

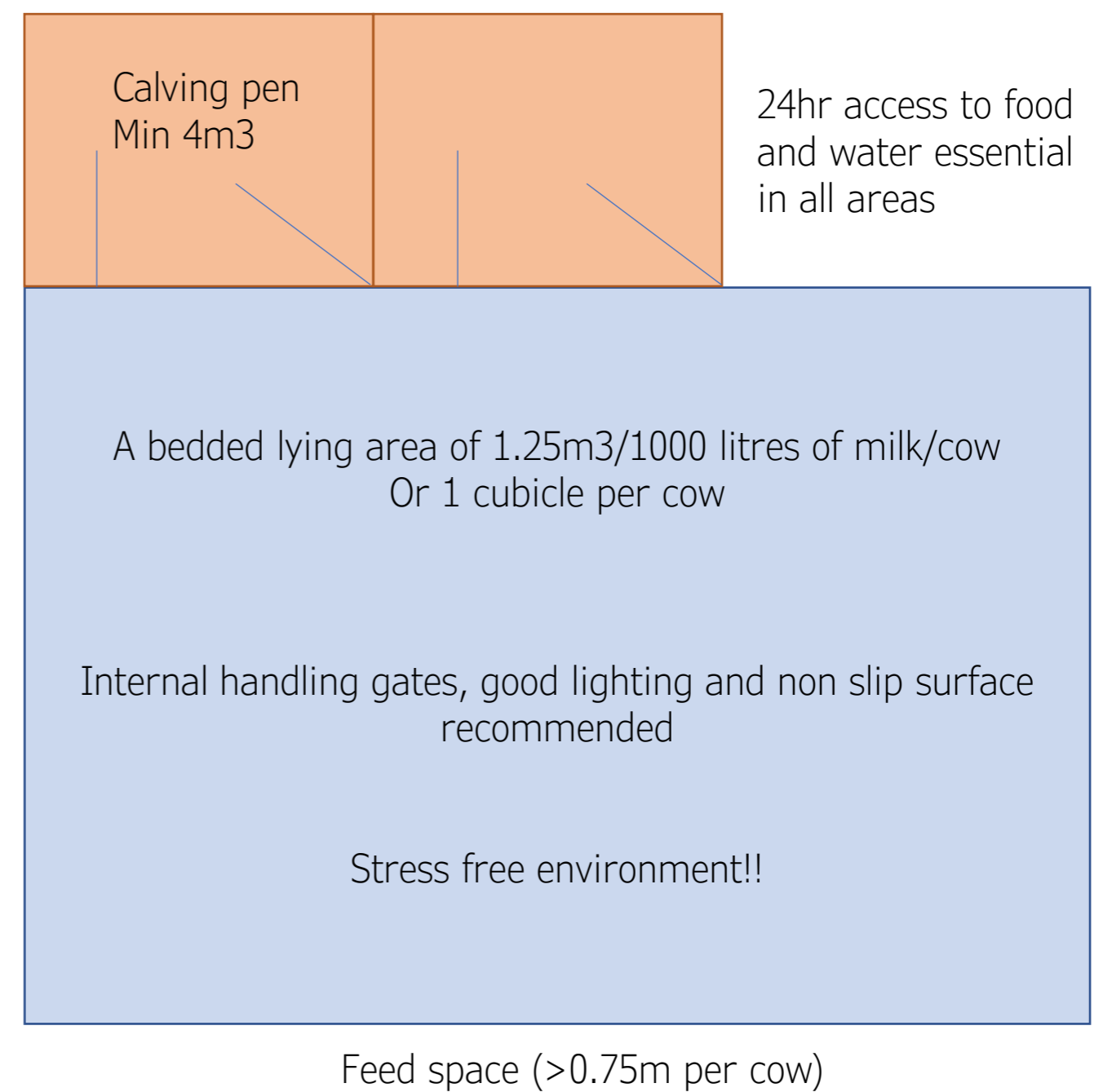
# Calving Yard

## Hygiene

Nutrients and oxygen can be passed through the placenta but not ANTIBODIES! There is no transfer of immunity between the cow and calf before birth. Holes in the gut are NOT selective so bacteria and viruses can pass through too.

A clean Calving Yard is essential. Easier to achieve this with dedicated calving pens next to where close calving cows are housed. Ensure:

- There is adequate drainage to avoid pooling of liquid and to keep the surface of bedding dry
- That 250 kg of unchopped straw is used to bed each calving cow each month
- That any dirt and afterbirth is removed between each cow
- That new, clean straw is added daily and straw bedding is spread evenly
- Yards are completely cleaned out every month



