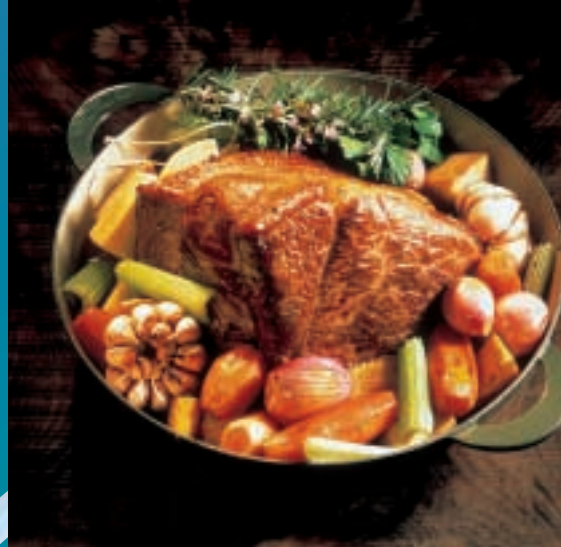


# THE SAFE FOOD CHAIN ...



... Every Link  
is Vital



THE DEPARTMENT OF  
AGRICULTURE & FOOD  
AN ROINN TALMHAÍOCHTA AGUS BIA

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# ... Every Link is Vital

**DEPARTMENT OF AGRICULTURE AND FOOD**



THE DEPARTMENT OF  
**AGRICULTURE & FOOD**  
AN ROINN TALMHAÍOCHTA AGUS BIA

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This booklet provides an outline only of food safety controls operated by the Department of Agriculture & Food and has no status in law



## Foreword



This publication was first produced in November 2001. I am pleased to see that its success has demanded that an updated version should issue. The booklet describes the role of the Department of Agriculture and Food in ensuring that only products which meet the highest standards of safety and

quality enter the food chain.

The Department has a long and proud record in the development of the food industry and ensuring that consumer health and safety are at all times protected. In its hundred years in existence the Department has overseen the transformation of an industry based on subsistence farming to a modern one which not only provides high quality food for our own population but for millions around the globe. In that time farming systems have radically changed, food processing and distribution methods have been revolutionised and the food chain has, accordingly, got more complex. In the past decade consumer concerns about the way food is produced and the need for greater integrity and transparency along the chain have been brought firmly to the fore. The overall perceptions and expectations of society have also radically changed in that society wants food from farming systems that are economically, environmentally, ethically and socially sustainable.

The agriculture and food industry is so vital to our economy that we must be ready to meet those challenges and remain world leaders in the supply of safe and high quality food. At EU level I have overseen the most fundamental shift in agricultural policy since we joined the Community. The recent reform of the Common Agriculture Policy incorporates a strong emphasis on food safety and continues to enable producers to be both efficient natural food suppliers and guardians of the landscape and environment. The countryside visitor cannot be but impressed by the way these symbiotic roles are being fulfilled. The level of regulation of activities inside every farm gate is immense: rules on animal health, animal welfare, traceability, feedingstuffs, hygiene, chemicals, medicines and other elements of production are in place and rigorously enforced by my Department.

The logo of the Department shows that the Department's role also extends outside the farm gate. In this regard the Department is responsible for the safety and integrity of the food up to the processing stage and beyond. As at the beginning of the food chain new rules continue to be adopted in light of consumer concerns and the most up-to-date scientific knowledge. The range of new proposals from my colleague David Byrne, EU Commissioner for Health and Consumer Protection, on food law including the setting up of the European Food Authority will provide further guarantees on the safety of our food. I wish to stress, however, that a safe food culture and practice is the responsibility of the industry itself with the role of the regulatory authorities being that of ensuring compliance with the regulations and assisting in the attainment of the highest standards. The Department of Agriculture and Food has





considerable resources devoted to this task with over 2,000 officers involved in inspection, monitoring, surveillance and administration. This is in addition to the food safety activities undertaken by Teagasc, Bord Bia and Bord Glas which are under my aegis.

Food safety is the cornerstone of the Irish food industry; it is a non negotiable element of the production system. As was clearly demonstrated during the Foot and Mouth Disease crisis in 2001, the Department's commitment to the protection of our food industry is total and there is no room for compromise. This booklet provides an outline of the measures put in place by the Department of Agriculture and Food to ensure the safety and integrity of the food chain. Producers, processors, distributors and others have, however, the primary responsibility for ensuring that only safe food is placed

on the market. In this regard, each business or link along the food chain has an equal and vital role. The success of the Irish food industry has been based on the attainment of the highest standards of safety and quality. I will ensure that we continue to build on these standards in order that the food industry can grow to its full potential.

**Joe Walsh TD**  
*Minister for Agriculture and Food*



**Liam Ayleward TD**  
*Minister of State*



**Noel Treacy TD**  
*Minister of State*



**John Malone**  
*Secretary General of Department  
of Agriculture and Food*

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## 1. INTRODUCTION

Ireland generally enjoys an excellent reputation throughout the world for its food and drink. The extensive grass based production systems underpins a food industry that is safe and natural and in harmony with the environment. In 2001, the Agri-Food Industry was worth €16.9 billion and exports of €6.8 billion. The sector provided a livelihood for just under 114,000 farmers and direct employment in manufacturing for 53,000, which accounts for almost 10% of total employment.

While the industry has continued to grow, it has done so against a background of growing concern about food safety and consumers have raised many questions about production methods, animal welfare and environmental issues within an overall food safety context. The EU and national governments have addressed these concerns through far ranging policy reforms and comprehensive food safety measures. The key elements in the reform of the CAP that was agreed by the EU Council of Ministers on 26 June 2003 in the context of the Mid-Term Review of Agenda 2000 include further enhanced links between direct payments and respect of environmental, food safety and animal welfare standards and the transfer of funding to a strengthened rural development policy offering new measures to promote the environment, quality and animal welfare and to help farmers to meet EU production standards.

The Food Safety Authority of Ireland, which was established by the Government in 1998, has provided a single focus for all the state agencies involved in food safety regulation thereby guaranteeing the integrity of the control system in place in the processing, distribution and retail of food. The Department of Agriculture and Food has the key role in ensuring that the legal requirements set down in national and EU regulations are fulfilled at the primary production stage up to the processing stage and beyond that for some sectors.

It must be emphasised, however, that the attainment of high standards of safety and integrity in the food chain rests primarily with the industry itself with the role of the regulatory authorities being that of providing the assurances required by law. The Department of Agriculture and Food is committed to pursuing the highest possible standards of food safety for those parts of the food production chain for which it has responsibility.

This booklet outlines how these standards are achieved and the systems in place to protect the consumer.

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## 2. IRISH FOOD SUPPLY

The four and a half million hectares of Irish farmland, which carries a national livestock of sixteen million, a poultry flock of thirteen million and a crop area of about half million acres, is the primary source of Irish food. The annual output from this base is in the order of one million tonnes of meat, over five and half million tonnes of milk and five million tonnes of crops and vegetables. Output of meat and milk is very much in excess of domestic requirements and, accordingly, the food industry has a major export dimension making it one of the most important sectors of the economy. The food sector also has a very significant import dimension particularly for consumer products but also in more recent years for basic commodities particularly pigmeat and poultry meat.



In 2001 the agri-food sector accounted for 8.4% of GDP and almost 10% of total employment. Output in this sector accounted for €16.9 billion with exports to the value of €6.8 billion and agri-food imports totalling approximately €3.9 billion. The value of Agri-food imports is in the order of £2 billion. The contribution of the sector to net foreign earnings is very significant when account is taken of the very high proportion of indigenous inputs into the sector. While export markets are critical for the industry, the domestic market remains of vital importance. The food industry can only grow in an environment where there is a favourable domestic and international perception of the quality and safety of Irish food. In this regard the domestic market provides a 'shop window' for all that is best in Irish food.

|                             |                      |
|-----------------------------|----------------------|
| Total Land Area             | 6.9 million hectares |
| Total Land Used for Farming | 4.7                  |
| Total Grassland             | 4.3                  |
| Total Crops                 | 0.4                  |

|            |             |
|------------|-------------|
| No Cattle  | 7.0 million |
| No. Sheep  | 7.2         |
| No Pigs    | 1.8         |
| No Poultry | 12.7        |

