

FARMING & WATER SCOTLAND



Silage

Silage can be made in clamps, bales or bulk bags (e.g. AgBag). In all cases silage and silage effluent must be handled and managed carefully to ensure no pollution occurs.

Where silage is made and stored in bales or bags they **must**:

- be situated at least 10 m away from any surface water drains, ditch, burn, river, loch or shoreline when stored, opened or unwrapped,
- be enclosed and sealed using impermeable membranes or bags, and
- where bulk bags are used, be sited on a firm level surface and incorporate a facility to safely remove effluent and be resealed when not in use.

Silage Clamps

All silage clamps, effluent channels and collection tanks **must** be maintained during their lifecycle to ensure they are kept free from any structural defects.

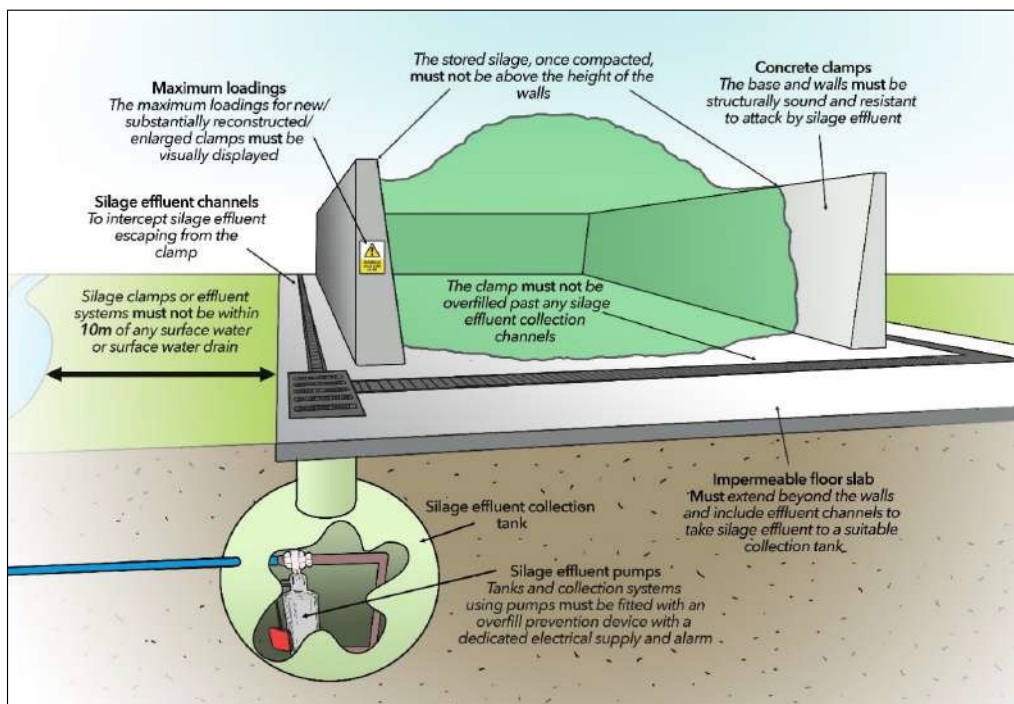


Figure 3.1. Silage clamp.

New or Altered Clamps and Tanks

If you are considering a new silage clamp or silage effluent collection tank or alterations to any existing clamp or tank you **must**:

- Notify and provide SEPA with an engineering plan at least 30 days prior to any work starting.
- Retain the engineers final sign-off certificate for the works for the life of the structure.

Existing silage clamps constructed prior to September 1991 **must** meet the below requirements by January 2026.

Existing silage clamps constructed or altered after September 1991 **must** meet the below requirements and the relevant British Construction Standards by January 2024.

Earth Bank Clamps

All earth bank clamps **must**:

- Have an impermeable floor slab and be constructed with channels to ensure all silage effluent is collected and conveyed to an appropriate silage effluent collection tank.
- Have the earth bank walls lined with an impermeable membrane such as 1000 gauge polyethylene or a similar material.
- Be resistant to attack by silage effluent, especially the base and any channels or walls
- Be located more than 10 m away from any surface water or surface water drains. This includes their effluent collection systems.
- Never be overfilled past any silage effluent collection channels.