## Health

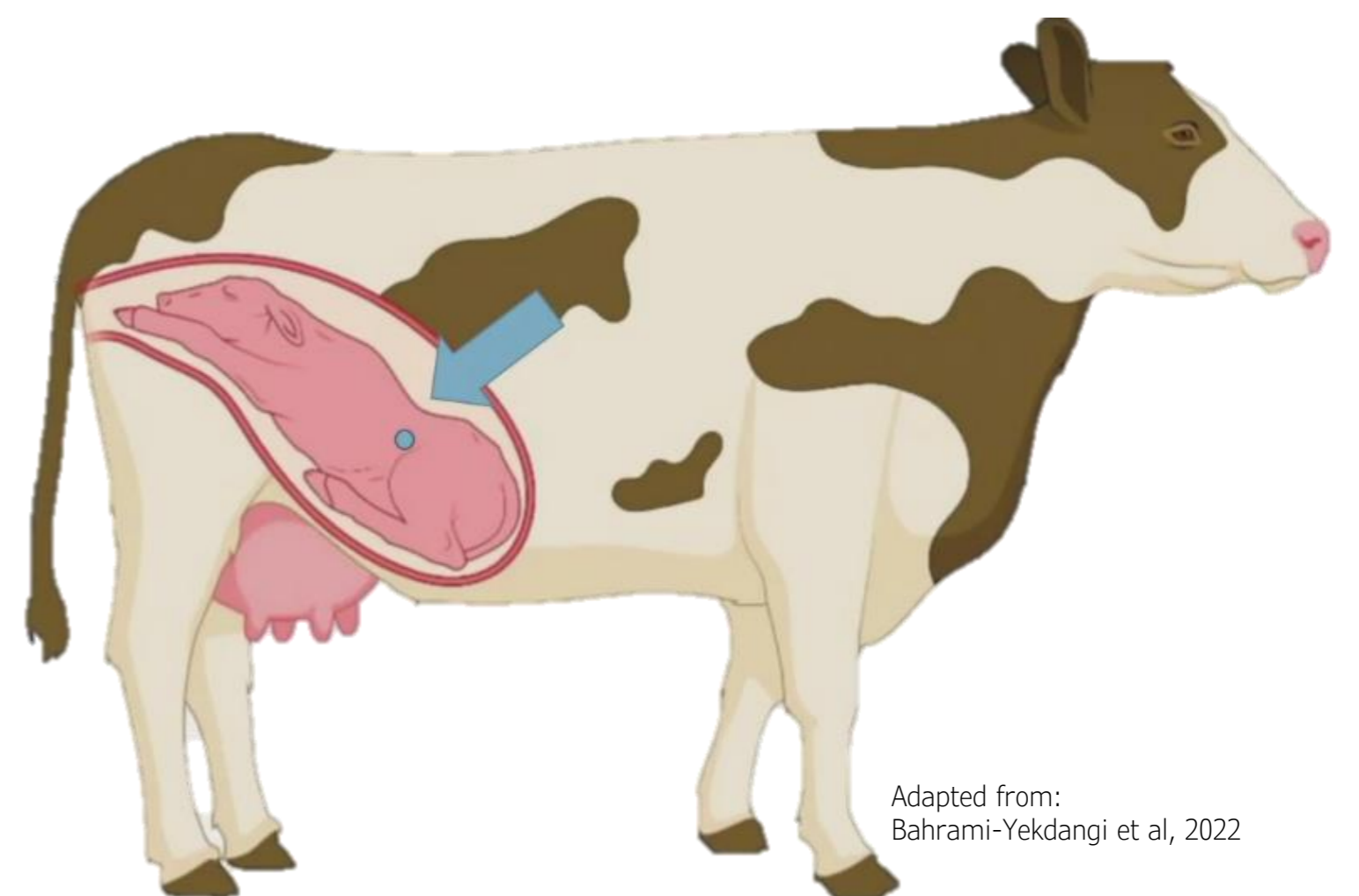
Vaccinate dry cows - once calf has been fed sufficient colostrum from the dam, it will protect from diarrhoea caused by Rotavirus, Coronavirus and E. coli.

Management key to mitigate spread of Johnes

## Environment

Heifers born to dams who suffered heat stress in the dry period showed reduced production in their first 3 lactations. In the third lactation this was 6.5 kg/d

These heifers were more likely to be culled before their first calving, had a less productive life and lifespan (Laporta 2020).



Adapted from: Bahrami-Yekdangi et al, 2022

		Relative humidity (%)							
		20	30	40	50	60	70	80	90
Temperature (°F)	50	54	53	53	52	52	51	51	50
	55	56	56	56	56	56	55	55	55
	60	59	59	59	59	60	60	60	60
	65	62	62	63	63	63	64	64	65
	70	65	65	66	67	67	68	69	69
	75	68	68	69	70	71	72	73	74
	80	70	72	73	74	75	76	78	79
	85	73	75	76	78	79	81	82	84
	90	76	78	79	81	83	85	86	88
	95	79	81	83	85	87	89	91	93
	100	82	84	86	88	91	93	95	98
105	84	87	89	92	95	97	100	102	
110	87	90	93	96	99	101	104	107	

<68	Not Stressed
68-71	Stress Threshold
72-79	Mild Stress
80-89	Moderate Stress
>89	Severe Stress

**Figure 1.** Temperature Humidity Index (THI) for Cattle. Lactating dairy cows are at greater risk for heat stress when the THI exceeds 68.

Source: Ohio State University, 2021

The impact of heat stress in dry cows was also seen in the granddaughters, with these cows producing 1.3kg/d less milk in their first lactation and more likely to be culled before first breeding.

A dairy cow's optimal temperature ranges between 4 and 15°C and relative humidity between 25 and 45%.

## Dry Cow nutrition

Protein – 14%minimum 3 weeks pre calving

Rumen fill – aim for DM intakes of 2% of BW

Milk fever – reduces calf survivability, more likely to get scours and pneumonia

Micronutrients – Iodine, Vitamin D, Selenium, and Vitamin E

