

From Producer to the World



Processing of Pulses and How Value-Added Pulses Are Changing the Market
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www.agtfoods.com

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AGT Foods Highlights

Company Overview

- AGT Food and Ingredients Inc. (“AGT Foods”) is a global leader in pulse, staple food and food ingredient processing and distribution, with merchandising offices and value-added processing facilities in Canada, the U.S. Turkey, Australia, China and South Africa; India and European sales offices, Russian origination office and a global customer base
- Approximately 2,200 employees globally
- Over 45 facilities in six key agricultural production origins on five continents around the globe



Global Company & Brands



Challenge:

The **UN FAO** estimates
we have to **produce**
the **same** amount
of **food** in the next
40 years as the **last**
10,000 years.
How do **we**
do this?



Agri-Foods Market Dynamics

Traditional Markets for Agri-Food

Growth Driver: Population & Global Demand for Food

Markets: Asia Pacific, MENA, Central/South America, Africa

- 2050 - Global population expected to rise 30% to over 9 Billion
- Global food output will have to grow by 70% to feed the world with growing middle class
- Pulses, grains are a sustainable source of vegetable protein, a key nutrient for large numbers of the world's populations

New Markets for Pulses driven by:

Growth Driver: Health, Nutrition and Sustainability

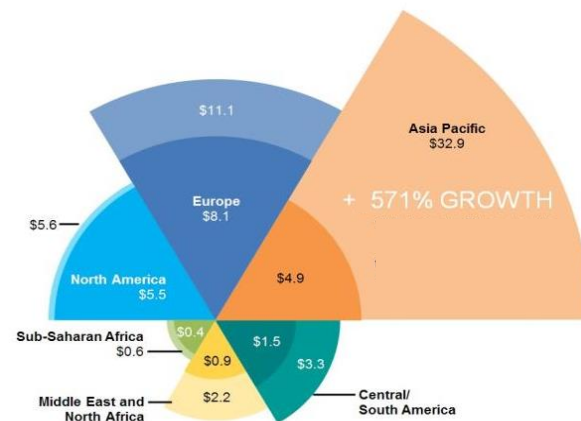
Markets: Europe, North America, China

- Health, nutrition, changes in diet choices
- High Protein and Fibre, Nutrient Dense, Low Fat, Gluten Free, non-GMO, Low Allergenicity
- Lower Energy Use, Reduce Greenhouse Gas Emissions, Improve Soil Health through Rotational Cropping, Increase Water Use Efficiency

MIDDLE CLASS CONSUMER SPENDING

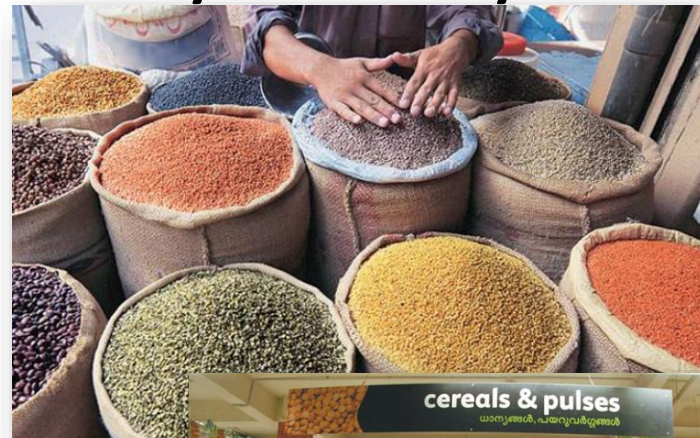
OUTER RING: 2030 in trillions, USD (projected)

