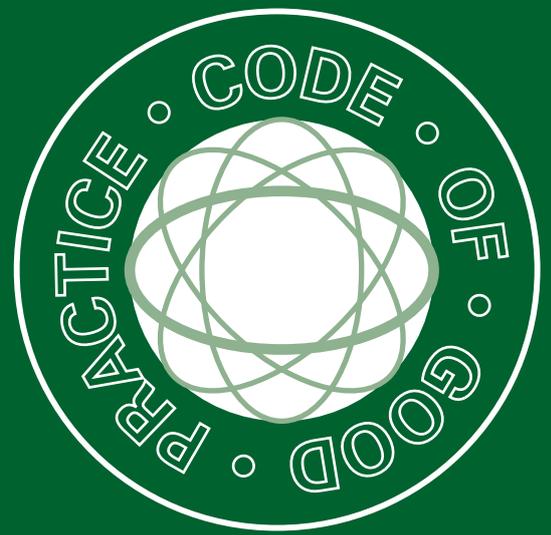


Prevention of
Environmental
Pollution
From
Agricultural
Activity



DOs and DON'Ts Guide

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INTRODUCTION

This guidance updates and replaces the original booklet issued in 2002 (titled the “PEPFAA Dos and Don'ts Guide”). Like the previous version, it has been produced by the Scottish Executive with the assistance of members of the Scottish Agricultural Pollution Group (which includes NFU Scotland, the Scottish Agricultural College and the Scottish Environment Protection Agency (SEPA) working in partnership with the Executive). The overall aim is to help protect and enhance Scotland's environment, in line with the vision presented in the Scottish Executive's "Forward Strategy for Scottish Agriculture".

The purpose of this guidance is to provide farmers and crofters and those involved in farming activities, such as agricultural contractors and companies involved in spreading organic manures to land, with practical advice on how to prevent pollution.

This document is not intended to be exhaustive. Fuller and more detailed guidance is available in the Prevention of Environmental Pollution From Agricultural Activity code of good practice (the “PEPFAA Code”).

The steps highlighted in **red** in the "DO" and "DON'T" sections in the following pages are **mandatory** for farm businesses affected by the relevant legislation. Complying with the steps highlighted in **amber** is a **requirement** for receipt of the Single Farm Payment. [*In that context, “GAEC” means Good Agricultural and Environmental Condition.*] The steps highlighted in **green** are **voluntary**, but if implemented will help minimise the risk of environmental pollution and, in many cases, will improve the quality of our environment.

In the event of a pollution emergency, SEPA should be your first point of contact on their Emergency Hotline Number 0800 80 70 60. Also, advice on complying with legal requirements is available on the NetRegs part of the SEPA website at www.sepa.org.uk

Copies of this guidance, and of the full PEPFAA Code, can be found in electronic format at www.scotland.gov.uk

SECTION 2

DIFFUSE AGRICULTURAL POLLUTION

Diffuse agricultural pollution contaminates the air, soil and water environments. Activities such as ploughing, seedbed preparation, crop spraying, fertiliser spreading and applying slurry to land can all contribute to diffuse pollution. Run-off from farm roads and yards, the surface of fields, and dusty roofs after rainfall are all potential sources of pollution. There is therefore a wide range of potential diffuse pollution sources which are associated with farming practices and which can harm the environment. SEPA considers that diffuse agricultural pollution is now the most significant cause of poor river quality in certain parts of Scotland, and that it will continue to be unless appropriate action is taken at individual farm and catchment level to turn the situation around.

The total effect of a number of individually minor sources of contamination becomes increasingly significant over an entire catchment area. Small watercourses, affording little dilution, are more likely to be adversely affected by diffuse pollution than larger rivers, but diffuse sources of nutrients can also affect large water bodies, especially lochs which have low levels of plant nutrients naturally.

DOs

1. All cropped land over the following winter must, where soil conditions after harvest allow, have either: crop cover, grass cover, stubble cover, ploughed surface or a roughly cultivated surface. Fine seedbeds must only be created very close to sowing.
[GAEC measure 1]
2. Protect your soil by following the guidance in this Code regarding preventing damage and erosion.
3. Follow "The 4 Point Plan", which offers guidance on how to:
 - reduce dirty water around the farm;
 - improve nutrient use;
 - carry out a land risk assessment for slurry and manure;
 - manage your water margins.
4. Use buffer strips and other measures to reduce surface run-off from fields.

DON'Ts

1. Don't allow the runoff from roads, farmyards, hard standings and ring feeder areas used by stock to discharge directly to a watercourse.
2. Don't allow livestock to have access to watercourses. Instead, provide water at drinking troughs wherever possible.
3. Don't employ any agricultural contractor or company involved in spreading organic waste to land unless they are competent and suitably trained, are aware of legal requirements and are willing to follow the guidance in this Code.
4. Don't use pesticides, veterinary medicines or chemicals unless there is an identified need.
5. Don't allow the rainwater from poultry buildings that are ventilated to the roof to discharge directly to a watercourse.

DOs

- 5.** Carefully plan all storage and handling arrangements for livestock slurries and manures, animal feedstuffs, silage effluent, agricultural fuel oil, dirty water, fertilisers, veterinary medicines, chemicals and pesticides at your farm.
- 6.** Maintain a suitable distance from any watercourse including ditches (e.g. 10m) or drinking water supplies (e.g. 50m), especially when handling or applying fertilisers, organic wastes, pesticides or other chemicals.
- 7.** Think about ways to protect and enhance your local environment, and how to minimise the impacts of diffuse agricultural pollution of water, land and air.
- 8.** Account for every input, especially of nutrients, pesticides and other chemicals through careful planning.
- 9.** Ensure that any biobed, reedbed, wetland or infiltration system installed to reduce the risk of diffuse pollution is discussed with SEPA before it is constructed.
- 10.** Obtain specialist advice when considering using wetlands, ponds or infiltration systems to treat contaminated roof or dirty yard run-off at the farm steading.
- 11.** Adopt “good housekeeping” and waste minimisation practices that aim to prevent pollution at source.
- 12.** Minimise the area of farmyard and roads over which animals can excrete and over which equipment transporting slurry is moved. Take steps to control the run-off from these areas.
- 13.** Ensure sprayer operators are fully trained and possess certificates of competence and that sprayers are properly maintained and regularly tested.

DON'Ts

- 6.** Don't directly overspray a watercourse when using pesticides.
- 7.** Don't hesitate to get involved in catchment partnerships to address diffuse agricultural pollution.
- 8.** Don't forget that over-abstraction of irrigation water from watercourses can cause downstream water pollution.

