

Traceability System for Ethiopian Honey Products

Ethiopia: Strengthening the Quality Compliance Capacity of
the Honey Value Chain for Greater Market Access



Background

Ethiopia has long been recognized for its rich biodiversity and substantial potential in honey production. However, the lack of a standardized traceability system has created significant challenges in ensuring the quality and safety of honey, particularly when seeking access to international markets. Within the framework of **the Global Market Access Programme (GMAP)**, under the project *Ethiopia: Strengthening the Quality Compliance Capacity of the Honey Value Chain for Greater Market Access*, the **United Nations Industrial Development Organization (UNIDO)** identified the need for such a system during the project's inception phase.

Although companies exporting to the European Union (EU) had individually implemented traceability systems, there was no unified standard, leading to inconsistencies and difficulties in ensuring accurate traceability across the entire value chain. To address these challenges, the project developed a traceability system that harmonizes data collection practices used by exporting companies. This system was validated during a series of meetings and training sessions conducted in June and July 2024 in Ethiopia.

The traceability forms and protocols created through this initiative will be piloted within the EU export value chain, with the support of the Ethiopian Apiculture Development Association (EADA). Initially, the system will focus on the registration of beekeepers and other economic operators involved in honey exports, ensuring thorough tracking of each critical stage—harvesting, transportation, processing, and sales.

At present, the system will be implemented using paper-based forms, with future plans for digitization as capacity develops. In the meantime, emphasis will be placed on the detailed use of written documentation. These forms and procedures were created through close collaboration with key stakeholders, including the Ethiopian Agriculture Authority (EAA), the Ministry of Agriculture (MoA), EADA, as well as exporters and processors, during a series of consultative meetings and training sessions.

This publication introduces the newly developed traceability system forms, marking a significant step forward in improving transparency, quality assurance, and market access for Ethiopian honey in international markets. By establishing this system, the project aims to enhance the competitiveness of Ethiopian honey and ensure its compliance with both national and international standards.

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Traceability Implementation

A Short Guideline for the Honey Value Chain

What is Traceability?

The traceability of food and ingredients along the food chain is an essential factor to ensure food safety. According to Regulation (EC) No. 178/2002, traceability is defined “as the possibility of finding and following the trace, throughout all stages of production, transformation and distribution, of a food”. In turn, the Codex Alimentarius describes it “as the ability to follow the movement of a food along the specific steps of production, process and distribution”. In addition, traceability is required by local authorities as part of GBP compliance.

Who is responsible for implementing Traceability?

Traceability must be ensured in each of the steps of the honey supply chain. The information must be able to be transmitted in a clear and simple way between the different actors. Beekeepers must accurately record harvested honey. They must clearly indicate the date and extraction site, as well as other relevant data such as botanical origin and humidity. The collectors must be able to identify each of the buckets or containers that they collect and ensure that each of them is properly labelled. Processors must control traceability documentation upon product reception, but they must also document processed and dispatched batches. Packers must ensure that they include all relevant information on product labels and implement reliable product recall systems.

The following table includes the different forms proposed for traceability in the honey sector and the economic operators responsible for implementing them.

| NO. | NAME OF FORM | RESPONSIBLE ECONOMIC OPERATOR |
|-----|-------------------------------|-------------------------------|
| 1 | Honey Apiculture Registration | ALL |
| 2 | Honey Harvest | BEEKEEPERS |
| 3 | Honey Sale and Transfer | BEEKEEPERS, COLLECTORS |
| 4 | Use of Veterinary Drugs | BEEKEEPERS |
| 5 | Honey Reception Collection | COLLECTORS, FACTORIES |
| 6 | Honey Processing | FACTORIES |
| 7 | Honey Final Sale | FACTORIES, EXPORTERS |

Key Concepts for Traceability and Batch Codification Examples

KEY CONCEPTS

Traceability: Traceability is defined as the ability to discern, identify and follow the movement of a food or substance intended to be or expected to be incorporated into a food, through all stages of production, processing and distribution.

