a versatile growing media for soil-less gardening due to its excellent soil conditioning properties. It acts as a perfect rooting medium due to its high moisture retention capacity. Perlite allows the right amount of water and Oxygen to the roots

Nutrients used in Hydroponics:

Nutrient solution was prepared for healthy growth of the plant. The nutrients required in hydroponics include,

1. Macronutrients:

Nitrogen (N): Primary to foliage plant growth.

Phosphorous (P): Helps to build strong roots, is vital for flower and seed production.

Potassium (K): Increases chlorophyll in foliage, helps to regulate stomatal opening and

closure

Magnesium (Mg): Helps in the distribution of Phosphorous through out the plant.

Calcium (Ca): Root growth and helps the plant in the absorption of Potassium.

Sulphur(S): Improves the effectiveness of Phosphorous and utilized in the production
Of energy.

II. Micronutrients:

Iron(Fe): Important in the production of Chlorophyll.

Manganese (Mn): Aids in the absorption of Nitrogen.

Zinc (Zn): Necessary in the transfer of energy.

Copper (Cu): Needed in the production of Chlorophyll.

Boron (B): Optimum growth & development.

Molybdenum (Mo): Helps in nitrogen absorption.

Nutrient medium containing the above essential nutrients was obtained from the Shudh green hydroponics LLP., as Medium A & Medium B.

Equal proportions of Medium A & Medium B were added to 20 litres of distilled water. This acts as nutrient medium for the plant growth. During seed germination, *Trichoderma* was used as Bio fungicide which suppresses the growth of Fungal pathogens.

Managing nutrient solution in hydroponics:

pH:

It influences the availability of nutrients. The optimum range maintained is 6-6.5. When the pH was reduced to less than 6; KOH pellets are added to maintain the normal pH. When the pH of medium increases to more than 6.5, one or two drops of phosphoric acid was added to reduce the pH to its optimum pH.

EC:

The ideal ranges of EC for most crops are 1.5 and 2.5 dS/m. The EC of a nutrient solution can be checked by using an EC meter. High EC result in a physiological drought which restricts root water up take by the plant. EC that is too low indicates insufficient nutrition. The electrical conductivity of the medium was tested with the help of E.C. meter and maintained at 0.8-1.2 by adding Medium A & Medium B in equal proportions.

Temperature: The ideal temperature for hydroponics is 18-26⁰C.

Oxygen: Plants are able to handle 6-10ppm of Oxygen without any problems.

Light: Sufficient natural light in go supplementary lighting is needed.

To prevent the growth of unwanted fungal pathogens during germination and plant growth stage, VAM (or) *Pseudomonas* Bio- fertilizers were used.

The processes involved in hydroponics are,

Germination of seeds: The seeds were first sown in trays containing cocopeat mixed with Perlite and water is sprinkled on it. It is covered properly for two days to avoid the evaporation of water and to retain sufficient moisture for germination. The seeds are very tiny so at most care should be taken while sowing them.

Transplantation of seeds into hydroponic system:

The saplings were transplanted into net pots and these net pots were kept in NFT channel made out of food grade plastic after around 21 days of growth in trays. The NFT channels were provided with circulating nutrient-rich water by a submersible pump kept in a reservoir.

PROCEDURAL STEPS FOLLOWED IN HYDROPONICS:

Installation of hydroponic kits:

Two hydroponic kits were installed on 20th August, 2020. One kit for 48 plants and another kit for 348 plants. Nutrient solution is pumped into it and the seedlings are placed in the holes with the help of net pots fitted in the unit.

Setting up the reservoir:

The reservoir is a container which lets no light through, to prevent algae growth, it should also be big to contain enough water which keeps the system running continuously and you need a submersible pump which is capable of pumping the water to the height of the entry point to the system. The system should have enough power to be able to pump that distance. In the present study 2 tanks i.e., reservoirs of 20 liters for small hydroponic kit and 200 litres for large hydroponic kit are used.

