

Northern Ireland Cross-Compliance Verifiable Standards Summary

1 January 2015



Department of
**Agriculture and
Rural Development**

www.dardni.gov.uk

AN ROINN

**Talmhaíochta agus
Forbartha Tuaithe**

MÄNNYSTRIE O

**Fairms an
Kintra Fordèrin**



**INVESTORS
IN PEOPLE**



Copies of this document can be made available on request in alternative formats, for example, in large print, Braille, compact disc, audio cassette and other languages. You can request the document in an alternative format by:

Telephone:	(028) 9076 5859
Textphone:	0300 200 7851
E-mail address:	euarb@dardni.gov.uk
By letter:	DARD, EU Area-based Reform Branch Room 563 Dundonald House Upper Newtownards Road Ballymiscaw Belfast BT4 3SB

Contents

	Page
Introduction	2
Background	2
Cross-Compliance Requirements	2
General information	3
Which Cross-Compliance requirements apply to you?	4
What's new in 2015?	5
Key Cross-Compliance dates in 2015	6
Section 1 Statutory Management Requirements (SMRs)	
SMR 1 Protection of water against nitrate pollution.....	9
SMR 2 Conservation of wild birds.....	10
SMR 3 Conservation of natural habitats and of wild flora and fauna.....	11
SMR 4 Food and Feed Law.....	12
SMR 5 Prohibition on the use in stockfarming of substances having a hormonal or thyrostatic action and beta-agonists	17
SMR 6 Pig identification and Registration.....	18
SMR 7 Cattle identification and Registration	20
SMR 8 Sheep and Goat identification and Registration	22
SMR 9 Prevention control and Eradication of Transmissible Spongiform Encephalopathies (TSE)	24
SMR 10 Restrictions on the use of Plant Protection Products	26
SMR 11 Minimum standards for the protection of calves	27
SMR 12 Minimum standards for the protection of pigs	30
SMR 13 Protection of animals kept for farming purposes	35
Section 2 Good Agricultural and Environmental Condition (GAEC)	
GAEC 1: Establishment of buffer strips along watercourses	40
GAEC 2: Irrigation Authorisations	41
GAEC 3: Protection of Groundwater against pollution	42
GAEC 4 : Minimum Soil Cover	43
GAEC 5: Minimum land management reflecting site specific conditions to limit erosion ...	44
GAEC 6 : Maintenance of soil organic matter level through appropriate practices	46
GAEC 7 : Retention of landscape features	47
Annex 1 : Good Agricultural and Environmental Condition (GAEC) Definitions	48
Annex 2 List of families and groups of substances	51

Introduction

1. This booklet provides a summary of the Northern Ireland Cross-Compliance requirements. It is effective from 1 January 2015 and replaces any previous Cross-Compliance guidance issued by the Department of Agriculture and Rural Development (DARD). A more detailed document that provides further information on the Northern Ireland Cross-Compliance requirements is available at www.dardni.gov.uk/cross-compliance or by contacting the Department on 0300 200 7842.

Background

2. The Cross-Compliance conditions are designed to promote sustainable agricultural practices in Europe and reflect a number of environmental and other objectives. They are good farm management practices, and encourage responsible stewardship of the land.
3. All European Union Member States have to implement Cross-Compliance. The majority of the Cross-Compliance requirements reinforce existing legislation, or form part of existing codes of good practice, and farmers should therefore already be meeting most, if not all of these.
4. All farmers claiming under the following schemes must meet the Northern Ireland Cross-Compliance conditions:

Schemes coming into effect from 2015 onwards

- Basic Payment Scheme;
- Greening Payment;
- Young Farmers Payment;
- Areas of Natural Constraint Scheme;
- Environmental Farming Scheme;
- Forestry Expansion Scheme
- Forest Protection Scheme
- Woodland Investment Grant

Schemes that will continue in 2015 and beyond

- Organic Farming Scheme;
- NI Countryside Management Scheme;
- Woodland Grant Scheme (agreements signed after 1/1/07);
- Farm Woodland Premium Scheme (agreements signed after 1/1/07);
- Sustainable Forest Operation Grant Scheme (agreements signed after 1/1/07).

Cross-Compliance Requirements

5. There are two aspects to Cross-Compliance. The first of these is compliance with specific articles contained within 13 European regulatory requirements covering the environment, climate change, public health, animal health and plant health and animal welfare. These are known as the **Statutory Management Requirements (SMRs)**.

6. The second aspect of Cross-Compliance is a requirement that all those in receipt of payments in respect of the schemes listed in paragraph 4 maintain all their land in **Good Agricultural and Environmental Condition (GAEC)**. The Northern Ireland GAEC Measures have been developed from a framework set out by the European Commission to address the following issues:
- **Protection and management of water** - protect water against pollution and run-off, and manage the use of water;
 - **Protection of soil and carbon stock** - minimum soil cover, prevention of erosion and maintenance of soil organic matter levels;
 - **Minimum level of maintenance** - retention of landscape features and avoiding the deterioration of habitats.
7. This booklet sets out the requirements you must meet under each of the SMRs (Section 1). Each requirement is already legally binding. Member States have no discretion regarding the European laws that have to be applied as SMRs. The booklet also sets out the Northern Ireland GAEC requirements (Section 2) that you have to comply with. You must comply with the SMR and GAEC requirements as a condition of receipt of funding under the schemes listed in paragraph 4. A breach of these requirements may also lead to a partial or complete withholding of payments in respect of these schemes.
8. **You should note that you are still bound by all other environmental and animal health and welfare laws.** You may still be prosecuted in the criminal courts for breaching the Cross-Compliance standards, if the breach is a criminal offence.

General Information

9. Cross-Compliance applies to all land within an agricultural holding for the full 12 calendar months. This includes permanently held land (either owned or under an agricultural tenancy), common land, shared grazing and land taken in conacre. Cross-Compliance also applies to the agricultural activity undertaken by the beneficiaries of the schemes listed in paragraph 4. Any action required to comply with an agri-environment agreement shall not constitute a breach of the Cross-Compliance requirements.
10. This booklet sets out the Cross-Compliance rules for Northern Ireland. The rules vary across England, Scotland, Wales and the Republic of Ireland. Where your holding crosses a border you may have to make different arrangements on each side of the border. You should obtain copies of all relevant guidance that applies to your holding.

Which Cross-Compliance Requirements Apply to You?

11. The following table sets out who each of the Cross-Compliance standards applies to:

All claimants	
SMR 1	Protection of water against nitrate pollution
GAEC 4	Minimum Soil Cover
GAEC 5	Minimum land management reflecting site specific conditions to limit erosion
GAEC 6	Maintenance of soil organic matter level through appropriate practices
GAEC 7	Retention of landscape features
Claimants with a Special Protection Area (SPA) on their land	
SMR 2	Conservation of wild birds
Claimants with a Special Area of Conservation (SAC) on their land	
SMR 3	Conservation of natural habitats and of wild flora and fauna
Claimants who use chemical fertiliser and organic manure	
GAEC 1	Establishment of buffer strips along watercourses
Claimants who abstract or impound water for irrigation	
GAEC 2	Where use of water for irrigation is subject of authorisation, compliance and authorisation procedures
Claimants who handle, store or dispose of listed substances	
GAEC 3	Protection of Groundwater against pollution
Claimants who are food or feed producers, rearing animals for food or producing products of animal origin	
SMR 4	Food and Feed Law
Claimants who keep farmed animals	
SMR 5	Prohibition on the use in stockfarming of substances having a hormonal or thyrostatic action and beta-agonists
SMR 6	Pig identification and Registration
SMR 7	Cattle identification and Registration
SMR 8	Sheep and Goat identification and Registration
SMR 9	Prevention control and Eradication of Transmissible Spongiform Encephalopathies (TSE)
SMR 11	Minimum standards for the protection of calves
SMR 12	Minimum standards for the protection of pigs
SMR 13	Protection of animals kept for farming purposes
Claimants who use plant protection products	
SMR 10	Restrictions on the use of Plant Protection Products

What's new in 2015?

12. Under the new Common Agricultural Policy (CAP), some of the Cross-Compliance rules are the same as in previous years, but some have changed.
13. The most obvious change is that all of the GAECs and most of the SMRs have been renumbered.
14. The following paragraphs identify some other changes. However these do not represent all the changes. You should therefore read the guidance thoroughly to make sure you understand all the rules and how they apply to you.
15. What was SMR 4 (sewage sludge) and SMRs 13, 14 and 15 (Control of Foot and Mouth Disease, Control of Specified Animal Diseases and Provisions for the Control and Eradication of Bluetongue) have been removed.
16. Some rules have been removed from the SMRs relating to the Conservation of Wild Birds and the Conservation of Natural Habitats and of Wild Flora and Fauna.
17. What was SMR 9 (Placing of Plant Protection Products on the Market) has now become SMR 10 (Restrictions on the use of Plant Protection Products). The European legislation covering Cross-Compliance has changed whereby The Plant Protection Products (Sustainable Use) Regulations 2012 are no longer applicable for Cross-Compliance purposes. This does not alter your underlying statutory obligations in respect of Sustainable Use Regulations.
18. The verifiable standard relating to minimum soil cover after harvesting a crop of cereals (other than maize), oil seeds, grain legumes (for example, peas or beans) has changed. Please see GAEC 4 (Minimum Soil Cover) for details of the new standard.
19. A verifiable standard prohibiting the burning of crop residues has been introduced. Please see GAEC 6 (Maintenance of Soil Organic Matter) for details of the new standard.
20. Under GAEC 7 (Retention of Landscape Features) if you have received permission from DARD to remove landscape features (dry stone walls, ditches, hedgerows and trees in hedgerows, earthbanks) the requirement to carry out the mitigating action set out in the written permission within the deadline set by DARD has been included as a new verifiable standard.
21. Trees in hedgerows are now protected under GAEC 7 (Retention of Landscape Features).