SOIL PROTECTION AND SUSTAINABILITY

Soil quality and husbandry is fundamental to the sustainability of agriculture, landscapes and biodiversity. Soils not only form the basis of agricultural production, but also filter and buffer pollutants. Good soil management practices will help ensure that the requirements of Good Agricultural and Environmental Condition (GAEC) are met with regard to soil erosion, soil organic matter, soil structure and minimum levels of maintenance. Good soil management also plays a significant role in minimising diffuse pollution.

Soil is a finite resource which should be well managed to meet the needs of the present without compromising the ability of future generations to meet their own needs. The stripping or removal of soil for sale is an offence unless you have planning permission.

DOs

1. Comply with the Sludge (Use in Agriculture) Regulations 1989 (as amended) if sewage sludge is to be applied to prevent contamination with Potentially Toxic Elements (PTEs).
2. On arable land :
 - (i) use suitable break crops in an arable rotation ; or
 - (ii) optimise the use of organic materials by basing rates of application on soil and crop needs. Where break crops are not used, a record should be kept for 5 years of organic materials and the quantities applied to arable land. [GAEC measure 7]
3. Follow the latest edition of the Muirburn Code. [GAEC measure 6]
4. All cropped land over the following winter must, where soil conditions after harvest allow, have either: crop cover, grass cover, stubble cover, ploughed surface or a roughly cultivated surface. Fine seedbeds must only be created very close to sowing. [GAEC measure 1]

DON'Ts

1. Don't strip or remove topsoil for sale, as this is an offence unless you have planning permission.
2. Don't apply non-agricultural wastes to agricultural land without obtaining the necessary permit or exemption from SEPA.
3. Do not carry out any cultivations if water is standing on the surface or the soil is saturated. [GAEC measure 9]
4. Don't apply inorganic fertilisers or organic manures without taking account of soil nutrient status and crop requirements.
5. Don't leave the bed or banks of ditches bare, as this may lead to erosion and inhibit filtration.
6. Don't clear out entire lengths of ditch at one time. Clear only one side of the ditch or leave vegetation breaks within the ditch to maintain wildlife corridors.

DOs

5. (i) Maintain functional field drainage systems, including clearing ditches, unless environmental gain is to be achieved by not maintaining field drainage systems.
(ii) Where environmental gain is to be achieved, this must be declared on the IACS return. *[GAEC measure 5]*
6. In areas prone to wind erosion you must take steps to reduce the risk of soil loss in spring by maintaining crop cover, using coarse seedbeds, shelter belts or nurse crops, or use other appropriate measures with an equivalent effect. *[GAEC measure 2]*
7. On sites where capping is a problem you must form a coarse seedbed or break any cap that forms to avoid erosion. *[GAEC measure 3]*
8. (i) Prevent erosion of land, particularly, banks of watercourses, watering points and feeding areas from overgrazing, heavy trampling or heavy poaching by livestock.
(ii) Where this occurs, reduce stock until the land has recovered. All problems should be rectified at any time during the next growing season after the period that the problem has occurred.
(iii) This measure does not apply to areas within 10m of a gateway and 3m of farm tracks necessarily used during wet periods.
[GAEC measure 4]
9. Inspect soils routinely for loss of structure, signs of damage, capping and erosion.
10. Identify and protect vulnerable soils prone to erosion and leaching.
11. Ensure effective use of chemical and organic fertilisers by basing rates of application on soil analysis and identified crop needs.

DON'Ts

7. Don't allow soils to become contaminated with PTEs.
8. Don't position access points and gateways at the lowest point of a field (to reduce the potential for channelling surface water run-off and to cut off the route for any eroded soil particles).
9. Don't carry out significant excavation works in watercourses without consulting with SEPA.
10. Don't erect physical barriers in watercourses, as these can cause serious erosion.

DOs

12. Maintain soil structure and avoid over-working and compaction.
13. Correct deep soil compaction by carrying out subsoiling on suitable soils with satisfactory drainage.
14. When irrigating, ensure water application is uniform and rates are not too high or droplets too large. This will avoid sealing the soil surface and minimise run-off and soil erosion.
15. Alleviate compaction and rutting as soon as practical after late harvested crops such as maize or potatoes to reduce run-off.
16. Leave vegetated buffer strips adjacent to watercourses, wetlands and waterbodies to trap sediment.
17. Incorporate chopped straw evenly.
18. Carefully plan the movement and feeding of livestock on your farm. The inappropriate location of tracks or ring feeders can lead to significant soil erosion.
19. Understand the capabilities and limitations of the soil you are managing.
20. Sample and analyse soil, approximately every five years, and apply lime to achieve target pH for crop or grass growth.
21. Divert track run-off to buffer strips or vegetated areas to remove sediment.

COLLECTION, STORAGE AND APPLICATION TO LAND OF LIVESTOCK SLURRIES AND MANURES

Livestock slurries and manures are valuable sources of organic matter and major nutrients such as nitrogen (N), phosphorus (P), potassium (K) and sulphur. They also contain magnesium and trace elements. Taking account of these nutrients can often result in considerable savings in inorganic fertiliser use. However, nutrients can be lost from manures and slurries during storage and spreading, posing a water pollution risk. Very rapid and severe oxygen depletion of the water can result, leading to fish and invertebrate mortalities for many miles downstream. Manure and slurry can also be associated with the microbiological contamination of inland and coastal waters and groundwater, potentially affecting compliance with environmental quality standards specified in EC Directives.

DOs

1. Comply with the Control of Pollution (Silage, Slurry and Agricultural Fuel Oil) (Scotland) Regulations 2003.
2. Notify SEPA at least 28 days before bringing into use any new, substantially enlarged or substantially reconstructed slurry storage facility, which together with existing storage capacity should provide 6 months storage unless otherwise agreed with SEPA.
3. Maintain a freeboard of at least 0.3m for above-ground slurry stores and 0.75m for slurry lagoons.
4. Collect all "seepage" from farmyard manure and high-level slatted buildings as this is classed as 'slurry' under the 2003 Regulations.
5. Prepare and implement a Manure Management Plan (also known as a Farm Waste Management Plan). *This is mandatory if specified by SEPA in the terms of a Notice served under the Control of Pollution (Silage, Slurry and Agricultural Fuel Oil) (Scotland) Regulations 2003.*

DON'Ts

1. Don't allow effluent to escape from middens, byres, high-level slatted buildings or roads used by livestock, as this is an offence under the Control of Pollution Act 1974 (as amended).
2. Don't allow dairy washings, parlour or byre drainage, or slurry spilled during handling, to enter clean water drains or watercourses.
3. Don't site any part of a slurry storage tank within 10m of any inland or coastal waters
4. Don't store slurry or semi-solid manure in middens.
5. Don't forget that slurries and manures are a valuable resource and, if properly utilised, will save you money as well as protecting the environment.

