

Minimum Specification for Sheep Dipping and Handling Facilities

1. Site

The site shall be selected to suit the purpose - consideration being given to ease of handling the sheep, proximity to the main sheep grazing area of the farm. Most importantly, it should be located as far as possible from watercourses, springs boreholes or drainage systems, which could become contaminated.

Sheep dipping facilities shall not be installed inside/under a roofed structure. For grant-aid purposes, the area limit for sheep handling and dipping units is 0.8m² per head.

Note:

By its nature sheep dip is formulated to kill parasites, and if allowed to enter watercourses, even in small quantities, it can cause fish and invertebrate kills. Even more seriously, these chemicals are very harmful if they contaminate drinking water supplies, either from springs, bored wells or for direct supply, as they can attack the human nervous system. Sheep dip shall be handled in accordance with manufacturer's instructions.

2. Lay-out

The layout should ensure the minimum of pens necessary to carry out the various tasks. The layout should facilitate the free movement of the operator from pen to pen.

3. Concrete Specification

Certificates Concrete shall be produced in an audited plant only: it shall not be produced on site.

A numbered certificate, signed and stamped, shall be required for all concrete delivered to site. The certificate, the "Concrete Manufacturers' Specification Certificate", is produced in triplicate. The top certificate, printed on light blue paper, shall be retained by the applicant and given to the Agriculture, Environment and Structures (AES) Division of the Department of Agriculture & Food for inspection upon completion of the works.

B6.3 Concrete shall be purchased on the basis of a characteristic 28-day crushing strength of 35N/mm². Minimum cement content shall be 300 kg/m³. Slump of unplastised concrete shall not exceed 90mm, and maximum aggregate size shall be 20mm.

The concrete shall be ordered by requesting '35N concrete to be certified to the grant-aid standard of the Department of Agriculture and Food'.

If the Concrete Supplier requires further information the following shall be quoted to them:

The concrete is to be to I.S. EN 206-1:2002: Strength Class: C28/35, 300 kg cement, maximum water cement ratio of 0.60, Exposure classes: XC4, XF3, XA1 (20 year life), Slump class: S2 (unplasticised), maximum aggregate size 20mm.

If plasticised concrete is desired, the slump class shall not exceed S3.

Polypropylene fibres may be incorporated into the concrete mix to improve the properties of concrete. Only fibres which have been tested and approved by National or European approval authorities may be used. The use of fibres helps to reduce plastic cracking and improve surface durability but they are not a substitute for structural reinforcement. Fibres shall be used in strict compliance with manufacturer's instructions, and shall only be added at the concrete manufacturing plant. The concrete certificate shall clearly show the amount and type of fibre added. The mix design, compacting, and curing of fibre concrete is the same as concrete without fibre.

B6.4 Materials Cement used in concrete and concrete products shall be certified to IS EN 197-1, and shall bear the Irish Standard Mark, or shall be certified by NSAI to be equivalent to IS EN 197-1. All aggregates shall be to IS 5 1990. Plasticisers and other admixtures shall be to EN 934. All admixtures shall be used in strict accordance with manufacturer's instructions, and shall be added only by the concrete-mix manufacturer.

B6.5 Tests The Department reserves the right to require that concrete should be tested in accordance with BS 1881.

B6.6 Curing of Concrete All concrete shall be cured by keeping it thoroughly moist for at least seven days. Wetted floor slabs and walls shall be protected by polythene sheeting, kept securely in place. Alternatively proprietary curing agents may be used in accordance with manufacturer's instructions. When frost is a danger, straw bales shall be placed over the polythene on slabs. Concrete shall be at least 28 days old before being subjected to full load, or to silage or silage effluent.

4. Floors

The entire floor area of the handling and dipping facility shall be of 125mm concrete on 150mm compacted hardcore foundation.

A 1000 gauge polythene membrane shall be laid on the finished hardcore with 600mm overlaps. The overlaps shall be sealed with suitable adhesive tape. The polythene shall be brought up on the inside of the timber or steel formers.

Where concrete base is laid in one operation, joints (in bays not exceeding 6m x 4.5m) shall be cut by disc-cutter to a depth of 30mm and to a full 12mm width formed by a double cut in the hardened concrete within 24 hours of placing. These joints shall be brushed out and filled when dry with acid resistant mastic sealant installed in strict compliance with the manufacturer's instructions.