Key Cross-Compliance Dates in 2015

22. The following table identifies key dates relating to Cross-Compliance in 2015. It identifies things that you should (and shouldn't) do throughout the year. The list of dates is not exhaustive and you should therefore familiarise yourself with all the information contained within this document.

January	
January 1	You must start following the Cross-Compliance rules from this date. This date is also officially the start of the Basic Payment Scheme.
January 15	You can recommence ploughing without restriction from this date (see GAEC 4).
January 31	Final date for submission of records relating to the movement of organic manure in previous calendar year (see SMR 1).
February	
February 1	Chemical fertilizer may be applied providing environmental conditions are suitable (see SMR 1).
February 1	Organic manures, including slurry, poultry litter, sewage sludge and abattoir waste may be applied providing environmental conditions are suitable (see SMR 1).
February 1	Farmyard manure may be applied providing environmental conditions are suitable (see SMR 1).
March	
March 1	Start of the closed period for hedge, tree or scrub cutting (including trimming and laying). Cutting includes coppicing (see GAEC 7).
March 1	Final date for submission of application for Nitrates derogation (see SMR 1)
March 1	Final date for submission of fertilization account for the previous calendar year (if you have an approved nitrates derogation) (see SMR 1).
March 1	Fertilization plan for the current calendar year to be ready and available for inspection (see SMR 1).
April	
April 15	You must not burn heather, gorse, whin or fern from this date (see GAEC 5).
June	
June 30	All nitrates records for previous calendar year to be ready and made available for inspection (see SMR 1).
August	
August 31	You can burn heather, gorse, whin or fern from this date (see GAEC 5).
September	
September 1	End of the hedge, tree and scrub cutting closed period. You can cut hedgerows and trees from this date (see GAEC 7).
September 15 (midnight)	Closed period for application of chemical fertilizer begins (see SMR 1).

October	
October 15 (midnight)	Closed period for application of organic manures, including slurry, poultry litter, sewage sludge and abattoir waste begins (see SMR 1).
October 31 (midnight)	Closed period for application of farmyard manure begins (see SMR 1).
November	
November 1	After this date you must leave the residues of late harvested crops (such as maize and potatoes) undisturbed until just before sowing the following spring (see GAEC 4 and SMR 1).
November 1	If you are a ploughing association and organising a ploughing match you will need to apply for a derogation to avoid the requirement to sow a green cover crop following ploughing where the ploughing match takes place from this date until 15 January (see GAEC 4 and SMR 1).
December	
December 1 - December 5	You need to carry out your annual inventory of sheep (see SMR 8).

Section 1

Statutory Management Requirements

SMR 1. Protection of Water against Nitrate Pollution

The aim of these requirements is to reduce the pollution of waters caused by nitrates from agricultural sources and to prevent such pollution occurring in the future.

Verifiable Standards

Compliance with Nitrates Action Programme (NAP) measures including:

- Nitrogen (N) fertiliser, chemical and organic (including dirty water), must not be allowed to directly or indirectly enter a waterway or water contained in underground strata.
- N fertilisers, chemical and organic (with the exception of dirty water), must not be applied to land during the closed spreading periods. In addition to the closed spreading periods for chemical nitrogen fertiliser and organic manures, farm yard manure is subject to a closed spreading period from 31 October until 31 January each year. There are additional land management requirements on farms that have nitrate derogations.
- All N fertilisers, chemical and organic, must be applied in accordance with the land application restrictions as specified in the NAP.
- N fertiliser application must not exceed crop requirement. Additional action is required on derogated farms.
- Nitrogen from livestock manure on non-derogated farms must not exceed 170kg N/ha/yr and Nitrogen from grazing livestock manure on derogated farms must not exceed 250kg N/ha/yr. Additional action is required on derogated farms.
- All livestock manure and silage effluent must be collected, stored and managed in accordance with the livestock manure storage requirements as specified in the NAP Regulations.
- All farms must carry out crop and soil management to minimise soil erosion and nutrient run-off. Additional action is required on derogated farms.
- Adequate farm records must be kept and made available for inspection, upon request, covering a minimum period of five years covering a range of information including cropping, livestock numbers, and the use of nitrogen fertilisers and organic manures. Additional action is required on derogated farms.
- Derogated farms must not exceed a surplus of 10kg phosphorus per hectare per year on a derogated holding.
- You must comply with the terms of a notice served under the NAP Regulations.

Further information on the protection of water against nitrate pollution can be obtained from NIEA on 028 9262 3188 or on the NIEA website:
<http://www.doeni.gov.uk/niea/water-home.htm>

SMR 2. Conservation of Wild Birds

The aim of these rules is to protect wild birds, their eggs and nests by preserving and maintaining land classified as a Special Protection Area (SPA).

Verifiable Standards

If you have a Special Protection Area (SPA) on your holding, you will have been formally notified by NIEA and will already be aware of the environmental obligations which exist on that land.

- You must not carry out or cause or permit to be carried out operations or activities specified in the Area of Special Scientific Interest notification that are likely to damage the interests of the site and for which NIEA have neither been notified nor consented.
- You must comply with the terms of any management notice served by NIEA or the terms of any restoration order served by a court.
- You must not intentionally or recklessly destroy or damage the special flora¹ of the area or disturb any of the special fauna². (This requirement can apply to actions that take place other than on the Special Protection Area itself, but which have the same consequences).

You will not break the rules for a SPA as outlined above if you have a reasonable excuse³.

Further information on the conservation of wild birds can be obtained from NIEA on 028 9056 9546 or on the NIEA website: http://www.doeni.gov.uk/niea/protected_areas_home

¹ Flora is taken to mean protected plants and their habitats.

² Fauna is taken to mean protected animals.

³ A “reasonable excuse” may include: you have planning permission, you have consent from a public body or statutory authority that has complied with its duty to consult NIEA before giving its consent, or it is an emergency operation (provided that NIEA is told as soon as possible after the emergency).

SMR 3. Conservation of Natural Habitats and of Wild Flora and Fauna

The aim of these rules is to conserve land designated as a Special Area of Conservation (SAC).

Verifiable Standards

If you have a Special Area of Conservation (SAC) on your holding, you will have been formally notified by the NIEA and will already be aware of the environmental obligations which exist on that land.

- You must not carry out or cause or permit to be carried out operations or activities specified in the Area of Special Scientific Interest notification that are likely to damage the interests of the site and for which NIEA have neither been notified nor consented.
- You must comply with terms of management notices served by NIEA or the terms of any restoration order served by a court.
- You must not recklessly destroy or damage the special flora⁴ of the area or disturb any of the special fauna⁵. (This requirement can apply to actions that take place other than on the Special Area of Conservation itself, but which have the same consequences).

You will not break the rules for a SAC as outlined above if you have a reasonable excuse.⁶

**Further information on the conservation of natural habitats and of wild flora and fauna can be obtained from NIEA on 028 9056 9546 or on the NIEA website:
http://www.doeni.gov.uk/niea/protected_areas_home**

⁴ Flora is taken to mean protected plants and their habitats.

⁵ Fauna is taken to mean protected animals.

⁶ A “reasonable excuse” may include: you have planning permission, you have consent from a public body or statutory authority that has complied with its duty to consult NIEA before giving its consent, or it is an emergency operation (provided that NIEA is told as soon as possible after the emergency).

SMR 4. Food and Feed Law

The aim of these requirements is to ensure the safe production of food for human consumption and food or feed that is fed to food producing animals.

Verifiable Standards

Food safety, withdrawal and recall

- You must not place food on the market if it is unsafe. Food is considered to be unsafe if it is either injurious to human health or unfit for human consumption.
- If you have reason to believe that you have supplied food that does not meet food safety requirements (it is either unsafe or injurious to health), and it has left your immediate control, then you must immediately initiate procedures to withdraw it from the market and inform the appropriate authorities. The appropriate authorities are Agri-food Inspection Branch within DARD and the Food Standards Agency in Northern Ireland.
- Where food may already have reached consumers, they must be informed of the reason for withdrawal. The food must be recalled from the market if there is no other way of achieving a sufficiently high level of health protection.
- Additionally, if you believe that food which you have supplied, or which is in your possession and you intend to sell, could be injurious to health, you must immediately inform the appropriate authorities. You must also inform the appropriate authorities of actions you have taken to prevent risks to the final consumer.

Feed safety, withdrawal and recall

- You must not place unsafe feed on the market or feed it to food-producing animals. Feed is deemed to be unsafe if it has an adverse effect on animal or human health or if it makes the food derived from food-producing animals unsafe for human consumption.
- If you have reason to believe that you have supplied feed that does not meet feed safety requirements, you must immediately initiate procedures to withdraw it from the market and immediately inform the appropriate authorities. The feed must be destroyed unless the appropriate authority is satisfied otherwise. The appropriate authorities are Agri-food Inspection Branch within DARD and the Food Standards Agency in Northern Ireland.
- If your feed product is already with the user of the feed, then they must be informed of the reason for its withdrawal. The feed must be recalled from the market if there is no other way of achieving a sufficiently high level of health protection.

Traceability

- You must put in place systems and procedures related to the traceability of inputs to your farm. Inputs are food, feed, food-producing animals and any other substance intended/expected to be incorporated into feed. These systems must identify:
 - the name and address of your supplier;

- the nature and quantity of the products that were supplied to you;
- the date of delivery of these inputs to your farm.
- You must also put in place systems and procedures related to the traceability of your products when they leave the farm. These systems must identify:
 - the name and address of your customer;
 - the nature and quantity of the products that were supplied to that customer;
 - the date on which the products left the farm.
- It is for you to decide upon the system you use for storing information which could be computerised or comprise written records or receipts filed in order. However, it is stressed that the information must be complete, organised and understandable and must be in a readily available format, so that it can be produced when requested.

