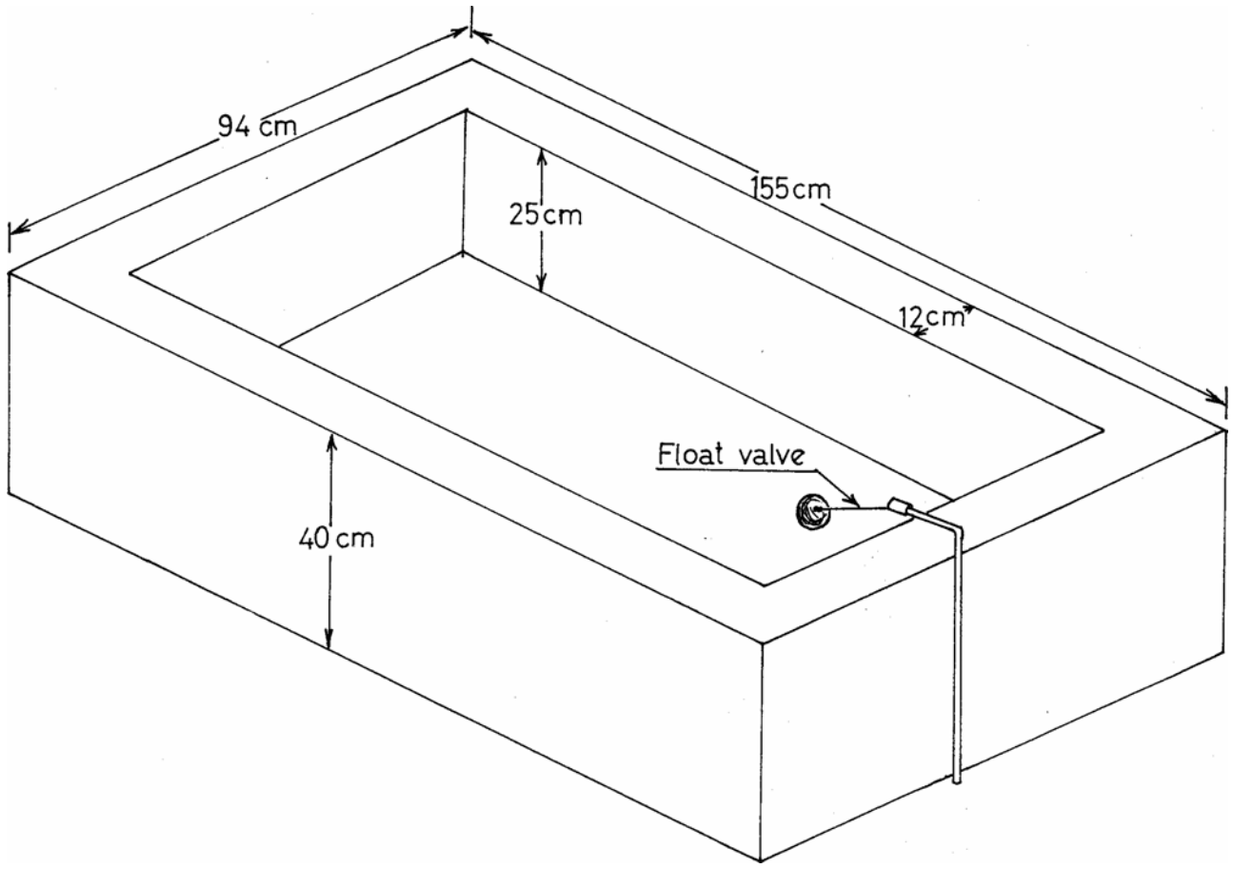

Figure 9 - Concrete waterer with float valve. The length is variable.

3.9 Fencing

Fencing can be used to fence areas inside and around the barns to enforce the utilization of pastures and to save labour. Electric fencing can be used successfully with grazing sheep at a much lower cost than other types of fences. A two-strand electric fence should be used, the first strand being 20 cm from the ground and the second strand 20 cm from the first strand. Boundary fence is made from galvanized chain link fencing with barbed wire on the top. The height of the galvanized chain link fencing should be 1.0-1.5 m with three strands of barbed wire on the top giving an additional height of 60 cm. All fence posts should first be set, the corner or end posts being supported on each side by another post at an angle after which the wire is fastened (Figure 12).

