Meeting Standards – Processing & Marketing Standards

Day Three – Meeting Standards

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Food Safety - Legal responsibility

Food companies have a legal responsibility to produce safe food.

A business that breaks the law faces:

- improvement notices – a fixed time period is set for the company to rectify problems;
- prohibition notices – the company is not permitted to produce particular food items;
- prosecution.

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Food Safety - Principles

The three general objectives of EU Food Safety are:

- to ensure that food and animal feed are safe and nutritious;
- to ensure a high level of animal health, welfare and plant protection;
- to ensure adequate and transparent information about the origin, content/labelling and use of food.

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Prevention of Risks

Food risks can be ascertained by ensuring that certain controls are in place throughout the food production process which address the forms of risk to human health.

Risks can come in a number of categories, which are non-exhaustive:

- Susceptibility to illness
- Allergies and intolerances
- Mishandling of food
- Food pests and diseases
- Inappropriate handling, labelling or storage
- Temperature abuse
- Food additives and pesticides

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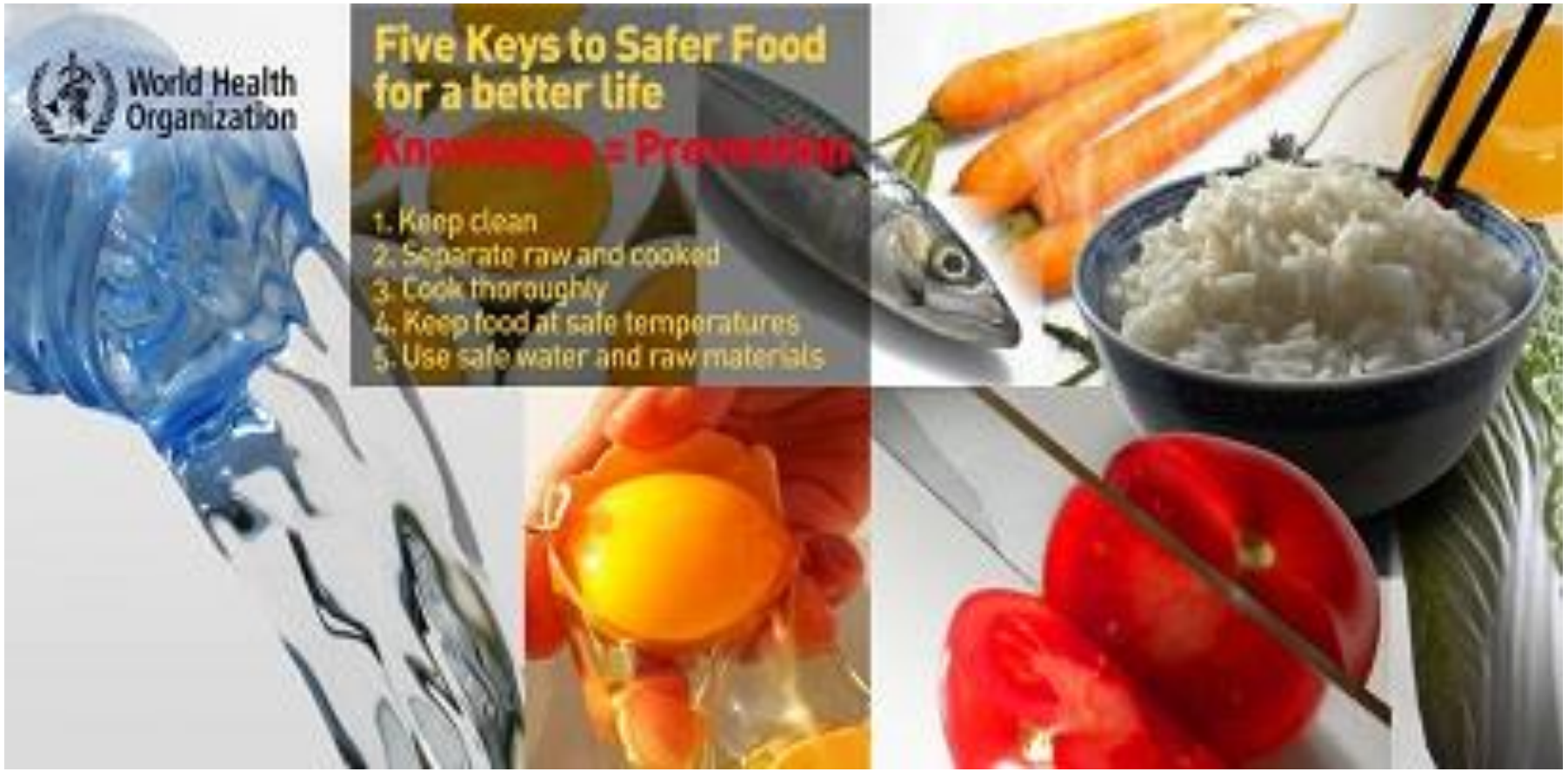
Food Safety - Principles



