PLANTS 2 MARKET
Health Ingredients

The Raw Material Guide for Manufacturers of Nutritional Supplements

How to Choose the Right Plant, Algae, and Mushroom Extracts

By Christiane Strasse, Founder & Managing Director, Plants2Market

Executive Summary

The nutraceutical market is booming – but expectations are rising in tandem.

Manufacturers face growing scrutiny from regulators, investors, and increasingly informed consumers who want products that are not only effective but also demonstrably safe, sustainable, and consistent.

For brands competing in this environment, **raw materials are no longer a technical detail.** They are the foundation of product credibility and a key driver of commercial success. Every ingredient decision – from plant or mushroom category to extraction method and supplier – now shapes a product's quality, compliance, and trustworthiness.

This guide draws on Plants2Market's experience qualifying hundreds of plant, algae, and fungi-derived ingredients for the nutraceutical, food, and supplement industries. It highlights the practical factors that define reliable sourcing and consistent quality, including:

- **Category selection:** Understanding the strengths and limits of botanicals, mushrooms, algae, and plant-based vitamins.
- **Format choice:** Deciding when powders offer breadth and when standardized extracts provide the precision formulations require.
- **Quality assurance:** Assessing active content, documentation, and contamination controls – the pillars of ingredient reliability.

Supplier partnership: Asking the right questions to separate dependable partners from opportunistic traders.

Sustainable sourcing: Ensuring that compliance and environmental responsibility reinforce rather than restrict market growth.

The result is a framework for **turning ingredient quality into business strategy.**

By aligning sourcing practices with transparency, documentation, and regulatory awareness, manufacturers can protect product integrity, strengthen brand trust, and build partnerships that last.

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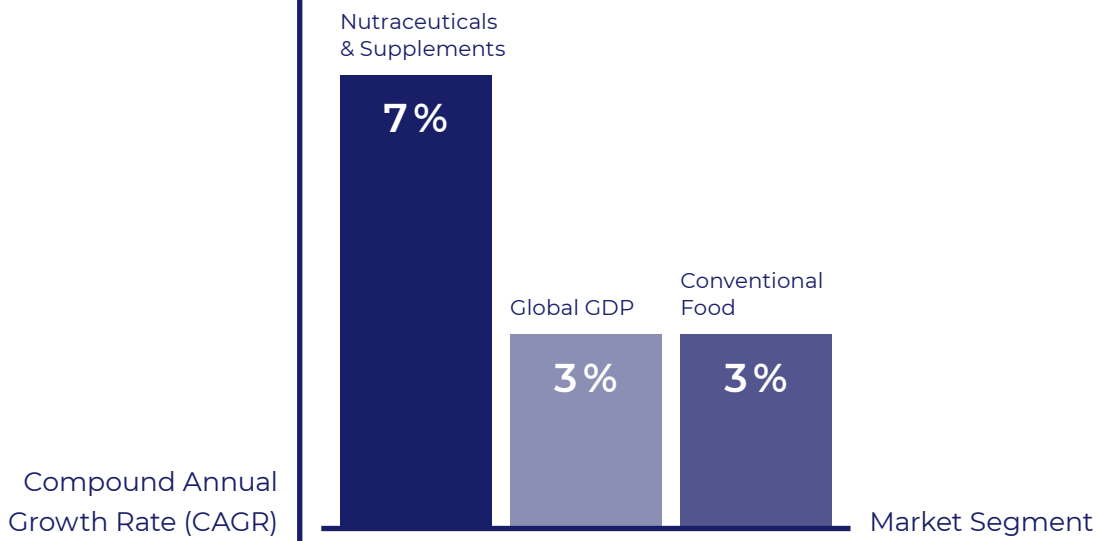
Why Raw Material Choice Is a Strategic Decision

WELLNESS HAS GONE MAINSTREAM.

Nutraceuticals, dietary supplements, and functional or fortified foods are now among the fastest-growing consumer markets globally. The sector's growth outpaces traditional food and beverage, processed foods, and even global GDP by far.

Nutraceutical Growth Outpaces the Global Economy

The fastest-growing consumer market today isn't luxury – it's wellness.



Sources: Grand View Research 2024; IMARC Group 2024; OECD & IMF 2025 Outlook

This looks like an endless opportunity at first glance. But for manufacturers, it also means sharper competition, tighter regulation, and higher expectations from increasingly informed consumers.

In this environment, the ingredients behind your formulation aren't just a technical detail. They are the foundation of product credibility and brand trust.

Good Idea,
Wrong Ingredient

A client once asked for melatonin extracted from tomatoes – a “must-have” feature they’d seen trending in natural sleep formulas.

