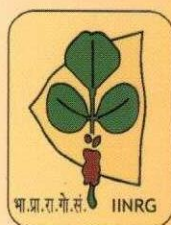


Large Scale Preparation of Herbal Gulal from Palas Flower



ICAR- Indian Institute of Natural Resins and Gums
Namkum, Ranchi-834 010, Jharkhand



Most of the Holi colours sold in the market are oxidized metals or industrial dyes mixed with engine oil. Here are a few examples: the green comes from copper sulphate, purple is chromium iodide, silver is aluminum bromide, black is lead oxide and shiny colours are result of powdered glass being added to the colours. All these are toxic and can result in anything from skin allergies to eye irritation, blindness and much more.

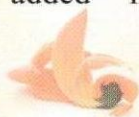
In light of above potential hazards of synthetic colours, IINRG, Ranchi has prepared *palas* flower based *gulal* which is safe, non-toxic, eye and skin-friendly natural holi colours.

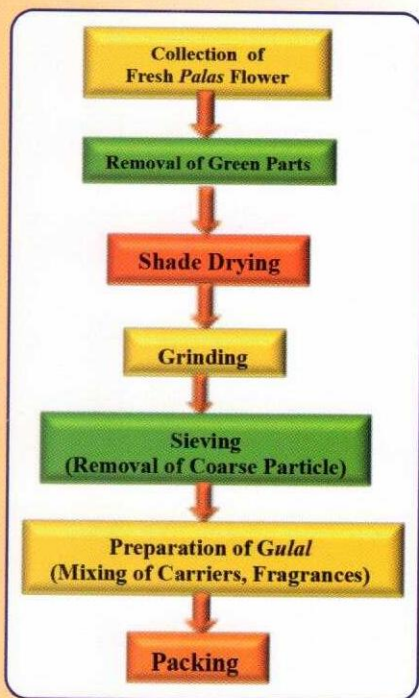
Palas tree is commonly found all over India, except in very arid region. *Palas* flower is bright reddish yellow in color, blooms in huge quantity in the beginning of summer season. Flowers on the naked branches appear like Flame of Forest from a distance. Each flower is 2 to 4 cm in diameter and petals of these flowers are good source of natural dye. Several thousand tons of *palas* flowers are buried in the soil every year in Jharkhand and other adjoining states like West Bengal, Odisha.



Palas flowers and different shades of gulal from palas flower

The fresh flowers are collected from trees and green portion of the flowers removed thereof. The flower petals are dried under shade. Final weight of dried petals is recorded after keeping the same in shaded place for a week. The dried petals are grinded into fine powder which is then used in the preparation of *gulal*. The different shades of *gulal* can be prepared by admixing *palas* dye with fine powdered *palas* petals in different proportions and natural fragrance is also added in the formulation to give appealing flavour.



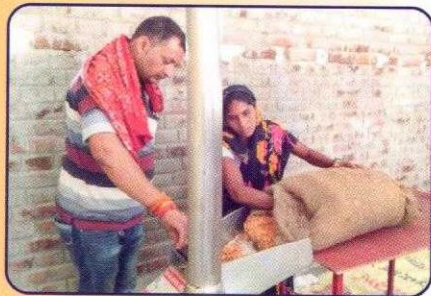


Process flow diagram of gulal making

Process know-how for the preparation of *gulal* was demonstrated to the women members of NGO linked with Lac Utpadak Sahyog Samiti Ltd, Kundri. Technical guidance related to the specification of grinding machine has been provided which was later on utilized while assembling the processing unit for preparing *gulal*. After the installation of processing unit at Kundri, process know-how for the preparation of *gulal* was demonstrated to 30-35 participants from Lesliganj, Kundri Block, Palamu.

Precautions to be taken while preparing *gulal* from *palas* flowers-

- 🌸 Green portion of flowers (calyx) should be removed.
- 🌸 Petals of the flowers should be dried completely under shade.
- 🌸 While drying flowers, the black petals should not to be admixed with processing batch.
- 🌸 In order to maintain the color of the product, the flowers should always be dried under shaded condition



Processing unit for the preparation of gulal from palas flowers

Commercial scale preparation of *gulal* from *palas* flowers

- Processing unit for commercial scale production of *gulal* from *palas* flowers has already been installed in Lesliganj, Kundri block, Palamu and manufacturing the *palas* flower based *gulal* under the technical guidance of ICAR-IINRG, Ranchi.
- Packaging machine for preparation of packets containing 100g *gulal* was also installed.
- Almost 45 -50 women members are engaged in the preparation of *gulal* and earning their livelihood through this activity.



Palas flower based herbal gulal has been commercialized and manufactured under the technical guidance of ICAR-IINRG, Ranchi

Economics : The cost of production of herbal *palas gulal* works out to be Rs 100.00 per kg whereas the commercial gulal available in the market cost around Rs 300 per kg.

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