Product Recall: Product recall is defined as the action to remove food from the market at any stage of the food chain, including that possessed by consumers. For the purposes of these Regulations, recall refers to food safety and food quality-based recalls.

Business identification: Organizations (companies or individuals) need to use a Food Business Identification (BID) number to identify the business they manage and then share that number with suppliers and customers. The BID provides a uniform means of identifying a food business that is registered with the Competent Authority in a country. The BID is allocated by the Ministry of Agriculture, the Ministry of Health or any other designated government agency which maintains the National Business Registry for Food business operators. Individual BIDs can be assigned to represent the organization as well as any individual trading subsidiaries.

Batch/lot numbers: Lot or Batch Number means a reference number assigned by a food business operator to a series of similar goods, or goods produced under similar conditions. Lot and batch are defined/used synonymously and interchangeably. All suppliers should assign Batch/Lot Numbers to products they create. The content and format typically vary from one company to another, depending on company practice and the precision desired. For example, a lot can represent all honey processed in a day at at one facility. It is important to remember that the range of products assigned to a single Batch/Lot Number also defines the minimum amount of product that may need to be removed from the supply chain in the event of a recall.

Product labels: Product labels are elements that physically identify traceable items, such as a tag, a sticker, or printing on product packaging that provides information about the product inside. Usually, they are attached to the packing of every packed product but also can be printed or affixed. Normally product labels include the following information:

- Business Identification Number (BID)
- Product Identification or Description
- Batch number
- Additional information (best before date, harvesting date, weight, quantity, price)
- Bar code (if required by customer)

BATCH CODIFICATION EXAMPLES

Example for beekeepers

ETB075/2-OR15.10.23

ET = Ethiopia

B = Beekeeper

075 = National registry

/2 = Apiary No. 2

OR = Oromia Region

15.10.23 = Harvest date

Example for collectors

ETC012-OR.BA.AS.15.10.23

ET = Ethiopia

C = Collector

012 = National registry

OR = Oromia Region

BA = Bale Zone

AS = Aseko Woreda

15.10.23 = Harvest date

Example for beekeepers

ETB075/2-OR.BA.AS.15.10.23

ET = Ethiopia

B = Beekeeper

075 = National registry

/2 = Apiary No. 2

OR = Oromia Region

BA = Bale Zone

AS = Aseko Woreda

15.10.23 = Harvest date

Example for collectors

ETC012-GA11.09.23

ET = Ethiopia

C = Collector

012 = National registry

GA = Gambela Region

11.09.23 = Harvest date

Official National Apicultural Registry Form – For Individual Use¹

| | | | | | | | | |
|---|--|-----------------------------------|--------------|----------------|-----------------------------|------------------|--------|---|
| REFERENCE NO. | | | | | | | | |
| Date and place | | | New registry | | | | Update | |
| BEEKEEPER, FARMER OR HONEY COLLECTOR DETAILS | | | | | | | | |
| Name | | | | | | Gender | F | M |
| Address | | | | | Official Id. No. | | | |
| Telephone No. | | | | E-mail address | | | | |
| Select the main activity | | | Beekeeping | | | Honey collection | | |
| Select the main product | | Honey | Wax | Propolis | Royal Jelly | Bees | Other | |
| Estimated production (kg) | | | | | | | | |
| APIARY INFORMATION | | | | | | | | |
| No. of apiaries | | Total No. of colonies | | | Main settlement location | | | |
| No. of traditional hives | | No. of colonies in movable frames | | | Type of movable frame hives | | | |
| SPECIFIC LOCATION OF THE APIARIES (Region, Zone, Woreda, Kebele) | | | | | | | | |

¹ Every individual beekeeper, honey collector, processor and exporter must be registered. The authorities responsible for the official registry are the Ministry of Agriculture and the Ethiopian Agricultural Authority. The data contained in the registry must be safely kept by the competent authorities. Companies and cooperatives can help get the beekeepers registered.