DOs

- 6.** (i) Incorporate livestock manures within 2 weeks after spreading on stubbles.
(ii) In areas prone to wind erosion, incorporation of livestock manures can be delayed. [GAEC measure 8]
- 7.** Follow “The 4 Point Plan”, which offers guidance on how to:
- reduce dirty water around the farm;
 - improve nutrient use;
 - carry out a land risk assessment for slurry and manure;
 - manage your water margins.
- 8.** Consult SEPA if you are planning to use a waste treatment plant on your farm as it may require a consent, authorisation or permit to be sought.
- 9.** Keep clean water and dirty water separate.
- 10.** Minimise unroofed collection yards, feed passages etc.
- 11.** Repair or replace roof gutters and downpipes that are broken or missing.
- 12.** Regularly check effluent tanks, slurry tanks and slatted tanks to avoid overflow.
- 13.** Ensure proper maintenance and repair of all slurry storage tanks, pipework and valves.

DON'Ts

- 6.** Don't spread livestock slurries:
- within 10m of a watercourse or within 50m of a drinking water supply;
 - to steeply sloping fields, when the soil is wet or waterlogged, when there is a flooding risk or when heavy rainfall is forecast;
 - when the soil has been frozen for 12 hours or longer in the preceding 24 hours or is covered in snow;
 - at a rate that fails to account for the overall suitability of the land. In any case, the rate should never exceed either 50m³/ha (normal rate 25-30m³/ha or 2,200-2,700 gallons/acre) for surface spreading.
- 7.** Don't cause direct and indirect entry of livestock slurry into the drainage system, especially with soil injection into fields with gravel backfilled drains.
- 8.** Don't mix slurry with silage effluent in confined spaces, as dangerous fumes can be fatal.
- 9.** Don't enter a tank unless all recommended safety procedures have been followed.
- 10.** Don't spread when fields have been pipe or mole drained, or subsoiled over existing drains within the last 12 months.
- 11.** Don't apply manures or slurries to any statutory conservation sites or other areas with a conservation, archaeological or historic value without prior notification to Scottish Natural Heritage (SNH) or Historic Scotland as appropriate.

DOs

14. Be a 'good neighbour' and:

- avoid spreading close to domestic or public buildings;
- avoid spreading at weekends or public holidays;
- spread livestock slurries and manures when the wind direction is away from public/residential areas and areas designated for their conservation value;
- avoid, where possible, spreading in the hours of darkness.

15. Locate any field heap of farmyard manure:

- at least 10m away from any clean surface water or field drain or watercourse and at least 50m from any spring, well or borehole;
- as far away from residential housing as possible.

16. Spread livestock slurries and manures only when field and weather conditions are suitable to prevent water pollution.

17. Ensure that any agricultural contractor or company employed by you to spread farm manures and slurries on your land is suitably trained and competent to do so.

DON'Ts

12. Don't build a woodchip corral without carrying out a detailed assessment of pollution risks to surface and ground waters. Consult with SEPA about the site selection.

SECTION 5

NON-AGRICULTURAL WASTES AND OTHER IMPORTED ORGANIC WASTES

The main non-agricultural organic wastes applied to agricultural land arise from sewage treatment, paper mills, compost producers, creameries, distilleries and food processors. Although many of these wastes potentially have valuable fertilising and soil conditioning properties, their application under unsuitable conditions or at inappropriate rates can give rise to pollution and contamination of soil, water or air.

This section recommends management practices for waste producers, contractors and farmers so as to avoid or minimise the risk of pollution, while enabling sustainable agricultural practices to continue. Application to agricultural land should be carried out as a method of beneficially recycling nutrients to the soil and not as a cheap method of waste disposal. Several serious pollution incidents occur each year due to inadequate precautions being taken when spreading non-agricultural waste to land. Contractors carrying out spreading activities on farm should be suitably trained, qualified and competent to carry out the operation for which they are employed. Farmers and contractors should be aware of legal requirements and follow this guidance.

DOs

1. Comply with the Sludge (Use in Agriculture) Regulations 1989 (as amended) by:
 - Analysing sludge and soil prior to spreading.
 - Avoiding applying sewage sludge to soils with a pH of less than 5.0.
 - Following all mandatory stock grazing, cropping and harvesting restrictions.
2. Comply with the Waste Management Licensing Regulations 1994, as amended, by:
 - Proving to SEPA that land treatment activities benefit agriculture or improve ecology.
 - Providing supporting information to SEPA.
 - Keeping appropriate records for 2 years.

DON'Ts

1. Don't store non-agricultural wastes unless such storage is secure and conforms to legal requirements.
2. Don't permit any non-agricultural wastes to be applied without first knowing the analysis, as required by the WMLR 1994, as amended.
3. Don't employ any waste contractor or company involved in spreading wastes unless you are satisfied they are competent and fully trained.
4. Don't spread gut contents or mixtures of blood and gut contents from abattoirs on pastureland.

DOs

- 3.** Ensure that non-agricultural waste is stored:
 - At a distance more than 10m from any inland or coastal water.
 - 50m from any well, borehole etc for the purpose of any water supply (except domestic water supply).
 - 250m from any well, borehole or other source of domestic water supply.
- 4.** Treat blood, or mixtures of blood and gut contents, before spreading on agricultural land:
- 5.** Pre-notify SEPA of the start and finish dates of spreading. Annual renewal of registration required.
- 6.** Note that SEPA charge a fee to facilitate site inspections and assessment of registration notifications.
- 7.** Note that SEPA can refuse to register/remove from the register an exemption under certain circumstances, provided reasons are given.
- 8.** Keep records of any operations carried out on farm for period of two years (and make them available to SEPA).
- 9.** Assess the risk of pollution and land suitability for the application of non-agricultural wastes to land.
- 10.** Prevent direct and indirect entry of the waste into drains, especially with soil injection into fields with gravel backfilled drains.
- 11.** Ensure that wastes stored while waiting to be applied to land, and wastes being applied to land, do not cause a nuisance (e.g. obnoxious smells).