INNER RING: 2009 in trillions, USD



Changes with Agri-food Products in the Food System in Key Markets

- How agricultural commodities are marketed is changing in the world
- Drive to modernize food sectors comes from:
 - Consumers demanding convenience, nutrition and value
 - Farmers producing crops that maximize their return and create sustainable opportunity for themselves
- Agri-products are commodities, but they are key to security, well-being and prosperity of countries and their populations
- Biggest challenge for modernization may be in Governmental policy on support of agricultural production to both support local production as well as global supply opportunities
- Many populations are vegetarian (India) or consume more protein from vegetable sources (Turkey/MENA) or have unique needs for agri-products (peas to China) and pulses are the source of economical protein & essential nutrients.
- Economical downturned can not afford meat and thus consume vegetable protein/pulses/grains
- Highly affluent section is also turning to vegetable protein due to health reasons



Pulses and Food Trends

Consumer



Bakery



Meat
Alternative



Dairy
Alternative



Pasta



Extruded Snack



Soup and
Sauces

Food Company

Consumer Trends

- Protein has a positive image with consumers
- Vegetarian diets growing with vegetable proteins replacing proteins derived from other sources.
- Rise in allergy to certain foods and ingredients
- Consumers demanding more proteins for a variety of reasons: diet, sports
- nutrition, muscle, satiety, weight loss, etc.

Food Company Trends

- Non-GMO, Gluten-Free, Vegetarian and Sustainably sourced ingredients continue to gain traction.
- High proteins claims are now common on food products.
- Ingredients derived from vegetables grew by 103% from 2010-2014
- Protein derived from vegetables grew by 61% from 2010-2014.

Plant-Based Food Market Overview

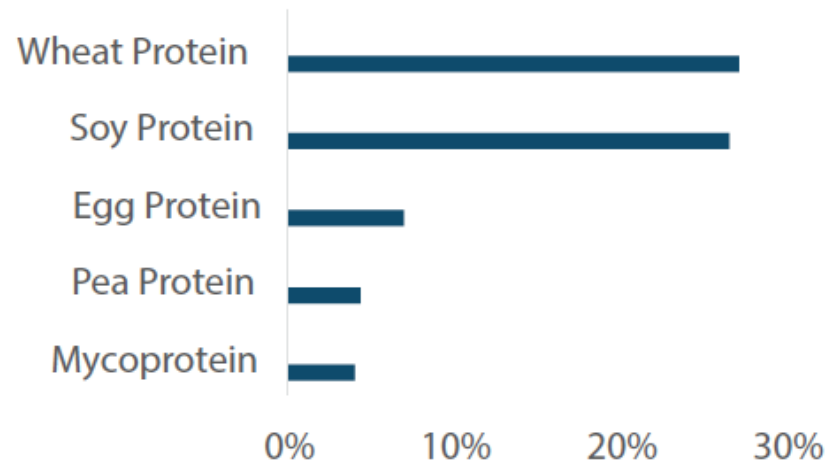
- Plant-based vs. Vegan
 - Plant-based → positive dietary choice
 - Vegan → lifestyle associated with serious commitment
- 2017- 2018 plant-based food sales grew **17%** reach **\$3.7 billion**
 - Plant-based meat sales up **23%** reach **\$684 million with** 12% household chooses to buy plant-based meat
 - Nielson survey reports that **39%** of Americans are actively trying to consume more plant based proteins to substitute chicken, beef and pork
 - Plant based meats jumped **42%** from March 2016 to March 2019 for a total of **\$888 million**. Traditional meat products rose 1% in that same time period for a total 85 billion.
 - World Resources Institute (global sustainability think tank) report indicated that producing beef takes **20 times** land and **20 times** the emissions then raising pulses
- Meat alternative market is expected to reach **\$7.55 billion** at 7.7% CAGR.