Hygiene of foodstuffs and feed hygiene

- You must store and handle waste and hazardous substances separately and securely in a way that prevents contamination of food products or feed. Hazardous substances are any that have the potential to cause an adverse effect on health (human or animal).
- You must store feed correctly and away from chemicals or any other products prohibited for use as animal feed.
- Feed storage areas and containers must be kept clean and dry and cleaned regularly to avoid unnecessary cross-contamination.
- Appropriate pest control measures must be implemented where necessary.
- Seed must be stored properly and in such a way that is not accessible to animals.
- You must store medicated feed and non-medicated feed which is intended for different categories or species of animals in a way that reduces the risk of it being fed to the wrong animals.
- You must also ensure that you handle non-medicated feed separately from medicated feed to prevent cross-contamination.
- The on-farm distribution system must ensure that the right feed is sent to the right destination. During distribution and feeding, feed must be handled in such a way as to ensure that contamination does not occur from contaminated storage areas and equipment.
- On-farm feed transport vehicles and feeding equipment must be cleaned periodically, in particular when used to deliver and distribute medicated feed.
- You must take adequate measures, as appropriate, to prevent the introduction and spread of contagious diseases transmissible to humans through food. This includes the application of precautionary measures when introducing new animals and reporting suspected outbreaks of such diseases to the appropriate authority.
- If applicable, you must adhere to statutory testing (that is Brucellosis) before sale/removal of animals off farm.

- You must observe the testing frequency required in the legislation for Tuberculosis/ Brucellosis or other diseases.
- If you use feed additives, veterinary medicinal products or biocides on your farm this must be done correctly. To fulfill this requirement, you must ensure that their dosage, application and use are as stated on the label or as prescribed. This includes ensuring that food you produce does not contain residues of pesticides or veterinary medicinal products that are higher than the permitted maximum residue limit (MRL) for the product or medicine used.

Pesticide residues in food you produce must not exceed the MRL at the time it is placed on the market as food. Unauthorised pesticides must not be used on the food you produce as residues of these substances must not be present in the food. For veterinary medicinal products, residues within food-producing animals must not exceed the MRL at the time the animal is placed on the market or presented for slaughter. Unauthorised veterinary medicinal products must not be used in food-producing animals and residues of these substances must not be present in the animals.

- If you are rearing animals, whether for food or for their products, you must only source and use feed from establishments that are registered and/or approved. This applies to manufactured feed and any substance or product intended to be used for oral feeding to animals. Examples of such products are compound feeds, pre-mixtures, additives and feed materials such as cereals and fodder. This also applies to co-products from the food and drink industry, for example, soya-bean meal, brewers' grains, wheat feed and bakery products.
- In addition to the information required for traceability, records of the following must be kept for the appropriate time if they are relevant to your business:
 - veterinary medicinal products, or other treatments, administered to your animals, the dates of the treatment and the withdrawal period;
 - the results of any analyses carried out on samples taken from food producing animals or plants, or other samples taken for diagnostic purposes, that have importance for human and animal health;
 - any relevant reports on checks carried out on animals or products of animal origin;
 - use of plant protection products and biocides;
 - any use of genetically modified seeds (in feed production).
- You must take account of the results of any relevant analysis carried out on samples taken from primary products or other samples relevant to food safety.
- You must take appropriate remedial action when informed of problems identified during official controls. Official controls include routine dairy, egg and primary producer food and feed hygiene inspections.

Dairy Hygiene Requirements

The following additional hygiene requirements apply where you are a producer of raw milk (from any species):

- You must ensure that raw milk must come from animals that:
 - are in a good general state of health;
 - present no sign of disease that might result in the contamination of milk and, in particular, are not suffering from any infection of the genital tract with discharge, enteritis with diarrhoea and fever, or a recognisable inflammation of the udder;
 - do not have any udder wound likely to affect the milk;
 - are not within the prescribed withdrawal period following the administration of authorised products or substances;
 - have not been administered with any unauthorised substances or products.
- You must ensure that raw milk comes from animals belonging to herds/holdings which have disease-free status for Tuberculosis and Brucellosis.
- Where your herd/holding is not free from Tuberculosis or Brucellosis, you may sell milk from your non-reactor animals if:
 - you are selling to a wholesaler who will heat treat the milk before marketing it for human consumption; or
 - the raw milk is from sheep/goats and is intended to be made into cheese that has a maturation period of at least two months.
- Raw milk from any animal not complying with these requirements must not be placed on the market for human consumption.
- The isolation of animals that are infected, or suspected of being infected, with Tuberculosis and Brucellosis must be effective in order to avoid any adverse effect on other animals' milk.
- You must ensure that milking equipment and the premises where milk is stored, handled or cooled is located and constructed in a manner which limits the risk of contamination of milk.
- You must ensure that premises used for the storage of milk
 - are protected against vermin - including birds and birds' nests;
 - are adequately separated from premises where animals are housed; and
 - have suitable refrigeration equipment in order to meet the post-milking cooling requirements.
- Surfaces of equipment that come into contact with milk (for example, utensils, containers and tanks) must be easy to clean and, where necessary, disinfected. They must also be maintained in a sound condition. This requires the use of smooth, washable and non-toxic materials. After each use, these surfaces must be cleaned and, where necessary, disinfected.

- Milking must be carried out hygienically, ensuring in particular that:
 - before milking starts, the teats, udder and adjacent parts are clean;
 - you satisfactorily identify animals undergoing any medicinal treatment which is likely to transfer residues to milk;
 - milk from such animals, or any animals that are still within the withdrawal period, is not used for human consumption.
- Immediately after milking, you must ensure that milk is held in a clean place designed and equipped to avoid contamination.
- The milk must be cooled immediately to not more than 8°C if it is collected daily or not more than 6°C if it is not collected daily. You do not need to meet these temperature requirements for cooling if the milk is processed within two hours of milking, or a higher temperature is necessary for technological reasons related to the manufacture of certain dairy products. In such cases, the appropriate authority must have previously authorised the use of a higher temperature.

Egg Hygiene Requirements (additional requirements for this sector)

The following additional hygiene requirements apply if you are an egg producer. These apply to all eggs in shell that are produced by farmed birds:

- While they are on your premises, you must keep eggs clean and dry, free from extraneous odour, effectively protected from shocks and out of direct sunshine.

Further information on food and feed hygiene for farmers and growers can be obtained from DARD Agri-food Inspection Branch on 028 9052 5001 or on the DARD website: www.dardni.gov.uk/cross-compliance

SMR 5. Restrictions on the use of Substances having Hormonal or Thyrostatic Action and Beta-agonists in farm animals

The aim of these requirements is to prohibit the illegal use in stock farming of substances that have a hormonal or thyrostatic action and beta-agonists, and to prevent the residues that these substances leave in meat and other foodstuffs from entering the human or animal food chain.

Verifiable Standards

You must not

- Give food producing animals restricted substances⁷, unless given in line with any permitted exceptions.
- Have substances on your farm:
 - which contain oestradiol 17 β , or its ester like derivatives;
 - which contain beta-agonists to induce tocolysis in cows when calving;
 - with a hormonal or thyrostatic action, unless they have been prescribed by your veterinary surgeon.
- Have food producing animals on your farm to which have been administered any restricted substances, unless given in line with any permitted exceptions.
- Place on the market or send animals for slaughter to which have been administered any restricted substance, unless given in line with any permitted exceptions.
- Sell meat, or any other animal product, derived from an animal to which any restricted substance has been administered, unless given in line with any permitted exceptions.

You must:

- Observe the relevant withdrawal period if your food producing animals have been given any of the restricted substances in line with the permitted exceptions.
- Make veterinary medicinal records relating to restricted substances available to the competent authority on request.

For further information on the use of substances having Hormonal or Thyrostatic Action and Beta-agonists in farm animals please contact your Private Veterinary Practitioner. Information on the proper keeping of records relating to Veterinary Medicines is on the DARD website: www.dardni.gov.uk/cross-compliance

⁷ "Restricted substances" means, thyrostatic substances, stillbenes, stillbene derivatives, their salts and esters, oestradiol 17 β and its ester like derivatives and substances having oestrogenic, androgenic or gestagenic action and beta-agonists.

SMR 6. Pig Identification and Registration

The aim of these requirements is to reduce the risk of pig disease spreading through controlling movements and improving traceability.

Verifiable Standards

Registration and Identification

You must:

- Register your details with DARD and obtain a pig holding number before moving pigs onto your holding, notify DARD in advance before moving pigs onto new premises (outfarm) and notify any other changes in your details within 7 days (including if you stop keeping pigs).
- By 6 months of age, or before leaving the holding if sooner, correctly identify your pigs in one of the following ways:
 - for pigs that are destined for slaughter under the age of 6 months- a holding code on an eartag, ear tattoo or slapmark (however, finished pigs going to slaughter may be identified with a slapmark bearing a four-digit curer mark);
 - for pigs over 6 months of age (breeding pigs) and any pigs intended for breeding moved off your holding before 6 months of age - a holding code and an individual identification number of up to 4 digits on an eartag; or
 - for pigs moving to a show, market or export outside Northern Ireland they must be identified with an eartag bearing a holding code and individual identification number.
- Replace lost or illegible identification marks within 28 days of discovery.

You must not:

- Alter, remove, or duplicate any holding code, curer mark or individual identification number marked on a pig.

