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Critical control points for sheepfolds

Health and welfare of sheep are strongly influenced by the design and layout of sheepfolds. During the health assessment, it is imperative to ensure the quality of the buildings. This document summarises the main standards and recommendations to be checked in a sheep pen.

1. Ease of working

- Ergonomics, not need to care heavy loads
- Easy and undisturbed animal surveillance, general overview
- Have everything at hand: pharmacy, recordings tools and data to consult, tools
- Avoid dust

2. Hygiene

- Accessible hot water and soap point
- Gloves
- Boot washer
- Locker room, shower, toilet

3. Organization of the sheepfold

a) Bedding and corridors

Bedding area per animal (Inn'Ovin specialist network, 2019)

Ewe size	Medium Large	
Weight of an empty ewe	< 70 kg	> 70 kg
Empty or gestating ewe	1.2 m ²	1.5 m ²
Suckler ewe with one lamb	1.5 m²	
Suckler ewe with two lambs *	2 m²	
Weaned lambs	0.5 m	

Place at the trough for rationed feeding (per linear metre)) (Source: Inn'Ovin specialist network, 2019)

Ewe size	Medium	Large
Weight of an empty ewe	< 70 kg	> 70 kg
Empty ewe	3 ewes	
Late pregnancy ewe	2.5 ewes	
Lactating ewe	2.5 to 3 ewes	
Weaned lambs (> 4 months)	4 lambs	

Minimum width of strawed areas to work comfortably

ANIMAL	Minimum width of straw
Ewes in late gestation and lactation with the lambing pens	6 m
Ewes in late gestation and lactation without the lambing pens	5 m
Maintenance ewes	4 m
Lambs fed ad libitum	4 m
Ewe-lambs	4 m

Place at the trough for ad lib feeding

Hay or wrapped grass	9 ewes per linear metre	
Silage ad libitum	25 to 30 ewes per linear metre	
Silage 8 hours over 24	10 ewes per linear metre	
Fodder for weaned lambs	8 to 10 lambs per linear metre	
Concentrate for weaned lambs	12 lambs per linear metre for a rectangular hopper	
	20 lambs per linear metre for a circular hopper	



Minimum corridor widths for feeding and bedding

TYPE OF EQUIPMENT	Corridor width
Mixer or silage feeder	4.5 m
Unrolling machine	4 m
Straw bedder	4 m
Farmhand	1.4 m

Minimum corridor width to circulate

TYPE OF EQUIPMENT	Corridor width
For passage with buckets and wheelbarrow	1.2 to 1.5 m
For monitoring purposes only and animal passage	0.8 m

source: Inn'Ovin specialist network, 2019

source: Inn'Ovin specialist network, 2019

Recommended bedding: (Source: Idele, 2015. Des agneaux en bonne santé, 44 p.)

At lambing: 1kg/case/d
Starting lambs: 400-500g/m²/d
Post-weaning: 300-400g/m²/d

• Ewes: 400-500g/m²/d for optimal, 250-300 as minimal

b) Lambing points and drinking points

Number of individual lambing pens for systematic lambing of all ewes and a residence time of 48 hours.

Type of females	Number of pens
Natural mating	20 % of group
Aligning heat cycling	50 % of group
Young ewes with natural mating	30 % of group

Surface: 1.5 m² with a 1 m rack and a 1.5

m rack **Height:** 90 cm

Source: Inn'Ovin specialist network, 2019

Drinking water

For meat production: 1 drinker per 40 to 50 ewes or lambs with

- At least two drinkers per group,
- At least one drinker per span so that drinking is not a limiting factor for the formation of small groups

For dairy production: 1 nipple drinker per 15 ewes or one constant level bowl per 35 ewes

Fixing height: 70-80 cm for ewes 40 cm for lambs. Height-adjustable drinkers as option.

Water consumption: 4 to 10 L/ewe/d according to feed, physiological period, health status, temperature...

(Source: Alliance élevage)

4. Ventilation and air circulation (Source: Alliance élevage)

	Air volume	Air Speed	Air inlet	Air outlet
	(m³/ animal)	(m/s)	(m²/ animal)	(m²/ animal)
Lamb	3 to 5	0.25	0.04	0.02
Ewe-lamb	5 to 6	0.4 to 0.5	0.04	0.02
Ewe	6 to 7	0.4 to 0.5	0.06	0.03

To encourage natural ventilation with very open buildings to limit heatstrokes

5. Orientation of the sheepfold: (Source: InnOvins-GIE Occitanie)

Building with a long side exposed (angle $> 30^{\circ}$) to the prevailing winds (generally South-West in Western Europe). Avoid extreme situations (valley bottoms, air corridor, too close existing buildings).

6. Arrangement of the sides (opening)

The openings (hatches, removable walls, sliding cladding, and windbreak nets...) on the long side and the insulation of the roof must allow protection from cold and heat or ventilation when necessary.

7. External access and clearing:

Layout of the sheepfolds allowing the circulation of machines and animals while respecting working comfort, hygiene and biosecurity.

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