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T.R.R.GOVERNMENT DEGREE COLLEGE :: KANDUKUR
SPSR NELLORE DT - ANDHRA PRADESH PIN: 523 105

[Affiliated to Acharaya Nagarjuna University]

[Established in 1966]

GREEN CAMPUS INITIATIVES



GREEN INITIATIVES

GREEN INITIATIVES:

The objective of the college is to renovate it into an environmentally friendly campus, we have geared up green initiatives every year. The College Eco club, Botany Department, Zoology department, Physical education, NSS, and NCC wings along with students frequently participating in the mass plantation, clean and green programs. The following green initiatives that we have started in our college in association with Central Tobacco Research Institute (CTRI), Kandukur and Venkateswara Organic Farming, Venkatadripalem.

- | | |
|-----------------------|--------------------------------|
| 1. Botanical Garden | 9. Solid Waste Management |
| 2. Palm Garden | 10. Vermicompost |
| 3. Azolla Pond | 11. Organic farming |
| 4. Spirulina Culture | 12. Mushroom cultivation |
| 5. Aquatic Pond | 13. Rain Water Harvesting Pits |
| 6. Mini Aquatic Ponds | 14. Seed Bank |
| 7. Kitchen Garden | 15. Green Energy Initiatives |
| 8. Hydroponics | 16. Green/Energy Audit |

Many green campus initiatives are taken up in recent times in our college. The most important among them are Plantation programs, the Development of two new Botanical Gardens, a Seed museum Initiating Organic Agriculture, Hydroponics, Azolla culture, and a proper solid waste management unit where organic waste is converted to Income called Vermicompost. In the future, we wish to further strengthen our green initiatives by practicing them to achieve their objectives.

ESTABLISHMENT OF NEW BOTANICAL GARDENS

In our college we have 3 Botanical Gardens. Recently Botany Department in coordination with the Physical Education, NCC and NSS have developed two new Botanical Gardens. The new Botanical Gardens are protected by the fence all along its length. There are nearly 100 different plant species in all the three botanical gardens. Fabaceae, Malvaceae and Araceae dominate the genus list. In one of our Botanical Gardens we are practicing organic farming. The length and width of the second botanical garden is 50 and 55 meters respectively. The length and width of the third botanical garden is 38 and 13 meters respectively. Our first botanical garden measures 31m in length and 24m in width.

FIRST BOTANICAL GARDEN



Statue of our College Donor/Founder (Thikkavarapu Rami Reddy) and

First Founder Principal (Sri T Krishna Swamy).

SECOND BOTANICAL GARDEN

BEFORE PLANTATION



AFTER PLANTATION



THIRD BOTANICAL GARDEN (PALM GARDEN)

BEFORE PLANTATION



PALM GARDEN AFTER PLANTATION



AZOLLA POND

AZOLLA culture

Azolla is a free floating Pteridophyte plant which is used as a biofertilizer. It measures 1.5-3 cm in length and 1-2 cm in breadth. It contains a cyanobacteria called *Anabaena azollae* in the leaf. It fixes atmospheric Nitrogen. Nitrogen is a crucial element in the plant Metabolism. Plants cannot use gaseous molecular nitrogen which occupies 78% of the earth atmosphere. So the cyano bacteria present in the leaf surface of *Azolla* convert the molecular nitrogen into ammonia, which is the utilizable form of the nitrogen to the plants. As microorganisms are involved in Nitrogen fixation process this is called Bio-fertilizer. *Azolla* is also used as the Fodder for cattle poultry. This plant is rich in minerals like nitrogen, potassium and phosphorous and contains 24-30% protein in total dry matter.

Conditions for Azolla culture:

