ISSN Print: 2664-844X
ISSN Online: 2664-8458
NAAS Rating (2026): 4.97
IJAFS 2026; 8(8): 190-194
www.agriculturaljournals.com
Received: 09-06-2026
Accepted: 12-07-2026

Khitesh Sidar
Department of Entomology, Indira Gandhi Krishi Vishwavidyalaya, Raj Mohini Devi College of Agriculture and Research Station, Ambikapur, Chhattisgarh, India

GP Painkra
Department of Entomology, College of Agriculture and Research Station, Shankargarh, Balrampur, Ramanujganj, Chhattisgarh, India

KL Painkra
Department of Entomology, Indira Gandhi Krishi Vishwavidyalaya, Raj Mohini Devi College of Agriculture and Research Station, Ambikapur, Chhattisgarh, India

PK Bhagat
Department of Entomology, Indira Gandhi Krishi Vishwavidyalaya, Raj Mohini Devi College of Agriculture and Research Station, Ambikapur, Chhattisgarh, India

RS Sidar
Department of Agronomy, Indira Gandhi Krishi Vishwavidyalaya, Raj Mohini Devi College of Agriculture and Research Station, Ambikapur, Chhattisgarh, India

Neelam Chouksey
Department of Agricultural Statistics, Indira Gandhi Krishi Vishwavidyalaya, Raj Mohini Devi College of Agriculture and Research Station, Ambikapur, Chhattisgarh, India

Corresponding Author:
GP Painkra
College of Agriculture and Research Station, Shankargarh, Balrampur, Ramanujganj, Chhattisgarh, India

Survey for collection of local honey in Chhattisgarh

Khitesh Sidar, GP Painkra, KL Painkra, PK Bhagat, RS Sidar and Neelam Chouksey

DOI: https://www.doi.org/10.33545/2664844X.2026.v8.i8c.1770

Abstract
Chhattisgarh is rich in extensive forest resources and diverse floral vegetation, which contribute substantially to the availability and production of locally collected honey across different regions of the state. However, systematic information on the geographical distribution and collection of local honey samples remains limited. Therefore, the present study was undertaken during 2023-24 to survey and collect local honey samples from various districts of Chhattisgarh.
A field survey was conducted in thirteen districts of Chhattisgarh, namely Surguja, Surajpur, Balrampur, Jashpur, Raigarh, Sakti, Korba, Koriya, Bilaspur, Kanker, Narayanpur, Bijapur, and Bastar. During the survey, one representative local honey sample weighing 500 g was collected from each district. Additionally, four commercially available branded honey samples—Dabur, Patanjali, C.G. Herbal Honey, and C.G. Maikals Natural Honey—were procured from authorized local dealers for comparative analysis. All samples were carefully sealed in clean glass bottles and transported to the Mini Honey Quality Testing Laboratory at the Raj Mohini Devi College of Agriculture and Research Station, Ambikapur, for further investigation.
The survey successfully documented the geographical distribution of collected honey samples across the major honey-producing districts of Chhattisgarh. It established a systematic collection framework representing the diverse ecological regions of the state and generated baseline information for future research on honey quality, geographical variability, and value addition.

Keywords: Honey survey, Local honey, Chhattisgarh, Honey collection, Geographical distribution, sampling survey

Introduction
Honey is a natural sweet substance produced by honey bees (*Apis* spp.) from the nectar of flowering plants. It is among the oldest natural food products consumed by humans and is widely recognized for its nutritional, medicinal, and economic significance. In addition to being a rich source of carbohydrates, honey contains small quantities of proteins, amino acids, vitamins, minerals, enzymes, and other bioactive compounds that contribute to its health-promoting properties. Owing to these characteristics, honey is extensively used in the food, pharmaceutical, and cosmetic industries (Codex Alimentarius Commission, 2001; Bogdanov *et al.*, 2008; Escuredo *et al.*, 2014) [4, 1, 6].
India is one of the major honey-producing countries, owing to its rich floral diversity, favourable climatic conditions, and wide range of honey bee species. Scientific beekeeping not only increases honey production but also contributes to crop pollination, biodiversity conservation, and the improvement of rural livelihoods. Government initiatives, including the National Beekeeping and Honey Mission (NBHM), have further supported the development of honey production, quality enhancement, and marketing systems across the country (Klein *et al.*, 2007; FAO, 2022; National Bee Board, 2023) [10, 7, 11].
Chhattisgarh is characterized by extensive forest resources, rich floral diversity, and a large tribal population traditionally engaged in wild honey collection. The varied agro-climatic conditions of the state provide favourable habitats for honey bees and support the production of local honey in several districts. However, systematic information on the geographical distribution and documentation of locally available honey remains limited. Therefore, survey-based studies are essential for identifying honey-producing areas, documenting representative honey samples, and generating baseline information for future research and