DON'Ts

- 5.** Don't spread liquid sewage sludge and other liquid organic wastes:
 - within 10m of a watercourse or 50m of a drinking water supply;
 - to steeply sloping fields, when the soil is wet or waterlogged, when there is a flooding risk or when heavy rainfall is forecast;
 - when the soil has been frozen for 12 hours or longer in the preceding 24 hours or is covered in snow;
 - at a rate that fails to account for the overall suitability of the land. In any case, the rate should never exceed 50m³/ha for surface spreading;
 - when fields have been pipe or mole drained, or subsoiled over existing drains within the last 12 months;
 - to land which has been poached or compacted.
- 6.** Don't apply wastes at nutrient application rates greater than crop rotation requirements.
- 7.** Don't apply raw or untreated sewage sludge on land for food production.
- 8.** Don't encourage the spreading of non-agricultural wastes on your land outwith daylight hours.
- 9.** Don't apply imported wastes to any statutory conservation sites (e.g. SSSIs or NNRs) or other areas with a conservation, archaeological or historic value without prior notification to Scottish Natural Heritage (SNH).

DOs

- 12.** Check with the Safe Sludge Matrix (an agreement between the UK water industry and the British Retail Consortium on sludge use), your farm quality assurance schemes and your produce buyer before using non-agricultural wastes. Use of such material may have commercial consequences for acceptability of produce to retailers and processors.
- 13.** Follow the guidance that exists in the Code of Practice for Agricultural Use of Sewage Sludge and the Code of Practice for the Management of Agricultural and Horticultural Waste.
- 14.** Account for non-agricultural waste when implementing a Manure Management Plan (Farm Waste Management Plan) and check on how safely the waste can be used in your farm system.
- 15.** Establish and agree what responsibilities and measures the waste provider or contractor will need to take to avoid pollution and odour nuisance.
- 16.** Leave an untreated strip a minimum of 10m wide beside all watercourses and at least 50m from any spring, well or borehole.
- 17.** Avoid the risk of surface run-off. Consider contour injection where there is a risk of injected wastes running out of the injection slots on sloping land.
- 18.** Prepare and implement a nutrient plan for the land treated and reduce inorganic fertiliser use by allowing for the available nutrients in the waste.
- 19.** Seek professional advice if in doubt about how to manage imported wastes on your farm.

DOs

20. Spread non-agricultural wastes only when field and weather conditions are suitable, to prevent soil and water pollution.

NITROGEN AND PHOSPHORUS

This section covers the steps which can be taken to reduce the risk of nitrate and phosphorus from fertilisers and organic manures reaching watercourses or groundwater. Part 6A relates to farmers in Nitrate Vulnerable Zones. Part 6B relates to all farmers.

Agricultural land is the main source of nitrate in many rivers and groundwaters. Nitrate concentration in rivers and groundwaters has been increasing in recent decades in many areas of Scotland. This is a cause for concern for two main reasons. Firstly, because of possible risks to human health posed by high levels of nitrate in drinking water. Secondly, elevated levels of nitrate are considered to be significant contributors to eutrophication. Phosphorus can also contribute to eutrophication of freshwaters, and agricultural land can be a significant source of phosphorus input to watercourses particularly by soil erosion. As a result of the EC Nitrates Directive, the Scottish Executive is required to designate Nitrate Vulnerable Zones (NVZs) where surface freshwaters or groundwaters exceed, or could exceed, 50 mg/litre of nitrates and where waters are, or may become, eutrophic. Action Programme Regulations have been introduced in such NVZs, in order to reduce nitrate pollution.

Section 6A – Farmers in Nitrate Vulnerable Zones

DOs

- A1.** Comply with the statutory requirements of the NVZ Action Programme Regulations if you are farming within an NVZ.
- Prepare and implement a fertiliser and manure plan.
 - Ensure that adequate records are kept for land within NVZs relating to livestock numbers, use of inorganic fertiliser and use of organic manures.
- A2.** Ensure that minimum storage requirements for livestock manure are provided for the purposes of the NVZ Action Programme Regulations, taking account of the need to comply with the Control of Pollution (Silage, Slurry and Agricultural Fuel Oil) (Scotland) Regulations 2003.
- Locate any field midden at least 10m away from any clean surface water or field drain or watercourse and at least 50m from any spring, well or borehole.

DON'Ts

- A1.** Don't apply chemical fertiliser (containing nitrogen) within closed periods in the NVZ Action Programme Regulations unless there is a specific crop requirement (as referred to in the SE's "Guidelines for farmers in NVZs")
- A2.** Don't apply chemical fertiliser (containing nitrogen) in a location or manner which makes it likely that the fertiliser will directly enter a watercourse.
- A3.** Don't apply organic manure where the application would result in the total nitrogen (in kilograms) contained in organic manure applied per year to the land – including that deposited by animals – exceeding permitted rates in the NVZ Action Programme Regulations.
- A4.** Don't apply slurry, poultry manures or liquid digested sewage sludge to sandy or shallow soils within closed periods in the NVZ Action Programme Regulations.

DOs

A3. Take account of “local environmental factors” before applying nitrogen fertilisers. These include:

- Soil conditions, type and slope.
- Climatic conditions, rainfall and irrigation.
- Land use and agricultural practice, including crop rotation systems.

A4. Apply nitrogen fertilisers in as accurate and uniform a manner as possible.

A5. Any proposal to plough up pasture of high environmental or archaeological value, e.g. species-rich grassland, machair habitats, pastoral woodland and heather moorland, will require the consent of the relevant authority (e.g. SNH for land in SSSIs, SEERAD for land in an agri-environment agreement) or approval under the Environmental Impact Assessment (Uncultivated Land and Semi-Natural Areas) (Scotland) Regulations 2002 (SSI 2002/6). [GAEC measure 12]

A6. Produce and implement a farm nutrient plan.

A7. Sow winter cereals in time to establish a suitable crop cover in the autumn to winter period.

A8. Apply fertilisers only when soil conditions are suitable.

A9. Spread organic manures at least 10m away from any clean surface water, field drain or watercourse, and at least 50m from springs, wells or boreholes that supply water for human consumption or use in dairies.

A10. Apply nitrogen fertilisers only when there is a specific crop requirement.

DON'Ts

A5. Don't apply nitrogen fertilisers in excess of crop requirements, or to any land if the soil is waterlogged.

A6. Don't apply nitrogen fertilisers if the land is flooded, or if the soil has been frozen for 12 hours or longer in the preceding 24 hours.

A7. Don't apply nitrogen fertilisers to any land covered with snow, or to steeply sloping fields.