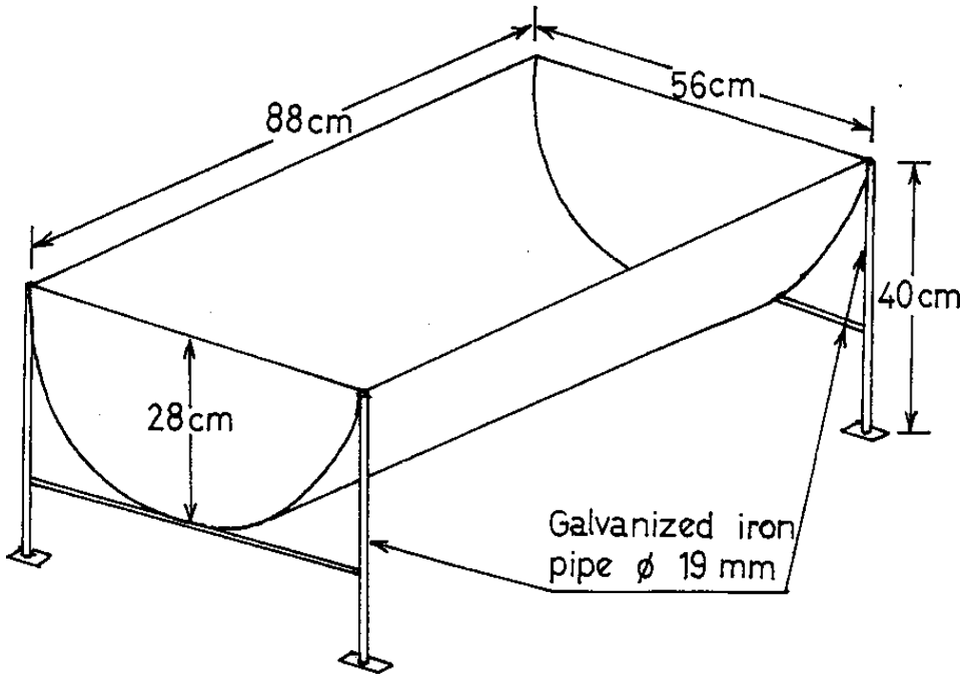

Figure 10 - Oil drum waterer. Float valve may beinstalled if connected to a water pipe.

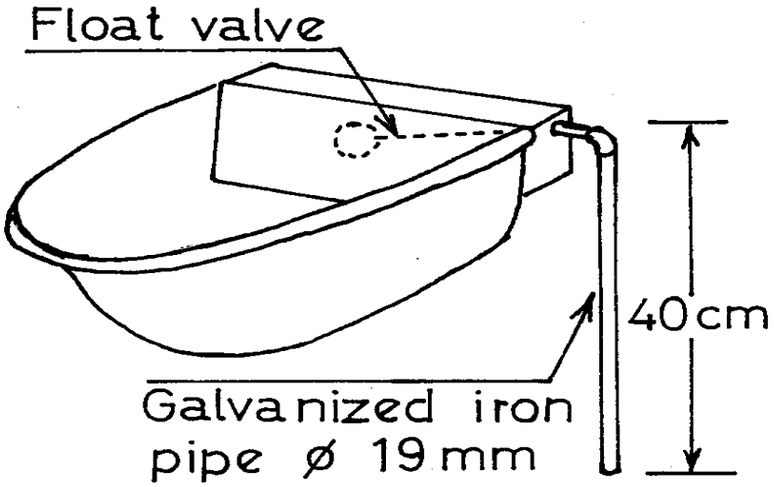

Figure 11 - Automatic waterer.