the sustainable utilization of honey resources (Forest Survey of India, 2021; Chhattisgarh State Minor Forest Produce Federation, 2022). In view of these considerations, the present study was undertaken to conduct a systematic survey for the collection of local honey samples from different districts of Chhattisgarh. The information generated through this survey will contribute to the documentation of regional honey resources and provide a scientific basis for future research on honey diversity, geographical distribution, and the promotion of locally produced honey.

Materials and methods

- **Study area**

The present investigation was conducted during 2023-24 with the objective of surveying and collecting local honey samples from various districts of Chhattisgarh, India. The survey covered thirteen districts, namely Surguja, Surajpur, Balrampur, Jashpur, Raigarh, Sakti, Korba, Korea, Bilaspur, Kanker, Narayanpur, Bijapur, and Bastar. These districts were selected to represent the major geographical regions of the state where locally produced honey is available, considering the diverse forest ecosystems and agro-climatic conditions of Chhattisgarh.

- **Survey and collection of honey samples**

A field survey was conducted in the selected districts to collect representative samples of locally produced honey. During the survey, one local honey sample weighing 500 g was collected from each district. In addition, four branded honey samples-Dabur, Patanjali, C.G. Herbal Honey, and C.G. Maikals Natural Honey-were procured from authorized local dealers for comparative analysis. All honey samples were collected in clean, dry, and sterilized glass bottles to minimize the risk of contamination during handling and transportation. Each sample was appropriately labelled with the corresponding district or brand name and date of collection. Following collection, the samples were transported to the Mini Honey Quality Testing Laboratory at the Raj Mohini Devi College of Agriculture and Research Station, Ambikapur, Chhattisgarh, where they were stored under suitable laboratory conditions until further analysis.

- **Sampling details**

A total of seventeen honey samples were examined in the present study, including thirteen locally collected samples obtained from different districts of Chhattisgarh and four commercially available branded samples. Sampling was carried out during 2023-24 using a systematic approach to ensure adequate representation of the state's diverse geographical regions. Comprehensive records of the surveyed districts, collection sites, and sampling dates were maintained throughout the study to facilitate accurate identification and traceability of each honey sample.

Results and Discussion

During 2023-24, a systematic field survey was undertaken to collect local honey samples from selected districts of Chhattisgarh. The survey included thirteen districts: Surguja, Surajpur, Balrampur, Jashpur, Raigarh, Sakti, Korba, Korea, Bilaspur, Kanker, Narayanpur, Bijapur, and Bastar. These districts were selected to obtain representative honey samples reflecting the major geographical regions of the state. A comparable approach was also reported by Painkra *et al.* (2021) [12].

The survey yielded thirteen local honey samples, with one representative sample collected from each selected district. Additionally, four commercially marketed honey brands-Dabur, Patanjali, C.G. Herbal Honey, and C.G. Maikals Natural Honey-were obtained from authorized local dealers for comparative evaluation. Consequently, seventeen honey samples were included in the investigation.

The survey documented the geographical distribution of honey sample collection across the selected districts of Chhattisgarh. Before the samples were transported, each sample was appropriately labelled with its place and date of collection and subsequently transferred to the Mini Honey Quality Testing Laboratory at the Raj Mohini Devi College of Agriculture and Research Station, Ambikapur, for further analysis. Proper documentation and traceability are essential for maintaining the integrity, authenticity, and reliability of honey samples throughout laboratory investigations (Government Chemist, 2023; Codex Alimentarius Commission, 2001) [4].

The details of the surveyed districts, collection locations and sampling dates are presented in Table 1. The survey confirmed the availability of local honey in all selected districts, demonstrating the widespread occurrence of honey production across the diverse agro-climatic regions of Chhattisgarh.