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What does EU Law require?

- Since January 2006 all food businesses must implement food safety management procedures based on the principles of HACCP.

Food businesses:

- must be able to show what you do to make food that is safe to eat and
- have this written down.

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Food Hygiene

Food Hygiene is the system used to ensuring food safety, at all levels of the value chain, and even for smaller, artisanal producers

- EU rules require a comprehensive and coordinated approach to food hygiene across the food chain in all EU countries
- Primary responsibility lies of course with the companies and people producing and selling the food. They have to apply compulsory self-checking programmes
- The most important aspect of food hygiene is ensuring that the companies have an appropriate approach to the management and training of personnel

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Food Hygiene - Everyone is responsible!

- Everyone who works with food has a duty to make sure it is safe and does not cause the customer harm

- The four main controls to reduce the risk of harm are:
    - Cross-contamination
    - Cooking
    - Chilling
    - Cleaning

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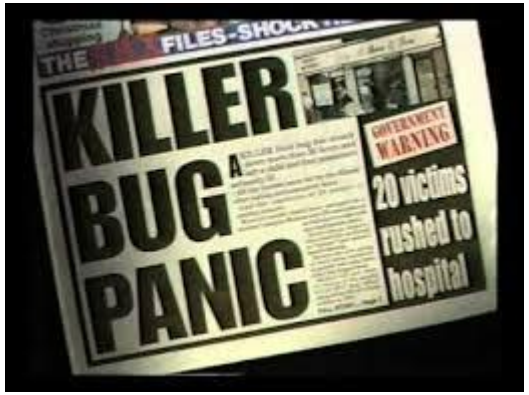
Cross contamination

- Contamination can occur at any time in food preparation or service.
- Cross contamination occurs when bacteria are spread from one food to another.

Examples:

- From hands to boards and onto food
- From cloths to equipment and onto food
- From foods dripping onto each other



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Your Hands!

- Wash your hands regularly and properly to prevent cross contamination.
- Before entering a food prep area
- Between handling raw and high risk food
- After taking a break
- After going to the toilet
- After blowing your nose
- After carrying out cleaning jobs
- After handling waste.

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Hand washing

To wash your hands you will need;

- Hot water
- Liquid soap
- Disposable roll
- Air dryer

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Cross contamination

- Cloths are a major source of cross contamination in food areas
- Use disposable cloths/paper roll for cleaning tasks
- Keep raw and ready to eat foods apart where possible store separately
- Pests must be controlled as they can contaminate food, spread disease and damage premises.
- Keep all foods covered at all times

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Cooking

- It is essential to cook food properly to kill harmful bacteria
- Cook, or reheat food to a minimum core temperature of 75^{o}c for two seconds
- If holding food hot, the minimum core temperature must not fall below 63^{o}c

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Chilling

- High risk foods or foods with a use by date need to be kept chilled.
- It is recommended to keep cold food at 5^{o}c or below
- Chill hot food to 5^{o}c or below as quickly as possible
- Frozen food should be stored at -18^{o}c or colder
- Keep food out of the ‘danger zone’ (5^{o}c to 63^{o}c)
- Defrost food in the fridge and ensure that the product is fully defrosted before cooking

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Cleaning

- Cleaning is the process of making something free from dirt, grease and contamination.
- **Detergents** remove dirt and dissolve grease but do not kill bacteria eg fairy liquid
- **Disinfectants** reduce bacteria to a safe level
- **Sanitisers** both clean and disinfect at the same time eg. Dettox
- All cleaning chemicals must be food safe
- Chemicals should be stored away from food
- When washing by hand, use a detergent first to remove grease and dirt and then a disinfectant to reduce bacteria to a safe level.

