



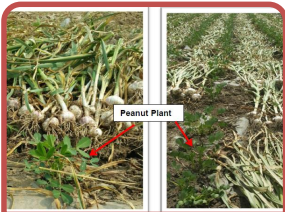
# Allergen Agricultural cross contact



 **Langdon** <sup>1852</sup>  
INGREDIENTS

Joanne Price

# Agricultural Cross contact



Crop Rotation /  
Close proximity



Storage



Transport



Markets /  
Backward  
integration



Primary



Secondary  
processes

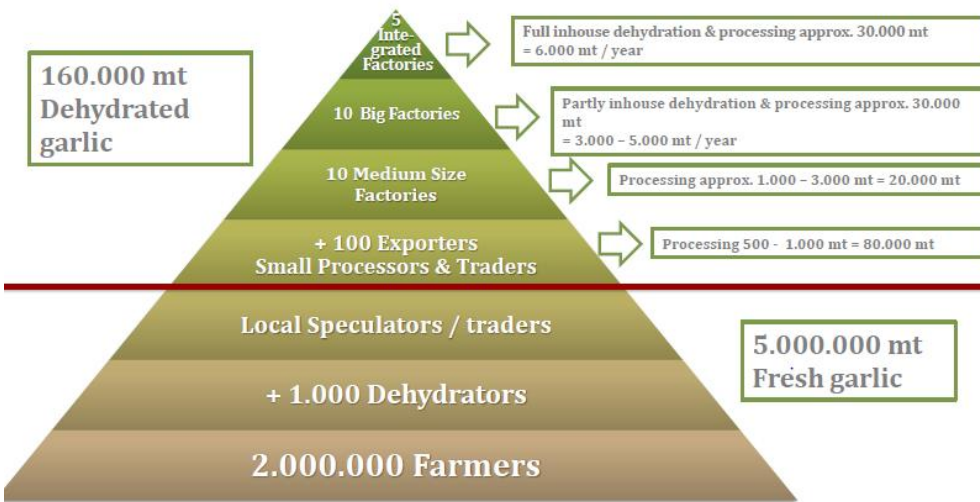
## Good Agricultural Practices

- Sustainable farming practices
- Nourishing soils
- Keeping Pests and fungicide at bay
- Climate conditions
- Growing regions / Seasons



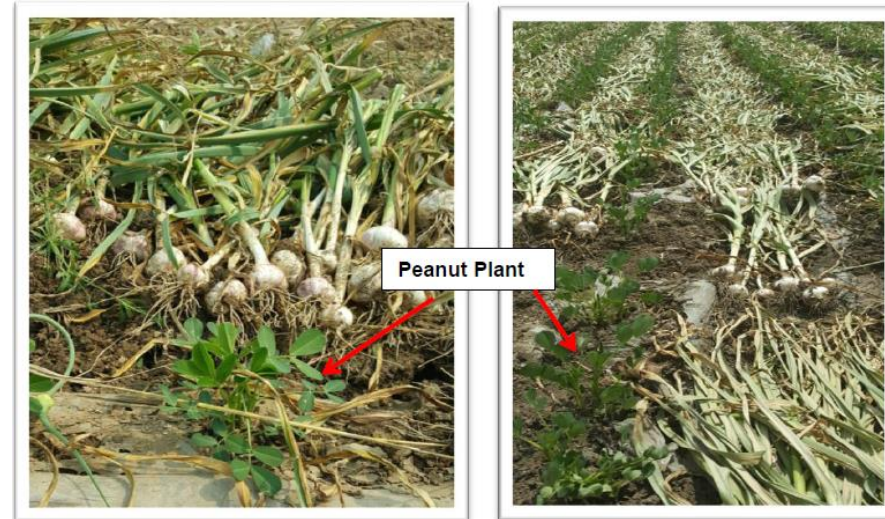
# Garlic – Peanut Cross Contact China

## Chinese AD garlic supply chain



esa EUROPEAN SPICE ASSOCIATION

China Spice Services



\*2016 ESA garlic report

# Australian agroecological zones

## WESTERN REGION

- WA Northern**  
Winter — Wheat, barley, oats, triticale, lupins, field peas, canola, faba beans, chickpeas
- WA Central**  
Winter — Wheat, barley, oats, triticale, cereal rye, lupins, field peas, canola, faba beans, chickpeas
- WA Eastern**  
Winter — Wheat, barley, oats, triticale, lupins, field peas, canola, faba beans, chickpeas
- WA Sandplain and Mallee**  
Winter — Wheat, barley, oats, triticale, lupins, field peas, canola, faba beans, chickpeas

## SOUTHERN REGION

- SA Mid-north – Lower Yorke, Eyre**  
Winter — Wheat, barley, oats, triticale, lupins, field peas, canola, chickpeas, faba beans, vetch, safflower
- SA – Victoria Mallee**  
Winter — Wheat, barley, oats, triticale, cereal rye, lupins, vetch, canola, field peas, chickpeas, faba beans, safflower
- SA – Victoria Border – Wimmera**  
Winter — Wheat, barley, oats, triticale, lupins, field peas, canola, chickpeas, faba beans, vetch, lentils, safflower
- Victoria High Rainfall**  
Winter — Wheat, barley, oats, triticale, lupins, field peas, canola
- NSW – Victoria Slopes**  
Winter — Wheat, barley, oats, triticale, lupins, field peas, canola
- NSW Central (south)**  
Winter — Wheat, barley, oats, chickpeas, triticale, faba beans, lupins, field peas, canola, safflower
- Tasmania**  
Winter — Wheat, barley, oats, triticale, lupins, field peas, canola