Source: CSO



## THE FOOD SUPPLY

| Meat       | Produced<br>in Ireland | Exported<br>(tonnes) | Imported<br>(tonnes) | Human Consumption<br>in Ireland |
|------------|------------------------|----------------------|----------------------|---------------------------------|
| Beef       | 579,000                | 297,000              | 16,000               | 66,000                          |
| Sheepmeat  | 78,000                 | 59,000               | 2,000                | 21,000                          |
| Pigmeat    | 239,000                | 141,000              | 50,000               | 149,000                         |
| Poultry    | 123,000                | 44,000               | 39,000               | 118,000                         |
| Other meat | 5,000                  | 5,000                | 9,000                | 9,000                           |

| Animal Products – Milk            |           |         |        |         |
|-----------------------------------|-----------|---------|--------|---------|
| Total Milk <sup>1</sup> (ex farm) | 5,518,120 | –       | –      | –       |
| <i>Drinking Milk</i>              | 611,000   | 23,000  | 24,000 | 612,000 |
| <i>Cream</i>                      | 21,000    | 3,000   | 8,000  | 10,000  |
| <i>Butter</i>                     | 138,000   | 115,000 | 5,000  | 11,000  |
| <i>Cheese</i>                     | 123,000   | 107,000 | 19,000 | 21,000  |
| <i>Milk Powder</i>                | 127,000   | 84,000  | 6,000  | 0       |
| <b>Eggs (million)</b>             | 644       | 1,000   | 7,000  | 36,000  |

| Crops and Vegetables           |           |         |         |                      |
|--------------------------------|-----------|---------|---------|----------------------|
| Principal Cereals <sup>2</sup> |           |         |         |                      |
| – 2001/2002                    | 2,165,000 | 406,000 | 638,000 | 410,000 <sup>3</sup> |
| Potatoes – 2000/2001           | 476,000   | 20,000  | 267,000 | 553,000              |
| Vegetables – 2001/2002         | 269,000   | 75,000  | 230,000 | 399,000              |

Source: CSO Supply Balance 2001

<sup>1</sup> Figure is equivalent to 5359 million litres. Source: DAF

<sup>2</sup> Principal Cereals has been calculated as the sum of barley, wheat and oats

<sup>3</sup> Human Consumption (398,000 tonnes wheat and 12,000 tonnes oats)

## Food Consumption

An analysis of per capita consumption data of the various food products over time provides valuable information on consumer trends and preferences.

Changes in consumption are due to numerous factors, including the move to more convenient foods, changing lifestyles, nutritional and health issues, price and safety.

In the accompanying table, comparative data for Irish consumption of selected basic food products between 1999 and 2001 are presented. A comparison between average Irish consumption and EU consumption for these products is also outlined.

This data shows that per capita consumption of meat and dairy products in Ireland is well above the EU average.

### IRISH CONSUMPTION OF SELECTED FOOD ITEMS (Kg per person)

|                             | 1999  | 2001  | % Change<br>1999/2001 |
|-----------------------------|-------|-------|-----------------------|
| All Meats                   | 102.3 | 94.3  | -7.8                  |
| Beef & Veal                 | 17.1  | 17.1  | 0                     |
| Pigmeat                     | 41.4  | 38.8  | -6.3                  |
| Sheep Meat                  | 9.0   | 5.5   | -38.9                 |
| Poultry Meat                | 33.1  | 30.7  | -7.3                  |
| Drinking Milk (litres)      | 159.2 | 154.7 | -2.8                  |
| Dairy Products <sup>4</sup> | 12.1  | 10.9  | -9.9                  |
| Eggs                        | 6.9   | 9.4   | 35.1                  |
| Fruits <sup>5</sup>         | 51.3  | 158.9 | 209.9                 |
| Vegetables                  | 91.3  | 103.9 | 13.8                  |
| Potatoes <sup>6</sup>       | 145   | 146   | 0.7                   |

Source: CSO

<sup>4</sup> Butter, cheese and cream – kgs

<sup>5</sup> 2001 figure includes fruit content in juices

<sup>6</sup> Including whole and processed

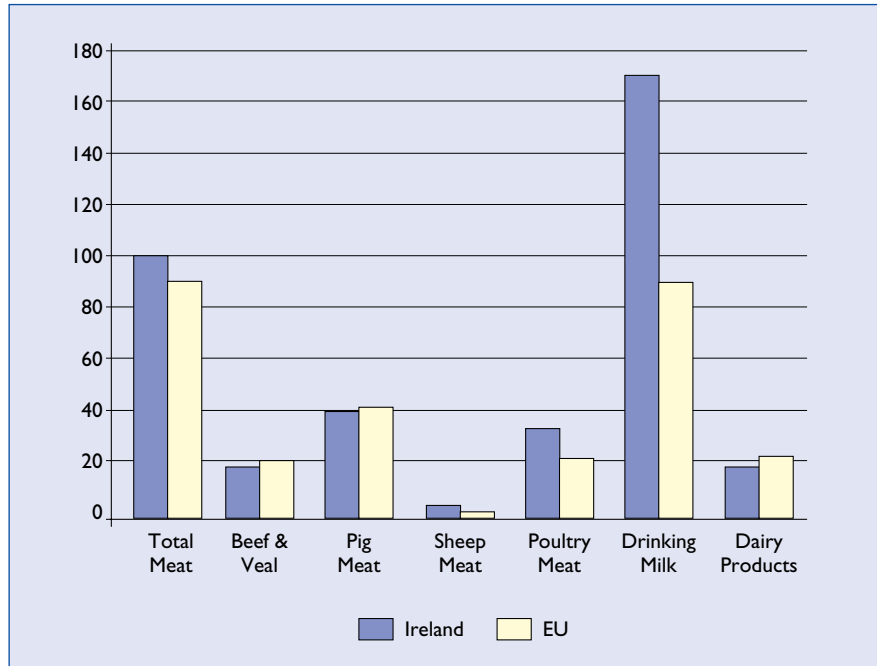




The figures show the following:

- The average Irish person consumes about 94 kg of meat per annum, 155 litres of milk, 11 kg of dairy products, 9 kg of eggs, 159 kg of fruit, 104 kg of vegetables and 146 kg of potatoes.
- Pigmear consumption per head represents about 41% of total Irish meat consumption, poultry meat 33%, beef and veal 18% and sheepmeat 6%.
- Consumption of drinking milk in Ireland is twice the EU level with cheese consumption the reverse. Butter consumption in Ireland is also below the EU average. Consumption of milk and dairy products has fallen since 1996 by 6% and 11%, respectively.
- Per capita potato consumption in Ireland is double that of average EU consumption.

### EU AND IRISH CONSUMPTION OF SELECTED FOOD ITEMS (Kg per person)



Source: CSO Meat supply balance 2002 average 1999-2001

Drinking milk and dairy products: EUROSTAT New Cronos Database average 1996-1998 (figures after this date were unavailable at the time of publication.)

## 3. THE FOOD CHAIN

### 3.1 The Links

The overriding principle in the production of food is the safety of the consumer. Accordingly, only food of the highest standards of safety should be placed on the market and those businesses involved at each link of the chain have primary responsibility for ensuring that these standards are met. Producers, processors, distributors, retailers, caterers, etc. all share responsibility in this process with the role of the regulatory authorities being that of ensuring that the standards achieved are in compliance with the food safety legislation.

#### Assurance

Safe food production is, therefore, an integrated process where the primary producers are linked with the processors and distributors right through the chain to the consumers. The strengthening of this chain is the main thrust of current and pending EU legislation at the core of which is a traceability system that will provide the necessary transparency and assurance to the consumer on the origin and production of the food. The National Beef Assurance Scheme and the EU Beef Labelling Scheme, which are implemented by the Department of Agriculture and Food, provide the consumer with these assurances for one of our most important food products. In May 2001 a comprehensive traceability system was implemented in the sheepmeat sector, with a similar system implemented in the pigmeat sector in July 2002.

In July 2002, the National Pig Identification and Tracing System, was implemented in conjunction with the pig industry. Numerous *Quality Assurance Schemes* have developed in response to consumer concerns apart from commercial reasons. These schemes are voluntary and are aimed at fostering best practice in the production and processing of food. They also help to develop much valued partnership arrangements between the various links in the chain. The absence, however, of a formal yardstick against which they are measured may have some drawbacks for both consumers and the industry at large. A review group,<sup>7</sup> representative of all sectors of the food industry, examined this and other issues regarding quality assurance schemes and recommended that accreditation to a recognised international standard (EN45011) should be a prerequisite for all such schemes in future in order to have the utmost credibility with the consumer.

### 3.2 The Regulatory Authorities

The Food Safety Authority of Ireland (FSAI) has overall responsibility for the co-ordination and enforcement of food safety legislation in Ireland. It is a statutory, independent, science based agency which was set up in 1998 dedicated to protecting public health and consumer interests in the area of food safety and hygiene. The FSAI carries out this remit through service contracts with the Department of Agriculture

<sup>7</sup> Report of the Food Quality Assurance Schemes Review Group (DAFRD)

## *The Safe Food Chain ...*

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and Food (DAF), the Department of Communications, Marine and Natural Resources, the Office of Director of Consumer Affairs, the thirty three Local Authorities, the ten Regional Health Boards and the Marine Institute. DAF has service contracts with the FSAI in meat hygiene, milk and milk based products, egg and egg products, pesticide control service, border inspection posts, the residue monitoring programme and the zoonoses directive involving some 1600<sup>8</sup> officers (full and part time). The total number of food safety inspection staff involved in all the agencies under contract to the FSAI is approximately 2300.

With regard to the on-farm primary production,

including farm inputs, the Department of Agriculture and Food has responsibility for ensuring that only animal and plant material that fulfills the most stringent regulatory conditions and controls is allowed into the food chain. Most of the Department's food safety resources are engaged in these activities.

The Department also co-operates with the Food Safety Promotions Board (FSPB) in the delivery of its remit. The mission of the FSPB, which was established under the terms of the Good Friday Agreement, is to foster and maintain confidence in the food supply in the island of Ireland by working in partnership with others to protect and improve the public's health.