5. Pen Dividers

Pen Dividers shall be well constructed, at least 1.0m high (exception: race height to be at least 0.97m), with smooth internal surfaces to avoid fleece damage and animal injury.

They shall be:-

1. 25mm OD tubular metal rails suitably supported and braced, galvanised – 6 rails per divider. Penning sections shall be fixed by welding or secure bolting to each other and/or uprights. Uprights shall be fixed in concrete or bolted to the concrete floor.
2. 150mm mass concrete wall.
3. 100mm concrete blockwork buttressed at 3m centres, or 150mm concrete blockwork or the equivalent.
4. 100 x 100mm pressure treated timber posts sheeted with 100 x 32mm timber rails, link or sheep net wire well strained.

Where sheep are penned on both sides of a fence, each side shall be sheeted or a flat board fixed at shoulder height on the unsheeted side. Where sheep move in opposite directions the fence between should be close sheeted so that they cannot see through.

Existing walls, where suitable, may form part of the handling layout.

6. Gates

Shall be strongly constructed of galvanised tubular steel or pressure treated timber, properly hinged and bolted. Gate/barrier rails to be 25mm diameter 1.5mm thick and ends to be 25mm diameter 2.0mm thick.

7. Forcing Pen

This shall be situated in front of the race to hold the sheep before guiding them into the race. This pen can be circular with two gates hung on a central post, which allows them to revolve round continuously with latches at various points. For very small flocks a semi-circle or funnel shaped pen may be used. A space of 0.3m² per animal should be allowed. Surrounds shall be as per clauses 5 and 6.

8. Dip Bath

Proprietary dip baths shall require prior Departmental acceptance, and may be subject to requirements for certificates of guarantee, and shall be installed in accordance with manufacturer's instructions.

Dip baths constructed on-site shall be installed as per Specification S123. Exit ramp may be stepped or sloped. If sloped, grips of hardwood or concrete projecting at least 25mm should be provided. No outlet pipe shall be fitted at the base of the bath for emptying. The capacity of the dip bath should be a minimum of 2.25 litres per animal dipped.

The dip bath shall be situated in a penned area that is well drained. The floor shall be sloped at 1:30, tapered in from all sides to take the dip back to the bath.

For very large flocks the length of dip bath can be increased or a circular bath used. Where a slide is used for sheep entry it should be at least 1.22m long, smooth finished (glazed) and so constructed that sheep do not have to step down onto it.

Note:

Spent dip shall be disposed of in accordance with manufacturer's instructions.

9. Draining/Drying Out Pen

At least one, preferably two draining / drying out pens shall be provided at the exit from the dip bath with a gate centrally hung to direct the sheep into one pen or the other. The floor of the pen(s) shall be sloped back to the dip bath at 1:60.

10. Footbath

A race with footbath is essential in all sheep handling units. Ideally it should be in two sections - the first tray containing water to cleanse the sheep's feet and the second tray containing medication. The footbath should be at least 3m long, 225mm wide and 100mm deep. The sides above the footbath should be 840mm high, sloped outward from 225mm at the base to 550mm at top and should have a smooth internal finish. The base of the tray should have 25mm corrugations lengthwise to spread the animal's toes. The entire unit may be of concrete or the footbath may be of metal or fibreglass with concrete or timber rail sides. The sides of the footbath race should be constructed with treated planed timber shoulder boards to prevent damage to sheep.

11. Treatment Pen / Rollover Crate

If provided, this pen shall be about 1.5m in length and should open off the forcing pen and be positioned at the midpoint of the race. It allows an operator to work through the sheep systematically. Alternatively, a proprietary rollover crate may be installed in the race.

12. Drafting Pen / Sorting Pen

The exit from the footbath race is a suitable location for drafting. A gate centrally hung may be used to direct the sheep into two or three pens as required.

13. Holding

The holding pen should be sized at 0.4m² per head to accommodate the required number of sheep.

14. Mobile Sheep Handling /Dipping /Spraying Facilities

Proprietary mobile sheep units shall require prior Departmental acceptance, and may be subject to requirements for certificates of guarantee, and shall be operated in accordance with manufacturer's instructions. All separate elements shall have the same serial number engraved on each component.