



CommNet



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Education

Phase 3

Food production and
processing



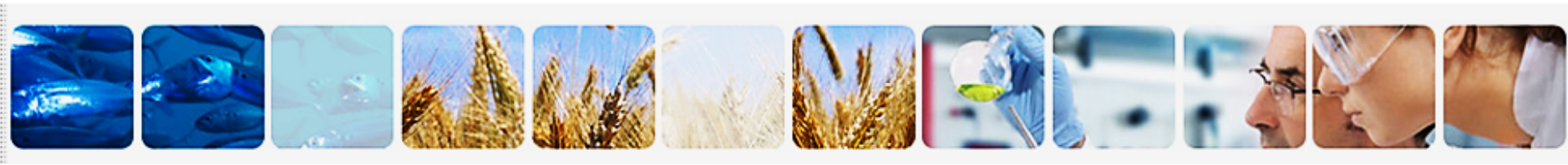


Objective

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To know about a variety of food processing techniques.





Food processing

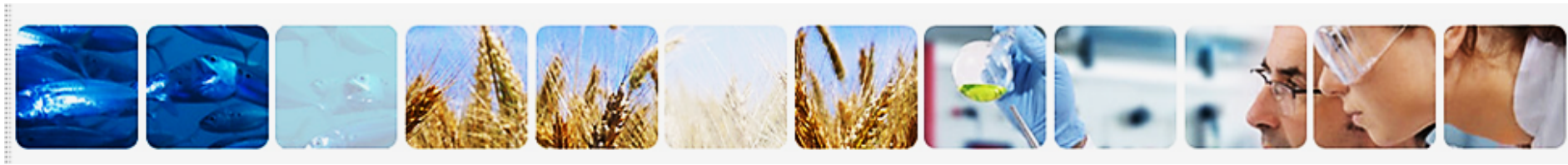


Food processing is any deliberate change in a food that happens before it is available for us to eat.

Food processing is not new. It dates back to pre-historic times when food was sun-dried, preserved with salt and/or cooked.

Modern processing was developed over the centuries with canning and pasteurisation advancing the micro-biological safety of food.





Food processing

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Food processing can be very simple, e.g. preparing, freezing or drying food to preserve nutrients and freshness.



It can also be complex, e.g. formulating a frozen meal with the right balance of nutrients and ingredients.



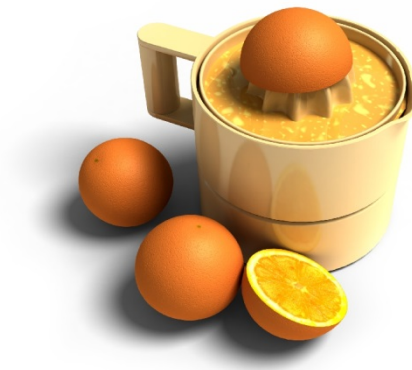
Here are some examples.

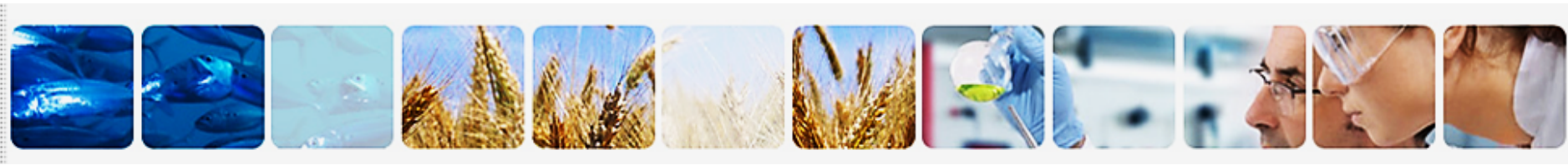


Minimally processed foods are:

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- washed;
- peeled;
- sliced;
- juiced;
- frozen;
- shredded;
- dried.