*The Department is actively concerned about consumer issues. Pictured at a meeting in Dublin Castle on Consumer Protection issues in October 2002 were, from left to right: Mr Joe Walsh, TD, Minister for Agriculture and Food, Ms Mairéad Mc Guinness, Chair of the Consumer Liaison Panel and Mr. David Byrne, Commissioner for Health and Consumer Protection.*

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<sup>8</sup> breakdown: 1,082 Veterinary Inspectors (956 temporary), 95 Agricultural Inspectors, 86 Laboratory Staff, 309 Technical Agricultural Officers and 51 Administrative Staff

## 4. DAF CONTROLS IN THE FOOD CHAIN

The production of food to the highest possible standards of safety within sustainable farming systems is one of the major goals and objectives of the Department of Agriculture and Food. The Department pursues this objective through the deployment of some 2,000 staff in monitoring, surveillance and inspection services along the links of the food chain within its area of responsibility:

- through the enforcement of strict regulatory standards regarding registration, identification and labelling, farm inputs, animal health, animal welfare, veterinary hygiene, animal remedies, plant health and pesticides;
- through the enforcement of EU and national rules relating to transport, marketing centres, processing plants, storage and distribution operations;
- through the control of imports and exports of animals and plants and animal and plant products;
- through the network of veterinary research laboratories, dairy science laboratories, the pesticide laboratory and private laboratories;
- through close co-operation with the FSAI and other Government Agencies on food safety issues.

The Department also enforces food safety controls under the direct payments schemes through cross-compliance with environmental, animal welfare and food hygiene regulations. In 2002 direct payments in support of farm incomes and environmental measures

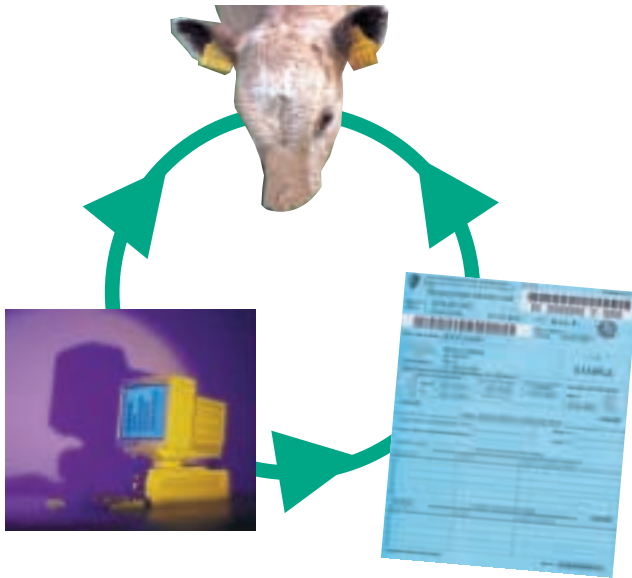
amounted to approximately €1 billion. Under the Agenda 2000 CAP reform programme, standards of **Good Farming Practice** were introduced for producers in receipt of EU payments, who make up a large majority of farmers. Good Farming Practice obliges producers to fulfil minimum environmental, animal welfare and hygiene requirements or suffer penalties of up to 100% of their annual payments in certain cases. In addition the **Rural Environmental Protection Scheme (REPS)**, which was introduced as part of the 1992 CAP Reform Programme and continues under Agenda 2000, sets down standards for participants which go beyond Good Farming Practice. Some 45,000 farmers participated in the first REPS and the Department is seeking to maximise participation under the second Scheme, which runs from 2000–2006. The Department has a system of strict controls on REPS farmers, underpinned by financial penalties, to ensure that they fulfil minimum farming conditions of which food safety is an important one.

With regard to the overall development of the food industry the Department provides assistance to food companies, State agencies and research institutions under the National Development Plan. For the period 2000-2006 a total of £358 million in State funds has been earmarked for the industry's needs of which investment in the improvement of food safety related activities commands a priority.



#### **4.1 HERD REGISTRATION AND ANIMAL IDENTIFICATION**

To provide for full traceability right through the food chain as well as the control of animal diseases and the payment of premia under the various EU support schemes, the Department of Agriculture and Food operates a system of herd registration and animal identification. In addition, where the producer has applied for direct payments, every plot of land on the holding is mapped and registered by the Department. This system now covers over 80% of Irish farmland.



*The traceability of beef involves cattle ear tagging with a unique number; a passport and central computer database.*

Since August 2001 all persons dealing in animals or poultry must be approved and registered as dealers by the Department and, if applicable, must have their premises approved and registered. Under the legislation, factory agents and any other persons acquiring animals for clients even though such persons may not at any time be physically in possession of the animals as keepers, must also be approved and registered.

#### **Cattle**

All calves are tagged at birth with a unique identification number, registered on a central registration database and issued with a passport. The passport records all the movements of the animal and accompanies it throughout its life within the EU.

A herd register must be maintained on each holding. The register records information on all births, purchases, sales and deaths of bovine animals on the holding.

The movement of all bovine animals, including birth and deaths, is also captured on a central database called the Cattle Movement Monitoring System (CMMS). The CMMS became fully operational at the beginning of 2000 and the information recorded on it is used to verify the origin, identity and life history of bovine animals entering the human food chain.

## Sheep

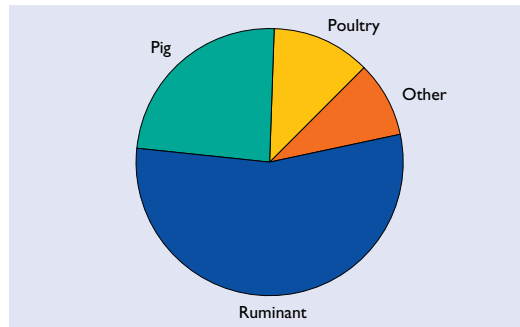
The National Sheep Identification System (NSIS), came into effect in June 2001. It involves the individual identification of all sheep by tagging. Under NSIS all sheep of Irish origin must carry a tag containing the country code for Ireland (IE), the flock number of the farm and an individual number. Farmers must record details of all sheep on the farm and all movements on and off the farm. In the slaughter plants, the country code, the flock number and the individual number must be recorded on a label on the finished carcass. This system provides full traceability back to the individual sheep and farm where it was produced. In the case of live sheep imports, the details from the tag of the country of origin must also be recorded on the label put on the finished carcass.

## 4.2 FEEDINGSTUFFS

The 4.3 million hectares of Irish grassland provides about 80% of the diet of cattle and sheep with the balance mainly provided by compound feedingstuffs<sup>9</sup>. In the case of pigs and poultry, compound feeds represent the main diet. Annual production of compound feed in Ireland is around 3.5 million tonnes with native cereals making up about one third of the ingredients. The remaining ingredients, predominantly plant proteins, are imported mainly from outside the EU.

<sup>9</sup> Compound feedingstuffs are manufactured from plant materials, mainly cereals and plant proteins, with minerals and vitamins added to provide a balanced diet. Meat and bone meal has been banned from all ruminant feedingstuffs since 1990 and from all feeds since 1 January 2001.

## COMPOUND FEED PRODUCTION 2001



*3.5 million tonnes of compound feed are produced annually*

## Controls on Feedingstuffs

The EU regulations governing the manufacture and control of compound feedingstuffs are numerous, detailed and complex. In the enforcement of these regulations the main objectives of the Department is to ensure that feedingstuffs:

- do not endanger food safety through misuse of additives or excess levels of undesirable substances or products
- meet the minimum quality requirements laid down in law and that farmers are provided with accurate labelling information on the quality of products purchased
- do not pose a risk to animal health
- are fully traceable

The Department achieves these objectives through its inspection and laboratory services where samples are





checked/analysed for illegal substances, zoonotic pathogens, labelling and analytical declarations.

### Licensing and Registration

A licence is required to manufacture a compound feed or a premixture/mineral mixture for sale. Currently the Department has licensed 110 establishments for the manufacture of compound feeds and premixtures/mineral mixtures. In addition, all livestock producers who produce compound feedingstuffs must be registered or approved by the Department. Home compounded feed can only be used on the farm and cannot be traded.

### Traceability

Under the marketing of compound feedingstuff, manufacturers and retailers who place a compound feedingstuff on the market are obliged to keep records to ensure full traceability of all compound feeds sold. The information recorded includes a list of all the



*There are 110 Feed Mills licenced by the Department of Agriculture and Food.*

ingredients, the source of these ingredients, the date of manufacture of the feedingstuff and the purchaser of the feedingstuff.

## 4.3 ANIMAL HEALTH AND WELFARE

### 4.3.1 ANIMAL HEALTH

The Department's Veterinary Services primary objective is to safeguard animal health and public health by preventing, controlling and eradicating animal and zoonotic<sup>10</sup> diseases. The Diseases of Animals Act, 1996 provides the basic legislation for the control and eradication of animal diseases. The work of the Department under this legislation entails disease control in 16 million farm animals and 13 million birds on some 141,000 holdings and the movement of all animals between farms, marts, ports and abattoirs.

|                          |   |         |
|--------------------------|---|---------|
| No holdings with cattle  | – | 124,108 |
| No holdings with sheep   | – | 43,682  |
| No holdings with pigs    | – | 1,280   |
| No holdings with poultry | – | 10,652  |

### Notifiable Diseases

There are a number of animal diseases which if suspected or diagnosed must be notified to the Department or the Gardai. These are called 'notifiable diseases'. The most widely known of these diseases include Foot and Mouth Disease, Rabies, BSE, Scrapie, T.B and Brucellosis. A disease such as Foot and Mouth

<sup>10</sup> Zoonotic diseases are animal diseases which can infect humans.