## WESTERN REGION

- WA Northern
- WA Central
- WA Eastern
- WA Sandplain and Mallee

## SOUTHERN REGION

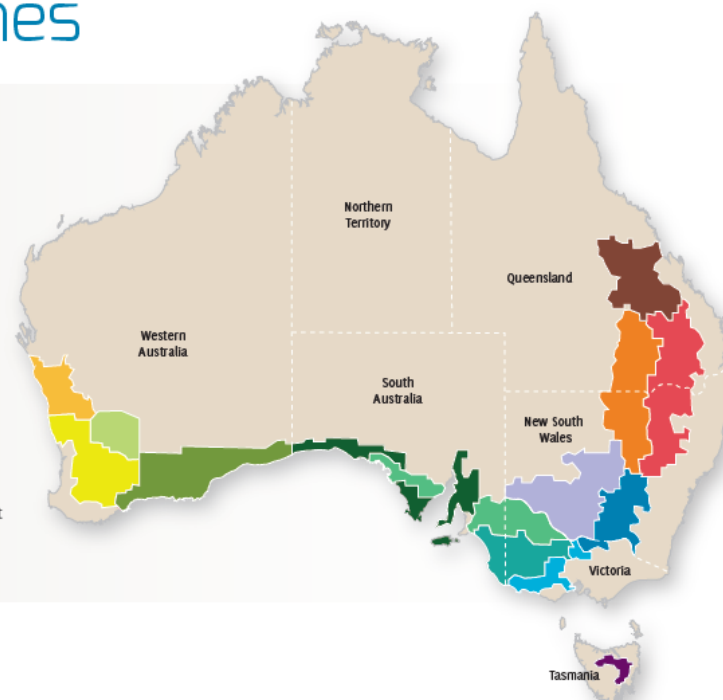
- SA Mid-north – Lower Yorke, Eyre
- SA – Victoria Mallee
- SA – Victoria Border – Wimmera
- Victoria High Rainfall
- NSW – Victoria Slopes
- NSW Central (south)
- Tasmania

## NORTHERN REGION

- NSW Central (north)
- NSW North West – Qld South West
- NSW North East – Qld South East
- Qld Central

## NORTHERN REGION

- NSW Central (north)**  
Winter — Wheat, barley, oats, chickpeas, triticale, faba beans, lupins, field peas, canola, safflower  
Summer — Sorghum, sunflowers, maize, mungbeans, soybeans, cotton
- NSW North West – Qld South West**  
Winter — Wheat, barley, oats, chickpeas, triticale, faba beans  
Summer — Sorghum, sunflowers, maize, mungbeans, soybeans, cotton
- NSW North East – Qld South East**  
Winter — Wheat, barley, oats, chickpeas, triticale, faba beans, millet/panicum, safflower, linseed  
Summer — Sorghum, sunflowers, maize, mungbeans, soybeans, peanuts, cotton
- Qld Central**  
Winter — Wheat, barley, oats, chickpeas  
Summer — Sorghum, sunflowers, maize, mungbeans, soybeans, cotton



# Maize – Gluten and Soy



Grown in Australia for over 150 years.

Grown in Queensland and NSW

- Maize and Soy bean Summer crops
- Cereal crops (Wheat, Barley Winter crops)

## **Gluten**

6 Years of Gluten batch testing per pallet

Majority <5ppm

Sporadic Gluten detections

## **Soy**

Some of the contracted farms also grow soybean, not a rotational crop

Nil soy detection





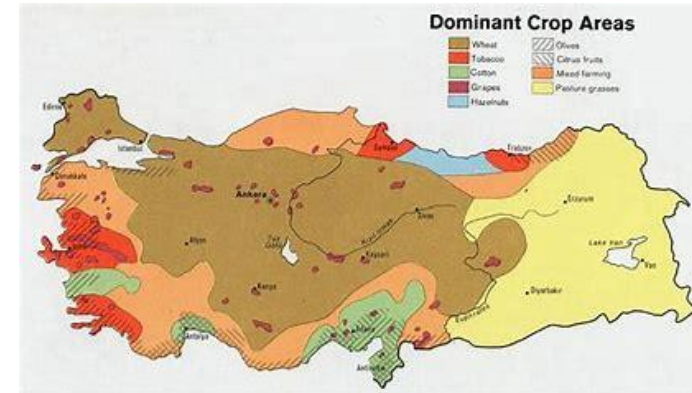
# Oregano – Gluten (Sampling)

Oregano is derived from Turkey – Potential cross contact from field level wild wheat & barley

EU <20ppm gluten tolerance

Comparing composite versus individual sample testing

- Composite Sampling of the 1<sup>st</sup> and every 20th bag (composited sample of 10 bags) = 18ppm gluten
- Individual testing of the same lot no. revealed



>80ppm	78	64	26	19	18	<5
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Validation testing illustrated composite testing can dilute a result

Samples	Highest	Lowest	Composite
n=10	15ppm	<5ppm	7.5ppm
n=5	16ppm	11ppm	14ppm
n=10	19ppm	<5ppm	11.8ppm



# Summarise

Gluten cross contact is the most prevalent agricultural allergen cross contact

Eu <20ppm gluten tolerance creates challenges supplying to Australia



Herbs, spices and dehydrated vegetables found to have cross contact allergen detections are everyday pantry items which we typically consume at low levels

What does 'May contains' and screening / testing mean.


- Is it reliable from a Management perspective – Understand the supply chain and primary and secondary processing
- Are you Relying on testing \$\$
- Establishing a suitable validation study
- Composite or individual samples?
- Test method / laboratory consistency

**WORKING GROUP**



*informing the food industry*





Serving the food industry  
for over 165 years.

 **Langdon**<sup>1852</sup>  
INGREDIENTS