We researched the data and found that tomatoes contain only trace levels of melatonin, far below what would be needed for any measurable effect. Even if extraction were technically possible, **melatonin is a hormone and not an approved food ingredient in the EU.**

By explaining these facts early, we helped the client avoid purchasing a non-compliant ingredient and steered the project back into safe, legal territory.

Choosing raw material is not just procurement. It is a business strategy.

The Power of Partnership

The right extract does more than meet today's brief. It ensures regulatory compliance, safeguards quality, and supports brand distinction.

But achieving that goal is easier said than done. Too often, manufacturers face inconsistent documentation, variable active content, and a regulatory maze.

At Plants2Market, around **20 % of materials** don't make it past our initial review – most often due to missing documentation or quality concerns.

That's why we believe that raw material sourcing is a partnership, not a transaction. The ideal partner should bring three things to the table:

- **Quality.** Proven qualification processes, from contaminant controls to traceable batches, so every ingredient can stand up to regulatory and consumer scrutiny.
- **Knowledge.** Deep familiarity with frameworks like Novel Food, HACCP, and ISO standards, ensuring nothing slips through the cracks.
- **Experience.** Insight built over years of navigating trends, suppliers, and client projects – translating into foresight about risks and opportunities that others miss.

With this whitepaper, we're putting those principles into practice.

It explores the fundamentals of choosing the right raw materials – from categories and formats to quality standards. It distills best practices from across the industry and reflects what we've learned first-hand: how to make ingredient choices that hold up to audits, stand out in the market, and build lasting trust.

Four Ingredient Categories Shaping the Nutraceutical Market

The nutraceutical market may be expanding overall, but growth is not uniform across ingredient categories.

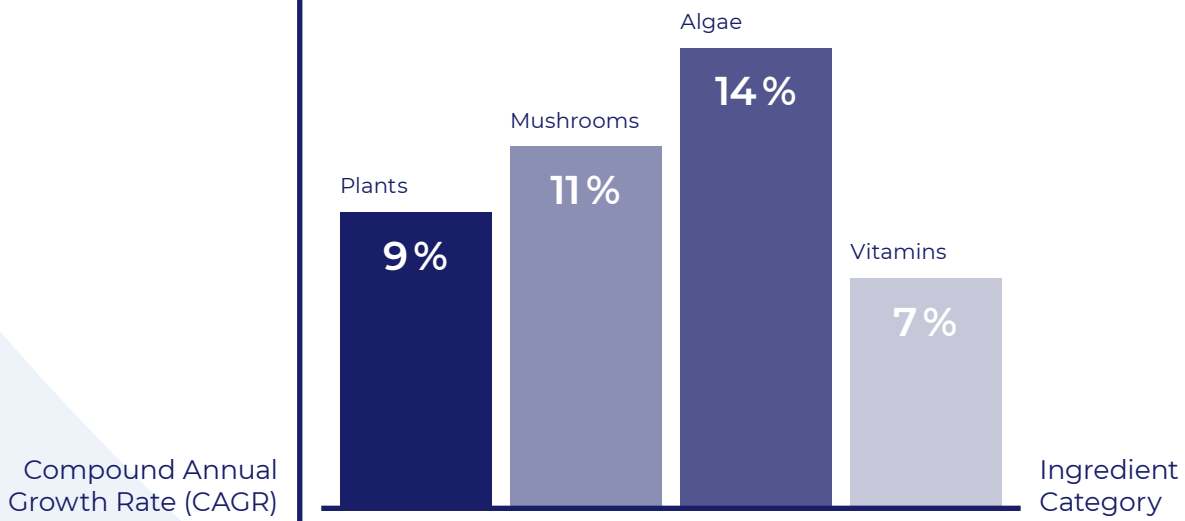
Four groups – **plants, mushrooms, algae, and minerals** – dominate the landscape, each offering distinct advantages and challenges.

Plants2Market has observed especially strong demand for **functional mushroom ingredients,** reflecting global consumer interest in immune support and cognitive health.

Understanding these categories – and their specific quality, sourcing, and regulatory profiles – is the first step toward a formulation that can stand up in the lab, on the label, and in the market.

The Rise of Key Ingredient Categories

Each major ingredient group is expanding – but at different speeds.



Source: Grand View Research 2024; IMARC Group 2024; Nutraceuticals World 2024

These figures tell only part of the story. Behind each growth curve lies a different kind of ingredient – with its own sourcing realities, documentation demands, and formulation advantages.

Plants

Plants remain the backbone of the nutraceutical industry – versatile, trusted, and supported by centuries of use. Their appeal lies in the balance between tradition and measurable efficacy, driving steady growth in demand for standardized botanical extracts.

Take Trans Resveratrol, derived from Japanese knotweed. It's valued for its antioxidant properties and reputation among performance-focused consumers. Yet without defined purity levels, results vary widely. Plants2Market ensures every extract is standardized for active content and verified for consistency – the difference between a "natural" ingredient and a reliable one.