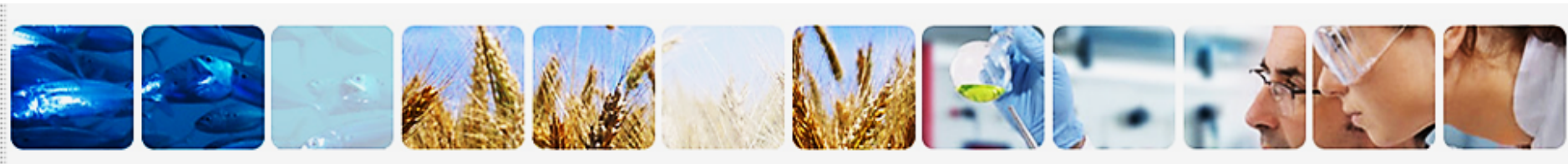


More highly processed foods are:

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- baked;
- fried;
- smoked;
- toasted;
- puffed;
- fermented;
- pasteurised;
- artificially flavoured;
- artificially coloured.





Food processing - examples



Foods that require little processing or production.



e.g. washed and packaged fruits and vegetables; bagged salads; shelled and ground nuts and coffee beans.





Food processing - examples

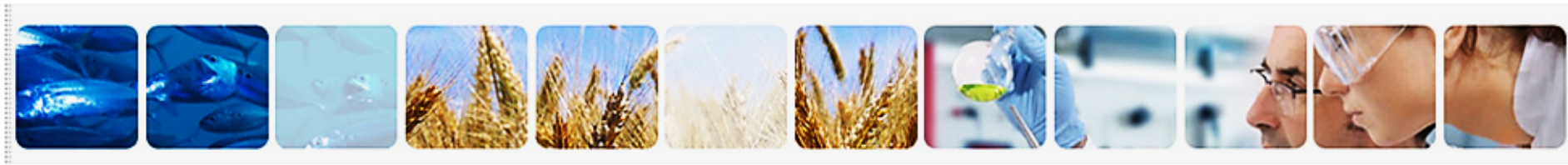


Foods processed to help preserve and enhance nutrients and freshness of foods at their peak.



e.g. canned tuna, beans and tomatoes; frozen fruits and vegetables; pureed and jars of baby food.



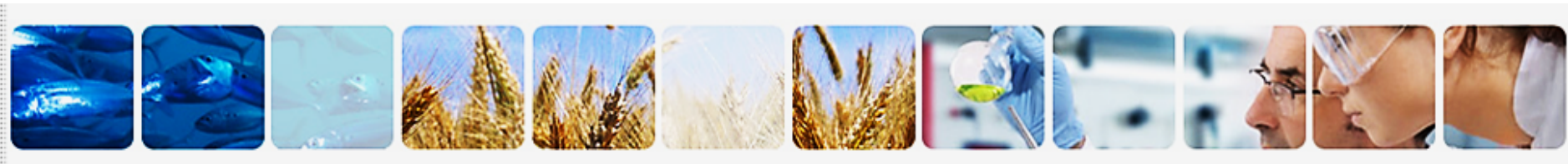


Food processing - examples

Foods that combine ingredients such as sweeteners, spices, oils, flavours, colours, and preservatives to improve safety and taste and/or add visual appeal.



Some packaged foods, e.g. instant potato mix, rice, cake mix; jars of tomato sauce; dressings and sauces.



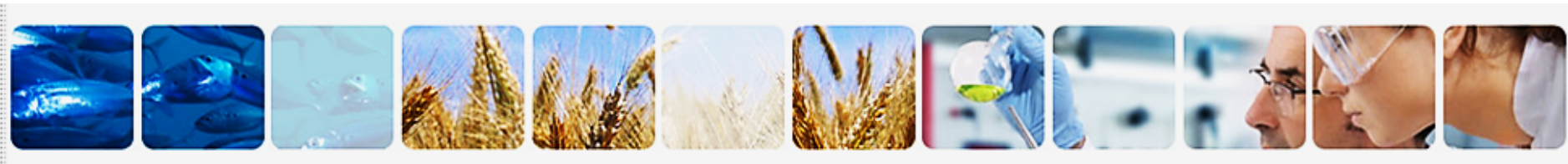
Food processing - examples

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“Ready-to-eat” foods which require little or no preparation.



e.g. breakfast cereal; jam; peanut butter; ice cream; yogurt; garlic bread; biscuits; ham; cheese spreads; fruit drinks and fizzy drinks.



