



LEOPOLD CENTER  
FOR SUSTAINABLE AGRICULTURE

(Adapted from Leopold Center webpage)

Hoop barns can be used successfully for raising sheep, horses, ostriches and other raptures, though they have traditionally been used for swine. The basics of hoop structure design for other livestock is similar to the structures for swine. Refer to the Hoop Structures for Swine webpage for details. Different animals have different requirements for their living environments. The following information is aimed at directing attention and consideration for these animals in order to help distinguish their hoop structure needs from those of more traditionally hoop-housed livestock.

## Sheep

Hoop barns work well for lambing and feeding out market lambs. They are flexible so pens for lambing during cold weather can be provided. The layout can be changed later to provide feed bunks for market lambs.

Production Stage	Building Floor Space (sq. ft./head)	Feeder Space (in./head)		Water (head/bowl)
		Limit Fed	Ad Lib	
Rams (180-300 lbs)	20 to 30	12	6	10
Dry Ewes (150-200 lbs)	12 to 16	16 to 20	4 to 6	40 to 50
Ewes with lambs	15 to 20	16 to 20	6 to 8	40 to 50
Feeder lambs (30-110 lbs)	8 to 15	9 to 12	1 to 2	50 to 75

Table 1.  
Design data for sheep.



Sheep tend to thrive in cool but dry environments which hoop barns can provide when they are well-ventilated. Sidewall curtains and end wall openings help to promote good ventilation, thereby keeping the humidity and ammonia to minimum levels, which is important for animal comfort and health.



The interior of sheep barns can be changed depending on your production needs.



Be sure to maintain a suitably cool, dry environment.

## Horses

Hoop barns work well as horse stables or even riding arenas. Stalls are generally 10x10 ft. for small animals and 12x12 ft. for larger livestock. Tie stalls or other arrangements will work admirably as well. Many hoop barns are available in excess of 100 ft. wide and will work for many competitive and indoor riding activities.

Available for purchase through MidWest Plan Service:

**Hoop Barns for Horses, Sheep, Ratites, and Multiple Utilization (AED-52)**

**Horse Facilities Handbook (MWPS-60)**

<https://www-mwps.sws.iastate.edu/catalog/livestock-operations/equine-horse>



*Hoop barns for horses can be large enough to accommodate stalls and other paraphernalia for indoor riding activities.*



*The interior set-up of a hoop horse barn may serve in a capacity similar to traditional horse stables. Different-sized stalls are available for different-sized animals.*



*The space available in hoop barns permit a number of activities and arrangements.*

## Ostriches

Ostriches and other ratites can be raised successfully in hoop barns. Outdoor runs allow birds space for exercise while the hoop structure gives them a sheltered area for feeding and nesting. Special considerations pertain to areas where birds might kick or get their heads caught in small openings.



*Hoop barns for ostriches are used in tandem with outdoor pens to provide the best combination of movement and shelter.*



*The sheltered design of a hoop barn allows ostriches the comfort of feeding and nesting in safety.*



*The birds have plenty of room to exercise and move about outdoors.*