Mushrooms

Functional mushrooms are moving from niche to mainstream, gaining traction in immune-support and cognitive formulations. Globally, demand is growing at double-digit rates, a trend mirrored in the sharp rise of P2M client inquiries.

Consider Shiitake extract. Its strength lies in polysaccharides such as beta-glucans, but the label "shiitake powder" can mean almost anything. Our standardized extract declares 30 % polysaccharides, ensuring bioactivity and traceability that general mushroom blends cannot guarantee.

Algae

Microalgae have become quiet stars in the nutraceutical world, valued for their natural antioxidants and omega-3 content. They combine performance with sustainability – two qualities increasingly prized by brands and consumers alike.

Among them, Haematococcus pluvialis stands out for its high levels of astaxanthin, a potent antioxidant linked to skin and eye health. Because microalgae cultivation is tightly controlled, they deliver a reproducible active profile – unlike many macroalgae, which can fluctuate with harvest conditions.

Vitamins & Minerals

The line between food and supplement is blurring as consumers seek clean-label alternatives to synthetic micronutrients. Plant-derived vitamins and minerals are gaining ground as part of this shift toward natural authenticity.

Take Marigold extract, a key source of lutein and zeaxanthin in eye-health products. Consistent standardization of these carotenoids ensures each batch meets label guarantees – a hallmark of quality that matters more to consumers than ever before.

Powder vs. Extract: When It Matters – and Why

Once the ingredient category has been defined, the next decision is format – whether to work with a powder or an extract.

It's a choice that moves strategy into execution: the same botanical or mineral can behave very differently depending on how it's processed.

This decision determines whether a product delivers broad, traditional benefits or precise, standardized effects. It also shapes how easily the material can be formulated, how reliably claims can be supported, and how consistently consumer expectations are met.

Format is not a technicality. It's the bridge between raw material and market-ready product.

Plant Powders – Broad and Familiar, but Variable

Plant powders are typically dried and finely milled versions of the whole plant or selected parts such as leaves, roots, or fruits. They preserve the full nutrient profile – fiber, minerals, and secondary compounds – in their natural ratios.

However, their microbiology is often more challenging, and nutrient levels vary with harvest and origin.

Powders are often:

- **Less processed:** Better for clean-label positioning.
- **Affordable:** Cost-effective in bulk formulations.
- **Flavor-rich:** Sometimes desirable, sometimes problematic.

For example, shiitake powder is widely used in traditional medicine and increasingly in functional foods. It preserves the full nutritional profile of the mushroom – fiber, flavor, and micronutrients – but its polysaccharide content can vary dramatically.

Without a declared β-glucan concentration, a "shiitake powder" may or may not deliver the immune benefits consumers expect. It's an excellent choice for teas or culinary applications, yet a weak candidate when precise dosage or clinical standardization is required.

Plant Extracts – Concentrated, Standardized, Functional

Extract powders undergo an additional step: the plant material is extracted with a solvent such as water or ethanol to isolate certain compounds. The solvent is removed, and the concentrated extract is dried into a powder.