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Cleaning

- To keep food safe adopt a clean as you go approach
- Disinfect boards and knives and food contact surfaces between different food types
- Hand contact surfaces need to be disinfected.
- Remember to change washing water once it is dirty.

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HACCP

- HACCP stands for ‘Hazard Analysis Critical Control Point’.
- HACCP is a system which looks for and prevents potential problems before they happen.
- HACCP may be used by food companies to make sure they do not break the law by putting consumers at risk when producing food.
- It is a structured approach to risk assessment and is one means of satisfying the risk assessment requirement of EU hygiene legislation.
- It is part of **all** international quality assurance systems

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What does HACCP involve?

- Identifying points during the production of a product where potential hazards may occur.
- Analysing the risk of the hazard points happening including the scale of consequence if they do.
- Deciding which points are critical to consumer safety.
- Implementing controls, monitoring production and taking action if necessary.
- Reviewing the HACCP plan whenever the food operation is altered, and on a regular basis, e.g. annually, even if no alterations have been made.

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Qualities of the HACCP system

HACCP is:

- systematic – all the potential hazards are identified before there is a problem

- efficient – it concentrates the control effort at the stages where the risk is potentially the highest

- on the spot – the processes can be controlled immediately by the food business

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Hazard

- A hazard is a biological, chemical or physical agent that is reasonably likely to cause illness or injury in the absence of its control.
- In HACCP, hazards refer to the conditions or contaminants in foods that can cause illness or injury.

The types of hazards which a HACCP plan can focus on include:

- biological hazards, e.g. harmful microorganisms
- chemical hazards, e.g. those either naturally occurring, intentionally added or unintentionally added
- physical hazards, e.g. glass, stones or metal
- packaging quality
- equipment reliability

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Critical Control Point (CCP)

- A Critical Control Point (CCP) is an identifiable point in the production chain where a hazard may occur.
- Action is taken to prevent the hazard from occurring.
- This can either be a point, step or procedure at which control can be applied and is essential to prevent or eliminate a hazard or reduce it to an acceptable level.
- A CCP can be used to control more than one hazard – refrigeration storage CCP.
- Alternatively, several CCPs may be needed to control one hazard.

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Critical Control Point (CCP)

Points may be identified as CCP when hazards can be prevented, for example:

- introduction of chemical residue can be prevented by control at the receiving stage
- a chemical hazard can be prevented by control at the formulation or ingredient-addition stage
- pathogenic bacteria growth can be controlled by refrigerated storage or chilling

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Critical Control Point (CCP)

CCP may be identified where hazards can be eliminated, for example:

- pathogenic bacteria can be killed during cooking
- metal fragments can be detected by a metal detector and eliminated by removing the contaminated product from the processing line
- parasites can be killed by freezing

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Critical Control Point (CCP)

Points may be identified as CCPs when hazards are reduced to acceptable levels, for example:

- the occurrence of foreign objects can be minimised by manual sorting and automatic collectors
- some biological and chemical hazards can be minimised by obtaining shellfish from approved waters

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7 principles of HACCP implementation

- Hazard analysis
- Determine the Critical Control Points (CCP)
- Establish critical limits
- Critical Control Point (CCP) monitoring
- Corrective actions
- Establish verification procedures
- Record keeping procedures

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1. Hazard analysis

The first step involves identifying any hazards that must be prevented, eliminated or reduced to acceptable levels.

All potential hazards, from the receipt of raw materials through to release of the finished product, must be considered.

A hazard must be controlled if it is likely to occur, and/or likely to result in an unacceptable risk to consumers.

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2. Determine the Critical Control Point (CCP)

Identifying the Critical Control Point (CCP) at the steps or at which control is essential to prevent or eliminate a hazard or to reduce it to acceptable levels.

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3. Establish critical limits

A critical limit is a maximum or minimum value to which a biological, chemical or physical limit must be controlled at a CCP.

This is set in order to prevent, eliminate or reduce a hazard to an acceptable level.

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4. Critical Control Point (CCP) monitoring

A planned series of observations or measurements need to be taken to assess whether a CCP is within critical limits.

This also helps to produce an accurate record for future use in verification.

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5. Corrective actions

Corrective actions, are procedures to be followed when a hazard is identified in the food production.