District-wise collection of honey samples ensured broad geographical representation and provided a reliable baseline for documenting local honey resources within the state. The systematic collection and documentation of these samples also established a reference dataset for future studies on regional honey diversity and quality assessment. Similar emphasis on the systematic documentation and evaluation of honey resources has been reported by (Crane, 1990; Codex Alimentarius Commission, 2001) [4].

The inclusion of branded honey samples alongside locally collected honey provided a comparative sample set for subsequent laboratory investigations. Appropriate sampling, labelling, and handling procedures ensured the traceability of all honey samples throughout the study. Similar emphasis on proper sampling and sample handling has been reported by the (Codex Alimentarius Commission, 1993; Government Chemist, 2023).

Table 1: List of locations for collection of honey in different district of Chhattisgarh during the year 2023-24.

S. No.	Honey sample			
	Honey Sample Name/District	Name of Location/ Village	Date of collection	Quantity
1	Surajpur	Junwani	29/11/2023	500g
2	Surguja	Amgaon	29/11/2023	500g
3	Balrampur	Chandanpur	10/12/2023	500g
4	Korba	Amakhokhara Katghora	30/12/2023	500g
5	Bilaspur	Belgahana	03/01/2024	500g
6	Kanker	Charma	07/01/2024	500g
7	Narayanpur	Orcha	08/01/2024	500g

8	Bastar	Jagdalpur	09/01/2024	500g
9	Bijapur	Padeda	09/01/2024	500g
10	Raigarh	Gharghoda	02/03/2024	500g
11	Sakti	Adbhar	02/03/2024	500g
12	Jashpur	Mahuadihi	10/03/2024	500g
13	Koriya	Baikunthpur	04/04/2024	500g
14	Ambikapur	Patanjali honey	30/11/2023	500g
15	Ambikapur	Dabur honey	30/11/2023	500g
16	Sakri Bilaspur	C.G. Herbal honey	03/01/2024	500g
17	Kabirdham	C.G. Maikals natural honey	07/01/2024	500g
Note. 1-13 samples were local and 14-17 were branded honey.				