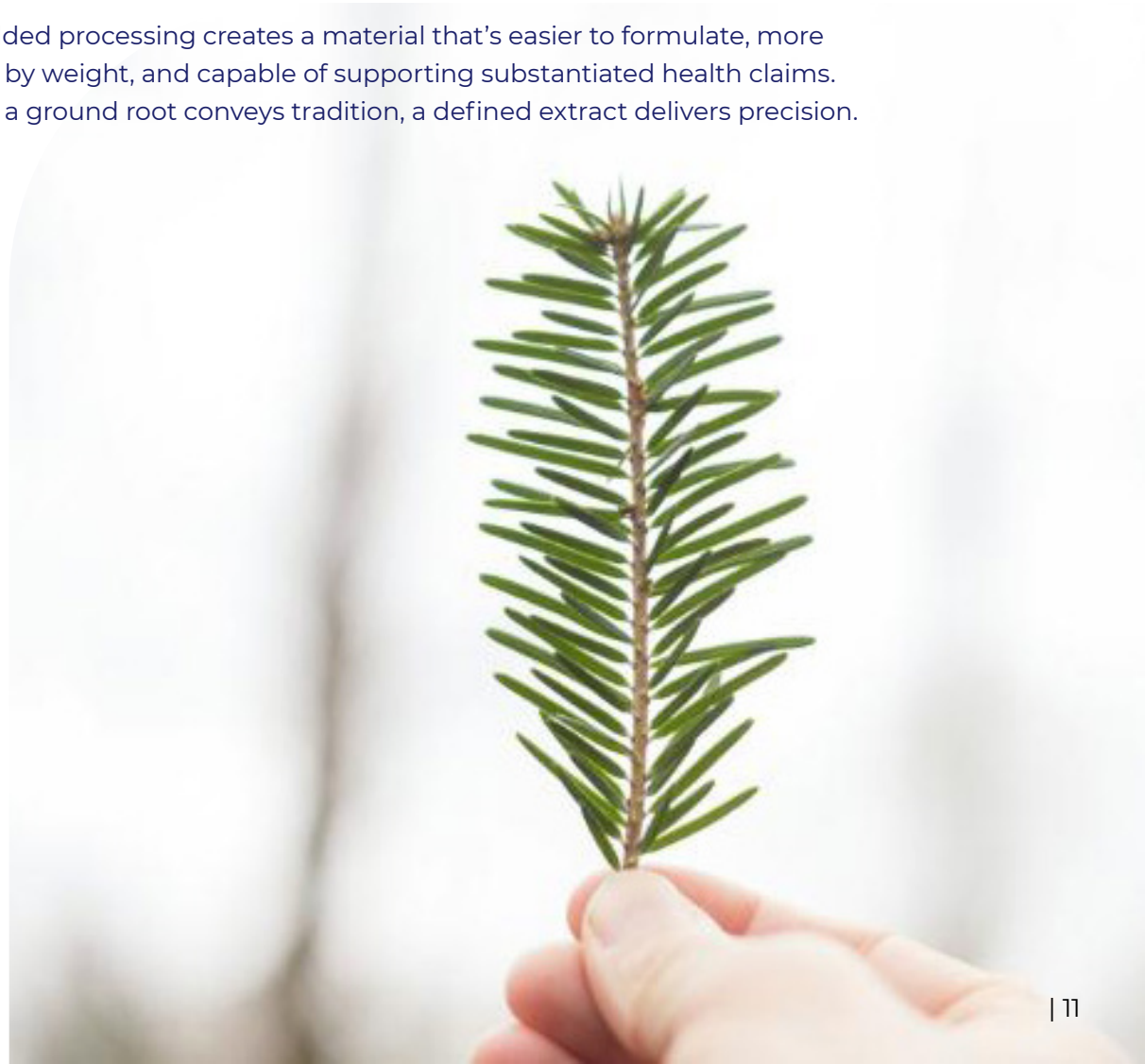
Composition depends on the method and target active – sometimes expressed as an extract ratio (for example, 10 kg of root yields 1 kg of extract).

Extracts are often:

- **More stable and soluble:** Easier to formulate with.
- **More effective:** Standardized for defined actives.
- **More versatile:** Suitable for capsules, tablets, or beverages.

A concentrate such as ginseng root extract is designed for measurable bioactivity. Through controlled water–ethanol extraction, its ginsenoside levels are standardized – typically to around 20 % – ensuring reproducible efficacy across batches.

This added processing creates a material that's easier to formulate, more potent by weight, and capable of supporting substantiated health claims. Where a ground root conveys tradition, a defined extract delivers precision.



Choosing the Right Form: Key Decision Criteria

- **Formulation process.** Pure powders may flow easily in a tablet press, while extracts can require specific binders or carriers.
- **Microbiology.** Pure powders pose higher microbial-load risks; extracts typically achieve better hygienic profiles through processing.
- **Active content.** Extracts guarantee concentrations like “30 % polysaccharides” or “20 % ginsenosides,” while powders cannot.
- **Taste and odor.** Powders can carry strong natural flavours; extraction often moderates them, improving palatability.
- **Brand positioning.** Whole-food brands may favour powders, while performance-oriented products rely on standardized extracts.

Powder or Extract? Key Questions Before You Decide

Evaluating how format choice affects function, formulation, and perception.

Decision Factor	Powder: Broad & Traditional	Extract: Concentrated & Standardized
Processability	Flows easily in blends; higher microbial risk.	May need carriers/binders; cleaner microbiology.
Active Content	Natural but variable actives.	Standardized, measurable actives.
Stability	Shorter shelf life; sensitive to humidity.	Better solubility and long-term stability.
Taste & Odor	Strong, natural flavour.	Neutral taste, easier for beverages/capsules.
Positioning	“Whole-food” or traditional appeal.	“Scientific” or performance-driven appeal.

Format choice is where strategy meets execution. Powders offer breadth and tradition; extracts deliver consistency and claim substantiation.

The most successful manufacturers decide not on cost alone, but on how well each format aligns with formulation goals, regulatory expectations, and the promises made to consumers.

How to Assess Quality – Before You Place the Order

In nutraceuticals, **quality is not a buzzword.** It is the line between a product that earns trust and one that ends in a recall.

Recent analyses show that **20–30 % of botanical supplements in the EU fail to meet label claims** for active content, and quality failures remain among the leading causes of product withdrawals.