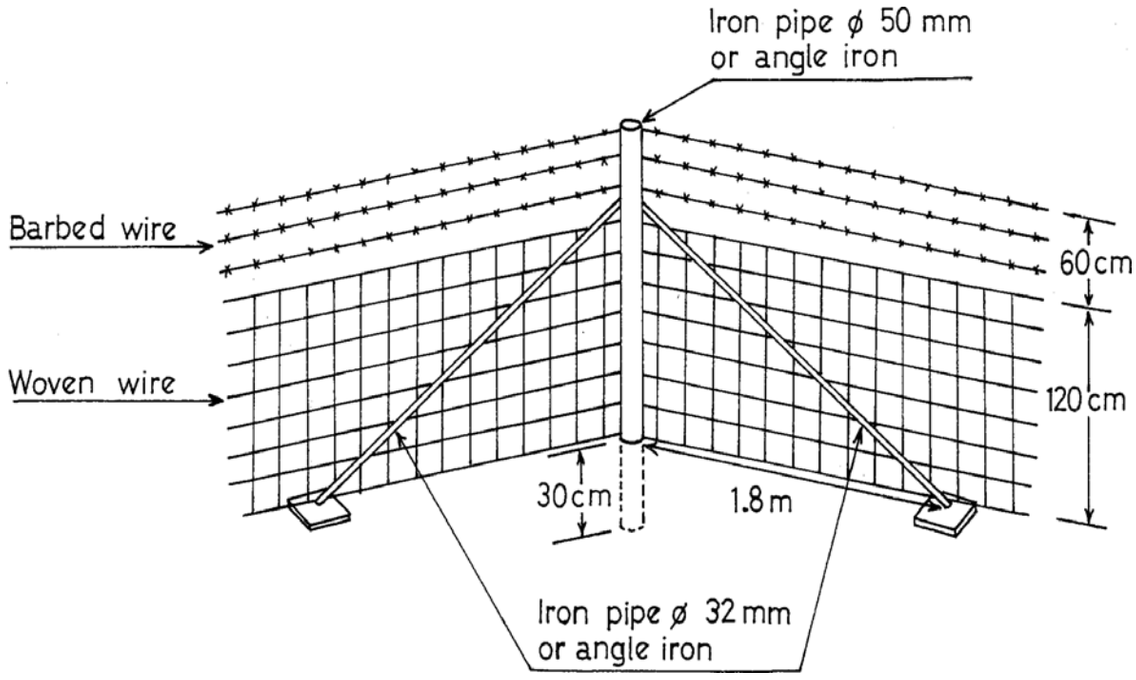

Figure 12 - Fencing: corner post. With barbed wire to fence the perimeter of the barns or of the pastures. Without barbed wire for divisions inside the barn or the paddocks.

A plan for a metal gate is given in Figure 13 and a plan for sorting chutes is illustrated in Figure 14.