Fig 1: District-wise Distribution of Honey Samples Collection in Chhattisgarh

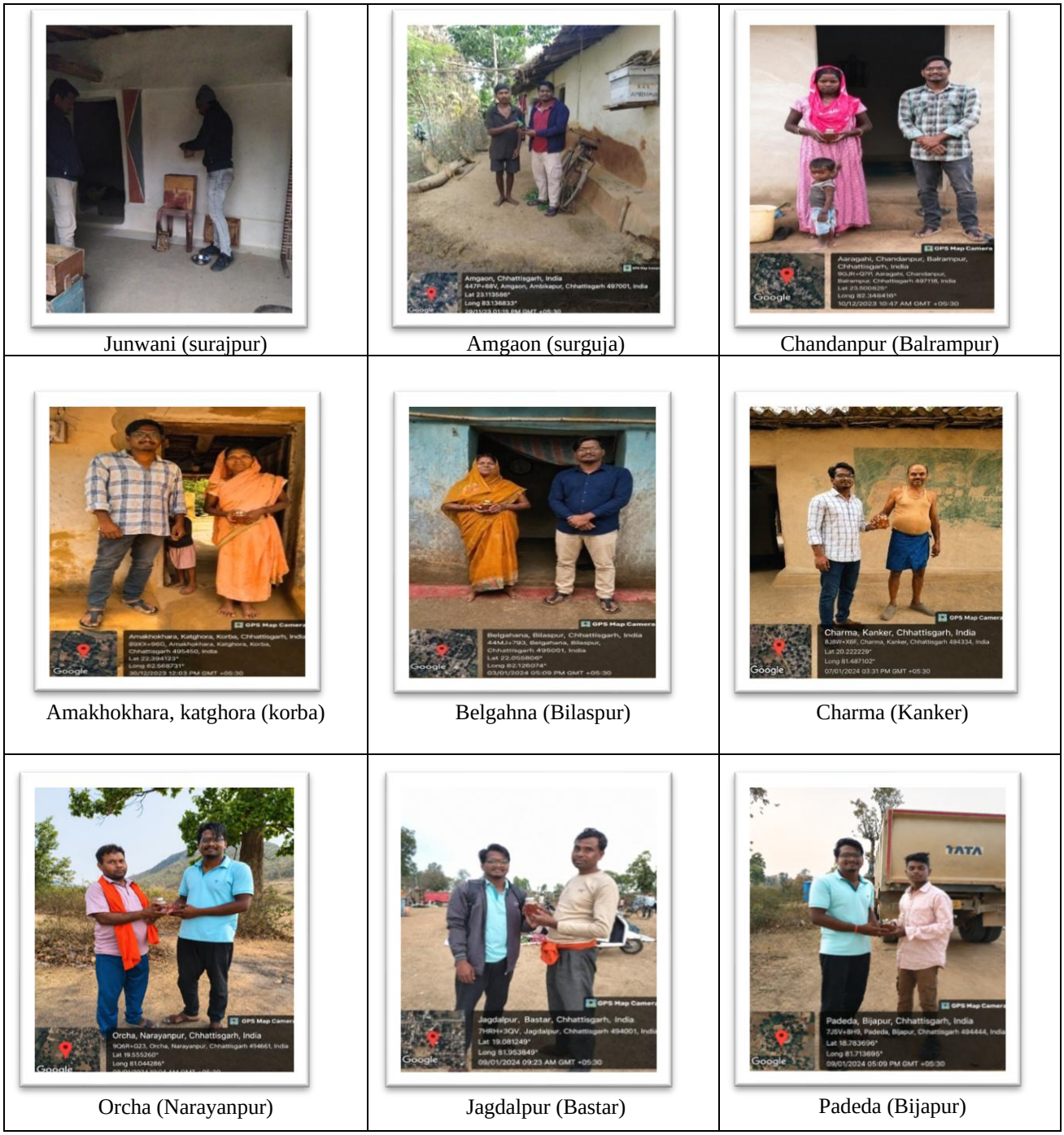

Fig 2: Survey locations for the collection of local and branded honey samples from different district of Chhattisgarh during the year 2023-24.

Fig 3: Survey locations for the collection of local and branded honey samples from different district of Chhattisgarh during the year 2023-24.

Conclusion

The present survey confirmed the widespread availability of locally produced honey across various districts of Chhattisgarh and established a systematic baseline for future honey-related research in the state. The documented sampling details provide a valuable reference for investigating geographical variation, honey authentication, and quality assessment. Moreover, the findings emphasize the importance of organized honey sample collection in scientific research and may support future initiatives for the conservation, promotion, and value addition of locally produced honey in Chhattisgarh.

References

1. Bogdanov S, Jurendic T, Sieber R, Gallmann P. Honey for nutrition and health: a review. J Am Coll Nutr. 2008;27(6):677-689.
2. Chhattisgarh State Minor Forest Produce (Trading and Development) Co-operative Federation Ltd. Annual report 2021-22. Raipur, Chhattisgarh, India; 2022.
3. Codex Alimentarius Commission. Recommended methods of sampling for the determination of pesticide residues for compliance with MRLs. Rome: FAO/WHO Codex Alimentarius Commission; 1993.
4. Codex Alimentarius Commission. Revised Codex standard for honey (CODEX STAN 12-1981, Rev. 2001). Rome: Food and Agriculture Organization and World Health Organization; 2001.
5. Crane E. Bees and beekeeping: science, practice and world resources. Oxford, UK: Heinemann Newnes; 1990.
6. Escuredo O, Míguez M, Fernandez-Gonzalez M, Seijo MC. Nutritional value and antioxidant activity of honeys produced in a European Atlantic area. Food Chem. 2014;138(2):851-856.
7. FAO. FAOSTAT: crops and livestock products database. Rome: Food and Agriculture Organization of the United Nations; 2022.
8. Forest Survey of India. India state of forest report 2021. New Delhi: Ministry of Environment, Forest and Climate Change, Government of India; 2021.
9. Government Chemist. Protocol for the collection of honey reference samples for the construction of authenticity databases. York, UK: Government Chemist; 2023.
10. Klein AM, Vaissiere BE, Cane JH, Steffan-Dewenter I, Cunningham SA, Kremen C, *et al*. Importance of pollinators in changing landscapes for world crops. Proc R Soc B Biol Sci. 2007;274(1608):303-313.
11. National Bee Board. Annual report 2022-23. New Delhi: Ministry of Agriculture and Farmers Welfare, Government of India; 2023.
12. Painkra KL, Shaw SS, Dubey VK, Verulkar SB, Painkra GP, Saxena RR. Physicochemical characterization of local honey collected from different villages in the northern hill zone of Chhattisgarh. J Pharm Innov. 2021;10(11):1105-1112.