| | | | | | |
|-----|----------------|--------------------|-------------|-----------------|--------------------------------------|
| No. | Name of apiary | Location (R,Z,W,K) | Coordinates | No. of colonies | No. of colonies in T.H. ² |
| No. | Name of apiary | Location (R,Z,W,K) | Coordinates | No. of colonies | No. of colonies in T.H. |
| No. | Name of apiary | Location (R,Z,W,K) | Coordinates | No. of colonies | No. of colonies in T.H. |
| No. | Name of apiary | Location (R,Z,W,K) | Coordinates | No. of colonies | No. of colonies in T.H. |

| | | | |
|---|------------------------|----------------------------|-----|
| REFERENCE NO. | | | |
| GENERAL MANAGEMENT INFORMATION | | | |
| Independent Beekeeper | Works with Cooperative | Works with private company | |
| The beekeeper owns the equipment for harvesting and extracting honey | | | Yes |
| The beekeeper owns the containers for raw honey | | | No |
| The cooperative or company owns the containers for raw honey | | | |
| The beekeeper owns the transport to move honey and other bee products | | | |
| The beekeeper keeps records from honey harvest and sale | | | |

² T.H. = transitional hives.

| | | |
|--|---------------|----------------------------------|
| | | |
| The beekeeper has received training on Good Beekeeping Practices (GBP) from companies or public institutions | | |
| The beekeeper(cooperative(company uses pesticides to control pests and diseases | | |
| REMARKS | | |
| | | |
| ATTESTATION | | |
| THE INFORMATION PROVIDED IS TRUE AND I AGREE TO BE INSPECTED BY THE COMPETENT AUTHORITIES TO VERIFY THE IMPLEMENTATION OF GOOD BEEKEEPING PRACTICES. | | |
| I UNDERSTAND THAT THE REGISTRATION AND COMPLIANCE WITH GBP IS MANDATORY FOR THE SELECTED EXPORT VALUE CHAINS. | | |
| I UNDERSTAND THAT IT IS MANDATORY TO INSERT THE OFFICIAL REGISTRATION NUMBER ON EVERY HONEY BATCH HARVESTED AND SOLD. | | |
| I UNDERSTAND THAT IT IS MANDATORY TO UPDATE THE INFORMATION RELATED TO MY BEEKEEPING ACTIVITY EVERY TWO YEARS. | | |
| Beekeeper/collector name | Signature | |
| | | |
| FOR OFFICIAL USE ONLY | | |
| Submission date | Approval date | Proposed date for GBP inspection |
| Name of Officer | Signature | Official stamp |
| | | |

Honey Harvest Traceability Form – For Beekeepers

| No. | Harvest date | Apiary identification ³ | Location of Apiary | | | | Quantity (kg) | Number of containers ⁴ | Type of honey | Batch number |
|-----------------------------------|--------------|------------------------------------|--------------------|---|------|--------|---------------|-----------------------------------|---------------|--------------|
| | | | Kebele | Woreda | Zone | Region | | | | |
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |
| 6 | | | | | | | | | | |
| 7 | | | | | | | | | | |
| 8 | | | | | | | | | | |
| 9 | | | | | | | | | | |
| REMARKS | | | | | | | | | | |
| Name of the responsible beekeeper | | | | Official apiculture registration number | | | | Signature | | |

³ All apiaries must be individually identified. An apiary is defined as a group of hives located in a specific site (sharing biophysical and climatic characteristics) that will profit from the floristic resources around. An apiary can be a group of nearby trees holding several hives.

⁴ If the containers are coded, the beekeeper may include this information as well.