Disease, while not of concern for human health, has serious implications for the farming and food industry and the economy in general. The successful eradication of the single outbreak in March 2001 and the prevention of further outbreaks manifested the scale of the effort required by the Department's Veterinary Services and the public at large in combating this disease. Because of the serious threat that this disease poses, extreme vigilance to prevent its entry to the country must continue to be maintained.

### Imports of Live Animals

The importation of live animals poses a threat to the current high health status of our national livestock herd. Under the EU veterinary regulations, quarantine control on live farm animals coming from other EU countries has been removed and border checks are no longer applicable to such trade. While live farm animals are subject to veterinary inspection at their place of origin in the exporting country and at their place of destination in the importing country, the implementation of voluntary codes of practice which



DAF officers at Border Inspection Point

provide for additional protection measures are necessary to safeguard against the introduction of diseases which would cause serious economic loss to the food industry if introduced into the country.

### Disease Eradication Programmes

#### *Bovine Tuberculosis and Brucellosis*

*Bovine Tuberculosis (TB)* is a chronic disease in cattle that can be passed on to humans mainly through drinking unpasteurised milk<sup>11</sup>. TB is detected in animals by the tuberculin test and by post mortem veterinary examination at slaughter. *Brucellosis* in cattle is a highly contagious disease which can be transmitted to humans by inhalation, cuts and abrasions, by droplet infection but most commonly by drinking raw milk from infected cows. The only clinical symptom of *brucellosis* in cattle is abortion and it is obligatory under the Diseases of Animals Act to report all abortions to the Department's local District Veterinary Office (DVO).

Because of the risks posed to human health in certain circumstances and the adverse impact on markets, it is the policy of the Department to eradicate both diseases through testing, movement restrictions and depopulation. Currently between 3% and 4% of herds are restricted as part of the TB eradication programme. In 2002 approximately 0.4% of the cattle population was removed as TB test reactors. Progress in reducing the level of disease below these levels is proving difficult. Pasteurisation of milk and post mortem

<sup>11</sup> The sale of raw milk for human consumption has been prohibited in Ireland since 1997





examinations of cattle at slaughter provide protection to consumers.

The number of herds restricted for *Brucellosis* is on a downward trend having fallen from over 1000 herds in 1998 to a current level of about 150. The Department's objective is to eliminate the final sources of infection by depopulating brucellosis herds where there is active infection shown up in blood tests and milk tests.

### BSE

BSE (*Bovine Spongiform Encephalopathy*) is a disease affecting the brain and nervous system of cattle. The first case of BSE in Ireland was diagnosed on 25 January 1989 and up to 31 July 2003 1,271 cases were diagnosed. The incidence of the disease in Ireland is very low representing approximately 0.002% of the total cattle population of 7.5 million animals. The Department's primary objective is to protect the consumer from any possible transmission of the infective agent through the food chain and to eradicate the disease from the national herd. The measures involved include a targeted active surveillance programme, the testing of all animals over 30 months and the implementation of a comprehensive series of control measures. The epidemiological studies of the BSE cases diagnosed in recent years indicates the effectiveness of these measures.

### Department Controls

The following controls are operated by the Department:

- **Destruction:** the destruction of suspect animals and the depopulation of the entire herd where the

suspect animal is confirmed positive for BSE. In all cases the progeny and the birth cohorts of the affected animal are traced, purchased at market value, slaughtered and destroyed in the same manner as depopulated herds.

- **Ante Mortem Inspections:** all animals are visually inspected before slaughter in meat factories for signs of BSE. As BSE is a compulsory notifiable disease, there is a statutory obligation on veterinary surgeons, farmers and all other persons in charge of bovine animals to notify the Department of any such animal suspected of being affected by BSE
- **Testing of over 30 month cattle:** under EU regulations all cattle over 30 months old are tested for BSE at slaughter. Animals which fail the test are excluded from the food chain.
- **Removal of Specified Risk Material (SRM):** the cause of BSE is an infectious prion located in the nervous tissues of animals. These tissues are termed Specified Risk Material and are not allowed into the food chain (see SRM Controls, page 23)



- **Meat and Bone Meal (MBM):** since 1990 meat and bone meal has been banned from inclusion of the diets of ruminant animals. Since January 2001 the ban has been extended to all food producing animals. The Department enforces very strict controls in the production and disposal of MBM. This is done through an inspection and licensing procedure.

#### 4.3.2 ANIMAL WELFARE

All animals that interact with humans are protected by animal welfare legislation. The purpose of these laws is to ensure that animals are treated in a humane manner. Irish farmers have a good record in the care and welfare of animals. The extensive grass based nature of Irish livestock production provides the ideal welfare environment for animals to grow in a stress free natural habitat. Such animals are less prone to diseases requiring veterinary treatment and the possibility of undesirable substances getting into the food chain is significantly diminished. The treatment of animals outside the farm gate during transport and in marts and in abattoirs must also ensure that stress is kept to a minimum. Adequate space, feed, watering, rest periods etc. are critical in this regard.

While Irish animal welfare legislation goes back as far as 1911, there is now a significant body of EU and national legislation in place which covers all aspects of animal welfare on the farm, during transport, at marts, in abattoirs and on the seas. This legislation is backed up by International Conventions on Animal Welfare to



which the Government is a signatory. These Conventions include the protection of animals during transport and at slaughter. New legislation on animal welfare is continuing to be adopted by the EU to meet the demands of the public for the highest ethical standards and provide a further boost to consumer confidence. For example, the tethering of sows on pig farms must be phased out by December 2005, and battery cages for hens must be phased out by 2012.

#### 4.4 VETERINARY MEDICINES

The legislation governing veterinary medicines (The Animal Remedies Act, 1993, the Animal Remedies Regulations, 1996 and the Control of Animal Remedies and their Residues Regulations, 1998) is strictly enforced by the Department. All animal remedies are required to be authorised by either the Irish Medicines Board or by the Minister for Agriculture and Food. Animal remedies may only be used in accordance with the conditions attached to the product authorisation.





The manufacture, importation, sale, possession and use of unauthorised products is prohibited save under licence. It is an offence not to observe the proper dose rate and withdrawal period stated on the product label. The control of veterinary medicines include the following:

- growth promoting hormones are strictly banned;
- antibiotics, corticosteroids and prostaglandins are prescription only medicines;
- other veterinary substances that do not require a veterinary prescription are strictly controlled; the sale of all animal remedies is prohibited save under licence of the Minister.
- a registered veterinary surgeon may only supply or prescribe medicines for the treatment of animals under his or her professional care and concerning which he or she has been consulted in a professional capacity.

### Penalties

Investigations are carried out on farm and at meat factories to detect the use of illegal substances or abuses of authorised substances. Where evidence of the use of hormones or other prohibited substances is found in an animal or its carcase, the carcase will be condemned and live animals found to be illegally treated will be permanently excluded from the food chain. Food produce is also monitored for residues of authorised medicines. Residue violations will

result in condemnation of produce, on-farm investigations and possible prosecution. Sale outlets are also subject to inspection. Severe penalties are imposed for the sale, possession and use of unauthorised animal remedies; a person found guilty of an offence may be prohibited from keeping animals or animal remedies. Penalties range from £1,000 (€1,270) and/or 1 year imprisonment for a person convicted on summary prosecution to £250,000 (€317,500) fine and/or 10 years imprisonment for a second conviction on indictment.

Since 1996, a total of 226 people have been convicted of offences under animal remedies legislation, with 66 people receiving custodial sentences and fines totalling €0.89m imposed.

### Records

Farmers are required to record the administration of all animal remedies which are designated veterinary surgeon use only, prescription only, pharmacy only and any medicine for food producing animals which requires observation of a withdrawal period, e.g. anthelmintics, intramammaries. The form of record is set out below:

| Date     | Name of animal | Name of medicine | Other details |
|----------|----------------|------------------|---------------|
| 27-11-11 | VERISIL        | 201522005        | 11-11-11      |
| 28-11-11 | POULTRY - W    | 201111111        | 28-11-11      |
| 29-11-11 | WATER PIG      | 201111111        | 29-11-11      |

| Date     | Name of animal | Name of medicine | Other details |
|----------|----------------|------------------|---------------|
| 27-11-11 | VERISIL        | 201522005        | 11-11-11      |
| 28-11-11 | POULTRY - W    | 201111111        | 28-11-11      |
| 29-11-11 | WATER PIG      | 201111111        | 29-11-11      |

*All veterinary medicines administered to animals on the farm must be recorded in the register.*

## Residues

### *Residue Monitoring*

The Residue Monitoring Plan is one of a range of measures implemented by the Department that is designed to safeguard consumers from illegal residues. The range of products sampled includes red meat, white meat, milk, aquaculture, wildgame and poultry. Samples are taken at both farm and primary processing plant levels, but designed to target animals or products, which are more likely to contain illegal residues. Where a positive result is detected in the laboratory, a follow-up



*All food products are sampled for residues*

investigation is conducted at the farm of origin with a view to taking the necessary enforcement measures.

