

Cook with millets

The Department of Botany organized 'Cook with Millets' as a part of the monthly millet activity commemorating year 2023 as the 'International Year of Millets'. The main objective of this competition was to promote and incorporate millets in our food preparation. Millets are an excellent source of dietary fibres, vitamins and minerals. With the increasing food demand, use of millets in cuisines is a great way to promote their benefits and awareness. The purpose of this competition was also to promote culinary talents of our young students and to give students an opportunity to showcase their talents and creativity in cooking.



How are fusion sarees made?

In an innovative move, Anand Gaurav has found a way to convert water hyacinth into fusion sarees by extracting fibre from the plant. Fusion saree is arduous work. First, the stems of the plant are collected and dried in the sun for a week. The soft cover of the stem is used to make paper while the pulp is used to make fibre. Fibre from the stem is extracted after hot water treatment to remove insects from the pulp. These fibres are used to make yarn, which is then coloured. Weavers then weave the saree on a handloom. Around three to four days are required to make one saree.



Sarees made from water hyacinth

Empty milk packets collection activity

The Department of Botany conducted empty milk packets collection activity on 13th January 2024 to spread awareness among the students about the need to dispose them off responsibly.

The washed and dry empty milk packets were collected by the volunteers in the month of October 2023 to January 2024. The bags thus collected were handed over to Ms. Shraddha Rangnekar, Senior Project Co-ordinator, Mineral Foundation of Goa to dispatch it to hazardous waste treatment facility at Pissurlem Industrial Estate, Bicholim-Goa. The centre would start the process of upcycling them into utility items like bins, buckets, mugs, etc. The programme aimed to reduce waste by diverting the packets from landfills. Approximately 1498 empty milk packets were collected by the volunteers.



Rangoli competition on millets

The Department of Botany organized Rangoli competition on millets on the occasion of 'Tulsi Lagna' as a part of the monthly millet activity commemorating year 2023 as the 'International Year of Millets'. Millets has high nutritional value and sustainability. They range in different colors such as red, white, yellow or gold.

The rangoli designs showcased the unique characteristics of millets such as their small size, shape and wide-ranging colors. The different millets used were *Eleusine coracana* (finger millet), *Pennisetum glaucum* (pearl millet), *Sorghum bicolor* (great millet). To create awareness about the significance of millets, students used rangoli as a medium to showcase their creativity.



Water Hyacinths, “The Terror of Bengal”

Water hyacinth is a freshwater weed with a massive growth potential that blocks sunlight and chokes the aquatic ecosystem. This weed grows in still pond water and almost every household in Jharkhand has a pond in their backyard. Aquatic life can survive only when dissolved oxygen in water is at least five mg per litre, but it decreases to one mg per litre in the presence of water hyacinth. This threatens aquatic life and deteriorates water quality.

Uses of Water Hyacinth

Water hyacinth is also used to make many products like purse, table mats, ladies hand bags, official folders, laundry baskets, laptop bags, tiffin bags, bottle carrier etc.

Talk on ‘Managing our waste issues’

Department of Botany has organized a talk on occasion of Gandhi Jayanti on 3rd October 2023 on topic ‘Managing our waste issues’ by Ms. Shraddha Rangnekar. The main objective of talk was to address the issues of waste management. She focussed on harmful effects on improper waste disposal and stressed on 4R's of waste management i.e. Refuse, Reduce, Reuse and Recycle.

Fiber extraction from Agave leaves

Agave americana commonly called as century plant and locally known as kamal cactus, native of Mexico but now cultivated worldwide, belonging to the family Asparagaceae is a great source of natural fibres. The TY Botany students of our college attempted the extraction of Agave leaf fibres using Natural Retting process. The leaves of matured plant that had flowered, were cut from the base and were soaked in natural water drain in the college campus for 3 weeks. The fibres were manually separated from decomposed non fibrous material. The separated fibres were washed and set aside for further sustainable use.



Hydroponics

Recently, Department of Botany has started growing plants using water based mineral nutrient solution rather than soil which is called Hydroponics.

Hydroponics is a horticultural technique which needs no soil, less labour, conserves water, maximizes space and helps the crop to grow faster.

REFERENCE:

<https://www.thebetterindia.com/318183/jharkhand-gaurav-anand-makes-fusion-cotton-sarees-from-water-hyacinth-freshwater-weed>

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Water Hyacinths

Pontederia crassipes (formerly *Eichhornia crassipes*), commonly known as common water hyacinth, is an aquatic plant native to South America, naturalized throughout the world, and often invasive outside its native range. It is the sole species of the subgenus *Oshunae* within the genus *Pontederia*. It is known as the “Terror of Bengal” due to its invasive growth tendencies.