On-farm records

You must:

- Maintain a record once per year of the total number of pigs on your holding.
- Make a record of all movements of pigs on and off your holding and replacement of identification marks with a different mark, in date order, within 48 hours of the event.
- Ensure that these on-farm records are up to date, are kept for at least 3 years and are shown to an inspector on demand.

- Ensure that movement documents, signed by the keeper, accompany pigs during movements. These must include the following:
 - names, addresses and holding codes, of both the holding of departure and destination of the pigs;
 - date of the movement;
 - number of pigs moved; and
 - identification marks of the pigs.
- Where pigs are moved off your holding other than to a meat plant, market or show, send a copy of the movement document to DARD within 7 days.
- Retain a copy of movement documents for the movement of pigs on or off your holding for at least 3 years.

Further information on pig identification and registration can be obtained from DARD Veterinary Service on 0300 200 7840 or on the DARD website:
www.dardni.gov.uk/index/animal-health-and-welfare/disease-control-prevention/identification-registration-and-movement/pigs.htm

SMR 7. Cattle Identification and Registration

The aim of these requirements is to maintain a system for the identification and registration of cattle to facilitate their traceability, in particular in the event of a disease outbreak.

Verifiable Standards

Tagging

You must:

- Double-tag with DARD-approved ear tags within the following timescales:
 - all calves born on your holding - within 20 days of birth or before the animal leaves your holding, whichever is the earlier;
 - all cattle imported from outside the EU - within 20 days of release from import checks or before the animal leaves your holding, whichever is the earlier.
- Replace lost or illegible ear tags within 28 days of discovering the loss or before the animal leaves your holding, whichever is the earlier (where both tags have been lost and two new tags are applied, you must prove the identity of the animal).

You must not:

- Remove or replace ear tags without permission from DARD.
- Alter or deface an ear tag.

Notification of births, movements and deaths

You must:

- Notify all births of cattle on your holding to DARD no later than 27 days after the birth.
- Notify DARD of any movements of cattle onto and off your holding (including cattle lost or stolen) within 7 days of the movement.
- Notify DARD of any cattle deaths on your holding within 7 days.
- Notify DARD of all cattle imported from outside the EU within 15 days of retagging the animal.

On-farm records (herd register)

You must:

- Keep an up-to-date herd register for your holding in a format approved by DARD, which includes where appropriate the following details for each animal:
 - ear-tag number;
 - if appropriate, any retag number and the date of retagging, or the date a replacement tag is applied;
 - colour, breed, and sex;

- date of birth;
 - if the calf was born on your holding, the dam's ear-tag number;
 - date of movements on and off your holding;
 - details of where the animal has moved to or from;
 - date of death.
- Complete the herd register within the following timescales:
 - movement - 36 hours of its taking place;
 - birth of a dairy calf - 7 days;
 - birth of any other calf - 30 days;
 - a death - 7 days;
 - ear-tag replacement - 36 hours of the replacement.
 - Keep the herd register for 10 years from the date of the last entry and make it available on request.

Further information on cattle identification and registration can be obtained from DARD Veterinary Service on 0300 200 7840 or on the DARD website:
<http://www.dardni.gov.uk/index/animal-health-and-welfare/disease-control-prevention/identification-registration-and-movement/cattle>

SMR 8. Sheep and Goat Identification and Registration

The aim of these requirements is to maintain a system for the identification and registration of sheep and goats to facilitate their traceability, in particular in the event of a disease outbreak.

Verifiable Standards

Tagging

You must:

- Identify all sheep and goats with the correct means of identification within 9 months of birth or within 6 months of birth, if intensively kept (kept for milking or are normally housed overnight) or before they leave the holding of birth, whichever is sooner.
- Double-tag sheep and goats with two identical identification tags, including one electronic device, for third country or intra-community trade.
- Replace any lost or illegible means of identification within 28 days of noticing their loss or illegibility or before the animal leaves the holding - whichever is the earlier.

You must not:

- Remove or replace ear tags without permission from DARD, except when replacing lost or illegible tags.
- Alter or deface any means of identification attached to an animal.

Record keeping

You must:

- Keep up-to-date farm records in a format approved by DARD with the required information, including:
 - an annual inventory of the animals kept on a date between 1 and 5 December.
 - details of the movement of sheep and goats on and off your holding, including:
 - the date of the movement;
 - the number of animals moved;
 - the destination or origin of animals;
 - the transportation details for animals leaving your holding.
 - information on any replacement means of identification;
 - for animals born after 31 December 2009:
 - the identification code of the animals;
 - the year of birth and date of identification of animals born on your holding;
 - the month and year of death of animals on your holding;
- Ensure that your farm records are available for inspection on demand.

Further information on sheep and goat identification and registration please can be obtained from DARD Veterinary Service on 0300 200 7840 or on the DARD website: <http://www.dardni.gov.uk/index/animal-health-and-welfare/disease-control-prevention/identification-registration-and-movement/sheep-and-goats.htm>

SMR 9. Prevention, Control and Eradication of Transmissible Spongiform Encephalopathies (TSE)

The aim of these requirements is to minimize the risk posed to human and animal health by certain transmissible spongiform encephalopathies (TSEs).

Verifiable Standards

You must:

- Immediately notify the Divisional Veterinary Officer of any animal or carcase in your possession or under your charge known or suspected of being infected by a TSE.
- On notification of a TSE suspect or confirmed case, fully comply with movement restrictions, including any order to slaughter and destroy the animal(s), or any other notices served by an inspector imposing measures concerning that animal or other animals under the TSE Regulations (Northern Ireland) 2010, in particular attention is drawn to restrictions placed on cattle born before 1 August 1996 in your possession (if applicable).
- Not feed to ruminants, any animal protein or any feedstuff, which contains animal protein, except the following (subject to required sourcing and processing):
 - milk, milk-based products and colostrum;
 - eggs and egg products;
 - gelatine from non-ruminants;
 - hydrolysed proteins derived from non-ruminants or from ruminant hides and skins;
 - liquid milk replacers for unweaned ruminants containing fishmeal, if registered with DARD.
- Not feed ruminant and non-ruminant farmed animals the following prohibited derived products, either directly or in feedingstuffs:
 - processed animal protein⁸ (with specific exemptions);
 - gelatine from ruminants e.g. beef gelatine (including in surplus food).
- Not use the following restricted proteins (i.e. proteins which can be fed only to non-ruminants), for on-farm production of feed for non-ruminants unless they are authorised by DARD to do so (applies whether ruminants are present or not):
 - fishmeal;
 - blood products;
 - blood meal, pig and poultry processed animal proteins only where fed to farmed fish;
 - dicalcium phosphate and tricalcium phosphate of animal origin, (mineral derived versions are permitted for all livestock and are most commonly used - feed labels not specifying 'animal origin' can be taken to be mineral).

⁸ **Processed animal protein** means animal protein derived entirely from Category 3 material, which has been treated in accordance with the Animal By-Products Regulations (including blood meal and fishmeal) so as to render it suitable for direct use as feed material or for any other use in feedingstuffs, including petfood, or for use in organic fertilisers or soil improvers; however, it does not include blood products, milk, milk-based products, milk-derived products, colostrum, colostrum products, centrifuge or separator sludge, gelatine, hydrolysed proteins and dicalcium phosphate, eggs and egg-products, including eggshells, tricalcium phosphate and collagen.

- Not use feed products containing restricted proteins on premises where ruminants are present unless they are authorised by DARD to do so. The registration referred to in this point requires farmers to have adequate on-farm measures, including storage, and feeding arrangements to ensure that feed containing restricted proteins are not fed to ruminants and are kept adequately separated from ruminant feed to prevent contamination⁹.
- Not export from the UK any bovine animal born or reared in the UK or imported into the UK before 1 August 1996.
- Not place on the market any product consisting of or incorporating any material derived from a bovine animal born or reared in the UK or imported into the UK before 1 August 1996 except for milk.
- Comply with restrictions placed on the progeny of BSE suspect or BSE positive animals.
- Not place on the market the semen, ova or embryos of TSE suspect or infected cattle, sheep and goats without complying with documentation requirements and restrictions applying to sale or export of such products.

Further information on the prevention, control and eradication of Transmissible Spongiform Encephalopathies can be obtained from DARD Veterinary Service on 0300 200 7840 or on the DARD website:
<http://www.dardni.gov.uk/index/animal-health-and-welfare/animal-diseases/tse.htm>

⁹ The authorisation and registration requirement referred to is followed by DARD (AFIB) inspection which will confirm permission to use restricted proteins.

SMR 10. Restrictions on the use of Plant Protection Products

The aim of these requirements is to ensure that plant protection products are used correctly and to minimize their risk to humans, animals and the environment.

Verifiable Standards

- You must only use approved plant protection products.
- Plant protection products must be used in accordance with the conditions attached to the approval and they must also be used in accordance with the information specified on the product label.
- You must follow the principles of good plant protection practice¹⁰ as set out in the Code of Practice for Using Plant Protection Products.

Comprehensive advice on all aspects of using pesticides is contained in the DARD Code of Practice for Plant Protection Products. The Code explains how to use plant protection products safely and so meet the legal conditions which cover their use. A summary A3 wall chart has also been produced to accompany the Code and provides users with a quick reference guide.

Both documents can be downloaded from DARD's website:

<http://www.dardni.gov.uk/code-of-practice-for-using-plant-protection-products>

Further information on plant protection products can be obtained from the Health and Safety Executive on 0800 0320121 or on the Health and Safety Executive website at

<http://www.hseni.gov.uk>

¹⁰ The meaning of 'good plant protection practice' as used here is taken from the definition as set out under Article 3 of Regulation (EC) 1107/2009, i.e. a practice whereby the treatments with plant protection products applied to given plants or plant products, in conformity with the conditions of their authorised uses, are selected, dosed and timed to ensure acceptable efficacy with the minimum quantity necessary, taking account of local conditions and of the possibilities for cultural and biological control.