Meat processors are also obliged to implement approved residue monitoring measures in respect of animals supplied to them. Where animals test 'positive', each processor must apply significantly increased levels of testing to subsequent consignments of animals from the suppliers in question.

### *Results of Tests*

While the objective of the Department of Agriculture and Food is to eliminate all residues from food, the results of the monitoring tests for 2002, nevertheless, provide a reassuring message for consumers. Of the 74,665 samples taken across eleven sectors there were 398 positive for residues representing 0.53% of the total sampled. There were no residues detected in eggs, equine, game or honey while residues in milk, poultrymeat and sheepmeat were also practically absent. During 2002, despite a continued high level of monitoring both at farm and factory levels, no residues were found of growth promoters covered by the EU hormone ban. The absence of banned hormonal growth promoter in Irish beef and other meat, as indicated by these results, is reassuring for consumers and reflects the fruits of rigorous enforcement by the Department in past years and the responsible approach being adopted by farmers.





## RESULTS OF RESIDUE SAMPLING IN 2002

| Sector                    | No. of Samples | No. of Positives | Type of Residue                              |
|---------------------------|----------------|------------------|--|
| Aquaculture <sup>12</sup> | 1,087          | 32               | B3 (e) Malachite Green/Leuco Malachite Green |
| Bovine                    | 9,112          | 71               | Antibiotics                                  |
| Eggs                      | 188            | none             | none   |
| Equine                    | 535            | none             | none   |
| Farmed Game (Deer)        | 57             | none             | none   |
| Honey                     | 29             | none             | none   |
| Milk                      | 896            | 1                | Antibiotic                                   |
| Ovine                     | 1,444          | 6                | Antibiotic                                   |
| Porcine                   | 57,985         | 283              | antibiotic                                   |
| Poultry                   | 3,288          | 5                | Antibiotic                                   |
| Wild Game                 | 44             | none             | none   |
| <b>Grand Totals</b>       | <b>74,665</b>  | <b>398</b>       |  |

Source: DAF

## 4.5 PLANT HEALTH AND CROP PROTECTION

### PLANT HEALTH

The production of healthy crops of cereals, roots, vegetables and fruit is a key feature of a safe and sustainable food chain. The Department of Agriculture and Food plays a vital role in regulating the sector to prevent the import of harmful plant diseases, the prevention of contaminants and the overall maintenance of quality standards which contribute to safer food.

#### Quality Standards

Department officers enforce EU quality standards covering most fruit and vegetables marketed in Ireland

through inspections at wholesale and retail level. While the focus of these standards is to ensure visual uniformity, they also require that the produce must be free of any visible foreign matter and damage caused by pests and diseases. The product must be fit for human



<sup>12</sup>The Department of Communications, Marine and Natural Resources is a Regulatory Authority.

consumption. The Department also carries out on-farm audits under the Grain Assurance Scheme. This scheme raises awareness of the food safety aspects of crop production and is designed to give a measure of assurance that grain and other combinable crops marketed under the scheme are produced, handled, stored and transported according to a defined code of practice.



## CROP PROTECTION

All crops, despite the efforts of plant breeders and major technical progress, are vulnerable to destructive diseases and pests. Diseases and pests can reduce yield considerably and the quality of the end product is also affected. Plant protection products, therefore, play a vital role in the production of high quality products at prices, which can be afforded by the consumer.

The Department is responsible for the regulation and control of plant protection products and the monitoring of pesticide residues in food and feed.

Before any plant protection product can be sold to a grower, it must conform to very rigid controls in accordance with EU and Irish legislation. These controls are designed to ensure that no harmful effects arise for human and animal health and that there is no unacceptable influence on the environment.

Only plant protection products which can be used safely are authorised for marketing and use and then only in a manner that minimises the risks for consumers, workers and the environment. The use of plant protection products on crops for which they are not approved is not permitted.

### Residue Limits

Maximum Residue Limits are established to control the level of pesticide residues in plant and animal products. MRLs are the highest level of residue permitted in individual crops and which if continually present would still not pose a health risk to the consumer.

| Sample type           | % of samples exceeding the MRLs |
|-----------------------|---------------------------------|
| Fruit and Vegetables  | 3.4%                            |
| Cereals               | 0.0%                            |
| Food of animal origin | 0.0%                            |

Source: DAF

The Department's annual pesticide residue monitoring programme involves the analysis of samples of fruit and vegetables, cereals and food of animal origin (meat, milk and dairy produce). Both domestic and imported produce





is sampled. To ensure that producers of individual food consignments can be traced, sampling is mainly carried out at wholesale level or point of collection/assembly. In the case of meat it is done at factory level.

Each fruit, vegetable and cereal sample is analysed at the Department's Pesticide Control Laboratory for 89 pesticides/metabolites. The dairy produce and meat samples are analysed for 50 and 56 pesticides/metabolites respectively. Use is made of the most modern analytical technology and procedures with a view to detecting the most minute quantities of pesticides in food. To ensure the quality of the results, the laboratory has achieved accreditation to the highest international standard, ISO 17025.

The results of the analytical work which is given in the table shows that the number of samples exceeding the MRLs in 2000 is very low. This compares favourably with the results of other EU countries. Where MRLs are exceeded intake calculations are carried out to check that there is no danger to the consumer from the consumption of these products.

## 4.6 MEAT AND MEAT PRODUCTS

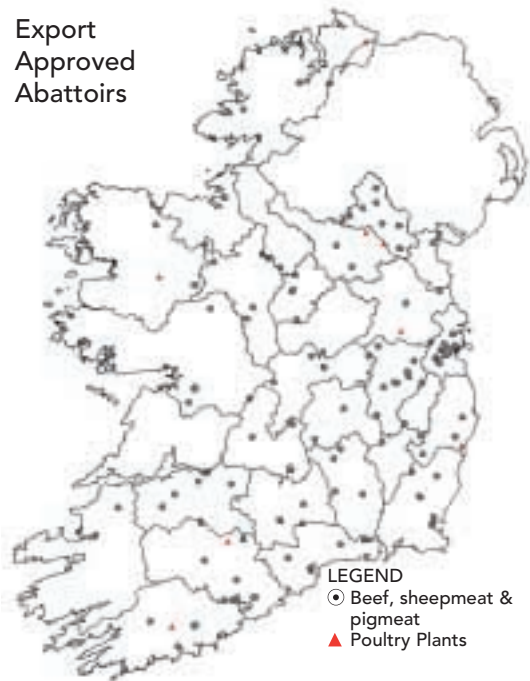
The Veterinary Public Health Service of the Department is responsible for ensuring that the highest achievable standards of food safety and animal welfare are achieved in meat processing plants. This is done through the operational delivery of effective monitoring, surveillance and inspection programmes in those plants. The legislation governing the production of meat is set out in the various EU and national regulations.

### 4.6.1 SLAUGHTERING/PROCESSING PREMISES

#### *Fresh Meat*

Only premises that meet the minimum standards set down in the meat hygiene regulations are approved by the Department to slaughter, process and store meat. Minimum standards relating to structures and equipment, operational programmes including a HACCP (Hazard Analysis Critical Control Point) plan, staff training and medical certification must be in place. Meat plants are broken down into two categories: 'export approved' and 'domestic'.

#### **Export Approved Abattoirs**



*DAF Veterinary Officers are permanently located in all major meat plants.*

### EU approved plants

All abattoirs slaughtering over 1000 units annually must be approved in accordance with the European Communities (fresh meat) regulations 1997. Plants approved under these regulations are entitled to export. As shown in the table there are a total of 204 plants with an export licence, including abattoirs, cutting plants and cold stores

| EU Approved Plants  |     |
|---------------------|-----|
| Total No. of Plants | 204 |
| of which: Abattoirs | 82  |
| Cutting Plants      | 113 |
| Cold Stores         | 72  |

Veterinary Inspectors (VIs) are permanently located in all EU approved slaughter houses and cutting plants and are responsible for the ante mortem inspection services, inspections of structural and operational hygiene standards and other controls. Other meat processing plants that do not have permanent veterinary presence are inspected regularly by Department Officers to ensure compliance with the meat hygiene regulations. VIs are assisted by technical agricultural officers in carrying out public health and associated duties. In addition to the Department's inspectorate, there are approximately 750 veterinary practitioners employed part-time by the Department to carry out meat inspection duties in EU approved abattoirs.

### Low capacity abattoirs

Plants which slaughter under 1,000 livestock units annually are termed low capacity abattoirs and they slaughter exclusively for the domestic market. These abattoirs are also subject to annual licensing by the Department but all the operational aspects - ante

mortem, post mortem examination, etc., are under the supervision and control of the Local Authority veterinary services.

The breakdown of slaughterings between export approved plants and domestic plants, outlined in the table on the following page, shows that 93% of all cattle sheep and pig slaughterings and all poultry slaughterings were carried out in export approved premises under the direct control of the Department of Agriculture and Food in 2002.

