DISPOSAL OF SILAGE EFFLUENT

continued

• Soakaways must not be used for disposal of silage effluent.
• All silage effluent and silo drainage must be collected for disposal. Never divert contaminated drainage from a silo.
• Treated silage effluent can be applied to land without dilution but it must not be discharged to a watercourse. Seek independent specialist advice on treatment options that may be available.
• Silage effluent is a valuable feedstuff on which livestock thrive. It can also contain nutrients and has fertilising properties. Think of it as a potential resource!

* This is a requirement under The Control of Pollution (Sludge, Slurry and Agricultural Fuel Oil) (Scotland) Regulations 1991, which set minimum standards for installations used for the storage of such substances and their effluents. The Regulations apply (after 1991) to new, substantially enlarged or substantially reconstructed structures or where SEPA identifies a significant risk of pollution from a structure constructed prior to 1991. Guidance on construction can be found in the SAC publication “Design and Construction Guidelines for Farm Waste Storage”.

Where Can I Get Further Information?

• Scottish Environment Protection Agency (SEPA)
  North Region Headquarters - Tel: 01349 862021
  West Region Headquarters - Tel: 01355 574200
  East Region Headquarters - Tel: 0131 449 7296

• The Scottish Office Agriculture, Environment and Fisheries Department (SOAEFD)
  SOAEFD publish the Code of Good Practice for the Prevention of Environmental Pollution from Agricultural Activity. The Code covers the main agricultural activities which give rise to pollution of water, land and air and gives detailed descriptions of management practices which can be adopted to prevent pollution while enabling economic agricultural practice to continue. Copies of the Code are available free of charge from all SOAEFD offices.

• Scottish Agricultural College (SAC)
  SAC Auchincruive, Ayrshire - Tel: 01292 520331
  SAC Edinburgh - Tel: 0131 667 1041
  SAC Aberdeen - Tel: 01224 480291

• National Farmers Union of Scotland (NFUS)
  Headquarters - 0131 335 3111

This leaflet is one of a series of 10. The full list of titles are:
  Agricultural Fuel Oil and Waste Oil; Application of Non-Agricultural Waste to Land; Diffuse Pollution and Agriculture; Disposal of Agricultural Waste Products and Animal Carcasses; Fertilizers; Pesticides; Protecting River Banks; Silos and Sludge Effluent; Slurry and Soil Protection. Copies of the leaflets are available free of charge from the agencies listed above.
Silage effluent is the most common cause of agricultural pollution in Scotland and is up to 200 times more polluting than raw domestic sewage. Each year, a large number of serious pollution incidents occur through failure to contain or to dispose of silage effluent satisfactorily. If it is allowed to enter a watercourse, silage effluent rapidly strips oxygen from the water, killing fish, plants and other aquatic life. The polluted water will also be rendered unfit for drinking water supplies and for watering livestock. It is an offence to cause water pollution and farmers who neglect their duty to prevent this can face heavy fines. If a silo or silage effluent tank presents a significant pollution risk, SEPA can serve a notice requiring upgrading - pollution doesn't have to occur for action to be taken*.

**SILAGE MAKING**

- SEPA must be notified before bringing into use new, substantially enlarged or substantially reconstructed silos and silage effluent storage facilities. These structures must conform to the Regulations*.
- All parts of a silo must be sited at least 10m from watercourses and surface water and field drains*.
- The base of the silo, effluent tank and drains must all be impermeable. In addition, they, and any silo walls, should be resistant to attack from silage effluent. With proper maintenance, all parts of a silo system should last for at least 20 years*.
- Effluent tanks must not be allowed to overflow: tank capacities should be a minimum of 3m³ for each 150m³, for silos with a capacity of up to 1500m³. For larger silos, the tank capacity should be at least 30m³, plus 1m³ for each 150m³ of silo capacity in excess of 1500m³** (1m³ = 220 gallons).
- The volume of effluent produced should be kept to a minimum. Wilting the crop before harvesting, which reduces its moisture content, will help. Avoiding cutting in wet conditions will also help to reduce the moisture content.
- Take all necessary steps to direct clean rainwater away from the effluent system. Once water is contaminated, it must be collected and disposed of in the same way as effluent, thus incurring extra costs.
- Bagged silage must be sealed to prevent any effluent leaking from the bag*.

**MANAGEMENT AND MAINTENANCE**

- It is essential that the ensiled crop is stored inside the structure and that all effluent channels are kept clear and free-flowing at all times.
- It is essential to monitor effluent tank levels regularly to avoid overflow, particularly in the two weeks following ensilement when peak effluent production occurs, and also throughout the winter.
- Watercourses likely to be affected should be inspected regularly. If any signs of pollution become evident, immediate action should be taken e.g. cutting off drains and digging sumps to intercept leaking effluent. SEPA should be contacted immediately.

**DISPOSAL OF SILAGE EFFLUENT**

- Silage effluent should be diluted by a minimum of 1:1 with water, before being applied to land at a rate not exceeding 50m³/ha (4,500 gallons/acre). Repeat applications should not be made for a period of at least 3 weeks. The land chosen for application of diluted effluent should be well away from watercourses and should not be prone to run-off.

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