1. Temperature: 25^o-30^o C
2. Light: It prefers to grow under partial shade
3. Water: 10-15 cm of fresh water is necessary in the pond for its multiplication
4. Water pH: 5.2 to 5.8
5. Every 15 days Dung solution is added to the pond water
6. Every 30 days fertile soil is added to the pond (80-100 kg)
7. After every 15-20 days the thick layer of Azolla is formed.
8. **Azolla Pond:** In our college garden a permanent *Azolla* pond was constructed with concrete with 20ft length, 7 ft breadth and a depth of 2 feet. The Azolla pond was constructed in 2019-20 academic year. Azolla plant is inoculated into the pond filled with water. Before inoculating the plant, 15 kg of soil and 10 kg of cow dung is mixed thoroughly and poured into the pond water. Hand full of Monophosphate is also added to promote growth of root system. The entire pond is covered by the shade net to prevent the solarization of the plant. For every 15 days the *Azolla* starts doubling itself. In each cycle we get the yield of 30 kg of wet weight. Till now we have completed 10 cycles of Azolla culture where in each cycle we got 30 kg of wet yield. In each year we complete 5 cycles in February, August, September, November and December. Excluding the pandemic period till now we **produced 300 kg of wet Azolla.**
9. **Usage:** There are three gardens in our college. Almost three fourth of the produce is used for nourishing our plants alone either in dry form or wet form. Dry or wet form of *Azolla* is rich in organic nitrogen, which is used as an excellent bio-fertilizer for our plants. Rest of the material used as seed material for our self consumption as well as for the local farmers.
10. **Consultancy Service:** We take the responsibility of dissemination the knowledge of *Azolla* utilization to the local farmers. We opened free service, where we share the information of *Azolla* culture and distribute the *Azolla* for free of cost. Besides, we organized workshop on *Azolla* culture with the coordination of Central Tobacco Research Institute Regional station (CTRI –RS) Kandukur.



Construction of Azolla pond in the Botanical Garden -2

Sri Y. Sudhakar Babu Lect. in Telugu, K. Srinivas Lect. in Zoology engaged in tying binding wire to the frame work.



Students engaged in enveloping the shade net to the frame work



Azolla inoculated in to the pond



Fully spread Azolla Plant



Students of Final BZC (2020-2021) who are involved in the Azolla culture

Spirulina culture

Spirulina Culture

Spirulina is a blue-green alga which is used as **single cell protein**.

It is cultivated worldwide as a dietary supplement.

It is also used as a feed supplement in the aquaculture and poultry industries. □

The common name, spirulina, refers to the dried biomass of *Arthrospira platensis*, which belongs photosynthetic alga called Cyanobacteria

Spirulina gets its name from the way it grows in microscopic spirals that stick together, and this makes it easy to harvest through a filtration process.

Dried spirulina contains 5% water, 24% carbohydrates, 8% fat, and about 60% (51–71%) protein



Source: Microscopic Photograph taken by Dr. N. Tirupathi Swamy, Botany Lecturer, by using the bifocal microscope in Botany lab.

Spirulina Culture in College:

- Started in this academic year 2022- 2023
- Two cement rings of 5 ft diameter and 1.5 ft depth are established in kitchen garden beside the Azolla pond for spirulina culture.

Requirements for spirulina culture:

1. Baking soda - 16g/L
2. Potassium nitrate – 2g/L
3. Sea salt – 1g/L
4. Potassium phosphate – 0.1 g /L
5. Ferrous sulphate – 0.0378 g /L

- Regular stirring of the constituents will supply enough oxygen to the system
- Baking soda used in spirulina culture will release enough carbondioxide for photosynthesis. This alga will grow as greenish mass on the surface of water
- Colour of the water is the indicator of density of spirulina
- Deep green colour indicates luxurious growth of spirulina
- Spirulina is filtered by using the cotton cloth, then crushed to remove the water. Later dried and powdered to prepare the finished spirulina capsules.

The Second BZC students are involved in the practice of Spirulina culture

Future plan: The finished product will be sent to the lab for analysis of protein and vitamin content. If the results are satisfactory without toxicity then mass production of spirulina will be taken up in the college.

Aquatic Pond

AQUATIC POND:

The Aquatic pond is constructed in the Botanical Garden 2 of our college to increase the biodiversity of the college premises. The Department of Botany and zoology took responsibility for constructing and maintaining the aquatic pond. The biodiversity can be increased by introducing free-floating hydrophytes like *Lemna*, *Wolffia*, and *Pistia* along with hydrophytes with floating leaves like *Nymphaea Nelumbo*. In addition to this aquatic flora aquatic fauna like freshwater fishes (*Catla catla*, *Labeo*) are grown in this pond. The aquatic pond will attract thousands of insects and other species thus increasing the biodiversity of the college. The aquatic pond measure 18feet x 9feet x 5.4 feet in length breadth and depth respectively.





