



S.A.S. GOVERNMENT DEGREE COLLEGE

(AFFILIATED TO ADIKAVI NANNAYA UNIVERSITY, RAJAMAHENDRAVARAM)

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NARAYANAPURAM, WEST GODAVARI DISTRICT-534411



DEPARTMENT OF CHEMISTRY



EXPERIENTIAL LEARNING

STUDENT FIELD VISITS

2018-19 TO 2022-23



**SAS GOVERNMENT DEGREE COLLEGE, NARAYANAPURAM
ELURU DISTRICT, ANDHRA PRADESH.**

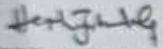
DEPARTMENT OF CHEMISTRY

ACTIVITY REPORT ON FIELD TRIPS/ VISITS

S.NO	Academic year	No. of Field Trips Conducted	Place of visit	No. of students participated	Purpose of visit
1.	2022-23 (31.07.2023)	3	ARNAV POLYMERS	13	To study the manufacturing of polymers (Thermocol) by using Expandable polystyrene on a large scale.
	2022-23 (20.07.2023)		LIXIL INDIA SANITARYWARE PVT. LTD.AMBERPET, A.P.	25	To study the Chemical process of manufacturing and processing of sanitaryware.
			P. B. SIDDHARTHA COLLEGE ARTS &SCIENCE	20	To provide students a good opportunity to improve knowledge and explore different concepts .
2.	2021-22 (22.02.2022)	1	PRISM JOHNSON LTD. UNGUTUR ,A.P	32	To study the Chemical process of manufacturing and processing of Tiles.
3.	2020-21 (23.01.2021)	1	Dr.YSR HORTICULTURE UNIVERSITY, VENKATARAMANNAGUDEM, W.G.DISTRICT	6	To gain experiential learning through a 3-day Horti Business Incubation Training program project by Horti Business Incubation Centre.
4.	2019-20 (01.02.2020)	1	THE ANDHRA SUGARS LTD, BHIMADOLE	25	To observe and study the process of manufacturing of sugar and gain a real world experience.



5	2018-19 (13.12.2018)	2	POLAVARAM	35	To study the construction, material used for construction and process of Polavaram irrigation project and reservoir.
	2018-19 (12.12.2018)		SOIL AND SEED TESTING LAB, TADEPALLIGUDEM	18	To study and observe the testing of Seed and Soil in the lab of Agriculture Department at Tadepalligudem by the Staff and Students.
	TOTAL	8			


 DEPT. INCHARGE^{Incharge}
 Department of Chemistry
 SAS GOVERNMENT DEGREE COLLEGE
 NARAYANAPURAM-534 406


 PRINCIPAL
 PRINCIPAL
 SAS GOVT. DEGREE COLLEGE
 NARAYANAPURAM
 West Godavari District.
 Pin: 534 406, Andhra Pradesh



2022-23.

1. Purpose of the visit ARNAV Polymers:

To know the manufacturing of thermocol from its raw material in large scale

To know the Polymer characterization techniques .

Gel permeation ,Chromatography, Light scattering, viscosity and osmometry are mainly used techniques.

The most frequently encountered types of polymerization -Condensation, Radical and ionic polymerisation.

Arnav Polymers Pvt. Ltd is a private incorporated on 25th august 2010 which is classified as non -govt company and is registered at registrar of companies ,Vijayawada. Arnav polymers is main manufacturer of Thermocol which is made up of styrene and it is an example of expanded polystyrene foam denoted as EPS.

FIELD VISIT TO ARNAV POLYMERS, UNGUTUR BY THE STAFF & STUDENTS ON 31.07.2023 TO STUDY THE MANUFACTURING OF THERMOCOL .





2. Purpose of visit to LIXIL :

To understand the manufacturing processes of sanitaryware which is useful to gain knowledge about the chemicals, machinery used in the production on large scale

LIXIL, a Japanese water and housing products major has invested Rs 400 crore in its first sanitaryware manufacturing facility in India in Bhimadole, Andhra Pradesh. The one million units per annual capacity plant became operational today.

LIXIL India Sanitaryware, a part of LIXIL Asia Pacific, will run the plant housed on a 45 acre campus in West Godavari district. It will serve as the central production base for the Indian market. The main products will be a select range of GROHE, American standard.

While 80 per cent of the production will cater to the Indian market, LIXIL plans to export 20 per cent to its global markets. The capacity of the unit, headed by Katsuhiko Takeguchi, is scalable to 2 million units per annual.



LIXIL aims to support Government's 'Make in India' initiative and generate employment opportunities for more than 400 individuals in the State. Additionally, in line with the Government's 'Skill India' initiative, LIXIL will induct 150 ITI student trainees under National Employability Enhancement Mission (NEEM) Scheme, a company press release said.

