## S.R.R. & C.V.R. Government Degree College (A)

An Autonomous & ISO 9001: 2015 Certified Institution:: Ranked by NIRF in 101-150 band at NIRF-2020 & 151-200 band in NIRF 2019 NAAC accredited Institution with grade B+ with C.G.P.A 2.6 during March, 2017

Machavaram, Vijayawada, Krishna District, AP-520 004

## KCP INDUSTRIAL VISIT AUGUST 2017



# **DEPARTMENT OF BOTANY**

SRR & CVR Government Degree College An Autonomous & ISO 9001: 2015 Certified Institution:: Ranked by NIRF in 101-150 band at NIRF-2020 & 151-200 band in NIRF 2019 NAAC accredited Institution with grade B+ with C.G.P.A 2.6 during March. 2017 Machavaram, Vijayawada, Krishna District, AP-520 004



### DEPARTMENT OF BOTANY

| Dates  | August 2017   |
|--|---|
| Conducted through<br>(DRC/JKC/ELF/NCC/NSS/<br>Departments etc.   | Department  |
| Nature of activity<br>(seminar/Workshop/Extn.<br>Lecture etc.    | Industrial visit  |
| Title of the Activity  | Industrial Visit  |
| Name of the<br>Department/Committee                              | Department of Botany  |
| Details of Resource Persons<br>(Name , Designation etc., )       | KSP Sugar Factory, Vuyyuru Staff  |
| No of students participated                                      | 40  |
| Name of the Lecturers who<br>planned & conducted the<br>activity | Planned and Organized by<br>Ms M.Sravanavalli<br>Lecturer In Charge<br>Mrs D. Jyothi , Lecturer in Botany |
| Remarks  | This Industrial tour has given onsite field experience to students  |

Department of Botany SRR & CVR Govt DegreeCollege Organized a Industrial tour to KSP Sugar Factory, Vuyyuru Krishna District in August 2017.

Motive of this program:

This tour Provided students Onsite, practical and real time experience, real time cases. Creating awareness on the processes that regularly happen in sugar factories.

**Relevant Information related to this :** 

Sugar is a broad term applied to a large number of carbohydrates present in many plants and characterized by a more or less sweet taste. The primary sugar, glucose, is a product of photosynthesis and occurs in all green plants. In most plants, the sugars occur as a mixture that cannot readily be separated into the components. In the sap of some plants, the sugar mixtures are condensed into syrup. Juices of sugarcane *(Saccharum officinarum)* and sugar beet *(Beta vulgaris)* are rich in pure sucrose, although beet sugar is generally much less sweet than cane sugar. These two sugar crops are the main sources of commercial sucrose.

Sugar cane must be crushed to extract the juice. The crushing process must break up the hard nodes of the cane and flatten the stems. The juice is collected, filtered and sometimes treated and then boiled to drive off the excess water. The dried cane residue (bagasse) is often used as fuel for this process.

Sugar Processing consists of Harvesting, Washing and initial preparation ,Juice extraction , Purification of juice , Crystallization, Centrifugation , Drying and Packaging



The students and faculty have visited KPC-Sugar industry. The students have observed Segar manu facturing processes and fermentation of Molasses and preparateon of mancere from the residue.

(rought)

Faculty members: 1. Ms. M. SRAVANA VALLI 2. Smit. D. JYOTHI.

### Tour Report :

Students observed the processing of sugars in the factory stagewise. They observed the fermentation of molasses and the preparation of Bio Manure from molasses .

Molasses from both sugarcane and sugar beets are a major component of animal feed. Sugar beet molasses that has been subjected to desugarization contains reduced carbohydrate levels and may be blended with cane molasses.

Sugarcane pressmud is the solid residue produced after filtration of sugarcane juice. The purification process separates the juice into a clear juice that rises to the top and goes for manufacturre of sugar, and a mud that collects at the bottom. It is a good source of fertilizer. Sugar mills in India produce about 12 million tons of pressmud (filter cake) as a waste from double sulphitation processes.

Molasses is used as a microbiological energy source in a wide range of fermentation processes. It is used to grow yeasts, molds and bacteria which transform sugars into alcohol, yeast, citric acid and the food additives monosodium glutamate and lysine.

Students experienced an onsite field experience. Industry staff explained to students about all the stages and processes happening in the Sugar Industry. The tour was very informative and beneficial to Botany students.



### STUDENT SIGNATURES AND FEEDBACK Remarks S.No Date Class Roll no/ Reg no Signature Got awareness TBEC Kirand 1, 21317207 Use full 2-A. Prasanthi EREC 21317201 Good. T. Lavanya. 21317209. 3. TBAC K. Jogadeath Good POAL 21317105 4. Timzudula Useful 5. 21317206 TBIEC A. Whate 0100d. TIBAC 21317212 6 Den pagachi Got avernuss 21317204 I BAC F useful 20311215 N. Mocinilca. 117. B. 2.C. 8 Shaik Bayi Baba Vali Good MBZ.C 20311223 9 G. Rufaval Useful TA 732.C 20311003 10 20311008 60002 III BZ C 11 awarner. RB7.C 20311216 P. Sat 12 Good \$7 A) R.20 203(1277) 12. M. Cayathei Good. 20311213 IT BZC 14 15. M. Need T.B2C 20311210 Good 20311220 P.Lochansa II BZC Awaleness 16

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