SMR 11. Minimum Standards for the Protection of Calves

The aim of these requirements is to protect the welfare of calves by setting minimum standards for their care and husbandry.

Verifiable Standards

Inspection

- You must inspect all housed calves at least twice a day.
- If you keep calves outside, you must inspect them at least once a day to check that they are in a good state of well-being.

Freedom of Movement

- Each of your calves must be able to stand up, turn around, lie down, rest and groom itself without difficulty.
- You must not tether your calves. The only exception to this requirement is that you may tether group-housed calves, for up to one hour, when you are feeding them milk or milk substitute.
- Tethers must not cause pain or injury to your calves. You must regularly inspect the tethers and adjust them if necessary to make sure they are a comfortable fit. Each tether must avoid the risk of strangulation, pain or injury and allow your calf to lie down, rest, stand up and groom itself without difficulty.
- You must not muzzle your calves.

Accommodation, Environment and Equipment

- You must not keep a calf in an individual stall or pen after the age of eight weeks unless a veterinary practitioner certifies that its health or behaviour means it needs to be isolated to receive treatment. If necessary, you must isolate sick or injured calves in suitable accommodation with dry comfortable bedding.
- The width of any individual stall or pen for your calf must be at least equal to the height of the calf at the withers, measured in the standing position. The length must be at least equal to the body length of your calf - measured from the tip of the nose to the rear of the pin bone - multiplied by 1.1.
- Individual stalls or pens for your calves (except for those isolating sick animals) must have perforated walls which allow your calves to have direct visual and physical contact with each other. Some but not all open fronted pens do not meet this description.

- If you keep calves in groups, the unobstructed space you must allow for each calf must be:
 - at least 1.5 square metres for each calf with a liveweight of less than 150 kilograms (kg);
 - at least two square metres for each calf with a liveweight of 150kg or more but less than 200kg; and
 - at least three square metres for each calf with a liveweight of 200kg or more.
- If you keep your calves in a building, the floors must be:
 - smooth but not slippery so as to prevent injury to the calves;
 - designed so they do not cause injury or suffering to calves standing or lying on them;
 - suitable for the size and weight of the calves; and
 - rigid, even and stable.
- You must keep all housed calves (including those you keep in hutches or temporary structures) on, or at all times give them access to, a lying area. This area must be clean, comfortable, well-drained and well-maintained with appropriate dry bedding. It must not affect the calves in any negative way.
- If you keep your calves in an artificially lit building, you must provide artificial lighting for a period which is at least equal to the period of natural light normally available between 9.00am and 5.00pm.
- You must properly clean and disinfect housing, stalls, pens, equipment and utensils used for your calves to prevent cross-infection and the build-up of disease-carrying organisms. You must remove dung, urine and left-over food as often as necessary to reduce smells (as far as possible) and to avoid attracting flies or rodents.

Feed, Water and Other Substances

- You must feed all weaned calves at least twice a day.
- If you keep your calves housed in a group and they do not have continuous access to feed, or are not fed by an automatic-feeding system, you must make sure each calf has access to food at the same time as the others in the feeding group.
- As well as the general requirements for providing drinking water in SMR 13, you must give your calves fresh drinking water at all times in hot weather conditions or when they are ill.
- You must give all calves food which contains enough iron to make sure they have a blood haemoglobin level of at least 4.5mmol/litre.
- You must provide fibrous food daily to calves over 2 weeks of age; at least 100 grams must be provided at 2 weeks of age, rising in line with growth to at least 250 grams at 20 weeks old.

- You must make sure that each calf receives bovine colostrum as soon as possible after it is born. This must be within the first six hours of life.

Further information on the minimum standards for the protection of calves can be obtained from DARD Veterinary Service on 0300 200 7840 or on the DARD website: www.dardni.gov.uk/cross-compliance

SMR 12. Minimum Standards for the Protection of Pigs

The aim of these requirements is to protect the welfare of pigs by setting minimum standards for their care and husbandry.

Verifiable Standards

Freedom of Movement

- Your pigs must be free to turn round without difficulty at all times, including while tethered, where this is allowed. To meet this requirement, the minimum sizes for stalls are set out in the accommodation section below.
- You can only tether pigs for veterinary purposes. You must not tether them at any other time.
- Tethers must not cause pain or injury to your pigs. You must regularly inspect the tethers and adjust them if necessary to make sure they are a comfortable fit. Each tether must avoid the risk of strangulation, pain or injury and allow your pig to lie down, rest, stand up and groom itself without difficulty.

Accommodation, Environment and Equipment

- You must make sure the accommodation for your pigs allows each pig to:
 - stand up, lie down and rest without difficulty;
 - have a clean, comfortable and adequately drained place in which it can rest (including making sure that any bedding is clean, dry and not harmful to the pigs);
 - see other pigs (unless the pig is isolated for farrowing or for veterinary reasons);
 - maintain a comfortable temperature. This means that you cannot keep them in the high temperature/high humidity environment that is known as the 'sweat box system'; and
 - have enough space to allow all the pigs to lie down at the same time.
- For piglets, you must, if it is necessary to meet the requirements above, provide them with a source of heat and a dry and comfortable lying area away from the sow where all of them can rest at the same time.
- Stalls or pens used for holding individual pigs must allow them to turn around at all times. They must have the following measurements:
 - the inside area must be at least the square of the length of the pig;
 - no side inside the stall must be less than 75% of the length of the pig. The length of a pig is measured from the tip of its snout to the base of its tail while it is standing with its back straight.

The paragraph above does not apply under the following circumstances:

- to a female pig for the period between seven days before the predicted day of her farrowing and the day on which her piglets are weaned (including any piglets fostered by her);
- keeping a pig in a stall or pen for veterinary purposes;

- keeping a pig in a stall or pen for the purposes of servicing, artificial insemination or collecting semen;
 - keeping a pig in a stall or pen while it is fed;
 - keeping a pig in a stall or pen for the purposes of marking, washing or weighing it;
 - keeping a pig in a stall or pen while its accommodation is being cleaned;
 - keeping a pig in a stall or pen while it is waiting to be loaded for transportation.
- The period during which you keep the pig in this way must not be longer than needed for that purpose. The requirements for a minimum size of stall or pen also do not apply if these refer to a stall or pen that the pig can enter or leave when it wants. In this case, the stall must be entered from another stall or pen where the pig is normally kept and which does comply with the minimum standards.
- If you keep your pigs in a building, the floors must be:
 - smooth but not slippery so you prevent injuries to the pigs;
 - designed, built and maintained so they do not injure the pigs standing or lying on them or cause them suffering;
 - suitable for the size and weight of the pigs; and
 - rigid, even and stable (where no litter is provided).
 - If you use concrete slatted floors when keeping pigs in groups, the following measurements apply:

	Maximum width of the openings (millimetres)	Minimum width of slats (millimetres)
Piglets	11	50
Weaners	14	50
Rearing pigs	18	80
Gilts after service and sows	20	80

- As well as the general requirements in SMR 13, if you keep pigs in an artificially lit building, you must provide lighting of at least 40 lux for at least eight hours each day.
- You must not expose your pigs to constant or sudden noise. You must make sure that noise levels above 85 decibels are avoided in the part of any building where you keep your pigs.
- To enable proper investigation and manipulation activities, you must give all pigs permanent access to a sufficient quantity of material such as straw, hay, wood, sawdust, mushroom compost, peat or a mixture of such which does not affect their health in a negative way.
- If you keep weaners and rearing pigs together, you must take measures to prevent fighting which goes beyond normal behaviour. You must isolate, or keep separate from the group, pigs which show persistent aggression towards others or are victims of that aggression.

Feed, Water and Other Substances

- If you keep your pigs housed in a group and they do not have continuous access to feed, or are not fed by an automatic-feeding system, you must give each pig access to the food at the same time as the others in the feeding group. (Specific requirements for sows and gilts are set out on page 33.

Mutilations and Interventions

- You must not carry out any procedures on your pigs that result in damage to or loss of a sensitive part of the body or which change bone structure, except for reasons of treatment or diagnosis.
- The procedures which are allowed may only be carried out under hygienic conditions by:
 - a veterinary practitioner; or
 - a person who is legally allowed, has been trained in line with the appropriate laws and is experienced in carrying out the procedures.
- The procedures allowed are:
 - castration of male pigs - as long as the method used does not involve tearing tissue. If this is carried out after the pig is seven days old it must only be performed by a veterinary practitioner;
 - boars' tusks may be reduced in length where necessary to prevent injuries to other animals or for safety reasons;
 - nose ringing - but rings must not be put in animals kept continuously in indoor husbandry systems;
 - ear tagging or ear notching when carried out for identification purposes.
- The following two procedures must not be used routinely, but only if there is evidence that injuries to sows' teats or to other pigs' ears or tails have taken place:
 - evenly reducing the corner teeth of piglets by grinding or clipping. This must take place no later than seven days of age and must leave an intact smooth surface;
 - docking a part of the tail. If docking is carried out after the pig is seven days old, it must only be performed under anaesthetic by a veterinary practitioner and the pigs should receive prolonged pain relief for as long as necessary.
- Tooth reduction or tail docking must not be carried out unless you have already taken other measures to improve environmental conditions or management systems to prevent tail biting and other vices.

Specific Requirements for Boars

- You must place and build boar pens to allow the boars to turn round and to hear, see and smell other pigs. The pens must also contain clean resting areas and the lying area must be dry and comfortable.
- The minimum unobstructed floor area for an adult boar must be six square metres. However, when boar pens are also used for natural service, the floor area must be at least 10 square metres and must be free of any obstacles.