A8. Don't allow livestock to foul watercourses by having uncontrolled access. Instead, provide water at drinking troughs, if at all possible.

A9. Don't plough up permanent pasture, if possible.

A10. Don't apply P and K chemical fertilisers (i.e. those which don't contain nitrogen) in a location or manner which makes it likely that the fertiliser will directly enter a watercourse.

A11. Don't over-compact soil.

A11. Apply phosphorus fertiliser according to soil analysis and the needs of the crop. Always allow for the nutrients supplied by any organic manures.

A12. Analyse your soil for phosphorus to ensure that excess and unnecessary levels are not building up.

Section 6B – Measures Relating to ALL Farmers

DOs

B1. Comply with the Control of Pollution (Silage, Slurry and Agricultural Fuel Oil) (Scotland) Regulations 2003.

- Locate any field midden at least 10m away from any clean surface water or field drain or watercourse and at least 50m from any spring, well or borehole.

B2. Any proposal to plough up pasture of high environmental or archaeological value, e.g. species-rich grassland, machair habitats, pastoral woodland and heather moorland, will require the consent of the relevant authority (e.g. SNH for land in SSSIs, SEERAD for land in an agri-environment agreement) or approval under the Environmental Impact Assessment (Uncultivated Land and Semi-Natural Areas) (Scotland) Regulations 2002 (SSI 2002/6). [GAEC measure 12]

B3. Take account of 'local environmental factors' before applying nitrogen fertilisers. These include:

- Soil conditions, type and slope.
- Climatic conditions, rainfall and irrigation.
- Land use and agricultural practice, including crop rotation systems.

DON'Ts

B1. Don't apply chemical fertiliser (containing nitrogen) in a location or manner which makes it likely that the fertiliser will directly enter a watercourse.

B2. Don't apply nitrogen fertilisers in excess of crop requirements, or to any land if the soil is waterlogged.

B3. Don't apply nitrogen fertilisers if the land is flooded, or if the soil has been frozen for 12 hours or longer in the preceding 24 hours.

B4. Don't apply nitrogen fertilisers to any land covered with snow, or to steeply sloping fields.

B5. Don't allow livestock to foul watercourses by having uncontrolled access. Instead, provide water at drinking troughs, wherever possible.

B6. Don't apply P and K chemical fertilisers (i.e. those which don't contain nitrogen) in a location or manner which makes it likely that the fertiliser will directly enter a watercourse.

B7. Don't over-compact soil.

DOs

- B4.** Apply nitrogen fertilisers in as accurate and uniform a manner as possible.
- B5.** Produce and implement a farm nutrient plan.
- B6.** Sow winter cereals in time to establish a suitable crop cover in the autumn to winter period.
- B7.** Apply fertilisers only when soil conditions are suitable.
- B8.** Spread organic manures at least 10m away from any clean surface water, field drain or watercourse, and at least 50m from springs, wells or boreholes that supply water for human consumption or use in dairies.
- B9.** Apply nitrogen fertilisers only when there is a specific crop requirement.
- B10.** Apply phosphorus fertiliser according to soil analysis and the needs of the crop. Always allow for the nutrients supplied by any organic manures.
- B11.** Analyse your soil for phosphorus to ensure that excess and unnecessary levels are not building up.

SILOS AND SILAGE EFFLUENT

Silage effluent is produced from any forage crop which is being made, or has been made, into silage. It is also defined as a mixture consisting wholly of (or containing) such effluent, rain or groundwater emanating from a silo, silage effluent collection system or drain. Silage effluent is the most common cause of agricultural pollution in Scotland. Each year, a significant number of serious pollution incidents occur through failure to contain or dispose of effluent satisfactorily.

DOs

1. Comply with the Control of Pollution (Silage, Slurry and Agricultural Fuel Oil) (Scotland) Regulations 2003.
 - Notify SEPA at least 28 days before bringing into use any new, substantially enlarged or substantially reconstructed silo and silage effluent storage facility.
 - Ensure the base of the silo, effluent tank and drains are impermeable. In addition, they, and any silo walls, should be resistant to attack from silage effluent.
 - Properly maintain all parts of the silo system such that it will meet a 20-year design life.
 - Ensure the minimum effluent tank capacity requirements are provided. Consult SEPA on the size of tank required.
2. Ensure that effluent tanks, channels, silo floors, walls and wall floor joints are inspected annually and any necessary repairs carried out well in advance of the start of silage making.
3. Try, if possible, to wilt the crop that is to be ensiled, so as to reduce effluent production to a minimum.
4. Keep all effluent collection channels and drains clear of blockages.

DON'Ts

1. Don't site a silo or any part of the effluent collection system within 10m of any inland or coastal waters.
2. Don't store baled silage within 10m of any inland or coastal waters or remove the wrapping of any bales within 10m of any inland or coastal waters.
3. Don't allow silage effluent to enter a watercourse as this is an offence under environmental legislation.
4. Don't allow effluent tanks to overflow, or ever use a by-pass to divert run-off from a silo.
5. Don't use a soakaway to dispose of silage effluent.
6. Don't neglect maintenance and inspection of silos, as pollution does not have to occur for a Notice to be served by SEPA.
7. Don't continue to use silage-making facilities which present a significant pollution risk.
8. Don't make silage in a free-standing field heap (i.e. without an impermeable base or an effluent containment system).

DOs

5. Check effluent tank levels on a frequent basis when effluent is being produced, and regularly throughout the year. Empty as necessary.
6. Regularly check watercourses throughout the year to ensure that they are not polluted. If any signs of pollution become evident, immediate action should be taken to stop any discharge and SEPA should be contacted immediately.
7. Have a contingency plan to deal with structural failures and effluent escapes.
8. Dilute silage effluent with a minimum of one-to-one (1:1) water if spreading on grassland to avoid scorching.
9. Avoid rainwater entering effluent collection systems.
10. Remember that silage effluent can be a valuable feedstuff or fertiliser. Think of it as a potential resource.

DON'Ts

9. **Don't allow contaminated silo run-off to escape into a watercourse. Collect it - it is very polluting.**
10. Don't underestimate the quantity of effluent produced from wet grass silage.
11. Don't add silage effluent to slurry in confined spaces or in buildings, because this will produce lethal gases very quickly.
12. Don't apply silage effluent on sites where there is a danger of direct discharge into field drains (e.g. on cracked soils or recently drained or subsoiled fields).
13. Don't apply silage effluent within 10m of a watercourse and at least 50m of a drinking water supply.
14. Don't apply silage effluent to steeply sloping fields, when the soil is wet or waterlogged, when there is a flooding risk or when heavy rainfall is forecast.
15. Don't apply more than 50m³/ha (normal rate 25-30 m³/ha or 2,200 – 2,700 gallons/acre) of diluted silage effluent to land.