Food processing - examples

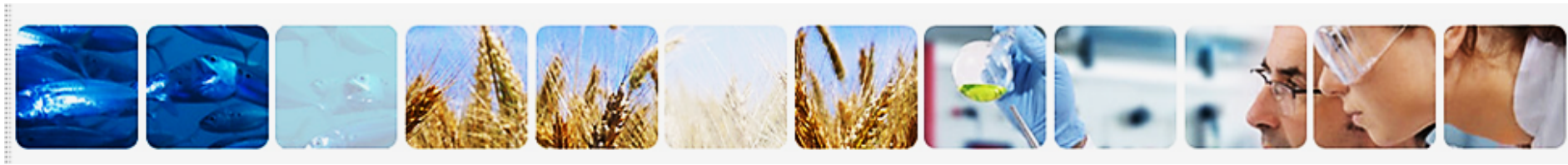


Foods packaged to stay fresh and save time.



e.g. prepared deli foods; frozen meals; ready meals and pizzas.





Why are foods processed?

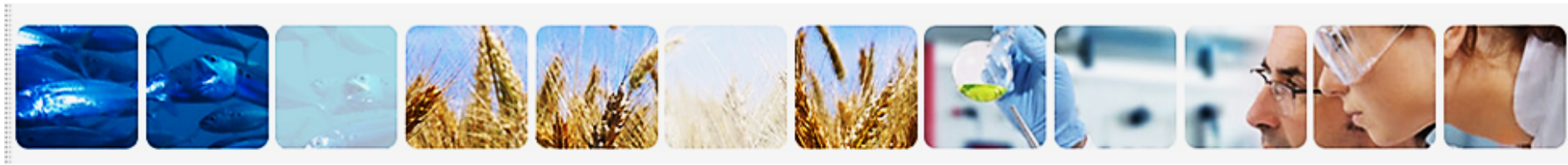


Preservation

Processing foods often makes them safer by killing existing bacteria and slowing bacterial growth. For example, heating foods helps remove harmful bacteria.

Examples: fermenting; salting; canning; pasteurising; freezing and drying.





Why are foods processed?



Convenience

Consumer demand and lifestyle choices has led to the development of a wide variety of convenience and fast food.





Why are foods processed?

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Health

Health concerns within the population has led to an increased demand for healthier food choices, e.g. lower salt, fat and/or sugar.





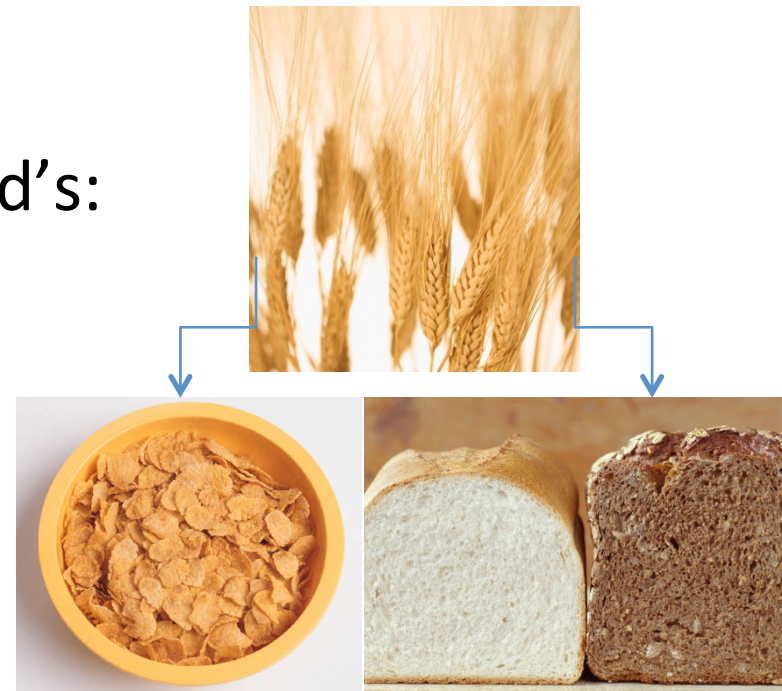
Why are foods processed?

