



Sheep Housing Design Criteria

G-5

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The design of any livestock facility requires careful planning to optimize production and to keep you, the operator, happy. Modern up-to-date facilities provide a healthy environment for the animal and the operator. Well designed facilities should be efficient units that save labor, protect animals and improve the overall management of the production unit. Time spent planning a livestock facility is actually an investment in the efficient management of the enterprise over the life of the facility. The following design data on housing and space requirements for sheep is just the beginning of the planning process and should be supplemented with additional data and ideas. Information from farm magazines, managers, animal scientists, engineers and herdsmen should be considered and carefully evaluated to plan a workable and efficient facility. Facilities should be planned with the future in mind and not become a limiting factor in the operation.

Sheep housing design criteria data summary

		Rams 180-300 lb	Dry ewes 150-200 lb	Ewes with lambs 5-30 lb		Feeder lambs 30-110 lb
Building floor space (ft²/hd)	Solid	20-30	12-16	15-20 ¹	1.5-2 ft ² of creep space per lamb	8-10
	Slotted	14-20	8-10	10-12 ¹		4-5
Lot space (ft²/hd)	Dirt	25-40	25-40	30-50		20-30
	Paved	16	16	20		10
Feeder² space (in./hd)	Limit-fed	12"	16"-20"	16"-20"	2"/lamb creep	9"-12"
	Self-fed	6"	4"-6"	6"-8"		1"-2"
Water (head/bowl or nipple)³ (head/ft)			10	40-50	40-50	Water available 50-75
	Tank	2	15-25	15-25		25-40
(gal/hd/day)⁴		2-3	2	3	0.1-0.3	1/5
Manure/day	(lb)	10	6	7		4
	(ft ³)	0.15	0.1	0.12		0.065
-----plus bedding and spilled water-----						

¹For lambing rates above 170%, increase floor space 5 sq ft/hd.

²Feeder space/animal depends on: animal size, shorn vs unshorn, breed, pregnancy stage, number of times fed/day, and feed quality.

³Use heated or circulating type in cold buildings.

⁴Water requirements vary considerably with time of year and ration. Use clean water and keep waterer clean. Maintain water above 35°F in winter and below 75°F in summer.

Sheep housing design criteria data summary (cont.)

		Rams 180-300 lb	Dry ewes 150-200 lb	Ewes with lambs 5-30 lb	Feeder lambs 30-110 lb
Supplemental heat		—	—	100-200 Btu/100 lb plus 50-250 watt heat lamp	
Ventilation		Cold barns: provide ridge openings and adjustable wall openings. Warm barns: provide adjustable ceiling fresh air intakes and exhaust fans for 25 to 200 cfm/1000 lb.			
Wool produced (lb/yr)		6-18	5-14	—	4-7
Approximate feed needed⁵	Hay	4-7	2.5-4	4-7 + grain	1-2 + grain
(lb/day per animal)	Corn silage	12-20 + supp	7-9 + supp	12-18 + supp	4-6 + supp
	Grain	0.5-2.5	0.0-0.75	0.75-2.5	1.0-3.0
	Supplement	0.0-0.25	0.12-0.25	0.25-0.5	0.25-0.5

⁵Approximate rations for 3 optional forages. Data are only for computing feed storage and handling needs.

Provide lambing pens (jugs) for about 10% of a 100 ewe flock; 7-9% of a 600 ewe flock; 4-7% of a 1000 ewe flock. 4'x4'x32" (min) or 5'x5'x36" (large ewes).

Reference:

*Midwest Plan Service. 1982. Sheep housing and equipment handbook, MWPS-3. Iowa State University, Ames, Iowa 50011. 113 pp.

Additional References:

*MWPS. 1987. Structures and environment handbook, MWPS-1. Iowa State University, Ames, Iowa 50011. 802 pp.

*MWPS. 1982. Farmstead planning handbook, MWPS-2. Iowa State University, Ames, Iowa 50011. 44 pp.

Pennsylvania DER manure management manual. Harrisburg Regional Office, One Ararat Blvd., Harrisburg, PA 17110. 6pp.

*These references are available from the Publication Distribution Center, College of Agricultural Sciences, 112 Agricultural Administration Building, University Park, PA 16802.

PSU/92

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