Global Protein Ingredients Market Set To Exceed \$29bn in 2018

Metrics

- Plant-based protein worth \$13-14bn
- Pea protein market alone will triple by 2025 and surpass \$300 million
- Growth rate average >7% p.a.
- North America represents about 1/3rd total market
- Application insight:
 - Target higher-margin applications such as Food & Beverages, Infant Formulation, Personal Care / Cosmetics, Animal Feed/Pet Food, etc
- Product insight:
 - Exploit alternative sources of protein (e.g. not SPC,SPI, WPC etc)

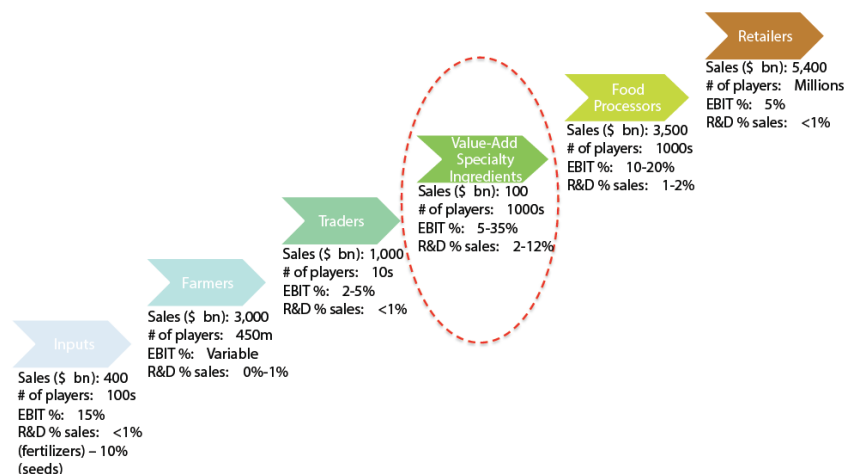
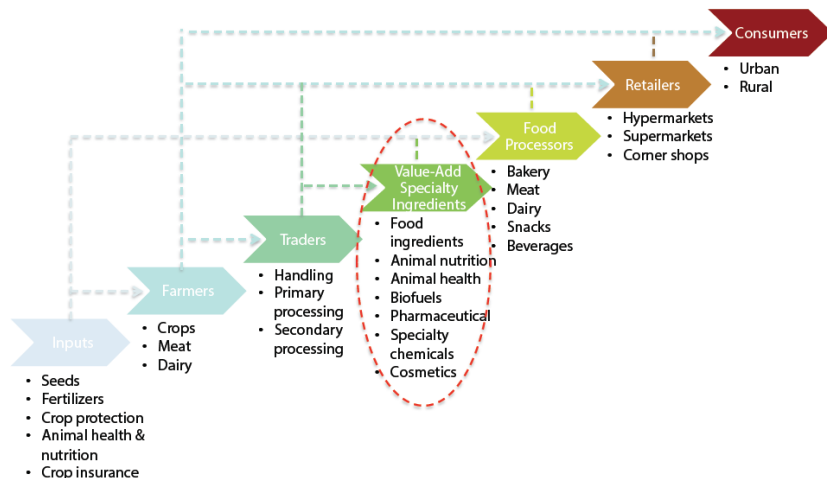
Protein Ingredients in Meat Substitutes Launches



Source: Innova Market Insights (2017)Clotilde analysis (2018) ; Allied Market Research

Where is Value Added in the Food Value-Chain?

