

# Misconceptions about insects as food

Edible insects can be surprising if you didn't grow up with them.  
We clear up some common misconceptions



## Key points:

- People eat insects in many cultures as delicacies, not only in times of emergencies.
- Not all insects are “pests” and edible insects do not include just any insect.
- Insects can offer more than protein, and nutritional value varies by species.
- Insect-based foods are more likely to complement other foods than replace them.
- Like all food, insect products require proper hygiene, processing and handling.
- Food allergies matter: are an important consideration and should be taken seriously.

**Myth:** Eating insects is a last resort in survival situations.

**Reality:** In many places, insects are eaten by choice: as seasonal foods, treats and traditional dishes.



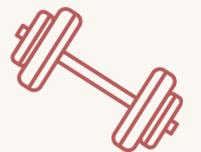
**Myth:** All insects are pests

**Reality:** “Pest” depends on context. Many insects are beneficial, and insect foods come from specific species.



**Myth:** Insects are only useful for protein

**Reality:** Many edible insects are high in protein, but they can also provide fats, micronutrients, & useful compounds



**Myth:** Insects will replace conventional meat

**Reality:** Full replacement is unlikely, insects are more likely to be a complementary option



**Myth:** Eating insects is not safe

**Reality:** Like other foods, insect foods carry food safety risks which depend on production, processing & handling.



**Myth:** Allergies are not an issue

**Reality:** Allergies are a real consideration, particularly due to potential cross-reactions with shellfish allergies.



## Myth: Eating insects is a last resort in survival situations

Across history and in many regions, people have prepared insects as **delicacies**, not as emergency rations. Edible insects are gathered or reared with skill and planning, which can make them special and even expensive. These are **carefully prepared foods** woven into local cuisines and cultures. For example, Ancient Greek philosophers described eating roasted locusts. In Mexico, ant larvae are a seasonal delicacy, sometimes nicknamed “Mexican caviar.” In parts of Japan, locusts are braised in soy sauce and have a rich flavor.

Today, edible insects are also showing up in **modern, everyday formats**. More people are trying insect-based foods as **ingredients in familiar products**, like breads and pastas. People choose to eat insects for taste, nutrition, curiosity, or environmental concerns. It’s normal for new foods to feel strange, but that reaction doesn’t mean eating insects is a last resort. As the insect farming industry develops, insect-based foods may expand in a gradual, practical way: as **one option among many**, shaped by culture, cooking, and what people actually enjoy eating.

## Myth: All insects are pests

An insect is only a “pest” when it causes harm in a specific place and **context**, like damaging crops or spreading disease. Some insects are serious agricultural pests, which makes it easy to overgeneralize. But many insects play **useful roles we rely on**: bees and butterflies help pollinate plants, beetles and many larvae help break down waste and recycle nutrients into soil, and predators like wasps can help control other pests. Calling all insects “pests” hides that real-world complexity.

Edible insect farming focuses on a small number of edible insects that are typically raised in **clean, controlled facilities**, with consistent feed and strict practices to keep unwanted pests and harmful microbes out.

Some edible insects are also collected from the wild in traditional food systems and are not typically associated with crop damage. As ingredients, edible insects can provide nutrients like protein and iron, and in some systems they can use less land and water than some conventional animal options. Researchers are also exploring insect-derived materials and natural compounds for potential medical and pharmaceutical uses. Treating all insects as pests misses this wider picture, including the cultural importance of edible insects in many regions, where they are **valued foods** that can **support food security**.

## Myth: Insects are only useful for protein

Edible insects are often described as a protein source because many species contain more protein per gram than conventional farmed animals. But insects can provide **more than just protein**. For example, many insects are rich in **unsaturated fatty acids**. Many edible insects also contain **micronutrients** such as minerals (iron, magnesium, and zinc) and **vitamins** (A, B2, B6, B12, D, and E). In short: insects can be **nutrient-dense** in more than one way, so different insect-based foods can use different parts of that whole package.

Insects can also offer useful components **beyond basic nutrition**. Their outer shell (exoskeleton) contains a natural fiber called **chitin**, which can be used as a food ingredient and processed into other materials. Insects also contain small natural compounds (such as peptides and plant-like compounds picked up through their diet) that are being studied for properties like **antioxidant** or **antimicrobial** activity. Insect farming can create additional products, such as frass (insect manure), which can be used as a **soil amendment**, and live or dried insects that are used as feed for pets and aquaculture. Protein is a big part of the story, but it’s far from the whole story.

## Myth: Insects will replace conventional meat

Some people describe edible insects as “the future meat,” but **full replacement is unlikely** and not the goal. Around the world, diets are already diverse, and new foods usually **complement existing choices** rather than replace them. Insect-based foods are **one of several options** being explored to help people meet nutritional needs while using resources more efficiently. That puts insects in the same broad category as other emerging food options such as plant-, fungi-, and algae-based foods, each with their own strengths and limitations. Even in regions where eating insects is more common, insects are typically one part of a **wider diet**, not the only food source.

In practice, edible insects are most likely to play a **complementary role**: as an ingredient or partial substitute in familiar foods. They can help **diversify protein sources** and offer other nutrients. They may also fit different dietary needs depending on context. The goal is to have more good options so communities and consumers can choose what fits their tastes, traditions, values, and nutritional needs. In that sense, insects are best understood as **one more tool in a larger toolbox**, not a single solution intended to replace all animal products.

## Myth: Eating insects is not safe

Just like eating meat, seafood, eggs, or fresh produce, eating insects can involve **food safety hazards**. The main concerns fall into a few broad categories: biological hazards (such as harmful microbes), chemical contaminants such as heavy metals (which can come from the environment or from what animals are fed), and quality issues that affect shelf life (such as spoilage). These risks can enter at different points along the “farm-to-fork” chain: during rearing, processing, storage, transport, or preparation. Like other farmed animals, **safety depends on the whole system**, not just the animal itself.

The tools used to manage food safety are familiar and widely used: **controlled rearing conditions**, hygienic processing, proper heat treatment when needed, clean packaging, and storage practices that reduce spoilage. Producers may also use **standard food safety systems** like hazard control plans to identify risks and prevent them, and products may be tested to check that relevant safety limits are met. **A simple rule of thumb** is the same as with other foods: choose products from controlled producers, store them as directed, and follow preparation instructions.

## Myth: Allergies aren't really an issue

Edible insects can trigger **allergic reactions** in some people. The best-known concern is **cross-reactivity**: some people who are allergic to **shellfish** may also react to insect-based foods because certain proteins can be similar across these animals. That doesn't mean everyone is at risk, but it does mean that people with **known allergies** should be cautious.

People who work with insects may be more likely to become sensitized over time and develop symptoms such as skin irritation or breathing problems. For consumers, **clear labeling** and **honest communication** help people make informed choices, just as they do with other foods that can cause allergies. The practical takeaway is simple: insect-based foods should be treated like other allergy-relevant foods by paying attention to labels and **taking known allergies seriously**.

The document is for general information. It is not medical advice.

Food safety and labelling practices vary by country and producer, and individual allergy risk varies by person.