### 4.6.2 PROCEDURES IN SLAUGHTERING PLANTS

- **Ante-mortem Inspection:** Each animal presented for slaughter is examined by the Veterinary Inspector to assess its fitness for slaughter for human consumption. In the case of cattle, only animals which pass the CMMS check, which confirms ownership and traceability, are accepted. If the identity and origin cannot be established, the animals are seized and destroyed by the Department.
- **Post-mortem Inspection:** All animals are subjected to post-mortem inspection by a Veterinary Inspector to ensure that the meat is fit for human consumption. Meat unfit for human consumption is not allowed enter the food chain.
- **Checks on Hygiene Rules and Plant Operations:** The Veterinary Inspector carries out checks on all aspects of plant hygiene and operations including slaughtering, carcase dressing, handling of edible and inedible offals, cutting and further processing, wrapping, packing, storage and transport. The results of these checks are recorded and, in the case





of non-compliance, appropriate enforcement action is initiated.

| <b>No of Animals and Poultry Slaughtered in 2002</b> |                     |                        |
|--|---------------------|------------------------|
|  | EU Approved Plants  | Low Capacity Abattoirs |
| <b>No Abattoirs</b>                                  | 61                  | 281                    |
| <b>Total No Animals</b>                              | <b>7.59 million</b> | <b>0.54 million</b>    |
| Cattle   | 1.67 million        | 0.10 million           |
| Sheep  | 2.91 million        | 0.37 million           |
| Pigs   | 3.01 million        | 0.07 million           |
| <b>Total Poultry</b>                                 | <b>76.2 million</b> | -                      |
| Broilers   | 64.8 million        | -                      |
| Hens   | 5.1 million         | -                      |
| Turkeys  | 3.6 million         | -                      |
| Ducks  | 2.7 million         | -                      |

Source: DAF

- **SRM Controls:** Under the SRM<sup>13</sup> control measures for cattle and sheep, all SRM material must be removed at the slaughter plant, stained, segregated and transported to designated SRM rendering plants for destruction. Daily checks on compliance with the SRM legislation are carried out by the permanent Veterinary Inspectors of the Department responsible for each export slaughter plant. Where the rules are breached, Veterinary Inspectors are required to serve a notice suspending slaughter at the plant until proper procedures are implemented.
- **Animal Welfare Checks:** Checks are carried out

daily by the Veterinary Inspector on livestock unloading procedures, intake procedures, lairage facilities and handling, movement to stunning area, stunning procedures and ritual slaughter. In the event that welfare is compromised, enforcement action is initiated, including if necessary suspension of slaughter.



*Detailed veterinary checks are carried out on every animal slaughtered.*

- **Residue Sampling:** Under the Residue Monitoring Plan drawn up in compliance with Council Directive 96/23/EC, Veterinary Inspectors at slaughtering plants take random and targeted samples of specified tissues for residue analysis at the Central Meat Control Laboratory, the State Laboratory and other participating laboratories. The Veterinary Inspector may also take samples from any meat where there is a suspicion that such meat contains residues above the legal limits. In these cases the sampled meat is detained until the results are received. Any meat found to contain residues is condemned and is removed from the food chain.

<sup>13</sup> For cattle SRM is defined as the skull, brain, eyes, tonsils and spinal cord of cattle over 12 months of age and the intestines from the duodenum to the rectum of cattle of all ages. For sheep SRM is defined as the skull, brain, tonsils, eyes and spinal cord of animals over 12 months or that have one permanent incisor erupted through the gum, and the spleen of animals of all ages.

- **BSE Sampling:** It has been a requirement since 1st January 2001 that all animals over 30 months, destined for human consumption must be screened for BSE using a rapid test approved by the EU Commission. The sampling is carried out at slaughtering plants under supervision of the Veterinary Inspectors. All parts of tested animals are detained under official control until the test results are received.
- **Health Marking and Certification:** EU and national legislation requires that meat and meat products bear a health mark conforming to the requirements of the relevant Directives. Health marking is carried out under the responsibility of the Veterinary Inspector. The health mark may be applied directly to meat, or may be printed on wrapping or packaging materials. The Veterinary Inspector is required to provide certification of meat and meat products being exported to certain EU and Third Countries.
- **HACCP Programmes and Monitoring of Own Checks:** HACCP (Hazard Analysis Critical Control Point) is a prevention based food safety management system used to ensure the safe production of food. It is based on the identification of 'hazards' which can arise in the course of the food production process which unless eliminated or reduced could cause adverse health problems for consumers. Under EU regulations the Department enforces HACCP programmes for meat products, minced meat and meat preparations. These programmes will be extended to other areas of food production including slaughter and cutting of fresh meat under current EU proposals. In plants where the HACCP system is not in place, operators are required to regularly carry out their own checks on the general hygiene of conditions of production including microbiological checks, checks on the utensils, fittings and machinery at all stages of production and checks on products. The Veterinary Inspector analyses the results of these checks and notifies the conclusions and recommendation of the analyses to the operator in a written report.
- **Carcase Hygiene Evaluation Programme:** Under this programme, the Department's objective is to reduce the potential for cross contamination during carcass dressing and to increase awareness among meat industry operators of the risks to public health arising from cross contamination. Carcasses and meat products are checked for the presence of pathogenic bacteria such as salmonella and E. coli. The Department carries out surveillance





programmes to test for the presence of such pathogens on a wide range of animal products.

### **E.coli 0157:**

Escherichia coli (E.coli) is an organism commonly found in the intestinal tract of humans and animals most of which are harmless and do not cause any illness. One strain called verocytotoxygenic *E.coli* which is carried by some cattle can cause serious illness in humans. This strain is also referred to as VTEC *E.coli* or *E.coli* 0157.



The source of contamination in meat is usually faecal matter transferred during the slaughtering and processing operations. Milk can also be contaminated during milking operations, while vegetables can be contaminated by slurry spread on the land. The high risk foods are undercooked meats, unpasteurised or contaminated pasteurised milk, cheeses and yoghurt, and raw fruit and vegetables.

To reduce the potential for cross contamination at carcase dressing in slaughterhouses, the Department introduced the clean cattle programme in 1999. Under this programme, only cattle that meet minimum hygiene standards are accepted for slaughter.

### **Salmonella:**

A number of strains of *Salmonella* can cause serious illness and food poisoning in humans. The Department of Agriculture and Food operates an independent monitoring programme for the poultry industry (see page 30 ). This programme has now being extended to the pigmeat sector. Under the pigmeat programme, which is currently underway, all pig herds will be categorised on the basis of *Salmonella* incidence detected over three sampling periods per year. A central data base will provide up- to- date information on the *Salmonella* status of each herd and each pig producer will be issued with a certificate indicating his/her status. Pigs must also be accompanied to the slaughter plant with a valid certificate or otherwise the pigs will be downgraded to the lowest status. Pigs presented for slaughter must also be fully traceable back to the farm of origin. As *Salmonella* categorisation may have financial implications for producers it is expected that the Salmonella Monitoring Programme will bring the *Salmonella* status of the national pig herd to a very high level.

### **4.6.3 MEAT IMPORTS**

The Department is responsible for regulating the imports of meat products (and all animal products) into the country. These imports must comply with certain conditions:

- The products must come from an establishment, in the EU or third countries that have been approved by the EU Commission for trade/export to the European Community.
- Consignments of products from countries outside the EU can only be brought into the Community

through a border inspection post or port or airport which has been approved by the EU Commission for importation from third countries. The ports and airports approved in Ireland are: Dublin Port and Shannon Airport.



*Meat exports of 546,000 tonnes and imports of 100,000 tonnes are under Department of Agriculture and Food control.*

- Importers into Ireland of all animal products must be registered with the Department, provide prior notice to the Department of the impending import consignment and present the necessary documentation including health certificates on arrival.
- Consignments that fail to meet the Veterinary regulatory requirements are re-exported or destroyed.

#### 4.6.4 GENERAL ENFORCEMENT OF MEAT HYGIENE CONTROLS:

Veterinary Inspectors have been given the necessary powers under national legislation to take appropriate enforcement actions in the case of non-compliances or breaches of the regulations. Non-compliances are categorised according to the risk to the consumer:

**Category 1** defects are those which constitute an immediate threat to public health. In these cases, the Veterinary Inspector may suspend production or prohibit the use of all or part of the plant or equipment until the risk has been eliminated; **Category 2** defects are deemed to pose a potential threat to public health and in these cases the Veterinary Inspector serves a notice requiring the owner or person in charge of the establishment to correct the defects within a specified time scale.

## 4.7 MILK AND MILK PRODUCTS

### EU Standards for dairy farms

The hygiene and public health protection rules for the production and processing of milk are set out in the Council Directive 92/46/EEC which is implemented in Ireland by S.I. No. 9 of 1996. These rules apply throughout the European Union. The Department's inspectorate is responsible for enforcing this legislation through the inspection of milking facilities on the farm, pasteurisation plants and manufacturing premises and the taking of samples of the finished product for analysis. The Dairy Produce Inspectorate of the Department has responsibility for the inspection of all establishments manufacturing milk based products and of the holdings on which milk for manufacturing is produced. The Department of Agriculture and Food's Veterinary Inspectorate is responsible for establishments which process milk for human consumption with the on-farm inspection of farms producing such milk carried out by veterinary officers employed by the Local Authorities. However, where the Local Authority is not





in a position to carry out such an inspection, then the producer must have it carried out by a private practitioner. In all cases, producers are required to provide to their milk purchaser a certificate, signed by a veterinarian, testifying that the animal health criteria are being respected.

