**EDIBLE INSECTS & HUMAN NUTRITION**

**Insects Meet All Human Essential Amino Acid Criteria**

Although small, they are packed with proteins (50-80% dry matter basis, 7-48% fresh-weight protein)*

Proteins are necessary for the growth and development of the body.

*The protein content of insects also varies strongly by species

**Consumed by Over 2 Billion People in 80% of the Countries Around the Globe. More Than 2,000 Insect Species Are Reported to Be Edible**

**Did You Know?**

Estimated up to 80% of an insect is edible vs 55% for chicken & pigs and 40% for cattle

- Insects have a high content of minerals important for human nutrition.
- Rich in trace elements such as copper, iron, magnesium, manganese, phosphorus, selenium and zinc.
- Promote chemical reactions in the human body and may form part of many tissues. Required in small amounts for metabolic purposes.
- Prebiotic fibres, such as chitin, provide nutrients for probiotic gut bacteria in humans.
- Chitin-derived substances are commonly found in insect exoskeletons.
- Fibres are necessary to have a healthy human gut.

- High in monounsaturated fatty acids and/or polyunsaturated fatty acids (MUFA, PUFA) at acceptable standards.
- Omega-6 and Omega-3 fatty acids.
- Fatty acids constitute the main component of lipids and are required as a source of energy, for metabolism and structure.
- The human body cannot produce specific fatty acids, so we need supplementary sources.

- B12 (Cobalamin), B2 (Riboflavin), B1 (Thiamine) and other vitamins are present in insects.
- Essential for normal growth and activity of the body, as well as for energy production, immunity and other functions.

**Integrating Insects in a Balanced Diet For:**

- Combating undernutrition and micronutrient deficiency.
- Fulfilling nutritional deficiencies in case of change in behaviour or dietary preferences.
- Boosting current diets, as insects are packed with proteins and essential amino acids, good fats, fibre, vitamins and minerals.

**How Can You Eat Insects?**

Insects can be consumed whole or as ingredients in food products (e.g. pasta, energy bars, burgers, etc.)

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