

Case Study – 1

Answer Key

A. Read the case-study based passage carefully.

“...Lavender cultivation has employed large numbers of farmers and young entrepreneurs in the geographically remote regions of J&K. A new industry around lavender cultivation has developed in the region. More than 1000 farming families in the J&K are currently cultivating lavender on more than 300 acres in different parts of J&K. Each lavender farmer employs at least five other people to cultivate it. This has given employment to more than 5000 farming families in the region. Women are primarily employed in the lavender fields for harvesting and processing of flowers. This has increased the income of women in the region. Nursery of >20 lakh lavender plants worth more than one crore developed by women in different villages of Doda District, J&K in 2022. Many young entrepreneurs have started small-scale businesses through the value addition of lavender oil, hydrosol, and flowers. CSIR-IIIM conducted many skills development programmes under CSIR Aroma Mission and trained more than 2500 farmers and young entrepreneurs from J&K on the cultivation, processing, value addition, and marketing.

Lavender oil produced in J&K has a market price of around Rs 10,000/- per kg in the Indian market. Dry lavender flowers fetch a price between Rs 1000 to Rs 1500. Many small and marginal maize farmers in the temperate regions of the Jammu Division have successfully adopted lavender, who used to get an annual income of around Rs 2,500/- per Kanal (one hectare= 20 Kanal). Lavender oil production in the area varies between 40-60 litres per hectare per year, with an average of around 50 litres per hectare per year. The net annual income of lavender farmers has increased many folds from around Rs 40,000/- to Rs 60,000/- per hectare to between Rs 3,50,000/- to Rs 6,00,000/- per hectare.

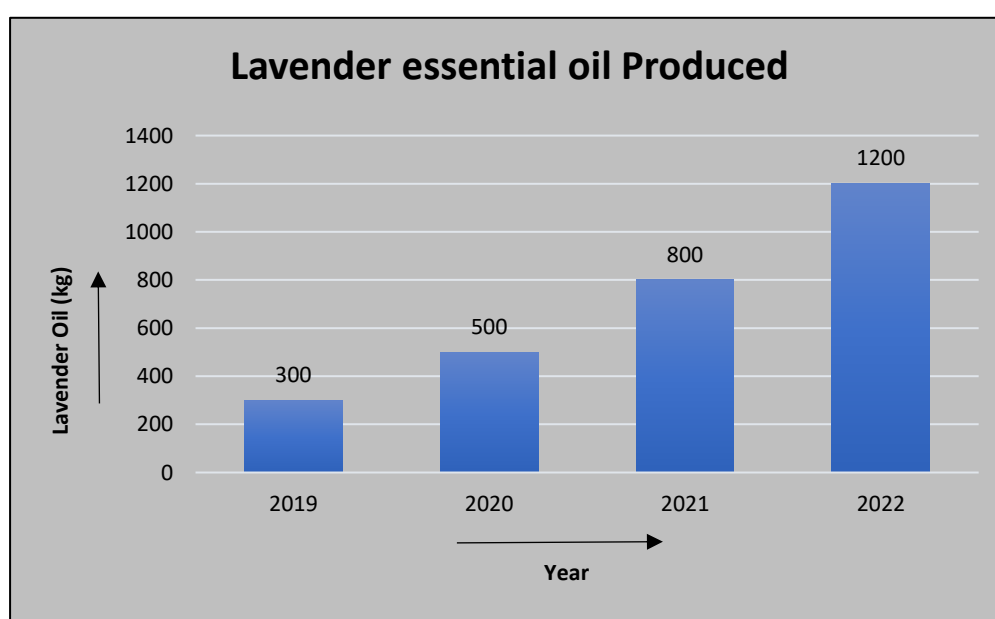


Figure 1: Quantities of Lavender Oil produced in District Doda

They earned more than Rs 5 crore between 2018-2022 by selling dry flowers, QPM (Quality Planting Material) of lavender, and lavender oil. The current production of lavender oil in the region is at the inception stage. The production of lavender oil is expected to increase manifold in the coming years. The production of lavender oil in J&K will help import substitution and save foreign reserves. Besides, there is an excellent scope for exporting lavender oil as it has good global demand.