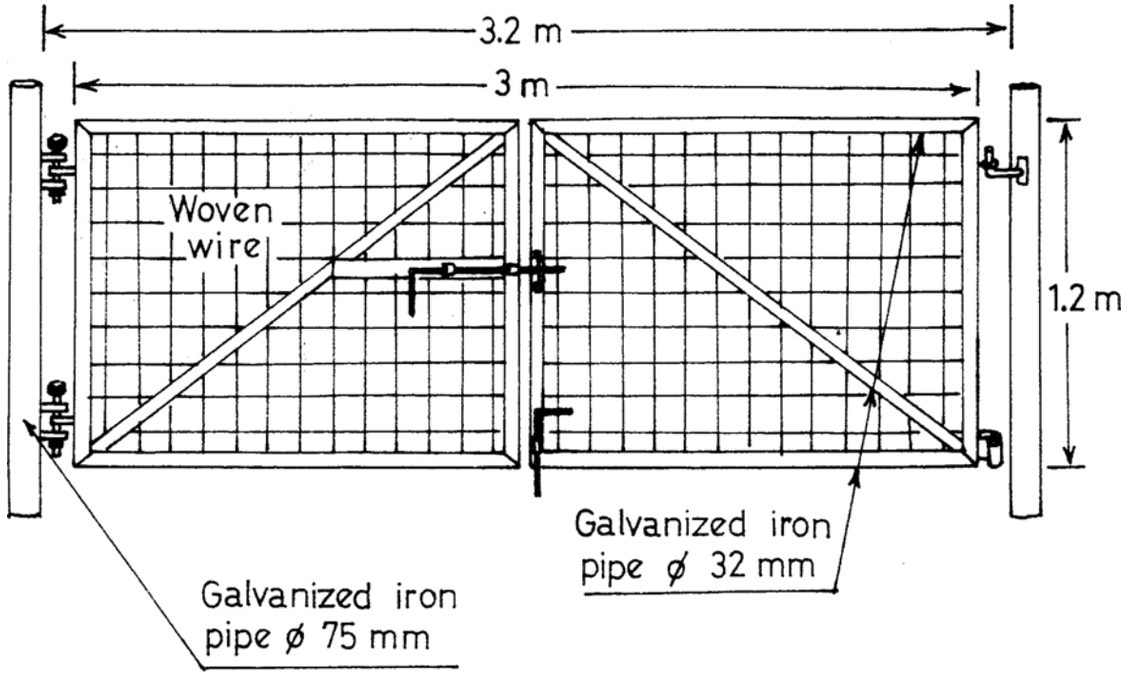

Figure 13 - Gate. Width of three metres for tractor access in the yards.

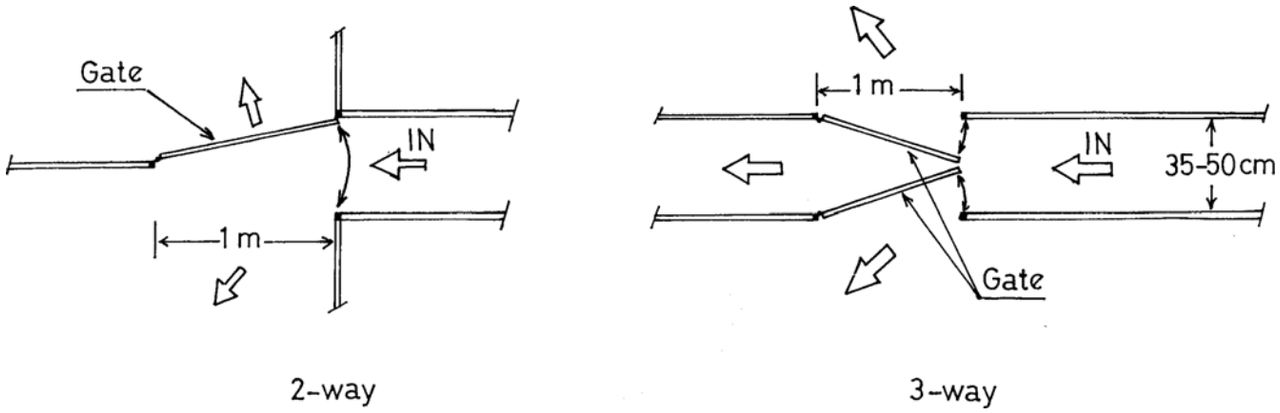

Figure 14 - Sorting chutes. Two way (left) or three way (right) sorting chute.

3.10 Building materials

The materials to be used for the constructions depend on what is available on the market and on their price. However, the substitution of wooden materials by other materials such as galvanized iron, pipes for poles, framework from mild steel tubes, etc. is preferable since the latter last longer. Walls can be constructed from cement blocks; poles for the sheds from galvanized pipes; framework from mild steel tubes; ceiling from galvanized corrugated sheets, feeders from flat sheet steel; bars from mild round steel bars; fencing posts from angle iron or galvanized iron pipes; hurdles for subdivision or temporary constructions (lambing pens and partial suckling enclosures) from galvanized iron pipes with or without galvanized chain link fencing, and water tanks from flat sheet galvanized steel. Lead-free paint must be used in all places where sheep have access to lick or eat it.

3.11 Farm layout

The correct layout of the barns for ewes and fattening lambs, auxiliary buildings, temporary subdivisions (lambing pens, creep feeding facilities, partial suckling enclosure), feed and watering facilities, dipping and spraying facilities, etc., will contribute to better management, feeding and health control resulting in higher efficiency of production. The recommended layout and the type of construction are in accordance with the climatic conditions of the Near East which require protection from heat and good ventilation and with a dual purpose sheep production system. Lambs are weaned early, following a partial suckling regime for the last two weeks before weaning, and fattened to slaughter weight under a system of maximum consumption of concentrates and minimum consumption of roughage. Ewes are grazed for 2-3 hours daily and milked in a milking parlour after weaning. The use of wooden materials should be limited.