The value-add agri-business and processed food value chain



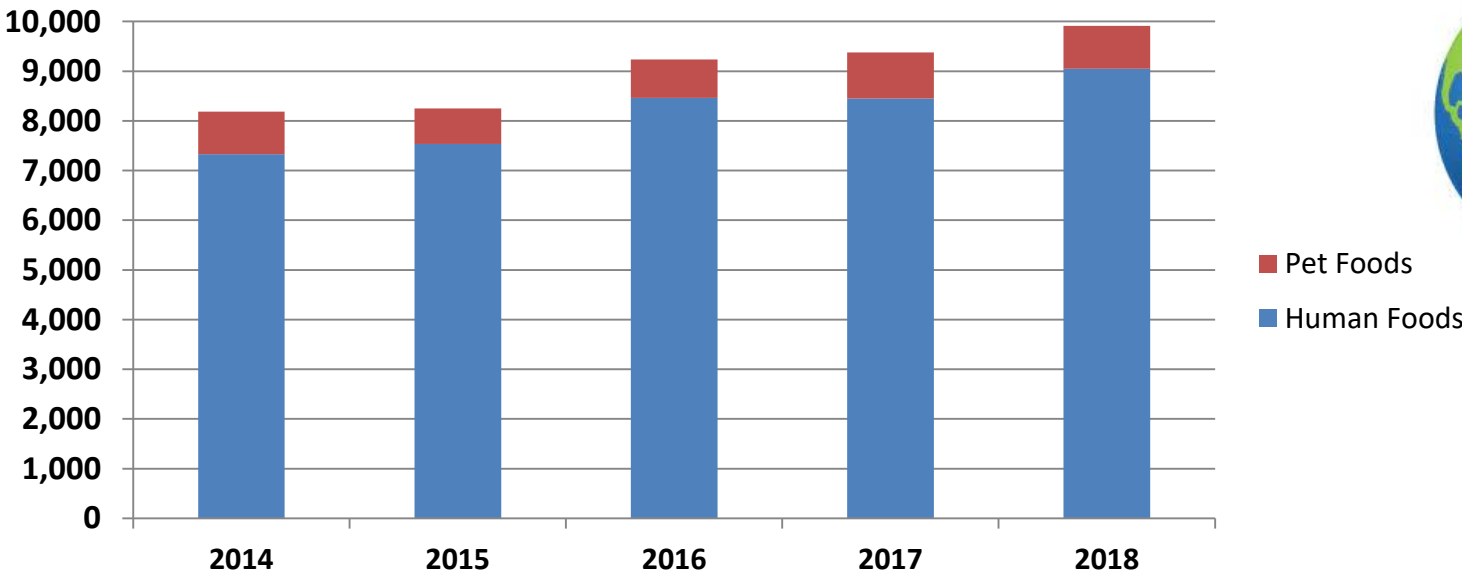
Source: US Dry Pea and Lentil

Where Pulse Ingredients are being used?

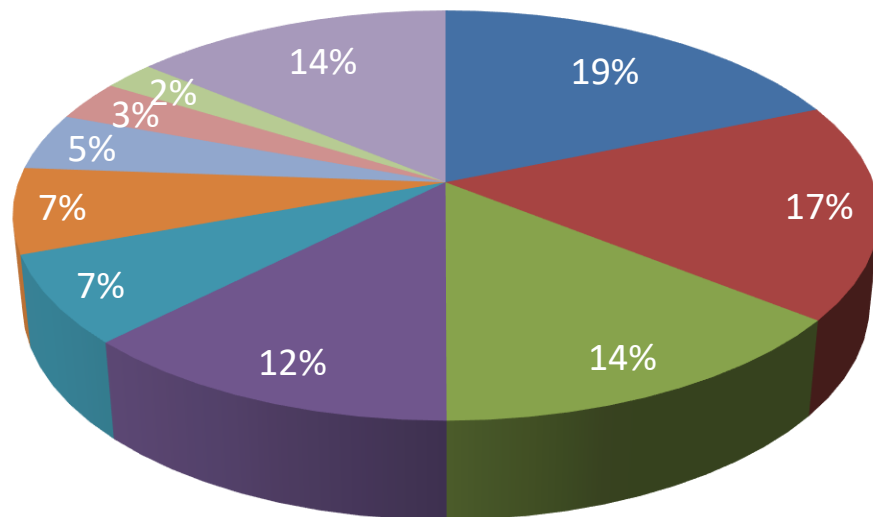
Snack Foods	Meat Analogues	Batters and Breadings	Pasta
			