For manufacturers, overlooking quality at the ingredient stage isn't just a technical slip – it's a business risk.

When the Spec Sheet Tells Half the Story

One of our suppliers once changed a Guarana specification from *100 % plant powder to 90 % maltodextrin* – without notice. The new spec sheet hid the dilution behind identical wording. We immediately ended the partnership.

Fortunately, our client never received the sub-standard material. But the incident reinforced why supplier documents must be verified, not assumed.

Standardization of Active Compounds

A true quality check begins with actives. If an extract doesn't declare its active content, it cannot be relied upon. Two "ginseng extracts" can look identical yet differ ten-fold in potency – without clear documentation, the difference may never appear on paper.

1. STANDARDIZED ACTIVES

The percentage of a defined compound is stated on the label, such as 5 % glycyrrhizic acid in Licorice Root extract. This approach allows consistent dosage, supports clinical references, and ensures reproducibility. It is also mandatory for any ingredient with pharmaceutical or safety relevance.

2. RATIO EXTRACTS

The label states how much raw plant material is used to produce one part of extract – for instance, a 100:1 Garlic powder extract means that 100 kilograms of garlic yield one kilogram of powder. Ratio extracts offer flexibility but must still declare the solvent and extraction process to avoid misleading potency claims.

Standardization isn't bureaucracy – it's how manufacturers guarantee that a supplement performs as promised. Without a declared concentration or ratio, no claim can be substantiated, and no batch can be trusted.

Documentation and Traceability

Paperwork is the backbone of quality. A complete specification file should include:

- Product name and botanical source
- Batch number and production date
- Declared actives or extract ratio
- Contaminant and stability results
- Certificates such as CoA, SDS, allergen, GMO, or Novel Food documentation

At Plants2Market, roughly one in five ingredients fail at this stage, most often because critical certificates or origin data are missing.

Griffonia Seed extract illustrates why full traceability is non-negotiable. 5-HTP, the compound that makes Griffonia valuable, is also tightly regulated because overdosing can pose safety risks.

To comply with EU limits, every batch must document origin, extraction method, and assay data for active content and contaminants. Even small discrepancies in these records can mean the difference between a permitted ingredient and a rejected one.

Suppliers who provide this level of documentation demonstrate not just compliance, but accountability – the hallmark of a reliable partner.

SHARE AN EXAMPLE OF A GOOD SPEC SHEET

Anatomy of a Good Spec Sheet

A complete specification sheet tells the full story – from origin to actives to safety testing.

PLANTS 2 MARKET
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Technical Data Sheet

Schwarze Johannisbeere P.E. 25% Anthocyane
Black Currant P.E. 25% Anthocyanins

PRODUCT INFORMATION

Botanical Name	Ribes nigrum L.	Extraction solvent	Ethanol & Water
Part Used	Fruit	Extract Ratio:	100:1
Origin	China	Carrier	None

ITEM	SPECIFICATION	METHOD
Anthocyanina Assay	25% Min	
Appearance*	Dark-Violet Fine Powder	Visual
Odor & Taste	Characteristic	Organoleptic
Identification	Positive	TLC
Sieve analysis	100% throgh 80 Mesh	80 Mesh Screen
Loss on Drying	5% Max	Eu. Pharm. c.v. (2.8.17)
Total Ash	5% Max	Eu. Pharm. c.v. (2.4.16)
Bulk Density	0.30~0.70g/ml	
Aflatoxin B1	2µg/kg Max	Eu. Pharm. c.v. (2.8.18)
Total Aflatoxin (B1,B2,G1,G2)	4µg/kg Max	Eu. Pharm. c.v. (2.8.18)

***The color may vary**

STATEMENTS

Food Quality and Safety	According to Reg. (EC) 178/2002
Hygiene of foodstuffs	In compliance with Reg. (EC) 852/2004
Hazard	Not dangerous in accordance with EU regulation (EC) No 1272/2008
Contaminants	According to Reg. (EC) 2023/915 for food supplements
Preservative	Preservative Free
Residual Solvents	According to Dir. (EC) 2009/32 and amendments
Pesticides	According to Reg. (EC) 396/2005 and amendments
Microbiology	Bacterial Count: TAMC-Bacteria: <10,000 cfu/g, TYMC: <300 cfu/g, Salmonella: negative, E. Coli: negative, S. Aureus: negative
GMO	GMO Free According to Reg. (EC) 1829/2003 and 1830/2003 and amendments
ETO	ETO free
Vegan	Conform
Sterilization Method	High Temperature and Pressure
Irradiation	No ionization or other radiation is permitted According to Reg. (EC) 1999/2 and 1999/3 and amendments
BSE/TSE	Risk Free BSE/TSE
Allergen status	No allergens requiring labeling according to Reg. (EC) 1169/2011

Unintentional contact (traces) in the supply chain cannot be excluded.