### No. of dairy establishments

|  |        |
|--|--------|
| Manufacturing Milk Farms   | 23,650 |
| Drinking Milk Farms  | 2,985  |
| Drinking Pasteurisation Plants                                     | 18     |
| Establishments producing both drinking milk & milk-based products  | 8      |
| Milk Processing Establishments                                     | 59     |
| Small-scale (farmhouse) dairy produce manufacturing establishments | 68     |
| Milk Collection Centres  | 26     |

#### 4.7.1 Dairy Farms

Only producers who have a milk quota and who fulfil stringent animal health criteria may supply milk for human consumption. The inspection of dairy farms is carried out to ensure that farm structures, the health status of the cows and the hygienic practices employed during milking meet the appropriate standards. Milk processors are required to maintain a register of the milk production holdings which supply them with their milk. The regulations in place ensure that only milk from animals showing no sign of diseases transmissible to humans through milk is supplied for human consumption.

Where an inspection of a holding reveals that the

facilities and/or hygienic conditions are inadequate, the selling of milk from that holding for human consumption is suspended. The suspension remains in place until the producer becomes fully compliant with the regulations.



To ensure the highest standards of hygiene on milking practices, the following conditions are applied:

- Each cow must be identifiable
- No dusty work may be carried out immediately before or during milking
- The milker must maintain the highest standards of personal hygiene
- Foremilk from each cow must be examined and if abnormal, it must be withheld from delivery
- Immediately after milking, the milk must be cooled and stored hygienically in the dairy until collection or delivery
- Milking equipment must be thoroughly cleaned after each milking and then hygienically stored
- The water supply for milking, cleansing and cooling operations must meet the standards set down in EC Directive 80/778 (The responsibility for

implementing this Directive rests with the Sanitary Authorities).

Under S.I. No. 9 of 1996, milk intended for human consumption, whether for drinking or for manufacturing, must have a total bacteria count of not more than 100,000 per ml. and a somatic cell count of not more than 400,000 per ml. The regulations also require that milk must be free of any residues that are liable to be harmful to human health. While only milk of a minimum standard may be sold, the vast majority of milk processors set quality standards for their milk suppliers greatly in excess of those set down in the Regulations. Failure to meet these standards generally results in a lower price for the milk supplied by the producer.

#### 4.7.2 Pasteurisation and Processing Plants

The sale of raw cows' milk for direct human consumption has been prohibited in Ireland since 1997. All cows' milk must be pasteurised to destroy harmful pathogens, which could be passed on to the consumer.

Milk pasteurising and processing establishments have to be approved by the Department for the production of food for human consumption. The approval is contingent on the premises being of suitable structural standard, having appropriate technical facilities and where good manufacturing and hygienic practices are applied. They must also have adequately staffed and equipped laboratory facilities to carry out the testing prescribed by the regulations or make satisfactory arrangements to have such testing carried out elsewhere. Drinking milk and milk based products that have been produced at an approved premises must bear a special

Health Mark which incorporates the approval number of the establishment.



Department inspectors carry out an inspection programme at least six times a year on pasteurisation plants. Inspections are also carried out on processing plants and 'farmhouse' dairy product establishments. In addition comprehensive inspections by senior officers are carried out annually.

Samples of the finished products are taken during inspection and sent for analysis to the Department's Dairy Science Laboratories at Dublin, Cork and Limerick or the Regional Veterinary Laboratories at Sligo and Waterford. They are subjected to a range of chemical and microbiological tests as a check on the manufacturers' systems of control. Products are also sampled for pesticide residues under the Pesticide Residue Monitoring Programme (see page 17).





Dairy Products sampled include:

- Butter
- Fat spreads
- Cheese (*pasteurised and unpasteurised*)
- Mousse
- Flavoured milk drinks
- Yoghurts
- Chocolate crumb
- Casein/Casein
- Whole milk powder
- Dairy desserts
- Cream
- Pasteurised milk
- Ice-cream
- Frozen dairy product
- UHT/Sterilised milk
- Skim milk powder

### Microbiological Tests

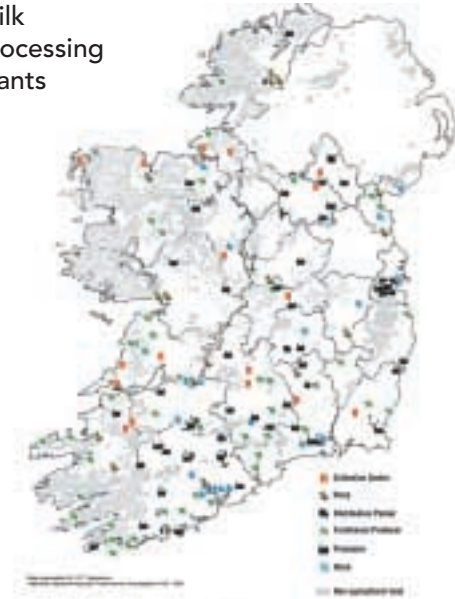
Under Council Directive 92/46/EEC, minimum microbiological standards with which dairy products must comply in order to trade within the EU are set down. These standards relate to *Listeria monocytogenes*, *Salmonella*, *Staphylococcus aureus* and *Escherichia coli*, the presence of coliforms and the “total plate count”. Where these standards are breached, the product may be detained or withdrawn from the market followed by a thorough re-evaluation of the hygiene standards in the place of manufacture.

In cases where the presence of antibiotics in milk/milk based product is confirmed or where other contamination of a kind presenting danger to human health is discovered, the product in question must be detained or withdrawn from the market.

In such cases a ‘**Notice of detention/ withdrawal of product under S.I. No. 9 of 1996**’ is issued by the Dairy Produce Inspectorate. For breaches of the regulations, the Department may suspend production, order the reprocessing, disposal or destruction of the product or withdraw the approval of the establishment.

Operators may also be penalised in the Courts for breaches of the regulations.

### Milk Processing Plants



*There are 186 milk processing establishments approved and inspected by DAF*

### 4.7.3 Packing Premises

Where an approved premises is carrying out a portioning and/or packing operation of dairy products (usually cheese) for eventual retail sale, the following rules apply:

#### Products manufactured in Ireland or another EU Member State

- The products must have been accompanied during transport, by a commercial document containing sufficient information for the nature of the heat treatment to which they were subjected to be established; the document must indicate the name

of the controlling authority and be retained by the consignee for at least one year;

- Imported product ready for retail sale must bear the Health Mark of the premises where manufacturing was completed;
- The final product, if repackaged, should bear the Irish Health Mark of the premises concerned;
- In the case of cheese made with raw milk, the final product must in all cases bear the words “made with raw milk”;
- Sampling of products must be carried out at regular intervals

#### Imports from Third Countries

- The products must be accompanied during transport by a Health Certificate signed by the competent authority of the Third Country, stating the name of the premises of manufacture and that the milk-based product(s) meet(s) the requirements of Chapter II of Council Directive 92/46/EEC;
- The name of the Third Country concerned must appear on the list given in the Annex to Commission Decision 95/340/EC.

## 4.8 EGGS AND EGG PRODUCTS

### PRODUCTION AND MARKETING

The Department of Agriculture and Food is responsible for the enforcement of the EU regulations governing the production and marketing of eggs from the farm to the retail outlet. This is done through inspection, sampling and surveillance of farms, packing centres,

storage depots, wholesale premises and retail outlets. In 2001 a total of 541 million eggs were produced and marketed from 273 farms and 100 packing centres.

Hen eggs marketed in Ireland must be graded for quality and weight, and marketed, packed, labelled, transported and presented for sale, in accordance with the EU Regulations. Under certain conditions eggs may be sold directly to the consumer from the producer’s farm, in a local public market or by door to door selling provided the eggs come from the producer’s own production.

Eggs may also be marketed as “free range” or as eggs produced from one of the other systems defined in the Regulation. Producers and packers of free range eggs must be registered with the Department and must keep appropriate records.

Indication of origin is permitted on egg packs provided the packer is registered with the Department for use of the term of origin and suitable records are kept as proof. The use of incubated eggs for trade in eggs for human



*Over 540 million eggs are produced annually in Ireland.*





consumption is an offence under the marketing Regulations.



Egg packs must bear a “Best Before” date. The date shown as “Best Before” is 28 days after the date of laying, but eggs must be sold to the consumer within 21 days after the date of laying.

The EU Regulations (SI No. 293 of 1991 and No. 419 of 1992) specify the hygiene and health requirements concerning the production and the placing on the market of egg products for direct human consumption or for the manufacture of foodstuffs. The legislation also prescribes conditions for the approval of premises, the health, hygiene and supervision of production and for the storage and markings of egg products. The Department is responsible for enforcing this legislation.