The successful end-to-end technology transfer on the cultivation of lavender to the farmers of J&K by CSIR- IIIM, Jammu under Aroma Mission has been widely covered nationally and internationally by print and electronic media. CSIR-IIIM, Jammu, received the CSIR award for S&T (Science and Technology) innovations for rural development (CAIRD- 2020) for Purple Revolution in Jammu & Kashmir: Rural Development through Lavender Cultivation in J&K.

A Lavender Festival 2022 was organised at Bhaderwah, Doda District, J&K, for the first time on 25 and 26 May 2022, in which more than 250 participants from industry, academia, and farmers participated. Twenty- five Progressive Lavender farmers and Startups were also felicitated on this occasion. CSIR Aroma Mission aims to make India a hub of opportunities in the domain of aroma products by developing and disseminating aroma-related S&T to reach end users/clients of CSIR; farmers, industry and society, leading to the creation of business opportunities, rural development and life-quality improvement, attain self-sufficiency in the production of a majority of essential oils used by the domestic aroma industry and reduce foreign exchange drain due to imports and help in transforming India's image from the producer of raw material to an exporter of finished, value-added products of consistent quality and efficacy.

The Aroma Mission is attracting Startups and agriculturists from across the country, and during Phase-1, CSIR helped cultivate 6000 hectares of land and covered 46 Aspirational Districts across the country. More than 44,000 persons have been trained and several crores of farmers' revenue generated. In Phase-II of the Mission, it is proposed to engage over 45,000 skilled human resources with the aim of benefitting more than 75,000 farming families across the country."

On the basis of your understanding answer the following questions.

1. **Statement 1:** As shown in Figure 1, in 2021, farmers are earning Rs. 5,000,000 more per annum compared to farmers in 2019.

Statement 2: As shown in Figure 1, In 2019, framers were earning Rs. 9,000,000 less per annum compared to farmers in 2022.

- a) Statement 1 is False but Statement 2 is correct.
- b) Both Statement 1 and Statement 2 are correct.**
- c) Statement 1 is True but Statement 2 is False.
- d) Both Statement 1 and Statement 2 are False

2. What is the primary role of women in the lavender industry in J&K?

- a) Marketing lavender products internationally.
- b) Cultivating lavender plants in large nurseries.
- c) Handling the financial operations of lavender businesses.
- d) Harvesting and processing lavender flowers.

3. How has the income of lavender farmers in J&K changed after switching from maize cultivation?

- a) It remained the same as maize farming.
- b) It decreased slightly.
- c) It increased moderately.
- d) It surged dramatically.

4. What is the expected future trend for lavender oil production in J&K according to the passage?

- a) It will remain stagnant.
- b) It will decrease due to overproduction.
- c) It will increase substantially.
- d) It will fluctuate unpredictably.

5. What is the meaning of the word "inception" as used in the passage?

- a) Conclusion
- b) Commencement
- c) Discontinuation
- d) Peak

6. Which of the following words is closest in meaning to "felicitated" as used in the passage?

- a) Disregarded
- b) Acknowledged
- c) Punished
- d) Misjudged

7. **Assertion (A):** The production of lavender oil in J&K is expected to boost foreign exchange reserves.

Reason (R): Lavender oil has a significant demand globally, making it an export-worthy product.

- a) Both A and R are true, and R is the correct explanation of A.
- b) Both A and R are true, but R is not the correct explanation of A.
- c) A is true, but R is false.
- d) A is false, but R is true.

8. Which key factor has contributed to the success of the lavender industry in J&K?

- a) High rainfall in the region.
- b) Extensive government support and skill development programs.

- c) Low market demand for lavender oil.
- d) Abandonment of traditional farming practices.

9. What does the Aroma Mission aim to achieve for India in the global market?

- a) Make India a leading exporter of raw lavender plants.
- b) Enhance India's reputation for producing high-quality, refined aroma products.
- c) Replace other agricultural industries with lavender farming.
- d) Focus only on domestic lavender oil production.

10. If a lavender farmer produces 50 Liters of lavender oil per hectare per year, how much will the farmer earn in a year if the market price is Rs 10,000 per kg and he produces Lavender in his 2-hector field?

- a) Rs 2,00,000
- b) Rs 100,00,000
- c) Rs 5,00,000
- d) Rs 10,00,000