

## STALL WETNESS

**Objective:** Measure wetness of stall bedding

**Where:** In freestalls and tiestalls measure the same stalls used in the in-barn checklist

**When:** During the in-barn checklist

**What you need:**

- One technician
- 24 Bounty® paper towels folded in four
- Stall bedding wetness data recording sheet

**Background:** Research into cow comfort has shown that dry bedding is important to cows. Wet bedding reduces lying time more than any other feature of stall design. Maintaining clean and dry stalls will improve cow comfort and therefore lying time, keep cows cleaner with cleaner udders and reduce the rate of environmental mastitis.

**Protocol:**

1. Prior to departing for the farm, fold 24 sheets of bounty paper towel into four. Place all towels in a large ziplock bag (*24 sheets is sufficient for 12 stalls, however, you may not use all of them*).
2. Wear a pair of waterproof trousers over your coveralls or tie a place bag around your knee. Dry the surface of your knee between measures.
3. During the in-barn checklist (**Q115**), measure stall wetness on each of the stalls in which you record all 9 stall dimensions (minimum of 6 per farm).
4. Stall wetness will be done twice per stall using two sheets of Bounty®
5. Place 1<sup>st</sup> towel in the centre of the stall, one towel width (27.9cm) from the edge of the curb (**Fig 1**). Ensure that the towel is not being placed onto a cow pattie.
6. Using one knee, kneel onto the towel for 3 seconds. Count 1, 1000, 2, 1000, 3, 1000 or use a watch. Immediately stand and lift the towel.
7. Open the towel and assign a score using the scoring chart (**Fig 2, Table 1 & 2**).
8. Report the score in the stall bedding wetness data recording sheet.
9. Place the 2<sup>nd</sup> towel in the centre of the stall, two towel widths (55.8cm) from the edge of the curb and repeat step 3 - 6 above.
10. For each stall, take the wettest score and assign a final score (dry, wet or very wet) to each stall (**Table 2**) in the data recording sheet (**Table 3**).
11. Once you have finished scoring all of the stalls, sum the total number of stalls scored Dry, Wet or Very Wet (**Table 4**).
12. Divide the sum of each score by the total number of stalls scored and multiply by 100 to calculate the **percentage of stalls for each score (dry, wet, very wet)**.
13. Go back to **Q115** in the in-barn checklist, choose the answer according to what represents 50 % or more of the stalls.



FIGURE 1. EXAMPLE OF TOWEL LOCATION AT REAR OF STALL

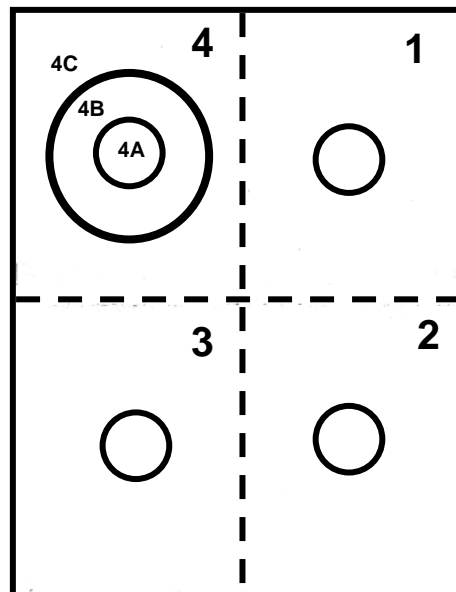
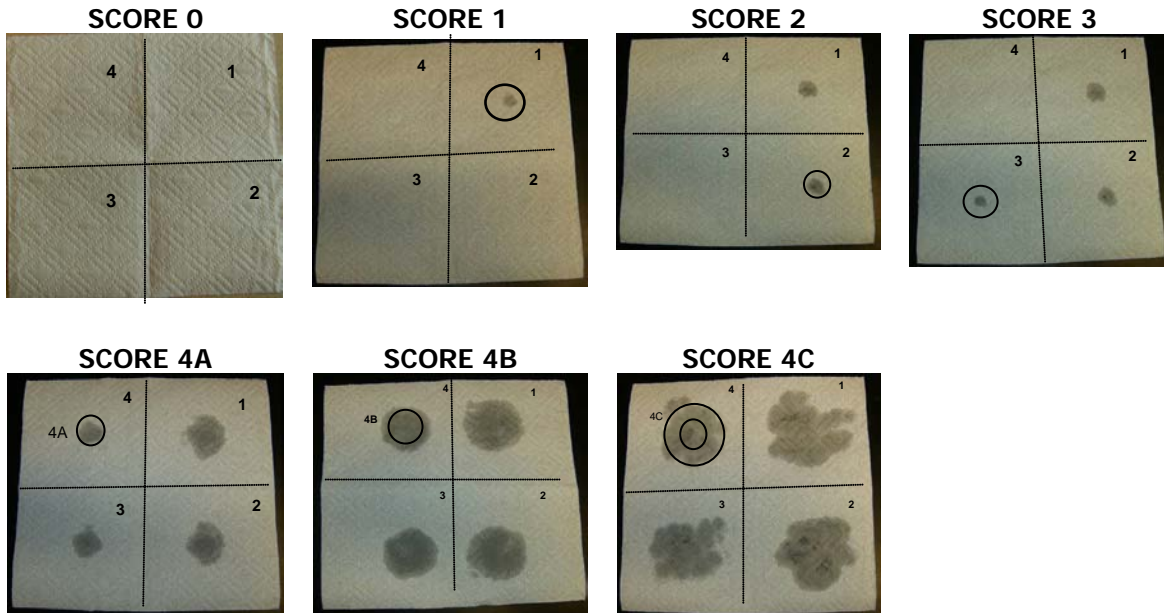


FIGURE 2. PAPER TOWEL SCORING SYSTEM.

**TABLE 1. GENERAL DESCRIPTION OF PAPER TOWEL SCORING SYSTEM**



**TABLE 2. DEFINITIONS**

Towel Score	Description	Final Score
0	No moisture on towel, completely dry	<b>DRY</b>
1	Moisture patch less than the size of a dollar coin on 1 <sup>st</sup> quarter	
2	Moisture patch less than the size of a dollar coin on 2 <sup>nd</sup> quarter	
3	Moisture patch less than the size of a dollar coin on 3 <sup>rd</sup> quarter	<b>WET</b>
4A	Moisture patch less than the size of a dollar coin on 4 <sup>th</sup> quarter	
4B	Moisture patch the size of your knee on the 4 <sup>th</sup> quarter	<b>V. WET</b>
4C	Moisture patch larger than the size of your knee on the 4 <sup>th</sup> quarter	

**TABLE 3. EXAMPLE STALL WETNESS DATA RECORDING SHEET**

	Row No.	STALL No.	TOWEL 1	TOWEL 2	FINAL SCORE (wettest)
1					
2					
3					
4					

**TABLE 4. STALL BEDDING WETNESS ASSESSMENT CHART**

	DRY	WET	VERY WET
<b>Total</b>	6	3	3
Total / No. Stalls	= 6 /12	= 3 /12	= 3 /12
=	= 50 %	= 25 %	= 25 %