Nanomaterials	Absent According to Reg. (EC) 1169/2011
Titanium dioxide	Absent According to Reg. (EC) 2022/63
Cosmetic quality	Complies with all requirements for cosmetics in Germany and the EU
Packaging	According to Reg. (EC) 1935/2004 and 10/2011 and amendments

STORAGE AND HANDLING

Storage	Store in a well-closed container away from moisture and direct sunlight
Shelf Life	2 years if sealed and properly stored
Document status template	29.04.2024
Issue date (Version 2)	16.05.2024

All above information according to the manufacturer / supplier

Contaminant Controls

Beyond actives and paperwork lies another threshold: contamination. Heavy metals, pesticide residues, and microbial load can occur even in premium materials.

Independent testing and transparent certificates are the clearest signs of a reliable supplier. Suppliers who consistently provide contaminant data, not just declarations, demonstrate real quality management rather than box-ticking.

Quality is never just about the material itself. It's about what can be proven – batch after batch – through documentation, testing, and transparency.

Smart buyers know that a glossy brochure is not enough. They ask for data, verify results, and walk away when answers aren't clear.

What Smart B2B Buyers Always Ask Suppliers

A specification sheet can tell you what a supplier wants you to see. But the real story emerges when you start asking questions. Experienced buyers know that trust in raw materials is built not only on certificates and paperwork, but on the conversations that reveal how solid a supplier really is.

Five Questions that Separate Good from Great

1. HOW CONSISTENT IS THE ORIGIN AND PRODUCER?

Certificates confirm where an ingredient came from – once. The smarter question is whether your next batch will come from the **same origin and producer.**

Consistency of origin and producer determines not just quality, but reproducibility in your final product. When origin shifts without notice, so can performance and compliance.

2. HOW STABLE IS THE FORMULATION ACROSS BATCHES?

Batch traceability is a given in the food industry, but stability isn't. Ask whether the supplier performs **batch-to-batch comparison testing** – not just whether a lot number exists.

This reveals how well they monitor internal consistency over time.

3. WHAT DOES YOUR INDEPENDENT TESTING SHOW?

Third-party verification confirms that the paperwork matches reality.

For tightly regulated actives such as Griffonia Seed extract, external testing is often the only to **confirm declared actives and compliance.**

The best suppliers invite verification rather than resist it.

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4. HOW DO YOU INTERPRET EVOLVING REGULATIONS?

Almost all large buyers have internal QA teams, but regulation leaves grey areas.

A supplier's answer to this question reveals whether they merely comply – or actively **help navigate ambiguity** when EU rules are inconsistent or open to interpretation.

Partnerships thrive on foresight, not box-ticking.

5. HOW DOES THE INGREDIENT BEHAVE IN PRODUCTION?

An ingredient can meet every specification on paper and still fail in the factory.

One client discovered this when an **algae-oil powder** proved impossible to encapsulate.

Together, we reassigned it to the food sector – preventing losses and ensuring proper labelling. Understanding process behaviour early avoids costly reformulations later.

From Supplier Checks to Consumer Trust

These questions are not academic. They mirror consumer expectations.

Surveys show that **57 % of supplement buyers** consider certifications decisive in their purchasing choices, while **organic-certified imports to the EU** continue to rise.

Buyers who probe into origin, compliance, and stability are aligning with the very standards their customers now demand.

Great products begin with great questions. In our experience, the buyers who consistently ask these five uncover issues early, strengthen supplier partnerships, and set their products apart.

Five Questions That Separate Good from Great

Asking deeper questions transforms transactions into partnerships.

Origin Consistency	Same source, same quality – verify that every order comes from the same origin and producer.
Batch Stability	Go beyond traceability: ask for comparative tests that prove batch-to-batch reliability.
Independent Testing	Third-party analysis confirms that declared actives and safety results match the paperwork.
Regulatory Insight	Trusted partners help interpret grey zones in Novel Food and additive regulations.
Production Behaviour	Check how the ingredient performs in real processing – before you scale or encapsulate.

Case Snapshot:
Getting It Right

Behind every successful product launch lies a series of ingredient decisions – some straightforward, others more complex. One recent case shows how open communication and regulatory foresight can transform a potential compliance issue into a long-term partnership.

Responsible Reformulation: The Rhodiola Case

THE CHALLENGE: A POPULAR INGREDIENT WITH HIDDEN RISKS

A client approached us requesting *Rhodiola rosea* as the key adaptogen in a new formulation. At first glance, the choice seemed sound: Rhodiola is popular for stress-support and endurance blends.

However, we knew it had recently been added to **CITES Appendix II**, which restricts trade in species at risk of overharvesting. Supplying it would have required special permits and raised ethical concerns.

