

Glossary

Word/Phrase	Brief Explanation
Blockchain-based Traceability	A digital ledger system used to record and verify every step in the food supply chain. In plant-based food systems, it ensures transparency, prevents fraud, and supports sustainability claims by securely tracking origin, processing, and distribution data.
Bioaccessibility	Refers to the fraction of a substance; such as a nutrient, contaminant, or bioactive compound, that is released from its food matrix in the gastrointestinal tract and becomes available for absorption in the gut. It represents the potential amount of the compound that can be absorbed into the bloodstream after digestion, but before actual absorption is measured.
Circular Biotechnology	Uses natural processes to turn waste into useful products, keeping resources in use (closed loop).
Circular Economy	Minimisation of waste by reusing, repairing, and recycling resources in a closed loop.
Certified Organic	A product is made without synthetic chemicals, GMO's or harmful pesticides, following strict organic farming standards.
Eco-friendly	A product or practice that does not harm the environment.
Flexitarian	Someone who primarily follows a plant-based diet but occasionally includes meat or animal products.
Foodborne Pathogens	Microorganisms capable of contaminating food and causing illness in humans when ingested. These pathogens can multiply in food under favourable conditions and produce toxins or directly infect the gastrointestinal tract, leading to foodborne diseases. Common examples include <i>Salmonella</i> , <i>Escherichia coli</i> (E. coli), <i>Listeria monocytogenes</i> , <i>Norovirus</i> , and <i>Clostridium botulinum</i>
GMO's	Genetically modified organisms- plants or animals whose DNA has been changed for specific traits.
Greenhouse Gas Emissions	Greenhouse gas (GHG) emissions are gases like carbon dioxide and methane released into the atmosphere that contribute to global warming and climate change.
HPP	A non-thermal food preservation method that uses extremely high pressure (typically between 100 and 600 megapascals) to inactivate microorganisms and enzymes in food, thereby extending shelf life while maintaining nutritional quality, flavour, and texture. This process is performed at or near room temperature, preserving the food's fresh-like characteristics without the use of heat.

Glossary (continued)

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IFS Standards	International Featured Standards are globally recognised certifications ensuring food safety, quality, and compliance across supply chains. For SMEs in the plant-based sector, IFS certification enhances trust, transparency, and market access.
Organoleptic Properties	The sensory attributes of a substance, particularly food or beverages, that are perceived by the senses of taste, smell, sight, touch, and sometimes hearing. These properties include characteristics such as flavour, aroma, colour, texture, and appearance, which collectively influence consumer perception and acceptance.
Permaculture	A holistic agricultural design system that mimics natural ecosystems to create self-sustaining, low-impact food production. It emphasises biodiversity, soil health, and minimal external inputs- aligning with sustainable plant-based practices.
Pressurised SAS	An advanced extraction technique that combines the use of supercritical fluids; most commonly supercritical carbon dioxide with conventional solvents to enhance the extraction efficiency of bioactive compounds, contaminants, or other target substances from solid or liquid matrices. The supercritical fluid acts as a solvent or co-solvent under specific temperature and pressure conditions, improving solubility, mass transfer, and selectivity, while operating at relatively mild temperatures that help preserve thermally sensitive compounds.
Vertical Farming	The cultivation of crops in stacked layers, often using controlled environments (CEA). It enables year-round plant-based food production with efficient use of space, water, and energy, making it ideal for urban sustainability.