Aquatic pond being inaugurated by Sri Manugunta Maheedhar Reddy, Hon'ble MLA, Kandukur and releasing fish and turtles



Mini Aquatic Ponds

Mini Aquatic Ponds

Mini aquatic ponds were established in the palm garden to conserve aquatic biodiversity. The mini aquatic ponds are made up of cement rings plastered with concrete at the bottom. The diameter of the mini aquatic pond is 3 feet and its depth is 1.5 feet.

The aquatic flora like *Pistia*, *Eichornia*, *Lemna*, *Wolffia* are planted in the mini aquatic ponds. These aquatic ponds not only increased the biodiversity but also increase the beauty of our palm garden.

OUTCOME: Measures like establishing mini aquatic ponds increases the bio diversity of the area. These are also useful for botanical studies.



Kitchen Garden

KITCHEN GARDEN

As a part of green initiative, with the coordination and assistance of CTIRI RS (Central Tobacco Research Institute- Regional Station) Kandukur and Krishi Vignan Kendra, Kandukur, our college started the Kitchen Garden.

Kitchen Garden: It is a place where the necessary vegetables can be grown for the limited family members. In the context of pesticide residues in vegetables of the market, to live a healthy life and eat pesticide free vegetables kitchen gardens are developed in each and every home in the villages. To spread this concept our college started the kitchen garden in the Botanical garden near the Azolla pond. The area of kitchen garden is covered by the shade net. Leafy vegetables like coriander, *Methi* and *Amaranthus* (Garden curry) are cultivated in the small cement rings kept for this purpose. These cement rings are filled with the mixture of red soil sand and clay and compost in equal proportion for the better yield. All our students are motivated and encouraged to take up the kitchen gardens in the backyard of their home.



Amaranthus plant seedlings in the cement rings



Luxurious growth of amaranthus plants in the ring.

Students working in the kitchen garden



Students handing over their first produce of Methi Plant to the Principal.

HYDROPONICS

[Soil-less culture of Plants]

HYDROPONICS- Soil less Culture of Plants

In the present day context of environmental and soil pollution, the quality of leafy vegetables and vegetables is deteriorating. The production of these plants is linked with the heavy usage of chemical fertilizers and pesticides. The usage of these chemicals is very harmful to the soil as well as the produce. So to weed out the unwanted chemicals, hydroponics is the best solution. Through hydroponics we can minimize the fertilizer consumption without the usage of pesticides. The mineral nutrition of each plant varies so we give only those nutrients that are required for the metabolism of the plant. There is no excess wastage of nutrients. It is also a novel method of growing plants where the students can understand better and assimilate the knowledge regarding the pH and mineral requirement of plant. Botany department took the initiative and developed three different models of Hydroponics in the Botany lab. They are

1. NFT (Nutrient film technology)
2. Dutch bucket Model
3. Deep water culture

The NFT unit, which we developed with a capacity of 72 plants, costs Rs.18,000/- only as compared to Rs.60,000/- branded Hydroponic unit sellers. The total cost of all the three units with a carrying capacity of 293 plants, costs Rs.30,000/- as against Rs.1,15,000/- as quoted by the commercial hydroponic unit sellers in their websites.

Though NFT Model, leafy vegetables like *Amaranthus* (Garden Curry), *Spinach* are grown. Through Dutch bucket model we grew the tomato plants. Deep water culture is used to grow the coriander plants. We are experimenting some exotic plants like Capsicum and Lettuce through dutch bucket and NFT models.

NFT (Nutrient film technology) Model

HYDROPONICS: Hydroponics unit 1 - NFT model (Nutrient Film technology)



HYDROPONICS UNIT – 01 NFT MODEL



DUTCH BUCKET MODEL



DEEP WATER CULTURE



SOLID WASTE MANAGEMENT UNIT

SOLID WASTE MANAGEMENT UNIT

As a part of eco-friendly practice we have started the solid waste management unit, under which we segregate the solid waste into plastic, metal, electronic, one hand and organic waste like paper, Leaves, flowers kitchen waste, food on the other hand. The unwanted solid waste is disposed by the municipal workers. The organic waste is diverted for composting unit. In solid waste management unit we consider the organic waste for the preparation of both organic manure and vermin-compost based on the availability of mother culture of earthworms. We strictly follow the 4R formula of Environment protection in our college campus. We refuse the plastic usage in the college premises. We reduced the usage of chemical fertilizers for our plants in the Botanical Garden.