A sheep breeding/fattening unit includes the following:

- barn with sheltered and open area for breeding ewes with subdivisions for the weaning of lambs (lambing pens, pen(s) for artificial rearing, creep feeding area, partial suckling enclosure);

- barn for growing and fattening lambs after weaning;

- milking parlour;

- pen for males;

- isolation pen for sick animals;

- operators room;

- toilet;

- hay storage shed;

- store-house for concentrates;

- fencing of the whole breeding/fattening unit.

A farm layout for 100 ewes and 50 fattening lambs is presented in Figures 15 - 18. Female lambs selected for replacement of ewes are moved at 100 days of age from the fattening to the breeding barn. The layout for larger units can be constructed by repeating the layout of 100 ewes and 50 fattening lambs.

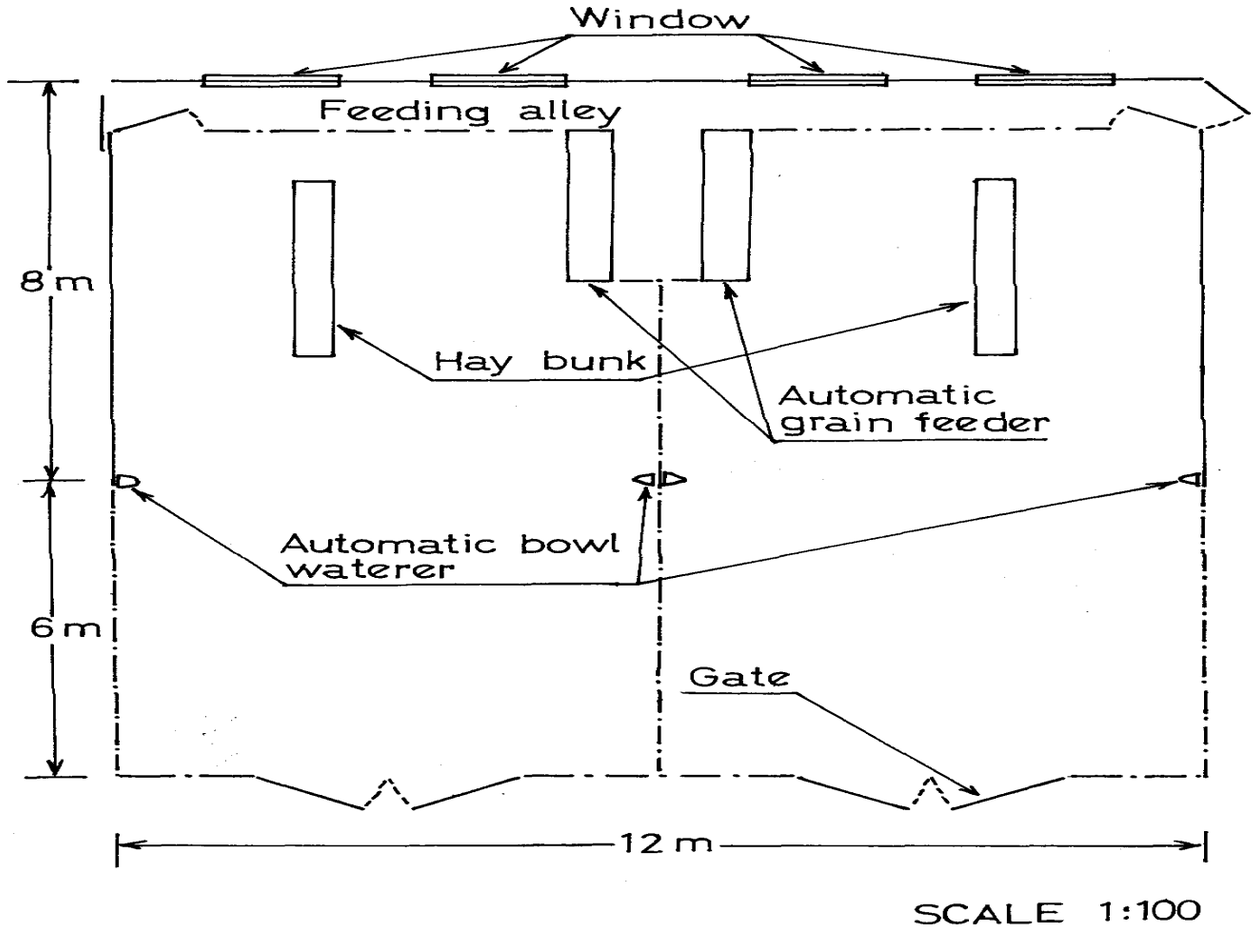

Figure 15 - Fattening unit for 50 lambs from weaning up to 40 kg liveweight. Sheltered area of 6m x 8m

including feeding alley and feeding troughs for 50 lambs. Windows for better ventilation during hot weather. Gate three metres wide for tractor access. Feeding alley is used for sorting. Perimeter of the open yard with permanent fencing. Division between the two open yards permanent fencing or movable hurdles.

