
FOOD PRODUCTION



After completing this section, you will be able to:

- Discuss contemporary nutritional issues related to food production.

Food Production



Vocabulary

beneficial	nanotechnology	potentially	diagnose
complies	certification	minimum	standards
contemporary	conventional	organic	licence
co-operative	traditional	enhance	additives
federation	symbol	association	legislation
manufacturers	emulsifiers	preservations	genetically
modified	organism	novel	functional
organisation	counteract	eco-gastronomy	recognition
procedures	technology	consumption	production
substance	anti-oxidants	supplements	artificially

Abbreviations:

- EU - European Union
- FSAI - Food Safety Authority of Ireland
- GMO - Genetically Modified Organism
- IOFGA- Irish Organic Farmers and Growers Association
- OF&G - Organic Farmers and Growers



Activity

On completion of the section choose a contemporary food production topic from examples given. In pairs, investigate the topic and report findings to the group. The report must contain the following:

1. Definition of food production area
2. Foods involved
3. Overview of growing methods.
4. If relevant, further processing methods.
5. Compare the nutritional value of the food with similar conventional food.
6. Views for and against the chosen area

Report layouts can be sourced using Microsoft Office™ online templates.

Source newspaper or media articles on the chosen topic and attach to the report. Use these articles and reports to source views for and against the chosen topic.





Organic Food Certification in Ireland

Organic is a term defined under European Union law. It means that the producer using the term on a food product must hold a licence with an approved organic certification body. The EU has set standards for organic production and it is up to the individual member states to translate this into their own law. Any organic product sold in Ireland must under law display a certification symbol or number. When an organic symbol is displayed the product complies with minimum organic standards.

Under law if more than 0.9% of a food or ingredient is from a GM source it must state the amount on the label.





Activity

Open the webpage <http://www.organicsupermarket.ie/>
and answer the questions below:

1. What is this website designed for?

2. What kind of information does it provide?

3. What are the top five best sellers?

1. _____
2. _____
3. _____
4. _____
5. _____

4. List three reasons why according to this site organic products should be used:

1. _____
2. _____
3. _____

Section 3



Activity

Open the webpage http://www.organicguide.ie/organic_certification
and match the symbols with the correct organisation name:



The Organic Food Federation (OF&F)



The Organic Trust



IOFGA Irish Organic Farmers and Growers Association



Organic Farmers & Growers (OF&G)



The EU Organic Symbol



The Soil Association



Activity

Open the webpage

<http://www.bordbia.ie/aboutfood/organicfood/pages/organicfood.aspx>

and answer the questions below:

1. The organic sector in Ireland is _____ by EU legislation which is _____ by the Department of Agriculture, Food and the Marine.
2. Using a dictionary, search the meaning of
 - governed _____
 - implemented _____
 - legislation _____
3. Translate Bord Bia to English _____



Activity

Open the webpage http://www.fsai.ie/resources_publications.html

to search for more information on Organic Foods



Activity

Open the webpage <http://organiccollege.com/> to find out more about the study of organic food in Ireland



Activity

Read the passage below and answer the questions on the following page:

Slow Food is a non-profit, member-supported organisation that was founded in 1989 in Milan.

Its aims are to counteract the production of fast food the disappearance of local food traditions and people's dwindling interest in the food they eat, where it comes from, how it tastes and how food choices affect the rest of the world.

The movement is founded on the concept of eco-gastronomy – a recognition of the strong connections between plate and planted.

Slow Food is about producing and eating good, clean and fair food. Good means that food should taste good; clean that it should be produced in a clean way that does not harm the environment, animal welfare or people's health; and fair that producers should receive fair compensation for their work.

For more information, go to: <http://www.slowfoodireland.com/>

1. What is Slow Food?

2. What upcoming events are scheduled?

3. What are the seven pillars of Slow Food?

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____
- 6) _____
- 7) _____

4. How many countries is Slow Food in?



Activity

The Country Markets Limited

The aim of Country Markets Limited is to market, by co-operative means, local producers' fresh quality farm, garden and home produce and traditional crafts using natural resources. The first branch market opened in Fethard, Co. Tipperary, in 1947 and is still in operation.

Open the webpage <http://www.countrymarkets.ie/> and find a market in the local area.

The Country Market in my local area is: _____



Activity

Place the following words in alphabetical order:

- Market Country Means Traditional Resources Crafts Enhance
 Family Branch Remain Currently Between Quality

1.	2.
3.	4.
5.	6.
7.	8.
9.	10.
11.	12.
13.	