Transplantation of the seedlings: The germinated saplings were transferred into the net pots of the hydroponic systems along with Cocopeat. After transplantation of saplings, the plants were allowed to grow in proper sunlight.

Preparation of Nutrient Solution: Now it is time to take care of plants nutrients. The nutrient solution with a dosage of 1ml of nutrients in 1 litre of water was prepared and added regularly and the pH and EC of the water in the reservoir were to be monitored regularly. Along with adequate nutrients, proper aeration must be arranged for the system. Always have a check on plant's growth. For obtaining a high yield, make sure that pH of the nutrient solution must be maintained at 6 to 6.5 (fluctuation in this range may cause less yield and stress to the plant)

Let the Hydroponic system run: After the system is completed, start growing all sorts of leafy vegetables, vegetables, herbs and fruits. Experiments with different plants were conducted. The plants were monitored daily for the growth of leaves as well as roots. The photographs were taken for evidence.

Harvesting can be done by keeping the stem 3-6 inches above its root which permits lateral roots to grow so harvesting can be done more no. Of times hence more produce is possible. The growth of the plants was observed daily for about 40 days and at the end of 40th day the first harvest of the selected varieties of plants was done.

Comparison of plants grown in Soil and Plants grown through Hydroponics:

When compared to normal plants grown in soil, the plants grown through hydroponics exhibited luxurious growth than those free of pathogens. The reason behind this may be:

Plants grown in soil may have insufficient nutrients.

As they are grown in open environment, they are more prone to pathogen attacks.

Soil borne pathogens may also affect the plants resulting in diseases and thus reduce the growth and yield of the crop.

Advantages:

Though hydroponics is expensive in terms of establishment (unit and also Nutrients), the plants obtained through hydroponics are:

Highly nutritious

Zero wastage of the plants

Pathogen free

Grown throughout the year

Thus, the objective of the present work of getting nutritious, Pesticides and pathogen free plants within a short span is fulfilled.

Profits: The amount earned after selling leafy vegetables is being deposited in CPDC account

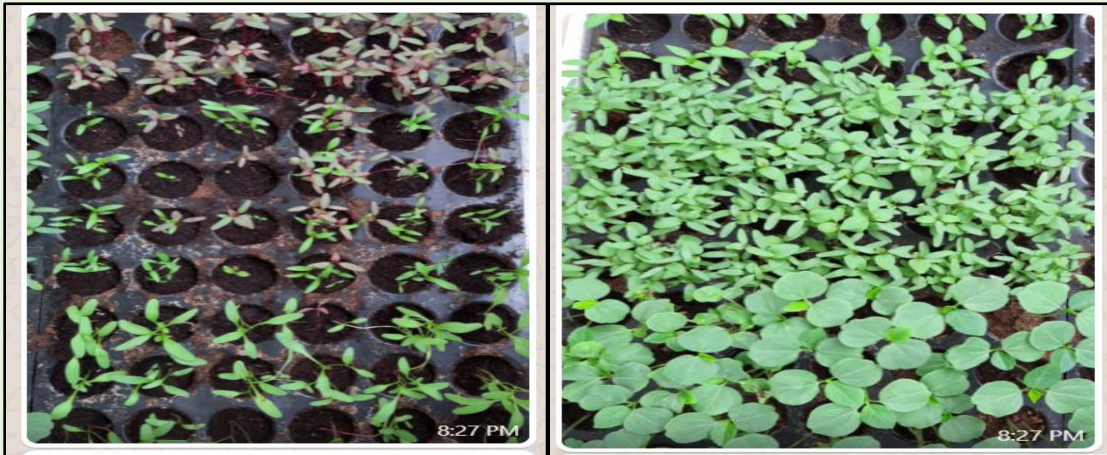
HYDROPONICS UNIT ESTABLISHMENT:



SOWING OF SEEDS IN SEED TRAYS:



SEEDLINGS READY FOR TRANSPLANTATION:



TRANSPLANTATION OF SEEDLINGS INTO HYDRONIC UNIT:





REGULAR CHECKING OF HYDROPONIC PLANTS:



HARVESTING





YOU TUBE VIDEOS LINKS RELATED TO HYDROPONICS:

1. https://www.youtube.com/watch?v=sNGtMtTF_L0



KVRGCW Kurnool Department of Botany Hydroponics plantation on 7.3.22
107 views · 2 months ago

indira santhi
Hydroponics plantation on 7.3.22.