We prepare our own Organic manure for nurturing our plants. In our college the solid waste/garbage is cleared twice a day with the help of the dedicated scavenger and watch man. Every day huge amount of garbage nearly (10 - 12 kg) is collected, in which the freshly fallen leaves forms the lions share. Wet and Dry garbage are collected in dedicated separate dust bins. Segregation of the solid waste collected is done in separate cement pits built in the solid waste management unit built in the college, beside the main entrance gate. In pit 1, all the unwanted solid waste like plastics, and plastic related material are collected and disposed in an effective way. In Pit 2, metals, biomedical waste, e-waste are further collected and segregated and disposed. In Pit 3, the organic waste collected from the plants like freshly fallen leaves flowers buds fruits and other wet organic waste like food animal waste are collected. The organic waste is diverted to the vermicompost unit for the preparation of vermicompost. Bio medical waste if any is disposed through incineration process. Remaining waste like e-waste, metals and plastic are sold to the local vendors.



College attender engaged in collecting the organic waste in to the container



College attender engaged in dumping the organic waste in the pit



Solid Waste Management Unit in Our College Campus

Disposal of unwanted solid waste from the college premises by Municipal workers



Vermi compost

Vermi compost

Vermicompost unit was started in TRR Govt. Degree college to convert organic waste in to wealth. Huge quantity of organic waste is produced in the college. Most of the organic waste is from the plant litter. Daily from the entire campus nearly 12 kgs of plant waste is accumulated which is diverted for making vermicompost.

The Vermicompost unit is located to the left side of the College main Gate in one of our Botanical Garden. The built in area of the Vermicompost Unit is 20ft length and 16.5 ft width. In this area four pits of uniform size measuring 11ft length, 7 feet width and 2 ft depth are built. Each pit yields nearly 95 kgs of fully prepared vermicompost. Total capacity of the vermicompost unit is (95x4) 380 kgs. Out of this total vermicompost nearly 50 percent is consumed for nourishing our own plants of the garden and the remaining quantity is sold to the college staff and local public at the rate of 10/kg. The services of CTRI RS Kandukur (Central Tobacco Research Institute Regional station Kandukur is note worthy. The college has conducted the workshop on “Preparation of Vermicompost” in cordination with CTRI to bring awareess on importance of vermicompost and its importance. This program not only increased the awareess among the students and staff but also the local farming community. In near future we wish to develop this vermicompost unit in to a mini prototype incubation center.

Management: The Department of Zoology oversees the functioning of the vermcompost unit. The organic waste is collected by the scavenger and disposes it in to the vermicompost pits. The department of zoology with the help of the students are engaged in producing the vermicompost. Department of Botany is engaged in utilizing the produced vermicompost to its garden plants. Department of Zooogy is not only engaged in preparation but also sale of left over vermicompostwhich remained after nourishing our garden plants. The amount accumulated after the sale of vermicompost is used to maintain the vermicompost unit by the Department of zoology.

Dumping the organic waste in the vermin compost pits



Students at work in the vermi compost unit



Dr. M. Ravi Kumar, Principal, staff and students harvesting the vermi compost



Students and staff involved in nourishing the plants with vermi compost prepared in the college vermicompost unit.

ORGANIC FARMING

ORGANIC FARMING

With an objective to produce contamination-free quality food, we started the organic farming in our Palm Garden. We utilized the expertise of Jillellamudi Venkateswarlu an Organic farmer from *Venkatadripalem* Village of Kandukur Mandal. He trained our students in different aspects of Organic farming. The uniqueness of this organic farming is that, our BZC students prepared their own Organic fertilizers, bio-pesticides, and they are totally involved in growing different vegetable crops on their own.

The vegetables like Tomato, Ribbed Guard, Beans, Lady's finger, Capsicum, leafy vegetables like garden curry, *Methi*, *spinach* and fruits like watermelon are grown in the garden without using chemical fertilizers and pesticides.

Through this practice students learned the soil, water, weed and disease management in organic farming. The produce is sold to the college staff and students at much lower rate than the market price.



Field Trip-Our Organic farming team at Venkatadripalem Village Organic farm



Land Preparation



Sowing the seeds of vegetables



Water Management



Weed Management



Organic fertilizer preparation by the final BZC students



Organic pesticide application



Harvesting the crop



Ladies finger



Tomato



Capsicum



Bitter Guard



Amaranthus



Cluster Bean



Ribbed Guard



Water melon

MUSHROOM CULTIVATION

MUSHROOM CULTIVATION

The Department of Botany organized an awareness camp on Mushroom cultivation in College premises in association with Central Tobacco Research Institute, *Krishi Vignana Kendram*,Kandukur.The CTRI Director and their staff participated in the programme and delivered a talk on above mentioned activities. In this programme,progressive farmers farmers near by villages,students and Teaching staff participated.