Specific Requirements for Sows and Gilts

- If necessary, you must treat pregnant gilts and sows against internal and external parasites.
- If they are placed in farrowing crates, you must thoroughly clean pregnant sows and gilts.
- In the week before the expected farrowing time, you must give sows and gilts enough suitable nesting material unless it is not technically practical because of the slurry system you use.
- During farrowing, an unobstructed area behind the sow or gilt must be available for the ease of natural or assisted farrowing.
- If you keep sows loose in farrowing pens, there must be some method of protecting the piglets, such as farrowing rails.
- In the week before the expected farrowing time and during farrowing, you may keep sows and gilts out of sight of other pigs.
- You must keep sows and gilts in groups except during the period between seven days before the predicted day of farrowing and the day on which the weaning of piglets (including any piglets fostered) is complete. The pen where you keep the group must have sides greater than 2.8 metres (m) in length, except when there are fewer than six in the group. In this case, the sides of the pen must be no less than 2.4m in length. On holdings of fewer than 10 sows, you may keep sows and gilts individually as long as their accommodation keeps to the general requirements for pig accommodation.
- The total unobstructed floor area available to each female pig after service, when you keep them in groups, must be at least 1.64 square metres for each gilt and 2.25 square metres for each sow. When you keep these animals in groups of fewer than six, you must increase the unobstructed floor area by 10%. When you keep these animals in groups of 40 or more, you can reduce the unobstructed floor area by 10%. A part of this - equal to at least 0.95 square metres for each gilt and at least 1.3 square metres for each sow - must be continuous solid floor. Up to 15% of this area may be for drainage openings.
- As well as the requirements of the paragraph entitled Feed, Water and Other Substances on page 32, you must feed sows and gilts using a system which means each pig can get enough food even when other pigs are competing for food.
- You must give all dry pregnant sows and gilts enough bulky or high-fibre food as well as high-energy food to satisfy their hunger and need to chew.

Specific Requirements for Piglets

- A part of the total floor where you keep the piglets must be large enough to allow the animals to rest together at the same time, and must be solid or covered with a mat, or be littered with straw or any other suitable material.

- If you use a farrowing crate, you must give the piglets enough space to be able to be suckled without difficulty.
- You must not wean piglets from the sow at an age of less than 28 days unless the welfare or health of the dam or piglets would otherwise be affected negatively. You may wean them up to seven days earlier if you move them into specialised housing which you empty and thoroughly clean and disinfect before you introduce a new group and which is separate from housing where you keep sows.

Specific Requirements for Weaners and Rearing Pigs

- The unobstructed floor area available to each weaner or rearing pig reared in a group must be at least:

Minimum unobstructed floor area (square metres)	Average weight of pigs in the group (kilograms)
0.15	10 or less
0.20	Greater than 10 but less than or equal to 20
0.30	Greater than 20 but less than or equal to 30
0.40	Greater than 30 but less than or equal to 50
0.55	Greater than 50 but less than or equal to 85
0.65	Greater than 85 but less than or equal to 110
1.00	Greater than 110

- You must place pigs in groups as soon as possible after weaning. You must keep them in stable groups with as little mixing as possible.
- If you have to mix pigs that are unfamiliar with one another, you should do this at as young an age as possible, preferably before or up to one week after weaning. When you mix pigs, you must give them enough opportunities to escape and hide from other pigs they are not familiar with.
- If signs of severe fighting appear, the causes must be immediately investigated and appropriate measures taken.
- Tranquilising medication, used on pigs in order to help with mixing, must not be used unless there are exceptional conditions and only after you have consulted a veterinary practitioner.

Further information on the minimum standards for the protection of pigs can be obtained from DARD Veterinary Service on 0300 200 7840 or on the DARD website: www.dardni.gov.uk/cross-compliance

SMR 13. Protection of Animals Kept for Farming Purposes

The aim of these requirements is to protect the welfare of farmed animals by setting minimum standards for their care and husbandry.

Verifiable Standards

Staffing

- You must make sure that your animals are cared for by sufficient staff who have the appropriate ability, knowledge and professional skills.

Inspection

- You must inspect your animals thoroughly at least once a day to check that they are well if kept in husbandry systems where their welfare depends on frequent human attention. In systems other than this, you must inspect them at intervals which will avoid them suffering. You will find the specific requirements relating to calves in SMR 11.
- You must have enough lighting so that you can carry out a thorough inspection at any time. This lighting may be fixed or portable.
- Where any animals (other than poultry) are kept in a building they shall be kept on, or have access at all times to, a lying area which is well drained or well maintained with dry bedding. Poultry (other than laying hens in establishments of more than 350 birds) kept in a building, shall be kept on or have access at all times to well-maintained litter or a well-drained area for resting.
- If any of your animals appear ill or injured, you must care for them immediately. If they do not respond to this care, you must get veterinary advice as soon as possible. If necessary, you must isolate sick or injured animals in suitable accommodation with dry comfortable bedding.

Keeping Records

- You must keep a record of:
 - any medicinal treatment given to your animals; and
 - the number of deaths found when the animals are inspected.
- You must keep these records for at least three years under animal welfare laws (from the date on which the treatment was given, or the date of the relevant inspection for deaths). You must make the records available to any authorised person at an inspection or when otherwise asked for.

Veterinary medicine records that you currently keep for other purposes are acceptable for this requirement, providing they meet the minimum requirements set out by the Veterinary Medicines Directorate (VMD).

Freedom of Movement

- You must not restrict your animals' freedom of movement if this causes them unnecessary suffering or injury. You should take account of the species of animal, established experience and scientific knowledge. Where appropriate you should also note the requirements for calves (SMR 11) and pigs (SMR 12).
- If your animals are continuously or regularly tethered or confined, you must give them enough space to avoid unnecessary stress. You must also allow them to exhibit their normal behaviour in line with established experience and scientific knowledge. Where appropriate you should also note the requirements relating to tethering - for calves (SMR 11) and pigs (SMR 12).

Accommodation, Environment and Equipment

- Materials used in building accommodation must not be harmful to your animals. This would include, for example, lead paint or excessively rusting metal. This particularly refers to the pens, cages, stalls and equipment which your animals may come into contact with.
- You must use materials that can be thoroughly cleaned and disinfected.
- You must build and maintain accommodation so that there are no sharp edges or anything that sticks out and could injure your animals.
- You must keep air circulation, dust levels, temperature, relative air humidity and gas concentrations within limits which will not harm your animals.
- When you keep animals in buildings, you must not keep them in permanent darkness.
- You must provide enough artificial lighting if there is not enough natural light in a building to meet the animals' biological needs and normal behaviour. In this case, you must also give them an appropriate period of rest from artificial lighting.
- Where appropriate you should also note the requirements for calves (SMR 11) and pigs (SMR 12).
- You must, if necessary, give animals protection from adverse weather conditions, predators and risks to their health when not kept in buildings. At all times, they must have access to a well-drained lying area.
- If you have any automated or mechanical equipment that is essential for the health and wellbeing of your animals, you must inspect it at least once a day to check that there are no faults with it and that no parts of the equipment have become seriously worn. If you discover any faults or you find parts of the equipment that have become seriously worn, you must correct these immediately. If this is impossible, you must take appropriate steps to protect the health and wellbeing of your animals until you can get the fault rectified. These steps may include using other methods of feeding and watering and methods of providing and maintaining a satisfactory environment.

- If the health and wellbeing of your animals depends on an artificial ventilation system, you must have an appropriate back-up system which, if the main system fails, guarantees enough air renewal.
- If the health and wellbeing of your animals depends on an artificial ventilation system, an alarm system must be provided, independent of the principal electricity supply, to give warning of any failure of the system.
- You must thoroughly inspect the ventilation back-up system at least once every seven days and test each alarm system at least once every seven days to check that they work. If you find any faults (whether at inspection or at any other time), you must put them right immediately. If you have an audible alarm, you must respect the requirement relating to exposure of pigs to noise (SMR 12).

Feed, Water and Other Substances

- You must feed your animals a wholesome diet which is appropriate to their age and species. They must receive enough food to keep them healthy, meet their nutritional needs and promote a positive state of wellbeing.
- You must give all animals access to feed at intervals appropriate to their biological needs (and, in any case, at least once a day). This applies unless your vet has told you otherwise. Where appropriate you should also note the requirements for calves (SMR 11).
- You must give all animals either access to a suitable water supply and enough fresh drinking water each day or they must be able to get enough fluid in any other way.
- You must not give your animals food or liquid in a manner, or containing any substance, which may cause them unnecessary suffering or injury.
- You must design, build, place and maintain feeding and watering equipment so that you minimise any contamination of food and water and the harmful effects of competition between animals.
- You must not administer a substance which is harmful to your animals' health and welfare apart from those given on the advice of a veterinary practitioner for treatment or preventative reasons.

Mutilations and Interventions

- The general rule regarding mutilations and interventions is that you should not carry out such actions on your animals.
- However, some procedures may be justified because of the overall welfare benefit obtained through performing them. Where such an acceptable mutilation is carried out on livestock species, it must be done so with an anaesthetic in accordance with United Kingdom law and by an appropriately trained person. Where United Kingdom law requires a veterinary practitioner to carry out a mutilation, it must not be done by anyone else. The Welfare of Animals (Permitted Procedures by Lay Persons) Regulations (NI) 2012 lists the procedures which may be carried out on farm species in Northern Ireland and the conditions attached to these procedures.

