CAHFSA
CARIBBEAN AGRICULTURAL HEALTH & FOOD SAFETY AGENCY

AN INSTITUTION OF THE CARIBBEAN COMMUNITY

# FRAUD IN HONEY

## Is Your Honey Really Honey?



### WHAT IS HONEY FRAUD?

Deliberately altering or misrepresenting honey for financial gain.

### COMMON TYPES

- Added sugar syrup
- False country or floral origin
- Misleading quality or production claims

### THE GLOBAL PICTURE

Food fraud may cost the global food industry up to **US$40 billion a year.** This is an estimate; the true cost is difficult to measure.

Frequently targeted products include honey, olive oil, milk, seafood and spices.

### HOW IS HONEY TESTED?

1. **Isotope analysis (IRMS):** detects some added sugars.
2. **Chromatography and mass spectrometry:** identify suspicious compounds and sugar profiles.
3. **Nuclear magnetic resonance (NMR):** examines chemical fingerprints.
4. **DNA analysis:** can help investigate origin and adulteration.

No single test detects every type of fraud; laboratories may combine methods.

### STANDARDS AND WHY THEY MATTER

- **Codex CXS 12-1981 and CARICOM CRS 18:2011** provide honey quality benchmarks. Honey sold as honey must not contain added ingredients under the Codex standard.
- Honey fraud misleads consumers, harms honest beekeepers and can undermine trust and trade.

**Sources:** US FDA; European Commission JRC; Codex; CROSQ.



**Healthy Agriculture. Safe Food. Stronger Caribbean.**

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## Detection and Prevention

SAFE FOOD | HEALTHY AGRICULTURE | STRONGER CARIBBEAN



### 1. RELIABLE VERIFICATION

Laboratories combine suitable tests, reference data and expert interpretation. Traceability records help verify product claims.

**No single test detects every form of honey fraud.**



### 2. KEY QUALITY INDICATORS

| Parameter | General Codex limit |
|---|---|
| Moisture | Not more than 20% |
| Fructose + glucose | At least 60 g per 100 g |
| Sucrose | Not more than 5 g per 100 g |

Exceptions apply to some honey types and floral sources. An out-of-limit result alone does not prove fraud.



### 3. HOME TESTS ARE NOT RELIABLE

- Water, flame and paper tests cannot confirm honey authenticity.
- Colour, thickness and crystallisation vary naturally in genuine honey.



### 4. PREVENTION: EVERYONE HAS A ROLE

**PRODUCERS**
- Follow good practices.
- Keep batch and harvest records.
- Label truthfully.

**BUSINESSES & REGULATORS**
- Verify suppliers.
- Maintain traceability.
- Use risk-based testing.

**CONSUMERS**
- Buy from traceable suppliers.
- Check labels.
- Report suspected fraud to the relevant food authority.



**KEY MESSAGE**
Responsible production. Truthful labels. Traceability. Scientific verification.

**REFERENCES** Codex CXS 12-1981; CARICOM CRS 18:2011; European Commission JRC, honey authenticity methods; US FDA, food fraud.

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