As part of MOU between CTRI and Department of Botany,the department had takenup initiation to cultivate mushrooms in college campus with BZC pursuing students.Krishi Vignana Kendram,Kandukur has arranged P.Madhava Rao. He is eminent expert farmer in the field of Organic farming and Mushroom cultivation.He trained our students on Milk Mushroom cultivation. The department procured Mushroom spawn material from M/S: S' Mushroom Agri Tech Industry,Hyderabad at the rate of Rs.1500/kg.Initial investment for Culture room and Incubation room Rs.30000/-,other requirements collected from local region with cost of Rs.5000/-. Our students successfully cultured Milky mushroom and received good yields.

The cultivation of milky mushroom is usually carried out in transparent polythene covers. The size of the cover should be 60 x 30 cm, with a thickness of 80 gauge.



Mr.P.Madhava Rao, an expert in Mushroom cultivation delivering talk on cultivation



Explaining the precautions to be taken

Procedure

- ✓ Wash hands thoroughly with antiseptic lotion.
- ✓ Take the polythene cover and tie the bottom end with a thread and turn it inwards.
- ✓ Mix the dried straw thoroughly to get a uniform moisture level in all areas.
- ✓ Take out well-grown bed spawn, squeeze thoroughly and divide into two halves. (Two beds are prepared from the single spawn bag)
- ✓ Fill the straw to a height of 3" in the bottom of polythene bag, take a handful of spawn and sprinkle over the straw layer , concentrating more on the edges.
- ✓ Fill the second layer of the straw to a height of 5" and spawn it as above.
- ✓ Repeat this process to get five straw layers with spawns.
- ✓ Gently press the bed and tie it tightly with a thread.
- ✓ Put 6 ventilation holes randomly for ventilation as well as to remove excess moisture present inside the bed.
- ✓ Arrange the beds inside the thatched shed, (Spawn running room) following Rack system of hanging system.
- ✓ Maintain the temperature of 22-25° C and relative humidity of 85-90 % inside the shed.
- ✓ Observe the beds daily for contamination, if any. The contaminated beds should be removed and destroyed.
- ✓ Similarly, observe regularly for the infestation of insect pests *viz.*, flies, beetles, mites etc., If noticed, the pesticide like Malathion should be sprayed inside the shed @ 1 ml per litre of water.
- ✓ The fully spawn run beds can be shifted to blue colored tent after casing for initiation of buttons.





Precautions to be observed

- i) Keep the spawn running room dark so that spawn running will be faster.
- ii) Periodically place Rat-baiting to kill rats as they are attracted by the spawn.
- iii) Periodically sprinkle water on sand layer to maintain the required conditions.
- iv) Never spray any insecticides on the mushroom beds.



Milky Mushroom - Casing and Cropping

In the case of milky mushroom, an extra process called casing has to be done to induce button formation. After casing operation the beds should be arranged inside the Blue polythene covered pit tent for the growth of the mushroom. The fungus requires an optimum temperature of 30-35° C and relative humidity of 80-85 per cent for the better growth and production of sporocarp. In addition, the fungus needs a light intensity of 2500- 3000-lux for production of buttons, and the cased beds should be kept inside the blue tent.

Casing

Casing nothing but application of thin layer of sterilized soil on the surface of mushroom bed to induce buttons formation. For casing, garden land soil rich in calcium is preferable. Instead of that soil and river sand, mixed in equal proportion can also be used. Sometimes the soil is mixed with Calcium carbonate @ 100 g/ kg and used as a casing medium. The soil used for casing process should be free of stones and stubble and has to be sterilized before casing. The soil is taken in a mud pot or a vessel and steamed in an autoclave or pressure for 45 minutes. (Soil can also be mixed with a little quantity of water and sterilized for this purpose). The soil is used for casing after cooling.