FIELD VISIT TO LIXIL INDIA SANITARYWARE PVT. LTD. AMBERPET BY THE STAFF AND STUDENTS OF II B. Sc (MPC & BZC) TO STUDY THE PROCESS OF MANUFACTURING AND EXPORTING OF SANITARYWARE ON 20.07.23



3. Purpose of the Study Visit to pB Siddhartha college of arts & Science:

To experience academic rigor at that college and to know various advanced facilities available there

To acquire knowledge of some latest equipment in science laboratories like HPLC, Spectrophotometer ,museumsetc.

To experience biggest library, Medicinal garden and so on

PB siddhartha college of Arts & Science is a degree college accredited A+ by NAAC under Krishna University established in 1975 offering number of advanced courses and equipped with latest technology



STUDY TOUR TO P.B.SIDDHARTHA COLLEGE OF ARTS & SCIENCE, VIJAYAWADA BY THE STAFF AND STUDENTS ON 29.04.2023



2021-22

Purpose of the visit:

To make the students get knowledge about various types of tiles and their manufacturing which are used for exterior and interior wall and floor applications.

The company is one among the India's largest integrated building material companies meeting the construction and lifestyle needs of customers. Both porcelain tiles and ceramic tiles use clay in their manufacturing and harder clays used for porcelain tend to be white clays mixed with sand and Feldspar.



FIELD VISIT TO PRISM JOHNSON PVT. LTD. UNGUTUR BY THE STAFF & STUDENTS TO OBSERVE AND STUDY THE MANUFACTURING OF DIFFERENT TYPES OF TILES ON 22.02.2022.



2020-21

S.A.S. GOVT DEGREE COLLEGE NARAYANAPURAM, W.G.DT. A.P.

FIELD VISIT CUM TRAINING PROGRAMME (2020-2021)

THREE DAYS HORTI BUSINESS INCUBATION TRAINING PROGRAMME PROJECT

Training Programme On

"Entrepreneurship development through low-cost processing of fruits and vegetables"

ORGANISED BY DEPARTMENT OF CHEMISTRY IN COLLABORATION WITH



HORTI BUSINESS INCUBATION CENTRE(HBIC)

Dr.Y.S.R.Horticulture University

Venkataramannagudem. West Godavari dt., A.P.

(FROM 21-01-2021 TO 23-01-2021)





Dr. Y.S.R. Horticultural University
Venkataramannagudem, West Godavari Dt., A.P



RKVY Project
HORTI BUSINESS INCUBATION CENTRE (HBIC)

Training Programme on
"Entrepreneurship development through low cost
processing of fruits and vegetables"

21-01-2021 to 23-01-2021

Chief Guest



Dr. T. Jambireddy
Hort. & Fish. Officer
Dr. YSRDC

Guest of Honour



Dr. A.S. Padmanabhan
Dean of Horticulture &
Controller of Examinations
Dr. YSRDC

Chairman



Dr. K. Uma Jyothi
Associate Dean
College of Horticulture
Venkataramannagudem

Organizing Committee

Dr. B. V. Sujatha
Associate Professor (Agril. Economics)
Organizing Secretary

Dr. V. Sudha Vani
Associate Professor (Hort.)
Co-organizing Secretary

Dr. B. R. Satish Kumar
Professor (Horticulture)
Member

Dr. K. Uma Kishor
Professor (Statistics)
Member

Dr. T. Susuola
Associate Professor (Hort.)
Member

Organized by

Horti Business Incubation Centre (HBIC)
College of Horticulture, Venkataramannagudem



DAY-1

F.N INAUGURAL FUNCTION, DIFFERENT TECHNIQUES OF FOOD PRESERVATION-Dr.V.SUDHAVANI.

A.N PREPARATION AND PRESERVATION OF SQUASH-Dr.V.SUDHA VANI,PRACTICALS ON PREPARATION,PRESERVATION.

DAY-2

F.N PREPARATION AND PRESERVATION OF TOMATO KETCHUP, PRACTICAL ON PREPARATION,PACKING OF TOMATO KETCHUP- Dr.D.VENKATASWAMI,UNIVERSITY LIBRARIAN AND PRINCIPAL SCIENTIST&HEAD,PHTRS.

A.N LOW COST MACHINERY FOR FRUIT AND VEGETABLES PROCESSING –Dr.K.VENKATA SUBBAIAH.SCIENTIST(HORT)KVK.