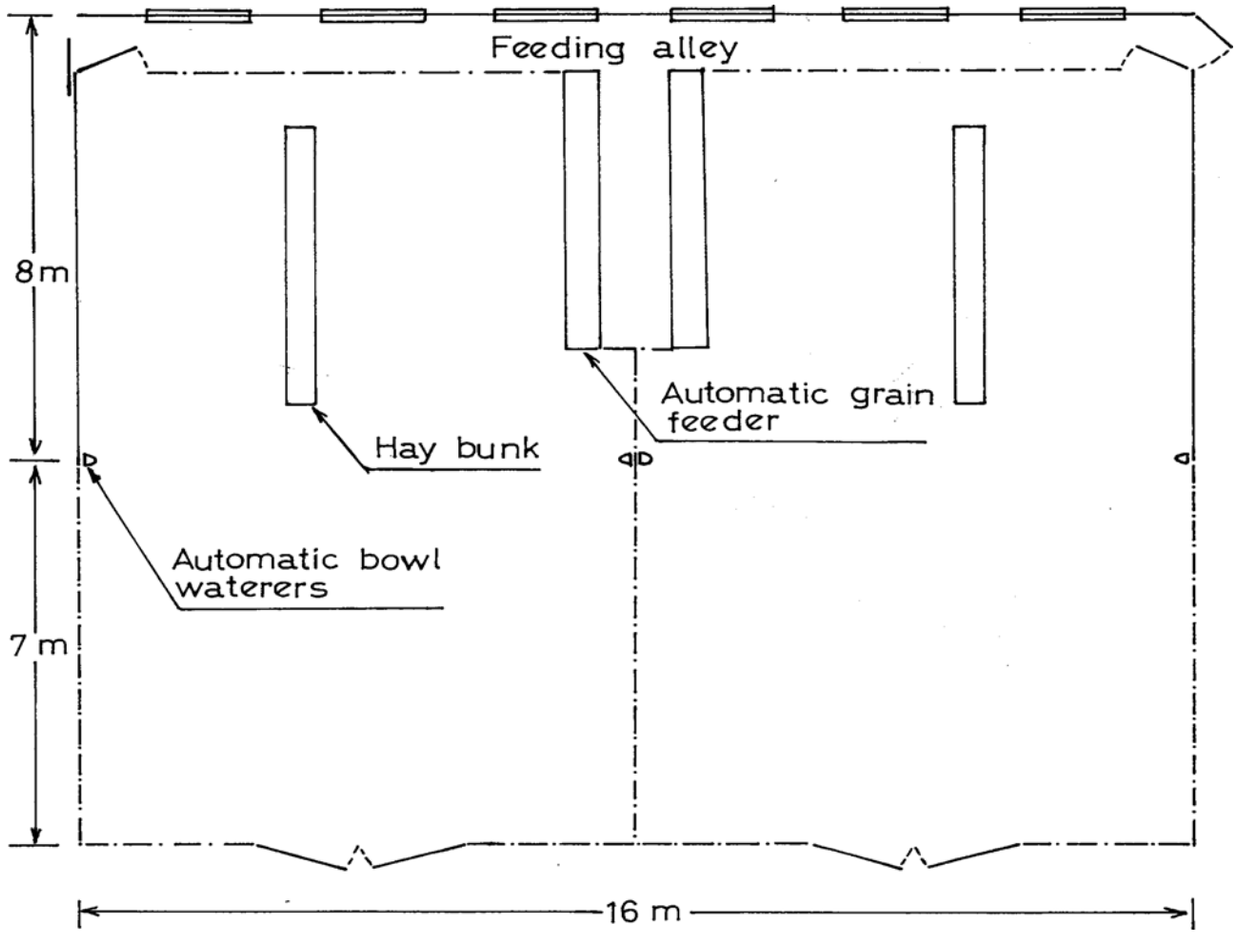

Figure 16 - Fattening unit for lots of 50 feeder lambs over 40 kg liveweight. Sheltered area 8m x 8m for 50 lambs. Other details as in Figure 15.