OUR APPROACH: GUIDING A SAFER, COMPLIANT REFORMULATION

Rather than proceed under a grey area, we advised the client to consider compliant alternatives. Our team explained the CITES listing, outlined the potential legal implications, and presented several replacements.

Among them, Organic Maca powder offered comparable adaptogenic properties, a stable supply chain, and no CITES or Novel Food barriers for extracts.

THE RESULT: A SUSTAINABLE SOLUTION THAT BUILDS TRUST

The client welcomed the guidance, reformulated with Maca, and launched successfully.

We also used the case as a learning opportunity – publishing a short article about endangered species in raw materials to help raise awareness among our wider client base.

Though we occasionally lose projects when customers disregard sustainability warnings, most – like this one – appreciate transparency and adapt willingly.

Each conversation strengthens trust and raises awareness that **regulatory responsibility and commercial success can go hand in hand.**

The difference between an ambitious idea and a successful product often lies in the raw materials chosen. In our experience, clients who engage deeply with quality, compliance, and documentation at the start are the ones whose products stand up – in the lab, in the audit, and in the market.

From Wish List to Qualified Blend

A clear framework for turning concepts into compliant, market-ready formulations.

1. Define the Need	Clarify the intended use and functional goal of the product.	What effect is desired, in which application, and under which regulation?
2. Qualify the Options	Check legality, documentation, and sustainability early.	Review spec sheets, Novel Food / CITES status, and supplier transparency.
3. Select Responsibly	Balance efficacy, compliance, and continuity of supply.	Choose the ingredient that meets quality standards without regulatory or ethical risk.

Where Quality Becomes Strategy

In the nutraceutical industry, **raw material choice has shifted from background detail to strategic driver.**

Over the past two decades, regulations have tightened, consumer expectations have risen, and sustainability has become non-negotiable. Yet one constant remains: products succeed or fail not in the marketing campaign, but in the raw-material dossier.

TRANSPARENCY OVER TRENDS

In today's market, it's often not the products with the best ingredients that sell the most – it's the ones with the best design, packaging, and marketing. Packaging costs sometimes exceed the value of the ingredients by a factor of three. It's a reality we find both fascinating and a little disturbing.

We can't change how marketing budgets are spent. But we can make sure every ingredient we deliver stands up to scrutiny.

That's why we insist on **maximum transparency** – from composition and carrier content to production processes that might affect active compounds.

Our goal is simple: to give customers full visibility and consistent quality so that their trust in us doesn't depend on appearances.

FIVE SMART PRACTICES FOR RAW MATERIAL DECISIONS

1. **Define your formulation goals clearly.** Align early with product developers, and share their requirements with suppliers as precisely as possible.
2. **Know your documentation requirements.** From CoAs to Novel Food status, clarity upfront prevents compliance delays later.
3. **Ask beyond the spec sheet.** Probe for undeclared carriers such as maltodextrin – they're not always listed but can affect performance.
4. **Consider shelf life and process stability.** Ensure the ingredient behaves consistently through manufacturing and distribution.
5. **Choose partners, not just products.** Work with suppliers who combine quality, knowledge, and experience – and who see sourcing as a collaboration, not a transaction.

Five Smart Practices for Raw Material Decision

Quality begins long before the first batch.

Define Goals Clearly	Align early with product developers and communicate requirements precisely.
Know Your Documentation	Clarify CoAs, Novel Food, and compliance needs before sourcing.
Ask Beyond the Spec Sheet	Probe for undeclared carriers or additives that can affect performance.
Consider Shelf Life & Stability	Test ingredient behaviour under real manufacturing conditions.
Choose Partners, Not Just Products	Work with suppliers who combine quality, knowledge, and experience.

This guide has outlined the fundamentals of ingredient choice – categories, formats, quality standards, and the questions that separate good from great.

But in practice, every project is unique.

If you're navigating a raw-material decision, we would be glad to share our experience, answer your questions, and help you find the right path forward.

Annex 1:
Product Qualification Checklist

(Adapted from Plants2Market's internal standards for raw-material evaluation)

At Plants2Market, product qualification is the foundation of trust: each new material is reviewed for composition, legal status, and process integrity before it ever reaches a customer.

The following checklist illustrates the scope of these evaluations and offers a practical reference for manufacturers and buyers developing or refining their own quality-control procedures.

1. COMPOSITION & ADDITIVES

- Provide full composition, including any carriers or additives.
- If maltodextrin is used, specify the **source** (e.g., corn, wheat, tapioca).
- Confirm absence of preservatives unless declared.

2. FOOD SAFETY & HYGIENE

- Compliance with **Regulation (EC) 178/2002** on food safety.
- ompliance with **Regulation (EC) 852/2004** on the hygiene of foodstuffs.
- Confirmation that the product is **hazard-classified** per **Regulation (EC) 1272/2008 (CLP)**, if applicable.