	Dairy Replacements	Pet Food	
			

Pulse Ingredient Based Product Launches

Total Number of New Pulse Ingredient Product Launches
Worldwide By Year



Human Food Pulse Ingredient Product Launches



- Bakery
- Snacks
- Fruit & Vegetables
- Meals & Meal Centres
- Processed Fish, Meat & Egg Products
- Side Dishes

Worldwide in 2018 - % of Usage Top Categories

1. Bakery
2. Snacks
3. Fruit & Vegetables
4. Meals & Meal Centres
5. Processed Fish, Meat & Egg Products

Overview of Meat Alternative Market

By 2020

- World population is expected to grow beyond **8 billion**
- Protein Demand is boosting. Annual protein demand is expected to reach **245 million metric tonnes**
- Alternative sustainable protein sources are becoming more of a focus
- Meat alternative market is expected to reach **\$5.2 billion**

The Burger and Beyond . . .



McVegan



Annual plant based burger sales today is \$888 million and growing quickly.

- Allied Market Research

Major Players in Meat Alternatives

- Leading companies in plant-based meat
 - Lightlife - Maple Leaf
 - Morningstar Farms
 - Gardein
 - Beyond Meat
 - Boca
- Fastest growing brand during 2017-2018
 - Beyond Meat: up 70%
 - Field roast: up 68%
 - Gardein: up 51%
 - Praeger's: up 44%
 - Quorn: up 31 %



Texturized Vegetable Protein - TVP



Texturized Pea Protein



Texturized Lentil Protein



Texturized Faba Bean Protein

High Protein TVP
Protein Content: **70% - 75%**
Complete Meat Replacement – Vegan Application



Low Protein TVP
Protein Content: **55% - 60%**
Partial Meat Replacement – Cost Reduction



Pet and Companion Animal Feed Formulations

- Pulse ingredients are being widely used in companion animal food formulations
- Same nutritional characteristics that are beneficial for humans are for companion animals as well
- Can offer 12-13% protein in formulations compared to variable starch sources, increasing protein content as well as reducing carbohydrate content by 15% in companion animal formulations



Non-Dairy and Dairy Replacement

- Plant based food sales grew over 20% last year topping 3.3 billion.
 - Global non-dairy milk market is projected to reach revenues of more than 38 billion by 2024, growing at a CAGR of over 14% during 2018-2024
 - The US non-dairy market witnessed a significant growth of 50% in 2018 and currently represents 15% of the overall dairy market
- Plant based milk sales are up 9% compared to cows milk which is down 6%.
- Plant based milk comprises 15% of total milk sales
- Plant based cheeses seen a 43% growth
- Plant based yogurts are growing at 55%



- 8g protein per serving
- Zero sugar
- 50% more calcium than milk
- 32mg DHA Omega 3s
- Vitamin D & Iron



Snack Foods

- Healthy snack demand being driven by families with children and Millennials
- The increase in number of snackers looking for healthy snack alternatives will be a strong driver for the market, as will the continued interest in snacks offering flavor and texture variety which alternative ingredients snacks offer.
- 2016 saw sales of these Vegetable-based snacks made from alternative ingredients within the salty snacks and crackers market segment growing 5.2% in the year and outpacing overall sales growth in these two snack segments
- Growth of the alternative ingredients snack market expected to remain moderate to strong over the next three years through 2019, with a compound annual growth rate (CAGR) of 6.2% to reach sales of \$1,700 million



Introducing*Veggipasta* and *Veggiecrumb*

Veggies everyone can enjoy!

Introducing pasta and breadcrumbs made from only one ingredient:
peas.



Conclusions

- Global protein race with the goal to feed a growing population under tough conditions
- Fundamental demand growth through population and income growth
- Innovation/scaling food processing critical
- Canada is first stop on the Protein Highway
- Value creation in companies who play in multiple links in the global value chain :



Origination

Handling

Processing

Transportation
and Logistics

Food
Processing

Distribution

From Producer to the World



AGT
FOODS