Breeding Procedures

- You must not carry out natural or artificial breeding or breeding procedures which cause, or are likely to cause, suffering or injury to any of your animals (such as inappropriate mating with an immature or unsuitably sized female). This does not prevent you from using natural or artificial breeding procedures that are likely to cause minimal or momentary suffering or injury, or that might require interventions which would not cause lasting injury. You can continue using procedures that are currently allowed under existing law.
- You must not keep animals for farming purposes unless it can reasonably be expected, on the basis of the normal genetic and physical characteristics of their breed, that you can keep them without any negative effects on their health or welfare.

Electrical Immobilisation

- You must not apply an electrical current to any animal for the purpose of immobilisation.

Further information on the minimum standards for the protection of animals kept for farming purposes can be obtained from DARD Veterinary Service on 0300 200 7840 or on the DARD website:

<http://www.dardni.gov.uk/index/animal-health-and-welfare/animal-welfare.htm>

Section 2

Good Agricultural and Environmental Condition (GAEC) Standards

GAEC 1: Establishment of buffer strips along water courses

The aim of this requirement is to protect water courses from pollution from chemical fertiliser and organic manure.

Verifiable Standards

- You must not apply chemical fertiliser within 2 metres of a waterway.
- You must not apply organic manure within
 - 20 metres of lakes; or
 - 10 metres of any other waterway, including open areas of water, open field drains or any drain which has been backfilled to the surface with permeable material such as stone/aggregate. However this may be reduced to 3 metres, provided the land has an average incline of less than 10% towards the waterway, and the organic manures are spread by band spreaders, trailing shoe, trailing hose or soil injection; or where the adjoining area is less than one hectare in size, or not more than 50 metres in width, or 50 metres of a borehole, spring or well, or 250 metres of a borehole used for a public water supply, or 15 metres of exposed cavernous or karstified limestone features (such as swallowholes and collapse features).
- You must not apply fertilizers on grassland with an average incline of greater than 15% and any other land with an average incline of greater than 12% -
 - for organic manures within—
 - 30m of lakes; or
 - 15m of any waterway, other than lakes, including open areas of water, open field drains or any drain which has been backfilled to the surface with permeable material such as stone/aggregate; and
 - for chemical fertiliser within—
 - 10m of lakes; or
 - 5m of any waterway, other than lakes, including open areas of water, open field drains or any drain which has been backfilled to the surface with permeable material such as stone/aggregate.

Further information on GAEC1 can be obtained from NIEA on 028 92623184 or on the NIEA website: http://www.doeni.gov.uk/niea/water-home/agri_regs.htm

GAEC 2: Irrigation Authorisations

The aim of these requirements is to manage the use of water for irrigation.

Verifiable Standards

- If you are abstracting or impounding more than 10m³ but less than 20m³ of water in any 24 hour period you must have an authorisation and adhere to the requirements of the authorisation.
- If you are abstracting or impounding 20m³ or more of water in any 24 hour period you must hold an abstraction licence and adhere to the requirements of the licence.

Further information on GAEC 2 can be obtained from the Abstraction and Impoundment Licensing Team on 028 9263 3482, Fax: 028 9267 6054, Email: AIL.Team@doeni.gov.uk or on the NIEA website: http://www.doeni.gov.uk/niea/waterhome/water_resources/abstraction.htm

GAEC 3: Protection of groundwater against pollution

The aim of these requirements is to protect groundwater by controlling the discharge or disposal of potentially harmful and polluting materials.

Verifiable Standards

- If you are disposing of hazardous substances or non-hazardous pollutants to land you must obtain and meet the conditions of a Groundwater Authorisation.
- You must produce on request satisfactory records, as detailed in the Groundwater Authorisation.
- There must be no evidence of the pollution of groundwater by hazardous substances or non-hazardous pollutants.
- You must ensure the proper siting, operation and maintenance of a sheep dipper (as outlined in the Code of Good Agricultural Practice for the Prevention of Pollution of Water, Air and Soil).
- You must comply with any Notice served by NIEA under the Groundwater Regulations (Northern Ireland) 2009.

Note - For the purposes of this GAEC hazardous substances and non-hazardous pollutants are considered to be the dangerous substances as listed in the Annex to the Directive 80/68/EEC in its version in force on the last day of its validity, as far as it relates to agricultural activity.

A full list of the substances is shown in Annex 2 of this document.

Further information on GAEC 3 can be obtained from NIEA on 028 9263 3184 or on the NIEA website: http://www.doeni.gov.uk/niea/water-home/agri_regs/agri_regs_groundwater.htm

GAEC 4: Minimum Soil Cover

The aim of this requirement is to protect soil as a resource by ensuring minimum soil cover to prevent soil erosion.

Verifiable Standards

- After harvesting a crop of cereals (other than maize), oil seeds, grain legumes (for example, peas, beans or sweet lupins), you must ensure that from harvest until 15th January in the following year one of the following conditions is met on that land at any time:
 - the stubble of the harvested crop remains in the land; or
 - the land is sown with a crop which will take up Nitrogen.

You will not be in breach of this requirement if you have prepared the land as a seedbed but are unable to sow the crop within 10 days (because to do so would result in a breach of the GAEC standard on waterlogged soil) or because extreme weather conditions make this impracticable. In either case, the land must be sown as soon as practicable.

This requirement does not apply in relation to any land between 1st November and 15th January where the land is used for a ploughing match organised by the Northern Ireland Ploughing Association or any body affiliated to it and that association or body has received a derogation from the Department.

- Residues of crops harvested late (after 1st November), such as maize and potatoes, must be left undisturbed until just before sowing the following spring.

Exceptions to the two standards above

Exceptions will be granted where one or more of the following applies:

- ▶ *The soil is waterlogged only within 5 metres of a gateway or other access point and access is required to an area of land that is not waterlogged;*
- ▶ *The area is an established track to land that is not waterlogged;*
- ▶ *Mechanical operations are required to improve the drainage of the land;*
- ▶ *Poaching of soil is a necessary consequence of works that are required to ensure the welfare of humans or animals;*
- ▶ *It is necessary for the protection of animal welfare during periods of extreme weather conditions;*
- ▶ *DARD has granted a temporary exemption from this rule because of extreme weather conditions, in which case you will need to comply with any conditions that are attached including reinstatement requirements.*

Further information on GAEC 4 can be obtained from DARD Countryside Management Unit on 0300 200 7842 or on the DARD website: www.dardni.gov.uk/cross-compliance

GAEC 5: Minimum land management reflecting site specific conditions to limit erosion

The aim of this requirement is to protect soil as a resource by preventing soil erosion.

Verifiable Standards

- You must protect soils from erosion and maintain soil structure by preventing land from being excessively trampled, poached or rutted including on bank sides and along water courses.
- You must not carry out any cultivations if water is standing on the surface, or if the soil is waterlogged. Cultivations include any mechanical field operation, for example, harvesting, manure spreading, ploughing or discing.

Exceptions to the two standards above

Exceptions will be granted where one or more of the following applies:

- ▶ *The soil is waterlogged only within 5 metres of a gateway or other access point and access is required to an area of land that is not waterlogged;*
 - ▶ *The area is an established track to land that is not waterlogged;*
 - ▶ *Mechanical operations are required to improve the drainage of the land;*
 - ▶ *Poaching of soil is a necessary consequence of works that are required to ensure the welfare of humans or animals;*
 - ▶ *It is essential to harvest a crop of fresh vegetables and/or fruit to meet contractual deadlines, or where the quality of the produce would deteriorate if not lifted;*
 - ▶ *It is necessary for the protection of animal welfare during periods of extreme weather conditions;*
 - ▶ *DARD has granted a temporary exemption from this rule because of extreme weather conditions, in which case you will need to comply with any conditions that are attached including reinstatement requirements.*
- Supplementary feeding sites and sacrifice areas should be rotated and managed to prevent excessive trampling, poaching or vehicle rutting to minimise soil erosion and must not cause runoff to waterways. Sacrifice areas must be ploughed and sown in the following spring. Natural regeneration (recovery of the sward) and surface seeding will be permitted provided there is at least 90% grass/crop coverage by the end of spring.
 - You must avoid overgrazing grassland, semi-natural habitat, or archaeological sites with livestock in such numbers which would damage the growth, quality or species composition of vegetation on that land to any significant degree (that is, where there is no vegetative cover and/or there is evidence of run-off or standing water).

Exception to the two standards above:

- ▶ *The standards do not apply on land where these requirements conflict with the management required by Areas of Special Scientific Interest, Special Protection Areas, Special Areas of Conservation and/or Agri-environment scheme agreement;*

- ▶ *The standards do not apply to areas within 5 metres around gateways/laneways provided this land is not a semi-natural habitat, archaeological site within 10 metres from waterways, or 50 metres from boreholes or wells, or 250 metres from boreholes used for a public water supply;*
- ▶ *Exceptions will be granted where it is necessary for the protection of animal welfare during periods of extreme weather conditions.*
- You must not burn heather, gorse, whin or fern between 15th April and 31st August to prevent erosion.

Further information on GAEC 5 can be obtained from DARD Countryside Management Unit on 0300 200 7842 or on the DARD website: www.dardni.gov.uk/cross-compliance.

Further information on the Nitrates Directive can be obtained from NIEA on telephone number - 028 9262 3184 or on the NIEA website: www.ni-environment.gov.uk

GAEC 6: Maintenance of soil organic matter level through appropriate practices including ban on burning arable stubble, except for plant health reasons

The aim of this requirement is to protect soil as a resource through maintaining soil carbon stocks.

Verifiable Standards

- On agricultural land you must not burn any of the following crop residues:
 - cereal straw;
 - cereal stubble;
 - residues of oil-seed rape;
 - field beans harvested dry or peas harvested dry;unless the burning is for the purposes of disease control or the elimination of plant pests where a notice has been served under Article 32 of the Plant Health Order (Northern Ireland) 2006.