SCHEMES PROMOTING ENTREPRENEURSHIP IN FOODPROCESSING SECTOR- Dr.V.SUJATHA,ASSOCIATE PROFESSOR(AGRIL.ECONOMICS).

DAY-3

F.N PREPARATION AND PRESERVATION OF MIXED FRUIT JAM,PRACTICALS ON PREPARATION,PRESERVATION,PACKING AND LABELLING- Dr.D.VENKATASWAMI,UNIVERSITY LIBRARIAN AND PRINCIPAL SCIENTIST&HEAD,PHTRS.

A.N DIGITAL MARKETING OF VALUE ADDED PRODUCTS OF FRUITS AND VEGETABLES,CREATION OF CONTENT IN SOCIAL MEDIA FOR MARKETING- Dr.V.SUJATHA,ASSOCIATE PROFESSOR(AGRIL.ECONOMICS).

4-5.30 P.M VALEDICTORY SESSION



REPORT FOR DAY-1 (21-01-2021)

The first day began with registration and inauguration in the morning session. Dr.T.Janakiram the honourable vice chancellor of Horticulture university appreciated for organizing committee for conducting this programme for women and congratulated all the participants who have come to use good opportunity. The chief guest Smt Madhuri Andhra Bank General Manager from Tadepalli Gudem attended the inaugural session. She explained to the participants the procedures how to approach banks, how to apply for loan and how to make quotations. Before Completion of the inauguration some Participants also shared their opinions. Our college student M.Karuna III B.Z.C Shared her opinion about the possibilities of making small scale business.

Afternoon Session started with a training program on the preparation and preservation of squash by Dr.V.SUDHA VANI. PRACTICALS ON PREPARATION, PRESERVATION. She explained how to make squash with fruits(GRAPES) in small quantities at home.

INGREDIENTS REQUIRED

Grapes- 1.1/2 Kg.

Water-1 ltr.

Sugar-2kgs.

Ascorbic Acid-20 to 30grams.



Sodium Benzoate-2grams.

Method of preparation

Rinse the grapes in water. First boil the grapes in 1Ltr water for 5 to 10 minutes, then grind, filter the same and collect the pulp. Keep the collected pulp, sugar, citric acid on a gas stove and heat it until the sugar has melted. Add sodium benzoate before removing from the stove. After cooling, filter twice using polypropylene cloth and fill in the bottles. This can be stored up to 6 months.



Students learning the procedure of the preparation of quash by Dr. Sudha Vani



REPORT FOR DAY-2 (22-01-2021)

Second day morning training about making of tomato ketchup using machines by
Dr.D.VENKATASWAMI, UNIVERSITY LIBRARIAN AND PRINCIPAL SCIENTIST & HEAD, PHTRS.

INGREDIENTS REQUIRED

Pulp from 150 kgs of Tomatoes - 100kgs.

Sugar-3.5kgs.

Salt-400grms.

Red chilli powder-500grms.

Onions-5kgs.

Spices(cinnamon, cloves, cumin, leaves, garlic)-800grms.

Sodium benzoate-30grams

Citric acid-500 grams.

Method of preparation

First wash the tomatoes, slice them, then grind and take 100kgs of pulp.(the pulping machine is called pulper. This pulper separates the pulp and seeds) .The juice from this tomatoes is then pumped into a vessel. Cook the tomato pulp using the steam coming through the boiler. Add sugar, salt, chilli powder



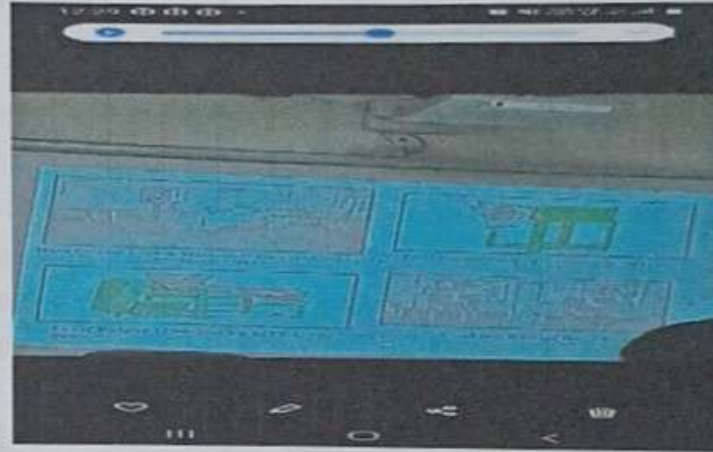
before cooking. Mash the spices, onions, garlic wrapped in polypropylene cloth and place in the cooking kettle. Cook until it is one fourth of the pulp and finally add Citric acid & Sodium benzoate. The final ketchup sent into vacuum filler which fills in to glass jars or packets with out getting wet. The lids tightened with the help of crown corking machine. Label should be made in specific sizes. After labelling they are ready for sale. Production FSSAI (FOOD SAFETY AND STANDARDS AUTHORITY OF INDIA) certificate should be obtained from the respective district Food inspector.



