Novus C.O.W.S. Individualized Report

Benchmarking Region: Northeast, Free Stall

Specifically designed for:

Example Farm
Anytown, NY

Date of assessment: January 1, 2014
Pen assessed: 1

Thank you for participating in the Novus C.O.W.S. (Comfort · Oxidative Balance · Well-Being · Sustainability) program.

In this report, you will be able to compare the data from your dairy to the regional benchmarks. The report shows the summary of the benchmarking information from participating herds in Northeast, and how your herd compares to the others in the region.

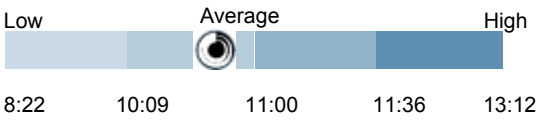
Please use the C.O.W.S. handbook for instructions on how to interpret your report. The handbook also provides information on factors known to affect cow comfort and lameness that may help improve the conditions on your dairy and enhance the performance of your herd.

C.O.W.S. Benchmarking

Background of Benchmarking Segment
Region: Northeast, Free Stall
Farms evaluated: 185 free stall dairy herds in Northeast
Cows evaluated: One group of mature (2nd lactation or above) high production cows on each dairy

Measurements summarized in this report:
- Lying time
- Prevalence of lameness
- Prevalence of hock and knee injuries
- Housing environment – free stall dimensions, bedding quality, stocking density, etc.

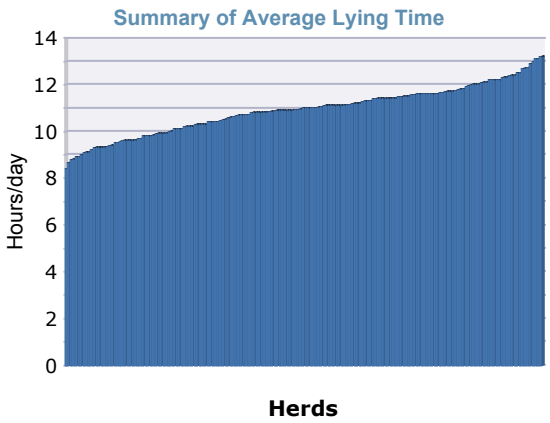
Lying Time: On your dairy



Your Farm

Average: 10 hr 40 min
Min: 3 hr 55 min Max: 13 hr 40 min

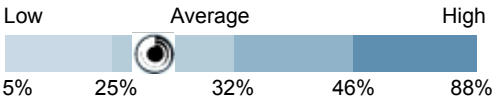
Comments:
All cows should have the opportunity to lie down for 10 to 12 hours per day. Increased time spent standing on concrete is a risk factor for lameness. The more time cows spend lying down in the stall, the less likely that they are standing on concrete.



Summary of all herds:
- On average, cows were lying down for approximately 11 hours per day.
- Herd average lying times ranged from 8 to 13 hours per day.
- Individual cows' lying times across all herds ranged from 2 to 19 hours per day.

On your dairy

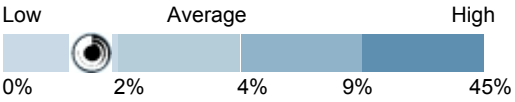
Overall Lameness



Your Cows

Lame: 28.3%

Severe Lameness



Your Cows

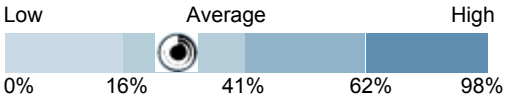
Severely Lame: 1.8%

Comments:
Lameness detracts from herd performance. Regular monitoring and routine trimming will help reduce and prevent lameness. A lameness prevention program that includes input from your veterinarian, hoof trimmer and nutritionist is recommended.

Summary of all herds:
- On average, 32% of the cows assessed were clinically lame, and 4% were severely lame.
- The rate of clinical lameness ranged from 5% to 88% across herds.
- The rate of severe lameness ranged from 0% to 45% across herds.

On your dairy

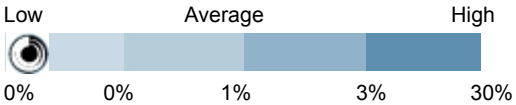
Overall Hock Injury



Your Cows

Injured: 24.5%

Severe Hock Injury



Your Cows

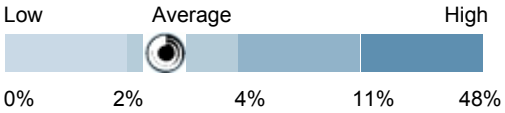
Severely Injured: 0.0%

Comments:
Some of the cows had hair loss on the hock, but there were no swollen hocks. Increasing the amount of bedding may help reduce and prevent hock injuries.

Summary of all herds:
- On average, 41% of the cows assessed had at least a minor hock injury (hair loss), and 1% had a severe injury or swollen hock.
- The rate of hock injuries ranged from 0% to 98% across herds.
- The rate of severe hock injuries ranged from 0% to 30% across herds.