SHEEP DIP

Sheep dipping plays an important role in the maintenance of good animal welfare. The chemicals used in dips are highly toxic and, if used properly, can be very effective against parasites that colonise sheep skins and fleeces. However, if good practice is not followed, this can have devastating consequences for the water environment. Aquatic life in many miles of watercourse in Scotland has been killed as a result of the entry of tiny amounts of dip. Groundwater can also be put at risk if dipping-related activities are not managed properly. There are a number of legislative requirements for the handling and disposal of waste sheep dip.

DOs

1. Comply with the Groundwater Regulations 1998.
2. Ensure that disposal of waste sheep dip to land is carried out in accordance with an authorisation issued by SEPA.
3. Have staff properly trained in the correct use of dips and dipping practice and ensure that they understand the very harmful effects of sheep dip on aquatic life.
4. Only purchase sheep dip if you hold the required Certificate of Competence.
5. Follow the Sheep Dipping Code of Practice.
6. Plan all aspects of the dipping operation in advance, identifying all possible pollution risks and taking action to minimise these risks as far as possible.
7. Ensure that a Contingency Plan is drawn up to deal with any potential spillage.
8. Ensure that proprietary kits or absorbent materials are readily available to deal with spillages.

DON'Ts

1. Don't allow dip to enter a watercourse. This will result in serious pollution, and may result in enforcement action being taken by SEPA under environmental legislation.
2. Don't use dips that are not approved.
3. Don't delay in contacting SEPA regarding any pollution incident involving sheep dip.
4. Don't store waste sheep dip for re-use. This is against veterinary medicines legislation and could result in harm to animal health.
5. Don't bury empty containers without obtaining a landfill permit.
6. Don't be afraid to seek veterinary advice as to the most appropriate method of ectoparasite control for your flock.
7. Don't site dippers within 10m of a watercourse and certainly not within 50m of water supplies.
8. Don't ignore the need to carry out regular maintenance of sheep dipping facilities, taking account of signs of cracking, wear, damage or corrosion.

DOs

- 9.** Strictly follow manufacturers' instructions if detoxifying waste sheep dip.
- 10.** Ensure that when mobile dipping is carried out, registered mobile dipping contractors are used.
- 11.** Adopt high standards of flock management that aim to minimise the possibility of ectoparasitic infection on your farm.
- 12.** Wear appropriate Personal Protective Equipment.
- 13.** Allow sheep to drain in their drip pen for at least 10 minutes and prevent run off to any watercourse.
- 14.** Rinse empty containers thoroughly and add washings to the dip bath.

DON'Ts

- 9.** Don't leave a full dip bath uncovered or unattended.
- 10.** Don't delay emptying the dip bath, unless weather conditions do not permit safe disposal.
- 11.** Don't allow the dip bath to overflow.

PESTICIDES

This section provides guidance to farmers and growers to ensure the safe use of pesticides so as to protect the environment and allow efficient farming activity. Pesticides have the potential to harm the environment and wildlife if poorly or inappropriately used. In arable farming areas, in particular, pesticides can contribute to diffuse pollution via field run-off, spray drift and accidental spillages. Users of pesticides and their advisers must therefore ensure that pesticides are used correctly.

There are increasing demands on farmers and growers to apply pesticides only where they are justified. Furthermore, to minimise their use, pesticides should comprise part of an integrated control programme using alternative control methods wherever possible. An integrated approach reduces pesticide use and associated environmental risks.

DOs

1. Check that the pesticide is approved for the purpose and always follow the instructions on the product label before use.
2. Comply with the Groundwater Regulations 1998 when disposing of waste pesticides and pesticide washings. Consult SEPA if in doubt.
3. Ensure that all staff and contractors involved with pesticides are properly trained and where appropriate have Certificates of Competence.
4. Follow the relevant Code of Practice for the Safe Use of Pesticides on Farms and Holdings.
5. Consult SEPA if you intend to use a pesticide in or near a watercourse.
6. Always consider alternative management strategies. If in doubt about the need to spray, take advice from a BASIS qualified adviser.
7. Carry out a Local Environmental Risk Assessment for Pesticides (LERAP) for "Category B" pesticide products with a buffer zone requirement **if** it is applied by a horizontal boom or broadcast air-assisted sprayer **and if** you want to reduce the aquatic buffer zone.

DON'Ts

1. Don't apply any pesticide (unless approved for use in or near water) within 5m of the bank of a watercourse unless the LERAP demonstrates this is satisfactory.
2. Don't bury empty pesticide containers on farm without obtaining a landfill permit.
3. Don't fill sprayers directly from burns, watercourses, ditches or a mains supply.
4. Don't handle pesticides without proper protective clothing.
5. Don't spray if too windy i.e. avoid spray drift.
6. Don't permit spray or spray drift to endanger sensitive habitats.
7. Don't leave foil seals or caps or empty chemical containers lying around, as these will all increase the risk of pollution of local watercourses.
8. Don't neglect routine maintenance and calibration of spray equipment.

DOs

- 8.** Contact your local SEERAD Office for further advice on LERAPs.
- 9.** Prepare a Crop Protection Management Plan for your farm. Although voluntary, a CPMP will help to set clear management objectives in reducing the impact of pesticides on the environment.
- 10.** Prevent drips, spillages and leaks when filling and mixing pesticides as the active ingredient can run-off into farm drains, surface and ground waters causing a significant pollution hazard.
- 11.** Keep appropriate records of pesticide use (e.g. spraying, LERAPs).
- 12.** Minimise the volumes of waste pesticide produced.
- 13.** Have a contingency plan in case of accidental spillage. Carry out a COSHH assessment (“Control of Substances Hazardous to Health”). If in doubt seek professional advice.
- 14.** Consider using a biobed to minimise the risk of pollution of watercourses from pesticide handling activities. A design manual for such areas is to be produced by the CPA under “The Voluntary Initiative”.
- 15.** Investigate the possibility of manufacturers and suppliers offering a recovery service for used containers.
- 16.** Ensure that any waste pesticides sent off-farm for disposal or recovery are consigned under a special waste consignment note. The consignment notes are available from SEPA and attract a small fee to cover the costs of administering the special waste system. Contact SEPA for further details on these requirements.