Honey Sale and Transfer Traceability Form – For Beekeepers and Honey Collectors

| No. | Dispatch date | Quantity (kg) | Type of honey | Batch number | Invoice or receipt number | Name of the client | Type of client (collector, processor, exporter) | Client address |
|--|---------------|---------------|---------------|---|---------------------------|--------------------|---|----------------|
| 1 | | | | | | | | |
| 2 | | | | | | | | |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| REMARKS | | | | | | | | |
| Name of the beekeeper or collector in charge | | | | Official apiculture registration number | | | Signature | |

Use of Veterinary Drugs Form – For Beekeepers⁵

| No. | Application Date | Controlled Disease or Pest | Commercial Name of the Treatment | Active Ingredient | Dose | Next Application | Identification of Treated Apiaries |
|-----------------------------------|------------------|----------------------------|---|-------------------|-----------|------------------|------------------------------------|
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| REMARKS | | | | | | | |
| Name of the responsible beekeeper | | | Official apiculture registration number | | Signature | | |

⁵ The use of a veterinary drug to treat any disease or pest should be under the supervision of the competent local authorities. Contact the Ministry of Agriculture or the Ethiopian Agricultural Authority for support and guidance.

Honey Reception and Collection Traceability Form – For Honey Collectors and Processing Factories

| No. | Reception date | Reception code ⁶ | Supplier name | Official apiculture registration number | Raw honey batch number ⁷ | Type of honey | Quantity (kg) | No. of containers | Water Content |
|-------------------------|----------------|-----------------------------|---------------|---|-------------------------------------|---------------|---------------|-------------------|---------------|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | | | | | | | | | |
| 4 | | | | | | | | | |
| 5 | | | | | | | | | |
| 6 | | | | | | | | | |
| 7 | | | | | | | | | |
| 8 | | | | | | | | | |
| 9 | | | | | | | | | |
| REMARKS | | | | | | | | | |
| Name of the responsible | | | Signature | | Name of supervisor | | | Signature | |

⁶ The reception code is assigned by the company.

⁷ The raw honey batch number must be provided by the beekeeper or the honey collector. The company may use the same code for the reception code.

Honey Processing Traceability Form – For Processing Factories

| | | | | | | | | |
|----------------------------------|--------|-----------------------------|----------------|----------------------------------|---------------|--------------------|--------|---------------|
| Processed batch No. ⁸ | | Total raw honey weight (kg) | | Total filtered honey weight (kg) | | Final filling date | | |
| | | | | | | | | |
| Type of container | | No. of containers | | From container No. | | To container No. | | |
| | | | | | | | | |
| Raw honey data | | | Raw honey data | | | Raw honey data | | |
| Entry code ⁹ | Weight | Emptying date | Entry code | Weight | Emptying date | Entry code | Weight | Emptying date |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

⁸ One new batch number for every processed batch. A processed batch number may be composed of several raw honey batch numbers.

⁹ Entry code is the receiving code that the factory uses when receiving honey.

| | | | | | | | | |
|-------------------------|--|-----------|--|--------------------------------------|--|-----------|--|--|
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| REMARKS | | | | | | | | |
| Name of the responsible | | Signature | | Name of the supervisor ¹⁰ | | Signature | | |

¹⁰ The supervisor must be a different person than the person in charge of the specific processing tasks.

Honey Final Sale and Dispatch Traceability Form – For Processing Factories

| No. | Dispatch date | Net quantity (kg) | No. of containers | Type of container | Processed batch number ¹¹ | Name of the client | Client address | Documentation (invoice or receipt) | |
|-------------------------|---------------|-------------------|-------------------|-------------------|--------------------------------------|--------------------|----------------|------------------------------------|--|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | | | | | | | | | |
| 4 | | | | | | | | | |
| 5 | | | | | | | | | |
| 6 | | | | | | | | | |
| 7 | | | | | | | | | |
| 8 | | | | | | | | | |
| 9 | | | | | | | | | |
| REMARKS | | | | | | | | | |
| Name of the responsible | | | Signature | | | Name of supervisor | | Signature | |

¹¹ The processed batch number comes from the Honey Processing Traceability form. This is a new batch number, for every batch of processed honey.