Procedure

- ❖ Take the fully spawn run bed and cut horizontally into two equal halves.
- ❖ Compact the beds as much as possible by pressing firmly with hand.
- ❖ Apply casing soil to a height of 1 cm and press it gently.
- ❖ Spray the water sufficiently to wet the cased soil.
- ❖ Place the beds inside the blue tent.
- ❖ Observe the beds daily and spray water, if necessary, to keep the beds wet.
- ❖ Watch for any contamination and insect pests. If noticed take necessary steps. (Ten after casing the small pin head buttons develop and with in another 7 days mushrooms are ready for harvest)
- ❖ Harvest the mushroom, clean it and pack it in a polythene bag for sales. Stir the top of the bed after first harvest and spray water regularly. (Second harvest can be obtained in another 10 days)
- ❖ Disturb the topsoil after second harvest and spray water as regular. (Third harvest can be done after 10 days and for commercial cultivation a maximum of three harvests is recommended).
- ❖ The mushroom yield of 350 –400 g can be obtained from 250 g dry weight of the straw, providing all optimum conditions inside the mushroom shed.

TRR Government Degree College
Kandukur-SPSR Nellore Dt. Department of Botany

Mushroom Cultivation

Milky Mushroom (*Calocybe indica*)

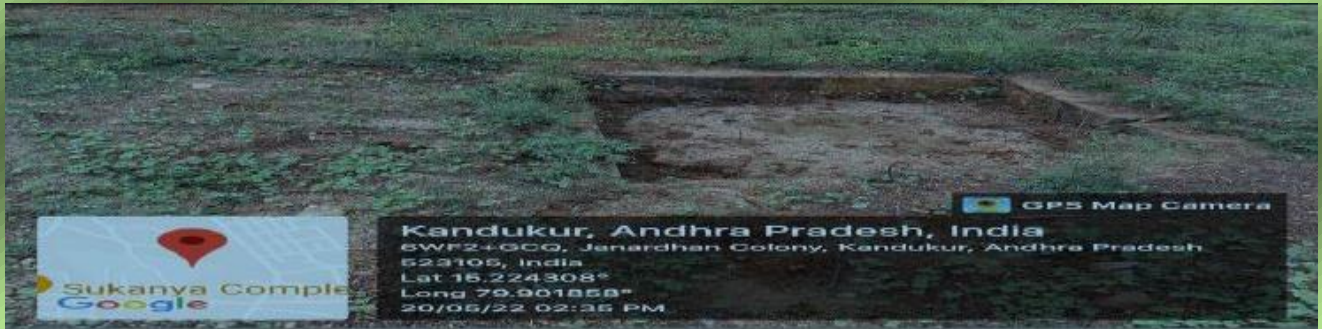
BENEFITS

- ◆ Boost your immune system
- ◆ Lower blood pressure
- ◆ Support weight loss
- ◆ Supply vitamin D
- ◆ Protect brain health
- ◆ Maintain heart health
- ◆ Improve gut health

Rain Water Harvesting

Rain Water Harvesting

There are four Rain Water harvesting pits in our college to tap the Rain water during the monsoon season. All the Rainwater harvesting pits are built scientifically built to tap the maximum amount of water in the soil. This will definitely raise our water table and keep our soil healthy.



SEED MUSEUM

SEED MUSEUM

As a part of Biodiversity conservation, Department of Botany started conserving the important and rare seeds of flowering plants in the form of a seed museum. The main objective of the seed museum is biodiversity and Taxonomic identification of the seeds of flowering plants. We have collected nearly fifty seeds of different category belonging to cereals, pulses, oil seeds, fruit trees and vegetables. All the seeds bottles are given QR code in which Botanical name, family name and economic importance of different seeds are incorporated. In future we will collect the seeds of rare medicinal plants and conserve in the form of seed museum. We will further increase the number of seed varieties of normal plants.

Importance of seed Museum

1. Biodiversity Conservation
2. Identification of seeds by the students

1. Setaria italica

Common Name: Fox Tail Millet (English), Korralu (Telugu),

Kangli(Hindi)Family: Poaceae



Fruit : Caryopsis

Economic Importance:

1. Two times more proteins than Rice
2. Increases Disease resistance
3. Good for Diabetic Patients
4. 100 g of this millet contain 60.9 g of carbohydrates, 12.3 g of proteins
8 g of fiber 4.3 g of fat, 2.8mg of Iron, 3.2 mg of Niacin, 31 mg of Calcium and 473 Calories of Energy



Panicum melioren

Common Name: Little millet (Eng.),
Samulu (Telugu)

Family: Poaceae

Fruit : Caryopsis

Economic Importance:

1. Play an important role in digestion.
2. Good for diabetic patients.
3. For 100g of this millet proteins occupy 7.7 g, fiber 7.6g. fat 5.2 g, iron 9.3g Calcium 17g and 207 Calories of energy.





