

Visit to Agarbatti Making Small Scale Industry

Date of Visit: - 11/09/2025

Place of Visit: - Narsala, Nagpur

Organized by: - Department of Chemistry, Sevadal Mahila Mahavidyalaya

Participants: - M.Sc Chemistry student & U.G SEM-I Chemistry student

Introduction

As a part of our academic and practical exposure program, the students of M.Sc. Chemistry visited a small – scale Agarbatti Manufacturing Unit on 11/09/2025. The purpose of this visit was to understand the industrial process of agarbatti making, the raw material involved, the role of chemical ingredients in fragrance formulation, and to gain insights into small-scale entrepreneurship in the chemical-based industry sector.

Objectives of the Visit

- To study the process of agarbatti (Incense stick) production.
- To identify the raw materials and chemical additives used.
- To observe machinery and equipment employed in small-scale industries.
- To understand quality control, packaging, and marketing strategies.
- To encourage entrepreneurial thinking and product development among student.

Details of the Industry

The visited industry was a local small-scale unit involved in the manufacturing of different types of incense sticks such as rose, sandalwood, jasmine, and herbal agarbattis. The unit employed around 10-15 worker, many of whom were local women. The manufacturing process was semi-automatic, combining traditional skills with simple machinery.

• Raw Materials Observed

1. Bamboo sticks - As base material.
2. Charcoal powder – For combustion property.
3. Jigat (Litsea glutinosa) powder - As a natural binder.
4. Wood powder- As filler.

- **Manufacturing Process Observed**

1. Mixing of Ingredients – Charcoal, wood powder, and jigat are blended with water to form a uniform paste.
2. Rolling- The paste is manually or mechanically rolled on thin bamboo sticks.
3. Drying- Rolled sticks are sun-dried for 24-48 hour to remove moisture,
4. Perfuming- Dried sticks are dipped or sprayed with fragrance oils.
5. Drying & Packaging- The perfumed sticks are re-dried, counted, and packed in paper or plastic packets for marketing.

Observations and Learning Outcomes-

- The industry utilizes locally available raw materials and simple technology.
- The chemistry of fragrance and binding agents is crucial for quality agarbatti production.
- The unit provides employment to local people, especially, supporting rural development.

Benefits of the Visit-

- Gained practical exposure to small-scale industry operations.
- Understood how chemical formulations are used in day-to-day consumer products.
- Developed awareness about eco-friendly and herbal product opportunities.
- Inspired student to explore startups and self-employment in the fragrance and home care sector.

Conclusion

The industrial visit to the Agarbatti Manufacturing Unit was a highly educational experience. It provided the students with a clear understanding of small-scale industrial processes, use of chemical principles in product formulation, and the potential for entrepreneurship in fragrance-based industries. Such visits bridge the gap between theoretical knowledge and practical application, motivating students to apply their chemical understanding for sustainable and innovative product development.



Students of UG and PG at the agarbatti making (small scale industry)



The owner explaining manufacturing process

Instruments at the industry



The owner showing the instruments

