

# PULSE-BASED INGREDIENTS MARKETS: PROTEINS, STARCHES AND FIBRES

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*In this case study, CPL Business Consultants assessed the markets for pulse-based food ingredients for an international player. The products covered included proteins, starches and fibres from lentils, chickpeas, beans and peas.*

The market for plant-based ingredients, such as legumes and pulses, was growing. This was partly due to an increased use in products like meat substitutes. CPL's client, therefore, required information and advice to support its decision-making process and inform its growth strategy.

## **OBJECTIVE**

The objective of this study was to provide insight into the market for pulse-based ingredients. Additionally, the client required business information to accelerate the growth of their pulse product lines.

The product scope of this project was pulse ingredients derived from red lentils, yellow lentils, Kabuli chickpeas, fava beans, yellow peas, and green peas. The prioritised product types were: flours, starches, and proteins. The geographic scope was EMEA, with a focus on Europe.

## **METHOD**

CPL utilised several resources for this market evaluation, including CPL in-house databases and publicly accessible information, such as government and other databases, publications, companies' literature *etc.* In addition, CPL obtained market information (including their perspectives about current and future developments relating to the use of pulse ingredients) from key contacts within the: ingredients industry, food and beverages, academia, retail, and government/regulatory as appropriate.

Finally, CPL gathered pertinent data sets, developed market models and performed analysis to generate principal findings, conclusions and recommendations for the client. An outline of the contents of this report is below.

## **PULSE-BASED INGREDIENTS MARKETS: PROTEINS, STARCHES AND FIBRES**

### **Executive Summary**

- Objective
- Scope
- Method
- Principal Findings
  - Pulses Overview
  - Pulse-Based Ingredients Market Estimates
  - Application Areas
  - Market Participants
  - Trends
- Conclusions
- Recommendations

## **Introduction to Pulse Sources**

- Lentils
- Chickpeas
- Faba beans
- Yellow peas
- Green peas

## **Comparative Review of Pulse Sources**

- Derivative Products
  - Protein
  - Starches
  - Fibres
- Flavour Aspects of Pulse Ingredients

## **Application Areas for Pulse-Based Ingredients**

- Gluten-Free Products
- Bakery
- Batters
- Pasta
- Snacks And Breakfast Cereals
- Meat And Meat Alternatives
- Pastes, Soups, and Beverages
- Industrial Applications
- Product Application Review

## **Pulse-Based Ingredient Market Participants**

- Strategic Competitors
- Product Portfolio Analysis

## **Trends and Opportunities**

### **Pulse-Based Ingredients Market Estimates**

- Review of Pulse Trade Information
- Analysis of Market Growth by Derivative Product
  - Pulse Flours Market Estimates
  - Pulse Starches Market Estimates
  - Pulse Proteins Market Estimates
- Analysis of Market Growth by Application Area
  - Pulse Flours Application Areas
  - Pulse Starches Application Areas
  - Pulse Proteins Application Areas
- Analysis of Supermarket Product Data

## **Contacts**

- Contacts Overview
- Contact Reports

## **News**

- Pea Protein
- Pea Starch
- Pea Fibre
- Pea Flour
- Chickpea, Lentil and Other Pulse Flours
- Trend Observations

## **Recent Research**

- Peas
- Chickpea
- Lentil
- Faba Bean

## **Recent Patents**

- Flours that improve the crispness of battered potatoes
- Chickpea protein/oligopeptide powder preparation methods and uses
- Method of producing protein isolate of chickpea raw material
- *Vicia faba* protein food products
- Lentil-derived foaming agent and foamable compositions
- Novel separation processes for pea protein
- Preparation of pulse protein products (“yp810”)
- Plant-based protein extraction method and system
- Dry fractionation for plant-based protein extraction
- Ethanol de-oiling for plant-based protein extraction

## **Legumes – Treatment and Flour Milling Methods**

## **Pulse-Based Ingredients Market Estimates – Regional Charts**

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- Nutritional Composition of Selected Plant Sources
- Ingredient Functionality Overview
- PDCAAS Values for Selected Pulses and Cereal Grains
- Protein Fraction: Albumin/Globulin Ratio for Selected Pulse Sources
- Functionality Review of Selected Pulse Sources
- Starch Content for Selected Pulses: (RDS), (SDS), (RSs), and (FG)
- Dietary Fibre Content for Selected Raw Pulse Seeds [g 100g-1]

- Physiochemical Properties of Selected Pulse Fibres
- Main Off-Flavours/Compounds Causing Off-Flavour in Soy and Peas
- Pulse Ingredient and Product Application Review
- Review of Companies' Pulse-Based Product Portfolios
- Pulses and Derived Products, Approximate Volume Split by Country

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- Yellow Lentils
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- Yellow Peas
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- Amino Acids Content of Selected Pulses
- PDCAAS Values for Selected Pulses, Cereal Grains and Blends
- Protein Content for Selected Plant Protein Extracts
- Amylose Content for Selected Plant Starch Extract
- Proportion of Fibre Component for Selected Plant Extract
- Four Global Macro-Trends Affecting the use of Pulse Ingredients
- List of Importing Countries for Selected Legume Products
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- Import Volumes of Pulses and Derived Products, Europe
- Pulses and Derived Products Supply Per Capita, Europe

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- Pulse Flours Volume Estimates by Region
- Pulse Flours Value Estimates by Region
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- Pulse Flours Usage by Product Type

- Pea Protein Usage by Application
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- Pea Fibre Usage by Product Type

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- Pulse Proteins Value Growth Estimates (CAGR) by Application, Eastern Europe

*See also our projects on the [pulse supply chain](#) and [plant-based protein](#) markets. Have a look at our [PowerPoint Introduction](#) and Brochure describing deliverables, differentiators and case studies. You can also review [Eight case studies](#).*