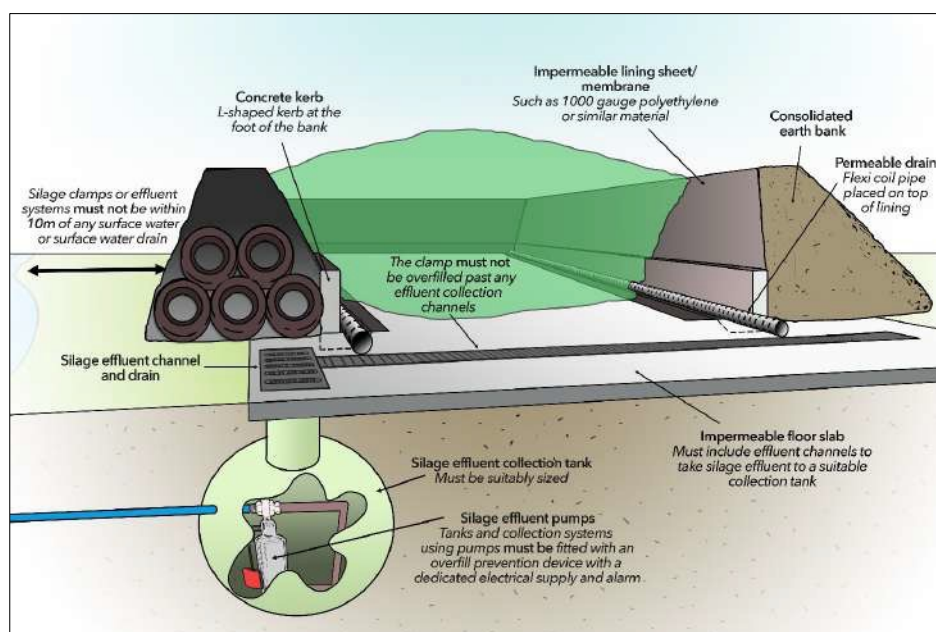


Figure 3.2. Earth bank clamps.

Clamps with Walls Made of Materials Other than Earth

All non-earth bank clamps **must**:

- Have an impermeable floor slab which extends beyond the walls and is constructed with effluent channels to ensure all effluent is collected and conveyed to an appropriate effluent collection tank.
- Never have the stored silage, once compacted, above the height of the walls.
- Have the maximum loadings for any new or substantially reconstructed/enlarged clamp visibly displayed.
- Be resistant to attack by silage effluent, especially the base and any channels or walls.
- Be located more than 10 m away from any surface water or surface water drains. This includes their effluent collection systems.
- Never be overfilled past any silage effluent collection channels.

Silage Effluent Collection Tanks

All silage effluent collection tanks **must**:

- Be impermeable and resistant to acid attack.
- Be fitted with an automatic overflow prevention device, with a dedicated electrical supply and alarm, if any pumps are used.
- Be sized according to the capacity of the clamp (Table 3.1).
- Never be installed, substantially reconstructed or enlarged without first being discussed with SEPA at least 30 days prior to any work commencing.

Table 3.1. Effluent tank capacity

Clamp capacity	Capacity of silage effluent tank
Less than 1500 m ³	20 litres for every 1 m ³ of clamp capacity
1500 m ³ or greater	30 m ³ (30,000 litres) plus 6.7 litres for every 1 m ³ of silo capacity over 1500 m ³

If you are considering a new silage clamp or silage effluent collection tank or alterations to any existing clamp or tank you **must**:

- Consult with a suitably qualified engineer and have an engineering plan available for the proposed works.
- Notify and provide SEPA with the engineering plan at least 30 days prior to any work starting.
- Retain the engineers final sign-off certificate for the works for the life of the structure.

Silage effluent, which is from an opened clamp and consists mainly of rainwater can be drained through a constructed farm wetland (CFW). The Constructed Farm Wetland Know the Rules Factsheet 5 gives details of types of run-off which may be conveyed to a CFW.

Definitions:

Constructed Farm Wetland – A series of ponds for the treatment of lightly contaminated surface water, which have been constructed in such a manner that any discharge from the ponds does not pollute the water environment.

Crop – Any plant grown for a commercial purpose and includes cereals, root crops, grass and trees.

Draff – The residue of grain after fermentation of the grain in a brewing or distilling process.

Forage Crop – Any crop grown as food for livestock or for use in energy production.

Groundwater – Water below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

Livestock – Any animal kept for use or profit as part of a commercial enterprise.

Silage – Any forage crop, including draff, which is being or has been conserved by fermentation or preservation or both, including the use of additives.

Silage Effluent – Effluent produced from any forage crop which is being made or has been made into silage or a mixture consisting wholly of or containing such effluent, rainwater or groundwater, emanating from a silo, silage effluent collection system or drain.