Variety

Processing foods provides the consumer with a wider choice.

Processing can modify the food's:

- flavour;
- texture;
- smell;
- colour;
- shape.





Food processing



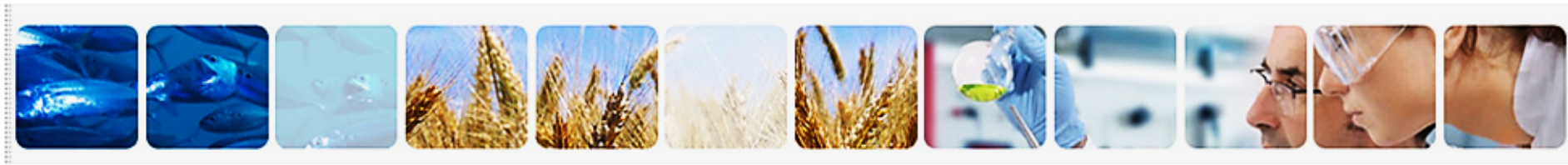
Fortification

Fortification involves the addition of nutrients to foods.

They might be added to:

- replace nutrients lost during food processing;
- add extra nutrients that would not normally be there e.g. added fibre in yogurt;
- produce a substitute product with similar nutritive value.





Food processing:

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Functional foods

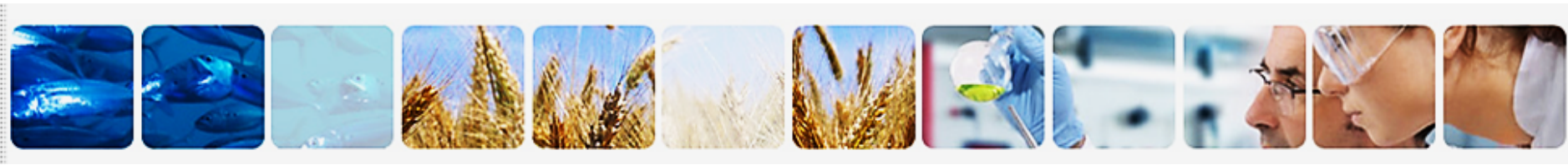
Functional foods provide benefits over and above their basic nutritional value. It covers a wide range of products.



Examples:

- dairy products containing probiotic bacteria;
- everyday foods fortified with a nutrient that would not usually be present e.g. folic acid fortified bread or breakfast cereals.





Food processing: nutrition and health claims

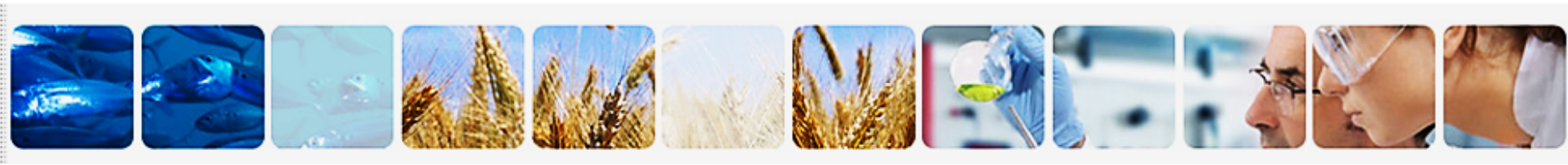


A **nutrition** claim states what a food contains (or does not contain) or contains in reduced or increased amounts. Examples are: “low fat”, “no added sugar” and “high in fibre”.

A **health** claim is any statement on labels, advertising or other marketing products if a food or one of its ingredients has been agreed by experts to provide health benefits.

Example: “Calcium is needed for the maintenance of normal bones.”





Food processing: health claims



Within the EU, a regulation on nutrition and health claims came into force in 2007.

Under the regulation, health claims are subject to pre-approval, involving scientific assessment by the European Food Safety Authority (EFSA).

A list of permitted and rejected health claims was published in November 2011 by the European Commission.





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