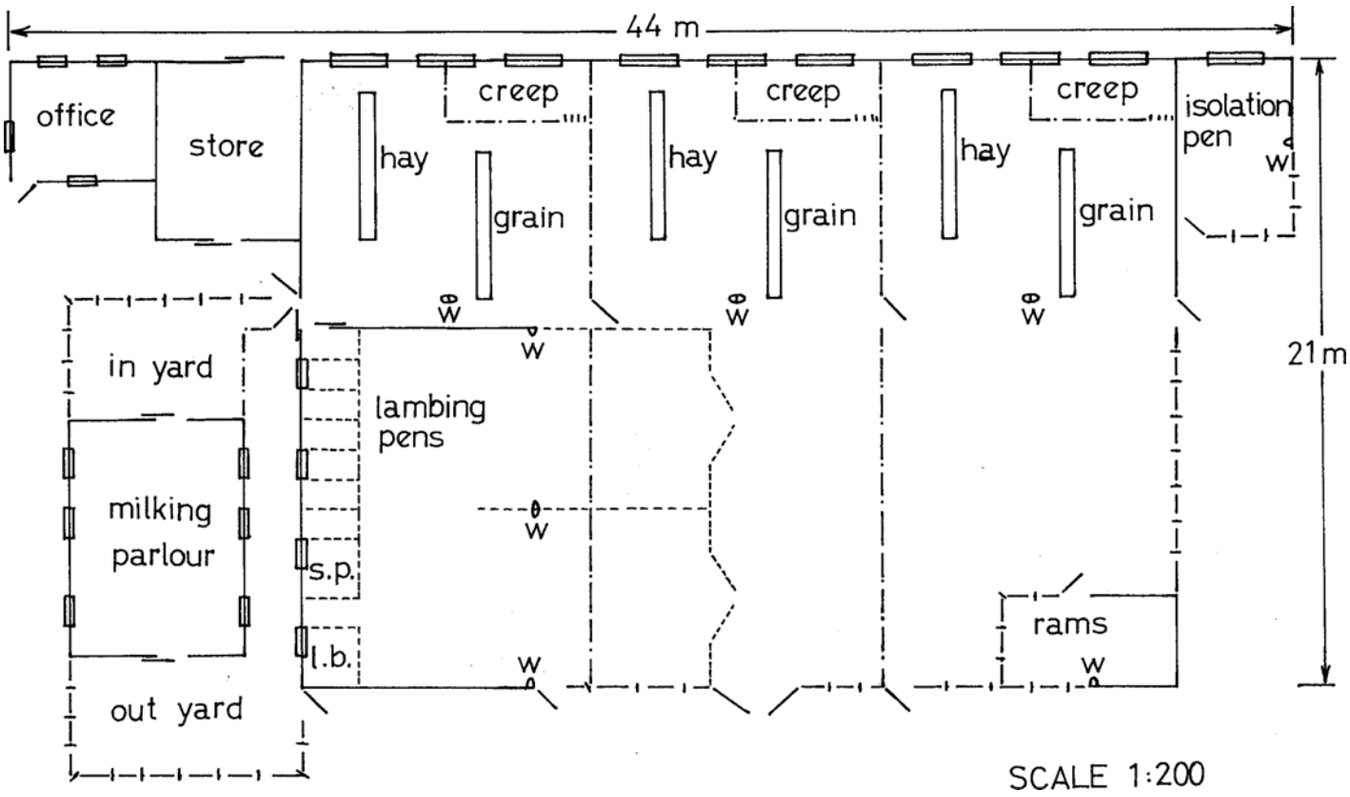

Figure 17 - Farm layout for 100 ewes. Hay and grain bunks are used. W = Automatic waterer. Creep = Creep feeding area and partial suckling enclosure. S.P. = Starter pen. l.b. = lamb-bar. Office includes a small toilet. After lambing the area of lambing pens is used for lamb fattening after weaning. Hurdles for divisions in the barn are moved after weaning. Permanent fencing (-/-/-/-/) hurdles (-.