Exception to the standard above:

- ▶ *A temporary exemption may be granted in cases of extreme weather conditions in which case you will need to comply with any conditions that are attached.*
- You must not plough, cultivate or intensify (including the extraction of peat, sand or gravel) semi-natural habitats unless you comply with the DARD Environmental Impact Assessment (Agriculture) Regulations (Northern Ireland) 2007.

Further information on GAEC 6 can be obtained from DARD Countryside Management Unit on 0300 200 7842 or on the DARD website: www.dardni.gov.uk/cross-compliance

GAEC 7: Retention of landscape features

The aims of this requirement are to retain landscape features, ensure a minimum level of maintenance for their protection and prevent encroachment by invasive species.

Verifiable Standards

- You must prevent encroachment by invasive species. (Invasive species are Rhododendron, Giant hogweed, Japanese knotweed, Himalayan balsam, wild oat, dock, thistle and ragwort).

Exception to the standard above:

The measure above does not apply on land where these requirements conflict with the management required by:

- ▶ *Areas of Special Scientific Interest, Special Protection Areas or Special Areas of Conservation. Contact NIEA Conservation Designations and Protection on 028 9056 9515 or www.doeni.gov.uk/niea for further information;*
- ▶ *Scheduled archaeological sites. Contact NIEA Historic Monuments Unit on 028 9054 3110 or www.doeni.gov.uk/niea;*
- ▶ *Agri-environment scheme agreement. Contact DARD on 0300 200 7842.*
- You must not remove landscape features (dry stone walls, ditches or sheughs, hedgerows, including trees in hedgerows and earthbanks) except by prior written permission from DARD. This includes infilling or laying drainage pipes in open ditches or sheughs.
- If you have received written permission from DARD to remove a landscape feature (dry stone walls, ditches or sheughs, hedgerows, including trees in hedgerows, and earthbanks) you must carry out the mitigating action set out in the written permission within the deadline set by DARD.

Exceptions to the two standards above:

- ▶ *Hedgerow trees may be removed if there are health and safety reasons unless a tree preservation order is in place;*
- ▶ *These measures do not apply to permanently dry ditches or sheughs or to field boundaries within, or marking the boundary of non-agricultural land (for example, a dwelling-house or building site).*
- Hedge, tree or scrub cutting (including trimming and laying) is not permitted between 1st March and 31st August.

Exception to the standard above:

- ▶ *Hedge cutting between 1st March and 31st August will be permitted where health and safety is an issue, for example, roadside hedges.*
- You must not damage archaeological sites including not siting supplementary feeding sites/sacrifice areas within 10 metres of a site.

Further information on GAEC 7 can be obtained from DARD Countryside Management Unit on 0300 200 7842 or on the DARD website: www.dardni.gov.uk/cross-compliance

ANNEX 1

Good Agricultural and Environmental Condition (GAEC) Definitions

Archaeological site

Historic or archaeological site which has been identified by the Department of the Environment in the Northern Ireland Sites and Monuments Record.

Area of Special Scientific Interest

An area of land that is of special interest by reason of its, fauna, or geological, physiographical or other features that has been declared an area of Special Scientific Interest by the Department of the Environment pursuant to Article 28 of the Environment (Northern Ireland) Order 2002 or previously in accordance with Article 24 of the Nature Conservation and Amenity Lands (Northern Ireland) Order 1985.

Borehole

A hole which has been drilled in land in order to provide a water supply whether or not currently used for this purpose.

Dry stone wall

A linear in-field or boundary feature built without the use of cement or mortar (apart from the capping layer). A dry stone wall does not have to be stock proof and may have gaps up to 3 metres within it. To be a dry stone wall the feature must be at least 3 metres long.

Earthbank

A man-made linear feature of limited occurrence usually made up of a core of stones covered with sods. River banks, earth silo banks or mounds of earth resulting from excavation are not classified as earthbanks.

Groundwater

The meaning assigned to it by regulation 2(1) of the Groundwater (Northern Ireland) Regulations 2009.

Hedgerow

An in-field or boundary linear feature with hedge-like shape and characteristics. A hedgerow is composed predominantly of woody species such as hawthorn, blackthorn, whins and trees but may also include briars and bramble. Scrub encroachment and weeds such as nettles and thistles do not constitute a hedgerow. A hedgerow does not have to be stockproof and gaps of no more than 5m at canopy level are considered to be part of the hedgerow. To be a hedgerow the feature must be at least 5m long with bushes (excluding tree crowns) which at the top of the canopy are touching or almost touching or, in the case of newly planted hedges, will reach this standard when fully grown.

Intensify

To increase the productivity of land for agriculture.

Invasive species

Rhododendron, Giant Hogweed, Japanese Knotweed, Himalayan Balsam, wild oat (*Avena fatua* L. and *Avena ludoviciana* Durieu) dock (*Rumex obtusifolius* L. and *Rumex crispus* L.) thistle (*Cirsium vulgare* (Savi) Ten and *Cirsium arvense* (L.) Scop.) and ragwort (*Senecio jacobaea* L.).

Landscape feature

Dry stone walls, sheughs or ditches, hedgerows, including trees in hedgerows, and earthbanks.

Mechanical operations

Field operations, for example, harvesting, manure spreading, ploughing or discing.

Overgrazing

Grazing land with livestock in such numbers as to damage the growth, quality of species composition of vegetation on that land to a significant degree.

Ploughing

Making furrows in land mechanically, by breaking and turning over the soil.

Poaching

The prolonged trampling of waterlogged soil by animals or humans or the use of machinery or vehicles on waterlogged soil.

Sacrifice area

A supplementary feeding site which is grazed bare by livestock.

Scrub

Areas which contain shrubs, stunted trees or brambles. Scrub may be open or dense and contain hawthorn, blackthorn, gorse (whin), bramble, honeysuckle, dog rose, bushy willows (sally) or stunted hazel with few or no mature trees present.

Semi-natural habitat

Includes an area which is not subject to an intensive farming regime, such as calcareous grassland; acid grassland; bracken; dwarf shrub heath; fen, marsh and swamp; bog; montane habitats; inland rock; neutral grassland; broadleaved, mixed and yew woodland; standing water and canals; species-rich upland or lowland hay meadow; and coastal and floodplain grazing marsh.

Sheugh or ditch

An open channel with water in it for at least part of the year and no more than 2 metres wide at the base. Naturally flowing streams and rivers of any width are excluded as are water courses of any width maintained by the Rivers Agency.

Special Area of Conservation

An area of land designated as a Special Area of Conservation by the Department of the Environment pursuant to Article 4 of Council Directive 92/43/EEC on the conservation of Natural Habitats and of Wild Fauna and Flora.

Special Protection Area

An area of land classified as a Special Area Of Protection by the Department of the Environment pursuant to Article 4 of Directive 2009/147/EC on the conservation of wild birds (the codified version of Council Directive 79/409/EEC as amended).

Supplementary feeding site

Any land under the control of a farmer (other than a farm building or farmyard) where concentrates, fodder or mineral licks are fed to livestock.

Tree preservation order

Has the same meaning as in Article 65 of the Planning Order (Northern Ireland) 1991.

Water Order

The Water (Northern Ireland) Order 1999.

Waterlogged

A situation when the watertable rises into the root zone of the plant and the soil is saturated with water. The soil is boggy under foot.

Waterway

Has the same meaning as in Article 2(2) of the Water (Northern Ireland) Order 1999.

ANNEX 2

List of Families and Groups of Substances

LIST I OF FAMILIES AND GROUPS OF SUBSTANCES

List I contains the individual substances which belong to the families and groups of substances enumerated below, with the exception of those which are considered inappropriate to list I on the basis of a low risk of toxicity, persistence and bioaccumulation.

Such substances which with regard to toxicity, persistence and bioaccumulation are appropriate to list II are to be classed in list II.

1. Organohalogen compounds and substances which may form such compounds in the aquatic environment.
2. Organophosphorus compounds.
3. Organotin compounds.
4. Substances which possess carcinogenic mutagenic or teratogenic properties in or via the aquatic environment¹.
5. Mercury and its compounds.
6. Cadmium and its compounds.
7. Mineral oils and hydrocarbons.
8. Cyanides.

LIST II OF FAMILIES AND GROUPS OF SUBSTANCES

List II contains the individual substances and the categories of substances belonging to the families and groups of substances listed below which could have a harmful effect on groundwater.

1. The following metalloids and metals and their compounds:
 1. Zinc
 2. Copper
 3. Nickel
 4. Chrome
 5. Lead
 6. Selenium

⁴ Where certain substances in list II are carcinogenic, mutagenic or teratogenic, they are included in category 4 of this list.

7. Arsenic
 8. Antimony
 9. Molybdenum
 10. Titanium
 11. Tin
 12. Barium
 13. Beryllium
 14. Boron
 15. Uranium
 16. Vanadium
 17. Cobalt
 18. Thallium
 19. Tellurium
 20. Silver.
2. Biocides and their derivatives not appearing in list I.
 3. Substances which have a deleterious effect on the taste and/or odour of groundwater, and compounds liable to cause the formation of such substances in such water and to render it unfit for human consumption.
 4. Toxic or persistent organic compounds of silicon, and substances which may cause the formation of such compounds in water, excluding those which are biologically harmless or are rapidly converted in water into harmless substances.
 5. Inorganic compounds of phosphorus and elemental phosphorus.
 6. Fluorides.
 7. Ammonia and nitrites.

ISBN 978-84807-506-1



Department of
**Agriculture and
Rural Development**

www.dardni.gov.uk

AN ROINN

**Talmhaíochta agus
Forbartha Tuaithe**

MÁNNYSTRIE O

**Fairms an
Kintra Fordèrin**



**INVESTORS
IN PEOPLE**