DON'Ts

- 9.** Don't spray crops unless the weather conditions are right.
- 10.** Don't spray crops without selecting the nozzle system to suit the product(s) being applied, the crop and spray volume. Use advice on the product label, Home Grown Cereals Authority (HGCA) chart, Crop Protection Association (CPA) leaflets and British Crop Protection Council (BCPC) Handbooks.
- 11.** Don't store more pesticide than is required for immediate use.
- 12.** Don't burn empty plastic pesticide containers or other pesticide-contaminated material (e.g. clothing).

DISPOSAL OF ANIMAL CARCASSES

The Animal By-Products (Scotland) Regulations 2003 prohibit the routine burial or burning of animal carcasses on farm. The regulations provide for a derogation to allow the continued on-farm disposal of fallen stock in the designated remote area, which covers most of the Highlands and Islands and Argyll. **This is the only area in Scotland where on-farm disposal is permitted.**

The disposal of animal carcasses on farm can present significant environmental, animal and human health risks. There is a serious risk of spreading disease to stock on that holding or on neighbouring farms, as well as a public health risk, including pollution of watercourses or groundwater.

DEATHS OF CATTLE

At present, there are certain specific rules relating to cattle deaths. These are as follows:-

- **ALL** sudden unexplained cattle deaths must be reported immediately to the local veterinary inspector or local Animal Health Office. The carcasses will be routinely tested for anthrax.
- Where deaths are explainable, **ALL** fallen cattle and bovine animals slaughtered on-farm for welfare reasons over 24 months old should be reported to the Rural Payments Agency (Tel: 0800 525890) who will arrange to collect the carcasses and arrange for testing for transmissible spongiform encephalopathies.
- Explainable deaths of cattle 24 months old or under are not currently subject to special rules, and may be dealt with as described below.

ALL OTHER DEATHS

A number of options exist for disposal of carcasses of animals that die on the farm. The Animal By-Products (Scotland) Regulations 2003 stipulate that disposal should be by an approved route such as rendering or incineration. It is also permissible to consign carcasses to the local knackery, hunt kennel or zoo for disposal purposes. The routine on-farm disposal of fallen stock is only permitted in the designated remote area, and even then only where an approved disposal route is not available.

DOs

1. Report all sudden deaths and seek veterinary advice.
2. Comply with the Animal By-Products (Scotland) Regulations 2003 and dispose of fallen stock through an approved disposal route, such as incineration or rendering. Only resort to burial on farm in the remote area and if an approved disposal route is not available. Where burial does take place:-
 - Bury animal carcasses with at least 1 metre of covering soil to prevent dogs, foxes or vermin getting access.
 - Keep a Location Plan of all burials and a note of type of animal buried.
 - Choose sites where there is at least 1 metre of subsoil at the bottom of the burial pit.
 - Make sure that incineration is carried out in a dedicated animal carcass incinerator, designed or adapted for that purpose.
 - Make sure that burning of carcasses in the open is undertaken with care and by the approved method.
3. Seek professional advice if in doubt. Advice on veterinary issues is available from your local Animal Health office. SEPA will provide advice on environmental pollution issues.
4. Consider subscribing to the National Fallen Stock Scheme.

DON'Ts

1. Don't leave carcasses unburied or open to dog or fox access for any length of time.
2. Don't add lime to a lined disposal pit.
3. Don't dump carcasses.
4. Don't operate an animal carcass incinerator without prior consultation with SEPA.
5. Don't bury carcasses any closer than 250m from any drinking water supply; 50m from any watercourse or 10m from any field drain.
6. Don't locate burial pits in areas prone to waterlogging or at risk of flooding, or that are underlain by sandy or gravelly soil.
7. Don't bury carcasses in polythene bags or other impervious material.
8. Don't bury carcasses on archaeological sites or on sites designated for their nature conservation interest.

AGRICULTURAL FUEL OIL

Agricultural fuel oil is poisonous, and spillages into watercourses and onto land can have serious implications for plant and animal life. Each year, accidental spillages cause many pollution incidents. Oil is a highly polluting substance and its escape has serious implications for soil and water environments.

The Control of Pollution (Silage, Slurry and Agricultural Fuel Oil) (Scotland) Regulations 2003 govern the storage of agricultural fuel oil where the total quantity stored at any time exceeds 1250 litres. In particular, new, substantially enlarged or substantially reconstructed fuel storage areas must conform to the standards set in Schedule 3 of the Regulations, and SEPA must be informed at least 28 days prior to their use.

DOs

1. Comply with the statutory requirements of the Control of Pollution (Silage, Slurry and Agricultural Fuel Oil) (Scotland) Regulations 2003 if your farm storage of agricultural fuel oil exceeds 1250 litres.
 - Ensure that any new fuel oil storage above 1250 litres capacity is surrounded by a bund capable of containing 110% of the capacity of the tank.
 - Make sure that the bund and the base of the storage area is designed and constructed to be impermeable and remain so for 20 years.
 - Keep every part of the tank within the bund.
 - Ensure any outlet tap or valve can only discharge into the bund in the event of a loss or leakage, and also keep this outlet shut and locked when not in use.
2. Notify SEPA at least 28 days before bringing into use any new, substantially enlarged or substantially reconstructed agricultural fuel oil storage area.

DON'Ts

1. Don't site a fuel oil storage area within 10m of any inland or coastal waters.
2. Don't continue to use a fuel storage tank that poses a significant risk of pollution, as SEPA may serve a Notice requiring you to carry out improvements to bring the installation up to the standards set by the 2003 Regulations.
3. Don't pour fuel oil into a watercourse, or allow it to enter a watercourse, as this is an offence in terms of environmental legislation.
4. Don't use detergents in attempting to clear up any spillage, unless the area is contained so that material is collected for safe disposal.
5. Don't be afraid to seek professional advice on clean up if there is a spillage or loss.
6. Don't ignore small leaks from fuel tanks.
7. Don't forget, or neglect, to carry out regular maintenance of fuel storage areas, as pollution does not have to occur for SEPA to serve a Notice.

DOs

- 3.** Consider the location of the storage tank and ensure there is a suitable firebreak between the storage area and adjacent buildings.
- 4.** Ensure that all staff and contractors working on your farm are aware of the pollution dangers from fuel oil spills and how they should be dealt with.
- 5.** Ensure that a Contingency Plan is drawn up to deal with any potential spillage.
- 6.** Ensure that proprietary kits or absorbent materials are readily available to deal with spillages.
- 7.** Contact SEPA immediately in the event of a serious loss or spillage of oil.

DON'Ts

- 8.** Don't overlook the need to empty the bund of accumulated, uncontaminated, rainwater.