KVRGCW Kurnool Department of Botany
Hydroponics plantation on 7.3.22

2:23

START UP

STUDENT CO-OPERATIVE STORES

BY

COMMERCE DEPARTMENT



KVR GOVT COLLEGE FOR WOMEN (AUTONOMOUS)

RAILWAY STATION ROAD, NARASIMHA REDDY NAGAR, KURNOOL-518001



**MINUTES OF
STUDENT CO-OPERATIVE STORES**

**WOMEN ENTREPRENEUR CELL & INCUBATION CENTRE
K V R Government College of Women (A)
Kurnool**

Meeting of the Startup of Students Co-Operative Store

(Friday, 7th July 2017)

Composition of Governing Body :

1. Dr. C V Rajaewswari	Chairman & Chief Patron
2. Dr .V.Sridevi	Secretary
3. Smt.L.V.Showbha rani	Co ordinator
4. Smt.B.Dhanasree	Co ordinator
5. Smt V.Jhansi	Member
6. Ms.Vasundara III B.Sc	Member
7. Ms.Sravani III B.Com	Member
8.Ms.Veena III B.A.(C.A)	Member

Members present:

1. Dr. C V Rajeswari
2. Dr .V.Sridevi
3. Smt.L.V.Showbha rani
4. Smt.B.Dhanasree
5. Smt P.Jhansi *Rawi*
6. Ms.Vasundara III B.Sc
7. Ms.Sravani III B.Com
- 8.Ms.Veena III B.A.(C.A)

- Chairman & Chief Patron *[Signature]*
- Secretary *[Signature]*
- Co ordinator *d. v. Sridevi*
- Co ordinator *[Signature]*
- Member *[Signature]*
- Member Vasundara
- Member Sravani .
- Member Veena

Agenda

- Name of the Startup.
- The nature of the Startup.
- The location of the Startup.
- The working hours of the Startup.
- Delegation of powers to organize the Start up.
- The generation of seed money .
- The proposal to send for the sanction order to the Principal.

Proceedings of the meeting dated 7th July 2017.

- (1). Unanimously resolved to name the startup as **Students Co-Operative Stores**
- (2). Resolved to inculcate the habit of Self employment skill among the students which suits the salability of the product.
- (3). Unanimously resolved to run the programme by the Women Entrepreneur Cell and Incubation Centre for the academic year July 2017- March 2018 and financial year April 2017–March,2018. Women Entrepreneur Cell and Incubation Centre will take the charge to monitor the activity.
- (4) Unanimously resolved to commence the business beside the mathematics department room.
- (4) It is tentatively planned to conduct the activity after the working hours of the College
- (5) It is tentatively planned to generate the seed money among the students of the College
- (6) Unanimously resolved to submit the proposal the Principal for the sanction order.

From

L.V.Showbha Rani,
Co-Ordinator
Women Entrepreneur and Incubation Cell,
K.V.R.Govt College for women (A),
Kurnool.

To

The Principal,
K.V.R.Govt College for women (A),
Kurnool.

Sub:-Permission to start the start-up –Students Co-Operative Stores by the students-in the college campus-req-reg.

Respected Madam,

I humbly submit a few lines for your consideration i.e., as per request of the students they want to start a co-operative stores for the students in the college premises. It will run by the students after college hours which will benefit to the hostel students. Hence I request as a co-ordinator, please permit them. It will help the students to learn student entrepreneur skill, and promote intension towards self-employment.

Thanking You Madam,

Your's faithfully,

L. V. Showbha Rani





Team of Students Co-operative Stores, Inauguration of Students Co-operative Stores



First sale to the Principal by the students, Sales by the students in the Students Co-operative Stores