Pasalam scribicubatum

Common Name: Kodo Millet (English)

Kodon (Hindi)

Arikelu

(Telugu)

Family: Poaceae

Fruit : Caryopsis

Economic Importance:

1. Like Glucose it also releases the energy in quicker manner.
2. It do not contain gluten
3. It control Blood pressure and cholesterol in the blood
4. Useful for heart patients
5. Every 100 g of this seed contain 65.9 g of carbohydrate, 8.3 g of protein 1.4 g of fat, 9 mg of fiber, 35 mg of calcium, 188 mg of phosphorous, 1.7mg of Iron and release 353 calories of energy.



Labelled and QR coded Seed Museum



Green Energy Initiatives [Solar Energy]

Green Energy Initiatives

Roof top Solar Panels



Year of installation : 2018 (RUSA funds)

Installed by : M/s: Windstream Technologies Pvt Ltd.

Solar Energy capacity : 20KW

ANDHRA PRADESH CENTRAL POWER DISTRIBUTION CORPORATION LTD

From,
The Senior Accounts Officer,
APCPDCL,
Kurnool Road,
ONGOLE

TO,
The Principal,
TRR Govt Degree College,
Kandukuru.

Sir,

Sub Payment of amount to TRR Govt Degree College, Kandukur, SP SR Nellore District towards transferring of excess solar power to the grid from the college rooftop solar panels-Regarding

The following is the payments made from the APCPDCL (Andhra Pradesh Central Power Distribution Company Ltd) Ongole to the Principal, TRR Govt Degree College, Kandukur, SP SR Nellore District for transferring excess solar power to the electricity grid from the college roof-top solar panels of 20 KW capacity, which was installed by M/s: Windstream Technology Pvt. Ltd, Hyderabad in 2018.


Name: TRR Govt Degree College, Kandukur, SP SR Nellore Dist.

HSC No: 4511101001920

S. No.	Year	No. of excess Units transferred to the grid	Unit Cost (Rs)	Amount paid (Rs)
1	2019	1077	3.741	4029
2	2020	4879	3.741	18252
3	2021	1276	3.741	4774
4	2022	502	3.741	1878
TOTAL UNITS		7734	3.741	Rs.28,933

[Rupees Twenty Eight Thousands Nine Hundred and Thirty Three only]

Ongole,
18-04-2023


SENIOR ACCOUNTS OFFICER
Operation Circle, A.P.S.P.D.C.L.
ONGOLE.

Generation of Revenue to the college by way of selling excess Solar energy to the electricity grid during the period from 2019 to 2022

Fruit Tree Garden

Fruit Tree Garden

The college has established Fruit Tree Garden in 13 cents of land in January, 2024. The fruit bearing plants about 50 varieties were donated by M/s: Greenvio Solutions, Maharashtra as part of the MoU with our institute. The plants were planted by our students. All the plants were labelled properly, indicating the common name, scientific name and family name. The *Redsanders* and *Mahagony* plants were planted along the fencing of the garden.

In establishing these two gardens, the college has taken technical assistance and suggestions from the Principal Scientist and Director of Central Tobacco Research Institute & Krishi Vigyan Kendra, Dr Prasad Babu, who also graced the inaugural function.

M/s: Greenvio Solutions is also paying Rs.1000 per month as maintenance charges to take care of the Fruit garden.



Medicinal Garden

MEDICINAL GARDEN

A Medicinal Garden is also established in the campus in 6 cents of land, with the financial support from M/s: Greenvio Solutions, Maharashtra as part of MoU. The medicinal plants about 45 varieties were procured from RASS-Krishi Vigyan Kendra, Vanasthali, Karakambadi, Tirupati and from M/s: Anand Nursery, Ongole. The *Redsanders* and *Mahagony* plants were planted along the fencing of the garden.





Flower Garden

Flower Garden

The flower garden was also established in our campus in 5 cents of land, with variety of species of flower plants, which were donated by our staff. The flower garden was inaugurated by Prof M Anji Reddy, Hon'ble Vice-chancellor, Andhra Kesari University on 08-1-2024.