PREPARATION OF TOMATO KETCHUP



STUDENTS OBSERVING THE PROCEDURE OF MAKING TOMATO KETCHUP.
DISPLAY OF MACHINERY FOR MAKING TOMATO KETCHUP



REPORT OF DAY-3 (23-01-2021)

Third day morning training was about how to make mixed fruit jam using machines by
K.D.VENKATASWAMI, UNIVERSITY LIBRARIAN AND PRINCIPAL SCIENTIST & HEAD, PHTRS.

INGREDIENTS NEEDED

Pulp from 150 kgs fruits -100kgs.

Sugar-100kgs



Citric acid-500 grams.

Method of preparation

Rinse the fruits in water. Some fruits are peeled then grinded and 100kgs pulp is extracted.(the pulping machine is called pulper this pulper separates the pulp and seeds) .The juice from these fruits is then pumped into a vessel, sugar is added to this pulp. Cook the pulp using the steam coming through the boiler in the kettles. Finally citric acid is added into the jam. Cook until it is one fourth of the pulp. Finally jam is ready then it will be filled into dry glass bottles with the help of G C B filler. Finally put the lugs with the help of lug cape sealer. Label should be made in specific sizes. After labelling it can be sold. Production FSSAI (FOOD SAFETY AND STANDARDS AUTHORITY OF INDIA) certificate should be obtained from the respective district food inspector.

Third day afternoon session was on DIGITAL MARKETING OF VALUE ADDED PRODUCTS OF FRUITS AND VEGETABLES, CREATION OF CONTENT IN SOCIAL MEDIA FOR MARKETING.

Dr.V.SUJATHA, ASSOCIATE PROFESSOR (AG. ECONOMICS), elaborated on how we can take up on line marketing emphasising on the importance of on line marketing in the present day world. She explained how to buy and sell on Amazon, flipkart and how to do publicity through the social media like youtube, facebook.





SESSION ON ONLINE MARKETTING TECHNIQUES



SESSION ON ONLINE MARKETTING TECHNIQUES





STUDENTS RECEIVING THE TRAINING COMPLETION CERTIFICAT



STUDENTS RECEIVING THE TRAINING COMPLETION CERTIFICATE



CERTIFICATES



Six girl students from our college participated and get trained in this programme.
programme.

1.M.KARUNA IIIB.Sc(CBZ)

2.T.KEERTHI IIIB.Sc.(CBZ)

3.M.DURGA DEVI IIIB.Sc(CBZ)

4.N.NIHARIKA IIIB.Sc(CBZ)

5.CH.MANISHA IIIB.Sc(CBZ)

6.BABY SUMA IIIB.Sc(CBZ)

They participated in three days training program and practically Observed preparation of different products like squash,ketchup,jam and learn how to start a small scale business and grow into a big industry. Also on the last day the feedback on this training program was submitted. The certificates were distributed by the university vice chancellor Dr.T.JANAKI RAM GARU.



Signature of dept. In-charge

Signature of principal



2019-20

Purpose of the visit:

To create awareness to students about sugar manufacturing as a part of experiential learning to the students

Department of Chemistry organised a field visit to Andhra Sugars as a part of Experiential learning in the curriculum. This will help the students to enhance their theoretical and practical knowledge in manufacturing of sugar on large scale. In the chemical plant the manager and technical staff explained the processes in the manufacturing of sugars at various stages.

FIELD VISIT TO THE ANDHRA SUGARS LTD. SUGAR UNIT-III, SURAPPAGUDEM, BHIMADOLE. TO STUDY THE MANUFACTURING OF SUGAR ON A LARGE SCALE- BY THE STAFF AND STUDENTS ON 01.02.2020.



18





2018-19

Polavaram irrigation project:

Purpose of the visit:

Main purpose of this Field visit is to make the students familiar with the huge construction and the materials used for the project. They will go through the mechanism of generation of electrical energy from mechanical energy by using water as the source and become aware of reservoir, dam, coffer dam etc.,

About the project: Polavaram project is a multipurpose project on the river Godavari in the Eluru district and East Godavari districts in Andhra Pradesh which has been accorded National project status by Central Government of India.



EDUCATIONAL TOUR TO POLAVARAM IRRIGATION PROJECT BY THE STAFF AND STUDENTS ON 13.12.2018

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