The aim is to correct and eliminate the cause of the hazard and bring CCP back under control.

The cause of problem must be identified to prevent future recurrence.

Establishing corrective actions when monitoring procedures at CCP is not under control.

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5. Corrective actions

Some examples of corrective actions can include:

- isolating and holding product for safety evaluation
- diverting the affected product or ingredients to another line where deviation would not be considered critical
- reprocessing
- destroying the product.

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6. Verification procedures

Verification procedures are those activities, other than monitoring CCPs, that verify the HACCP plan and show the system is operating according to the plan.

This is usually completed annually or when a system fails or there is a significant change in the product or process.

Establishing procedures, which shall be carried out regularly to verify that the measure is effective

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7. Record keeping procedures

Documentation and record keeping help to demonstrate the effective implementation of the previous principles of HACCP.

This records could be of the development of the HACCP plan, CCP monitoring, corrective actions or verification activities.

Four different types of HACCP records include:

1. HACCP plan and support documentation used in developing the plan.
2. Records of CCP monitoring.
3. Records of corrective actions.
4. Records of verification activities.

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Food Labelling

The following information must appear by law on food labels:

- the name of the food;
- weight or volume;
- ingredient list;
- allergen information;
- genetically modified (GM) ingredients;
- date mark and storage conditions;
- preparation instructions;
- name and address of manufacturer, packer or seller;
- place of origin;
- lot (or batch) mark;
- nutrition information (from 2016 onwards).

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What is a “QUID” Declaration?

- A “QUID” declaration shows the percentage of an ingredient or category of ingredients in a product.

- Such a declaration enables a consumer to make a more informed choice from similar products.

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WHEN IS A “QUID” DECLARATION REQUIRED?

- When an ingredient appears in the name of the food, e.g.
  - pork in a “pork sausage”
  - peaches in a “peach yoghurt”
  - mushrooms in a “mushroom pizza”
- When the category of ingredients appears in the name of the food.
  - vegetables in a “vegetable pie”
  - fish in “fish fingers”
  - meat in a “meat pie”

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EU Standards

EU Standard	Regulation /Directive
Food Law	178/2002
Food Safety	1169/2011
Food Hygiene	852/2004
Food Labelling	1169/2011
Animal Health Law	84/2016
Traceability	2004/292/EC

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EU Standards

EU Standard	Regulation /Directive
Food Hygiene - Meats	853/2004
Food Hygiene - Animal by-products	854/2004
Bovine Animals	2004/68/EC
Feed Sampling	691/2013
Feed Additives	1831/2003
Feed Hygiene	183/2005

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ISO 9000

- ISO 9000 is a quality management system, which can be applied in the implementation of food safety
- The system allows an organisation to integrate its quality management system with the implementation of food safety systems such as HACCP

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ISO 22000

- ISO2000 is a Food Safety Management System that uses a management systems approach as well as a HACCP process.
- The goal of ISO 22000 is to provide one internationally recognised standard for a food safety management system that can be applied to any organisation in the food chain.

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BRC Global Standard

Some principles of BRC Global Standard:

- The importance of management commitment
- HACCP (Hazard Analysis and Critical Control Point) based food safety programmes
- Quality management systems
- Auditing good manufacturing processes
- Developing systems
- Promoting greater resilience, transparency and traceability in the supply chain

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IFS

- The IFS Food Standard is a globally recognised food safety standard for auditing food manufacturers. The focus is on food safety and the quality of processes and products.
- The IFS Food Standard is used to audit food manufacturers regarding food safety and quality of processes and products. The list of requirements is organised in the following topics:
  - Senior management responsibility
  - Quality and food safety management system
  - Resource management
  - Planning and production process
  - Measurements, analysis, improvements
  - Food Defense

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Organic Standards

EU legislation ensures that ‘organic’ means the same for consumers and producers all over the EU, and is covered by legislation (Council Regulation (EC) No. 834/2007). Included are the following:

- The production respects nature.
- The products are produced in a sustainable way.
- The operators of organic production are controlled once per year by control bodies or control authorities to ensure that they respect all organic rules and all health and consumer protection rules.
- Farm animals are freely grazing in the open-air and they are treated according to enhanced animal welfare conditions.
- Genetically modified organisms are not allowed.
- For food, there are strict limitations to the use of chemical pesticides and fertilisers, antibiotics
- Organic agriculture strictly limits the use of food additives and processing aids and other inputs.