Activity

Investigate a local speciality food company under the following headings:

1. Name of the company

2. What are the main products produced?

3. How are they marketed?

4. Who are the main customers?

5. Is labelling required for food products sold loose?

**Activity**

Open the webpage <http://www.foodmiles.ie/>
and answer the questions below:

1. Explain the term “food miles”?

2. Name the main countries that the foods listed below are imported from:

Food	Country of Origin
Oranges	
Grapes	
Kiwi	
Peppers	
Chillies	
Green beans	
Basil	
Tea	
Coffee	
Dried pasta	



Food Additives

Additives are substances added to food to improve the colour, flavour, texture or keeping quality of the food. Additives that have been tested and accepted under European food law are labelled with the letter E before the approved number code of the additive. Food additives preserve the nutritional quality of the food

Additives are grouped as:

Colourings	E100 to E199
Preservatives	E200 to E299
Anti-oxidants. These stop fat going off in food	E300 to E399
Conditioning agents	E400 to E499
Sweeteners	E900 to E999
Nutritional supplements	No E number
Flavourings	No E number





Activity

Fill in the gaps with words from the box below:

Substances colour accepted E texture tested nutritional labelled

Additives are _____ added to food to improve the _____, flavour, _____ or keeping quality of the food. Additives that have been _____ and _____ under European food law are _____ with the letter ___ before the approved number code of the additive. Food additives preserve the _____ quality of the food.

Fill in the gaps with words from the box below:

improve naturally safety European manufacturers added artificially

An additive is something that is _____ to a food product to _____ its properties.

Some additives occur _____, whereas other are made _____.

Customers tend to prefer natural additives so _____ use these where possible.

Additives must pass a _____ test before they are used in food.

When an additive passes this test it is given an EU number, meaning it can be used throughout the _____ Union.



Activity

Draw lines to match up the additive to its definition and example product:

Additive	Definition/use	Example Product
Preservatives	These make a product more stable – stopping oily/watery products from separating.	Bread
Colourings	These release bubbles of gas which expand when heated to make the product rise!	Jelly
Flavourings	These are used to improve the taste or aroma (smell) of a product.	Lasagne Ready-Meal
Emulsifiers	These are used to extend the shelf life of a particular product.	Strawberry Milkshake
Setting Agents	These alter the colour of a product, making it more appealing to eat.	Vanilla Muffin
Raising Agents	These are used to thicken products so it sets as a gel.	Mayonnaise





Activity

Open the webpage

http://www.fsai.ie/legislation/food_legislation/labelling_presentation_advertising_food_stuffs/fortified_foods.html.

and answer the questions below:

1. What new regulation will replace the current general rules on labelling?

2. When does this new regulation take effect?

3. List five items that must appear on a label under the new regulations:

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____



Some Other Topical Food Groupings

Genetically Modified Foods- GMO

Genetically modified foods differ from conventional foods in that it contains or is made from a Genetically Modified organism. All living organisms have some form of genetic material called DNA that allows them to survive and multiply. GMO technology is regularly used in the contained manufacture of drugs and medicines. It is required under EC law that any foods containing GMO's must be labelled so that consumers can make an informed choice about the foods they purchase.

For more information, check out:

www.fsai.ie/geneticallymodifiedfood.html



Functional Foods

Functional foods are consumed foods that have a beneficial ingredient added or that an ineffective ingredient is removed that can help achieve or maintain good health in addition to providing basic nutrition. Some examples are adding good cholesterol to margarines and probiotics to yogurt drinks.

For more information, check out:

<http://www.fsai.ie/assets/0/86/204/667b54fe-972c-4c04-a6f8-9a0c5c92f886.pdf>

Novel Foods

Novel foods are foodstuffs or food ingredients which have not been used for human consumption to a significant degree in the European community before 1997 and fall under the following categories:

- foodstuffs and food ingredients with a new or intentionally changed primary structure;
- foodstuffs and food ingredients consisting of or isolated from micro-organisms, fungi or algae;
- foodstuffs and food ingredients made up from plants and food ingredients from animals, except for foodstuffs and food ingredients obtained by traditional practices and having a history of safe food use;
- foodstuffs and food ingredients to which a production process which changes the make up or structure of the foods or food ingredients that affect their nutritional value is used.

For more information, check out:

www.fsai.ie/WorkArea/DownloadAsset.aspx?id=1968

Nanotechnology and Food

Nanotechnology involves the use of minute particles invisible to the human eye in food technology production.

Nanotechnology is a new science that is used in the production of cosmetics and in helping to diagnose and treat human illnesses. Within the food sector it is in the research stages. It could potentially be used to increase colour, texture and flavour of foods as well as increasing the availability of certain nutrients.

For more information check out:

http://www.fsai.ie/Nanotechnology_leaflet.html