-.-), alterations after lambing to form the fattening unit (-------).

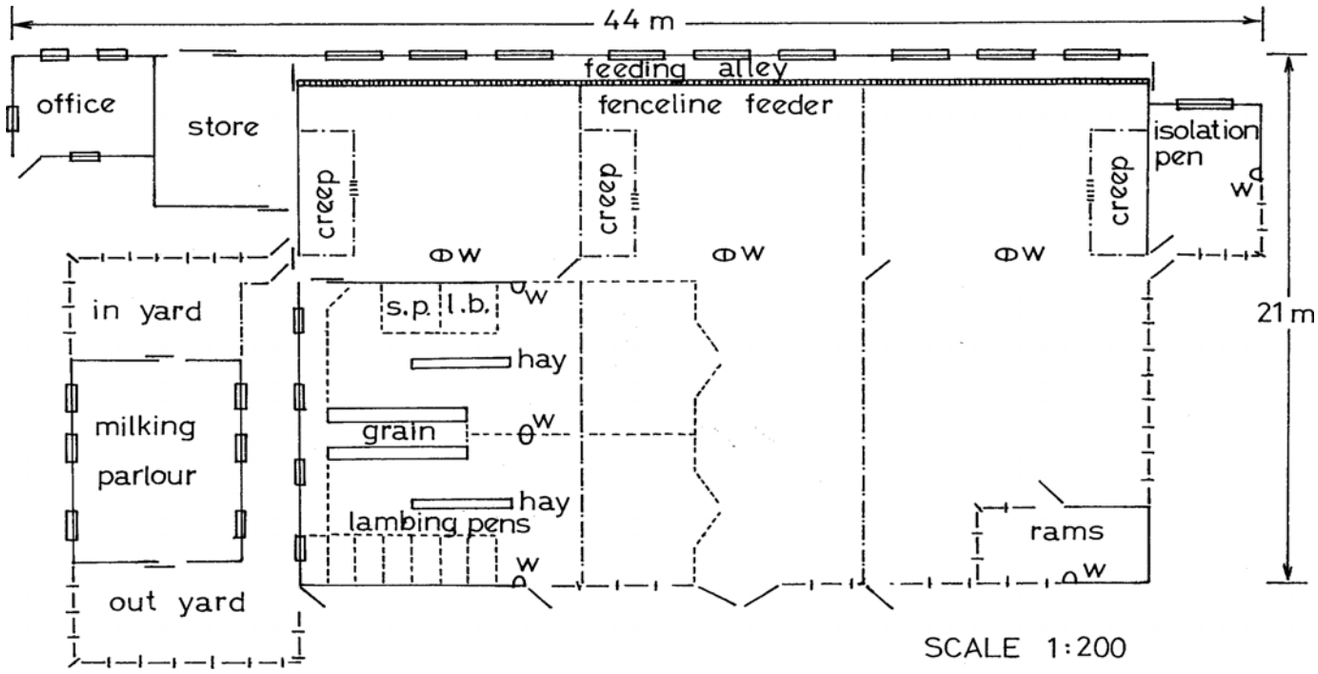

Figure 18 - Farm layout for 100 ewes. Fenceline bunk is used. Other details as in Figure 17.

Plans for the construction of lambing pens, milking stands or milking parlour and dipping trench are given in the next chapter.