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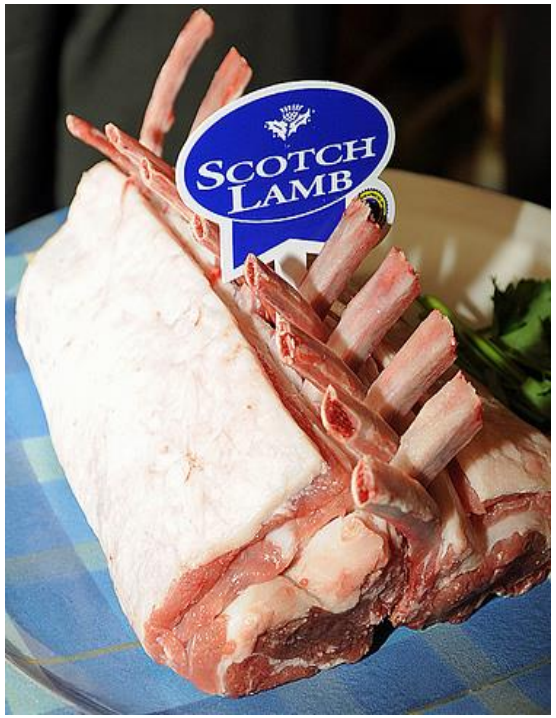
EU PROTECTED FOOD NAME SCHEME



TRADITIONAL SPECIALITY GUARANTEED

PROTECTED DESIGNATION OF ORIGIN

PROTECTED GEOGRAPHICAL INDICATION

NIRAS

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Overview of the EU PFN Scheme

- Scheme rolled out in 1993
- Scheme similar to *Appellation d'origine contrôlée* (AOC),
- To protect food and drink on a geographical or recipe basis

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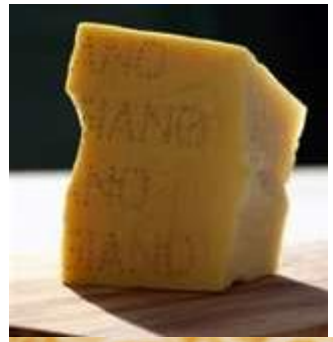
The Logos and what they mean

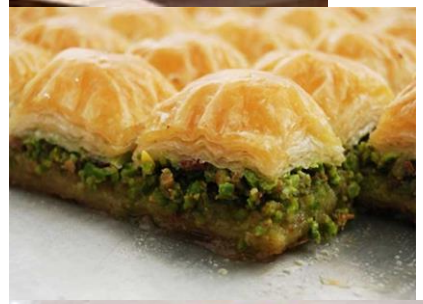
Protected Designation of Origin (PDO)

- **Products** are **produced, processed** and **prepared within a particular area** **eg Parmeggiano Reggiono**



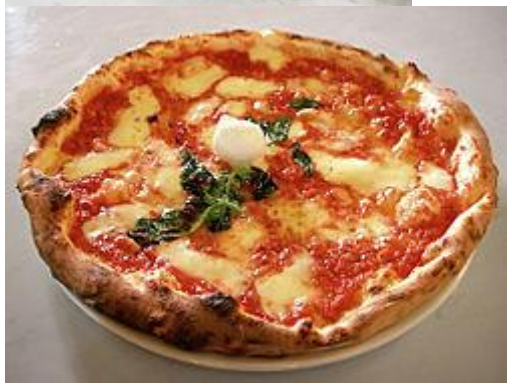
Protected Geographical Indication (PGI)

- **Products are** either **produced** or **processed** or **prepared within a particular area** **eg Antep Baklavası/Gaziantep Baklavası**



Traditional Speciality Guaranteed (TSG)

- **Products are not determined by geography but based on Traditional methods or recipe** **eg Pizza Napoletana**



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What's eligible for protection…?

- Most foodstuffs fit for human consumption including: eggs, honey, milk products, vegetables, cereals, spices, natural gums and resins, mustard paste
- Beverages made from plant extract, bread, pastry, confectionary, biscuits
- Also non food products such as:
  essential oils, cork, cochineal, wool, osier and baker's wares

EC Regulation 1151/2012 on quality schemes for agricultural products and foodstuffs

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Questions and Discussions

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