WASTE MANAGEMENT AND MINIMISATION

There are many opportunities for farmers to make financial savings and help the environment through efficient use of resources and improved waste management. Waste minimisation, the reduction of waste at source, should be fundamental to decisions on farm waste management and can reduce the risk of pollution from agricultural activities. A framework for cost-effective waste management, in order of priority, is set out as follows:

- Avoid
- Reduce
- Re-use
- Recycle

Large quantities of waste materials are generated by modern farming practices and their reuse, recycling, and disposal should be carefully planned to avoid or minimise the risk of causing environmental pollution.

DOs

1. Store waste securely, to prevent harm to the environment or to human health.
2. Only burn waste “plant tissue” if the activity has first been registered with SEPA.
3. Only burn waste oil in an appliance after prior authority has been obtained from SEPA.
4. Follow “The 4 Point Plan”, which offers guidance on how to:
 - reduce dirty water around the farm;
 - improve nutrient use;
 - carry out a land risk assessment for slurry and manure;
 - manage your water margins.

DON'Ts

1. Don't import anybody else's waste without proper authority from SEPA or the local authority.
2. Don't give waste to a third party without:
 - ensuring that the person it is being given to is authorised by SEPA; and;
 - providing that person with a written description of it.
3. Don't dispose of any waste, including scrap metal, plastic or other rubbish, on farmland or farm tips without proper authority from SEPA.
4. Don't keep hold of waste or store it for more than 1 year if your intention is to dispose of the waste, otherwise a landfill permit is required.

DOs

- 5.** Consider using the Defra/BOC Manual "Opportunities for saving money by reducing waste on your farm" to help identify potential cost and efficiency savings in minimising waste production.
- 6.** Reduce, re-use and recycle waste, wherever possible, by segregating materials such as plastic bags and wrapping materials. Collect and store waste plastic straight after use and contact an approved plastic-recycling scheme if the plastic is deemed no longer useable on farm.
- 7.** Recycle waste oil, lubricants, scrap metal and tyres.
- 8.** Keep farm steadings and farmlands clean and tidy and free from unsightly litter from farming activity, especially farm plastics, containers and scrap.
- 9.** Monitor water use carefully and reduce any leakage or wastage, especially where such leakage is contributing to levels of waste production (i.e. of stored slurry).
- 10.** Use an irrigation scheduling service or direct measurements of soil status to avoid over and under application of irrigation water.

DON'Ts

- 5.** Don't keep hold of waste or store it for more than 3 years if you intend to recycle it, otherwise a landfill permit is required.
- 6.** Burning of plastic is not recommended, because it can result in nuisance. Great care is required in using this disposal method.
- 7.** Don't contaminate clean water with livestock slurry, animal manures or farmyard run-off.
- 8.** Don't tolerate fly-tipping. Report such activities on the hotline – 0845 2304090.
- 9.** Don't hesitate to get involved in any local recycling initiatives operated by Machinery Rings or other groups.

SECTION 13

PREVENTION AND CONTROL OF EMISSIONS TO AIR

Increasingly, the impact of agricultural activities on air quality is being recognised. It is known, for example, that agriculture is the dominant source of ammonia emissions in the UK, mainly arising from the storage and application of livestock manures and slurries. Agricultural activities can also give off various "greenhouse" gases, such as carbon dioxide, methane and nitrous oxide, which contribute to climate change.

Carbon dioxide is emitted when soil is disturbed (e.g. ploughing) and when peat is drained. Methane is formed from the decomposition of organic matter and is also produced by ruminant animals. Nitrous oxide is formed from using nitrogen to fertilise soils, and from the treatment and land application of livestock slurries and manures.

Complaints about agricultural odours arise mainly from slurry or manure spreading, farm buildings and slurry or manure stores.

A permit is required from SEPA for the operation of certain large pig and poultry installations, in order to control the overall impact on the environment (including air emissions).

DOs

1. Seek a permit from SEPA if you have more than 40,000 places for poultry, or 2,000 places for production pigs or 750 places for sows at an installation.
2. Submit an application between 1 November 2006 and 31 January 2007 if your farm exceeds the above thresholds.
3. Apply for a permit from SEPA if you intend to construct a new installation for rearing pigs or poultry and where the number of places for animals or birds will exceed the thresholds specified in the Pollution Prevention and Control (Scotland) Regulations 2000, as amended ("the PPC Regulations").

DON'Ts

1. Don't apply for a permit if your pigs or poultry are reared outdoors, as this type of production is not covered by the PPC Regulations.
2. Don't spread slurries or manures in a manner that may cause pollution of air or result in odour nuisance.
3. Don't be a "bad neighbour" by spreading livestock slurry and manures:
 - close to domestic or public buildings;
 - at weekends or public holidays;
 - when the wind direction is towards public/residential areas;
 - in areas designated for their conservation value; or
 - during the hours of darkness, unless unavoidable.

DOs

4. Consult SEPA about any proposals you have to substantially change an existing pig or poultry installation in advance of 1 November 2006, as this may require you to seek a permit to operate such an altered installation under the PPC Regulations.
5. Consult Scottish Nn value within 2km of any new or substantially changed installation that exceeds the thresholds in the PPC Regulations.
6. Comply with the "Standard Farming Installation Rules" developed by SEPA for pig and poultry installations operated under the PPC Regulations.
7. Follow the latest edition of the Muirburn Code. [GAEC measure 6]
8. Consult SEPA if in any doubt about the requirements of the PPC Regulations.
9. Spread slurries and manures when the wind direction is away from public/residential areas and areas designated for their nature conservation value.
10. Seek professional advice about how to prevent and control emissions to air if in doubt.
11. Use low-emission techniques for slurry spreading e.g. trailing-shoe, shallow (open slot) injector, deep (closed slot) injector or band spreader. When this is not possible, use a broadcast slurry spreader that gives a low and downward trajectory and large droplets.

DON'Ts

4. Don't burn plastics, rubber, tyres or other materials which will produce dark smoke.
5. Don't light fires near a public road.

DOs

12. *Minimise odours from livestock housing by collecting and transferring all slurry every day to a suitable store and cleaning buildings regularly.*

13. *Cover slurry stores where practicable to reduce emissions of ammonia. This will also reduce levels of waste production by excluding rainfall.*

14. *Incorporate applications of slurry and solid manure to uncropped land as soon as practical, preferably within 6 hours for slurry and 24 hours for solid manure.*

(Italics indicates mandatory if specified in a permit issued by SEPA.)