### **SALMONELLA CONTROL PROGRAMME**

The Department operates a comprehensive independent salmonella monitoring programme within the poultry industry for all salmonella types that cause food poisoning and serious illness in humans. In meat plants samples are taken from poultry carcasses and sent for

testing to the Central Meat Laboratory. In addition there is strict monitoring of hatcheries, table egg producing farms, growing and rearing farms, and poultry feedmills. The heat treatment of poultry feed is compulsory. All positive poultry flocks are destroyed. The industry is also involved in this programme and through a network of private laboratories, approved by the Department, forwards results of samples taken to the Department’s Salmonella Control Database.

## **4.9 LABELLING**

### **4.9.1 GENERAL LABELLING**

All pre-packaged prepared meals on sale within the EU must be labelled in accordance with Council Directive 2000/13/EC relating to the labelling presentation and advertising of foodstuffs. In summer 2003, responsibility for food labelling legislation was transferred from the Department of Enterprise, Trade & Employment to the Department of Health & Children as a result of the report of the Food Labelling Group. This legislation is enforced by the Food Safety Authority of Ireland through the Environmental Health Services of the Health Boards.

Most pre-packaged foods (unless specifically exempt) must provide a list of their ingredients on the label to inform the consumer of the exact nature of the food being purchased. This also provides for a system of record keeping and documentation by manufacturers, processors and packagers etc, to enable them to track the movement of the ingredients of a product throughout the food chain. It is the responsibility of those manufacturing and/or packaging the food to ensure that this information is correct and true. With regard to the

origin of a food, an indication of the place of origin or provenance of a foodstuff is required on the label under the Labelling Regulations only where its absence might mislead the consumer to a material degree.

#### 4.9.2 BEEF LABELLING

The Department of and Food is the responsible Authority in Ireland for the implementation of Council Regulation EC 1760/ 2000 governing the labelling of beef and beef products.

Voluntary beef labelling came into operation on 1 July 1998 under EC Council Regulation 820/97. The measure which was introduced in the wake of the 1996 BSE crisis was designed to restore consumer confidence in beef products by providing accurate and verifiable

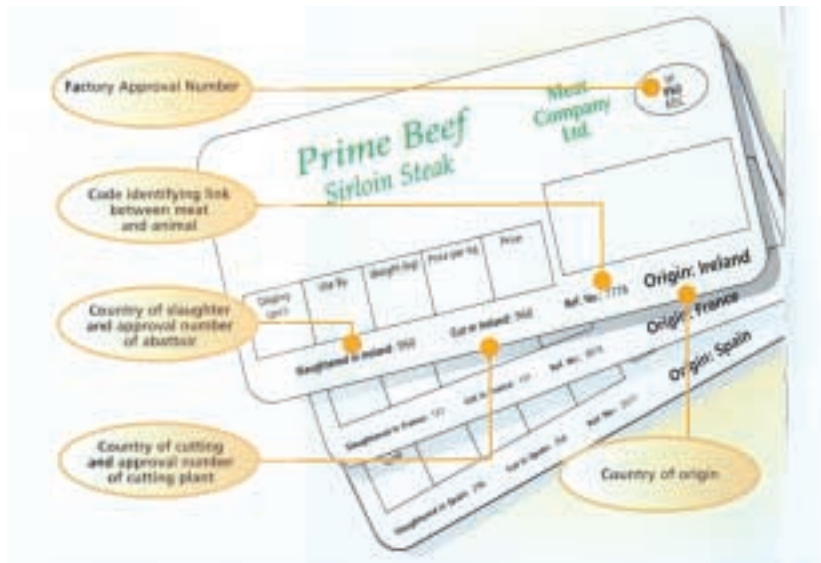
information at the point of sale to the consumer on the origin and production of the beef.

Under the beef labelling regulations all information put on fresh, chilled and frozen beef at the point of sale, other than that which can be easily checked, must have been approved by the Department.

#### Compulsory Beef Labelling

The first stage of Compulsory Beef Labelling came into operation on 1 September 2000. Since that date operators or organisations are legally obliged to provide consumers with the following information on the beef they purchase

- the animal or group of animals from which the beef was derived



All beef at the point of sale must be labelled with the above information.





- the approval number and country of the slaughterhouse
- the approval number and country of the deboning hall.

The following additional information has been compulsory since 1 January 2002.

- country of birth
- country where fattening took place
- country where slaughter took place.

Where beef is derived from animals, born fattened and slaughtered in the same country the indication on the label may be given as 'ORIGIN'. As practically all cattle slaughtered in Ireland were born and raised in Ireland, the label will carry 'Ireland'.

By way of exception to the compulsory beef labelling system set out above, operators preparing minced beef need only indicate on the label the words 'prepared in (*name of country*)', and if the country or countries of origin are not the same as the country of preparation,

the words 'origin (name of country)'. However, a reference number or reference code ensuring the link between the meat and the animal or group of animals is still required. A batch of minced beef does not have to come from the same abattoir, it must, however, come from the same Member State. A batch may not, in any case, exceed the production of one day in the mince meat plant.

### **Voluntary Beef Labelling**

When a processor or retailer makes a claim about the beef they are selling (other than that outlined above under the compulsory labelling) that is not obvious by looking at the product (such as the weight or type of cut), then these claims must also be approved by the Department. This is called voluntary labelling.

For example, labels containing the following type of information, relating to the animals from which the beef was produced, must be approved under the scheme:-

- steer, heifer, cow or bull
- method of fattening
- age at slaughter
- method or length of maturation of the beef
- beef breed, or breed name
- organically reared
- other information which cannot be easily checked.

Beef may continue to be marketed, labelled with information easily checked at point of sale without the necessity for prior approval by the Department of Agriculture and Food. The following are examples of the type of information for which approval is not necessary:



- name of product or cut
- product weight
- price
- 'best before' or 'use by' date
- storage conditions or conditions of use;
- name and address of manufacturer, packager or seller
- health mark required by the Fresh Meat Directive 64/433/EEC
- protected designation of origin or protected geographical indication.

The information put on a label has to be accurate and verified by an independent body (certified to EN45011). If the label is approved then it will also have to carry the name or the logo of the retailer or processor providing this information.

### **Penalties**

Failure to comply strictly with the compulsory beef labelling system or the approved specification under the voluntary beef labelling system shall, at the discretion of the Department of Agriculture and Food, result either in the imposition of additional conditions or withdrawal of the approval.

The Department of Agriculture and Food will require the removal from the market of beef labelled and marketed either without an approved specification or without compliance with the labelling specification as approved, until the label is removed or the beef is re-labelled in conformity with the labelling system.

Breaches of the regulations governing the beef labelling

system may result in prosecutions in Court. Under Statutory Instrument (S.I.) 435 of 2000 (EC Labelling of beef and beef products) and Statutory Instrument (S.I.) 485 of 2000 (amendment) a fine not exceeding €2,500 or a period not exceeding six months imprisonment or both can be applied.



## 5. STATE AGENCIES UNDER THE AEGIS OF THE DEPARTMENT OF AGRICULTURE, FOOD AND RURAL DEVELOPMENT

There are three State Agencies operating under the aegis of the Department who play a major role in the promotion of and advisory/training in food safety.



**Teagasc** – the Agriculture and Food Authority – is the national body with responsibility for providing advisory, training, research and development services geared to the Irish agriculture and food industry and rural communities. It provides integrated research, advisory and training services on all aspects of food safety and food assurance.

# *Bord Bia*

**Irish Food Board**

**Bord Bia** works in partnership with industry to promote Irish food and drink and to develop markets for commercial advantage. It operates a number of Quality Assurance Schemes in the food sector. Currently there are schemes in operation for beef, pigmeat and eggs and a poultry scheme has also been developed.

The Bord Bia schemes are HACCP based and seek to identify the risk areas along the production chain and the corresponding control measures that need to be put in place to minimise these risks. Product included under the schemes can carry a Quality Assured Mark, which can be used to communicate the high standards that the product has attained.



**Bord Glas**, the Horticultural Development Board, is responsible for assisting the production, marketing and consumption of horticultural produce. It also operates a Quality Programme which has been developed over the last decade. Over this period it has evolved in line with changing and increasing demands. Consumers demand

produce which has been produced, handled, packaged and transported to the highest standard of quality and hygiene in a clean and environmentally friendly manner. The Quality Programme has been developed to assist the industry address consumer concerns by ensuring the correct standards are in place. It encompasses all the production sectors of the

horticultural industry and includes prepackers of fresh fruit and vegetables.

There are currently 650 horticultural enterprises participating in the Bord Glas Quality Programme. All participants are independently inspected twice per year.





# OFFICES OF THE DEPARTMENT OF AGRICULTURE & FOOD





THE DEPARTMENT OF  
**AGRICULTURE & FOOD**  
AN ROINN TALMHAIOCHTA AGUS BIA

**FOR FURTHER INFORMATION PLEASE CONTACT:**

Food Safety Liaison Unit  
Department of Agriculture & Food  
Agriculture House  
Kildare Street  
Dublin 2, Ireland  
Telephone: 01-607 2046/607 2443  
Website: [www.agriculture.gov.ie](http://www.agriculture.gov.ie)