3. CONTAMINANTS & RESIDUES

- Compliance with **Regulation (EU) 2023/915** for contaminants in food and food supplements.
- Compliance with Regulation **(EC) 396/2005** for pesticide residues.
- Declaration of absence of **mineral oil hydrocarbons (MOSH / MOAH / POSH).**

4. EXTRACTION & PROCESSING

- Compliance with **Directive (EC) 2009/32** on extraction solvents.
- If sterilized, indicate **method used** (e.g., steam, heat, irradiation).
- Compliance with **Directives 1999/2/EC and 1999/3/EC** on irradiation of foodstuffs.
- Statement on the presence or absence of **Titanium Dioxide (E171).**

5. GMO & ALLERGEN CONTROL

- Confirmation of **GMO-free status** per **Regulations 1829/2003 and 1830/2003.**
- Confirmation that the product is **BSE/TSE-free** (for materials of biological origin).
- Declaration of **allergens** per **Regulation (EU) 1169/2011.**
- Statement of **nanomaterial content** (if any) under the same regulation.

6. ETHICAL & SUSTAINABILITY ASPECTS

- Confirmation that the product is **vegan or vegetarian**, as applicable.
- Clarify whether the product is free **from Ethylene Oxide (ETO).**
- Confirm compliance with **CITES** listings (Convention on International Trade in Endangered Species) where relevant.
- Description of actions taken to **prevent foreign-body contamination** during processing.

7. PACKAGING & CONTACT MATERIALS

- Compliance with **Regulation (EU) 1935/2004** and **(EU) 10/2011** for food-contact materials and packaging.
- Confirmation of **absence of mineral oil contamination** from packaging components.

8. COSMETICS (IF APPLICABLE)

- If intended for cosmetic use, confirmation that both product and packaging comply with **EU and German cosmetic regulations.**

9. DOCUMENTATION & VERIFICATION

- Ensure up-to-date **Certificates of Analysis (CoA)** and **Safety Data Sheets (SDS).**
- Verify **batch numbers, production dates,** and **traceability.**
- Request additional certificates (organic, allergen-free, vegan) if applicable.

Tip for Buyers:

Always ensure your documentation reflects current EU regulations and local requirements.

Annex 2: Reference Sources for Raw-Material Qualification

(A list of databases and regulations we check during our product-qualification process)

Verifying ingredient status requires more than a single compliance check. Plants2Market cross-checks multiple EU and international databases to ensure accuracy and traceability. The list below provides a practical overview of the main sources used in raw-material qualification.

1. NOVEL-FOOD AND INGREDIENT STATUS

- **EU Novel Food Catalogue** – ingredient search tool
  https://ec.europa.eu/food/food-feed-portal/screen/novel-foodcatalogue/search
- **Union List of Authorized Novel Foods** (Regulation (EU) 2017/2470)
  https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32017R2470
- **BELFRIT Positive List (Belgium–France–Italy)**
  https://drive.google.com/file/d/1c7RwxdCK0HaEsivcGV2_02z6woLZlQKk/view

2. FOOD-SAFETY & CONTAMINANT DATABASES

- **ECHA Classification & Labelling Inventory** – chemical hazard classifications
  https://echa.europa.eu/information-on-chemicals/cl-inventory-database
- **Additives Regulation (EC 1333/2008)** – permitted food additives and E-numbers
  https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02008R1333-20230720
- **German Food Association Additive Index (Lebensmittelverband)**
  https://www.lebensmittelverband.de/de/lebensmittel/inhaltsstoffe/zusatzstoffe/listelebensmittelzusatzstoffe-e-nummern

3. ENVIRONMENTAL & ETHICAL COMPLIANCE

- **CITES Appendices** – protected species list
  https://cites.org/eng/app/appendices.php
- **Regulation (EC) 338/97** – trade in wild fauna and flora
  https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX-:01997R0338-20230520

• 4. REGIONAL / SPECIALIST LISTS

- **BVL Stofflisten (Germany)** – national ingredient reference and mushroom list.
- **Danish List of Plant Ingredients** – (Pilegaard et al.)
  https://www.aesan.gob.es/AECOSAN/docs/documentos/seguridad_alimentaria/gestion_riesgos/Pilegaard.pdf

5. COSMETICS, VITAMINS & MINERALS

- **INCI Ingredient List (Cosmetics Regulation)**
  https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32022D0677
- **Directive 2002/46/EC** – vitamins and minerals in food supplements
  https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX-:02002L0046-20240717
- **Regulation (EC) 1925/2006** – addition of vitamins and minerals to foods
  https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02006R1925-20240717

Tip for Buyers:

Always verify that database updates and regulation amendments are current at the time of review.