On your dairy

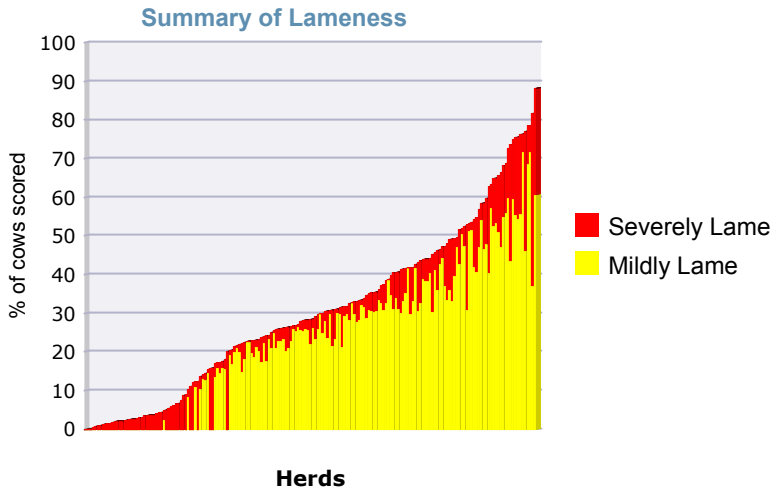
Swollen Knees



Your Cows Swollen Knees: 2.3%

Comments:
Maintaining a soft lying surface and adequate bed length with no abrasive brisket board will help prevent knee injuries.

Summary of all herds:
- On average, 4% of the cows assessed had swollen knees, ranging from 0% to 48% across herds.



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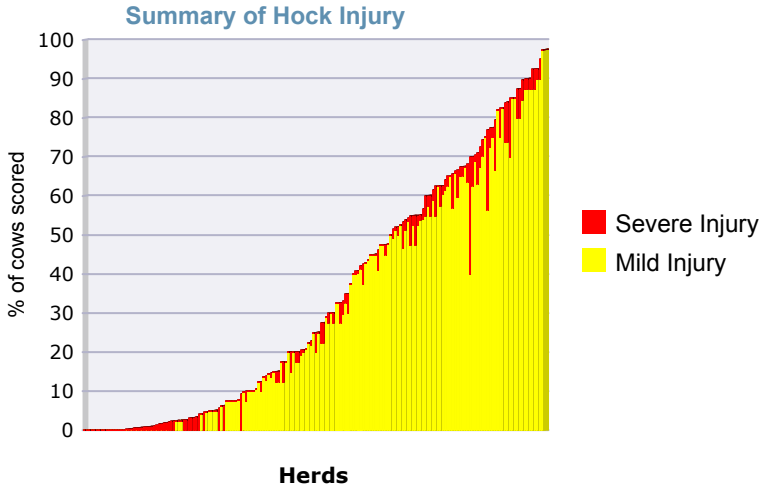

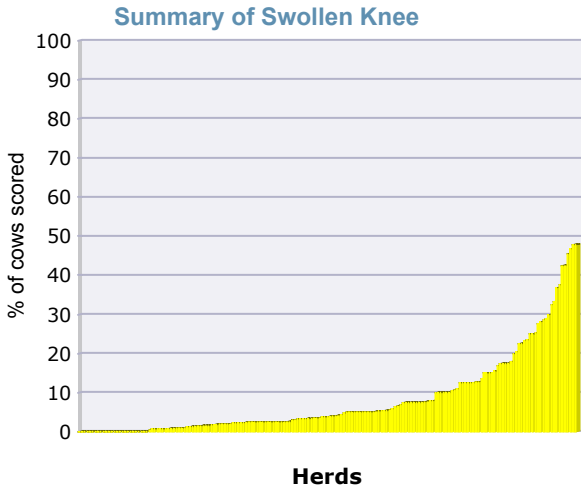

Facility Design and Management Measures

1. LYING AREA

	Your Measurement	Average[1]	Comments
Bedding frequency	2.5 days	5.0 days	Increased frequency and quantity of bedding may lead to increased lying time.
Bedding quantity – on a scale of 1 (ample bedding) to 3 (less than 50% of stall base covered)	1.8	1.7	Stall use improves with the addition of more bedding. The stall base or type of bedding is as important as bedding quantity or quality.
Bedding maintenance – number of times stalls cleaned/raked per day	4.0	2.8	Well-used stalls are dirtier. Stall design, frequency of new bedding and maintenance all contribute to stall cleanliness.
Bedding cleanliness – on a scale of 1 (clean) to 3 (dirty)	1.5	1.6	
Bedding dry matter	75%	78%	Bedding dry matter less than 60% has been shown to reduce lying time.
Number of Cows / Stall *100 (Stocking rate)	110%	114% (Target 100%)	Stocking rates of more than 100% (not enough stalls for every cow) can reduce lying times and milk yield.

1 Average across 185 farms in Northeast

2. STALL DIMENSIONS

	Your Measurement	Average[1]	Target[2]	Comments
Curb height	11 in	9 in	8 in or less	High curbs are associated with increased risk of lameness.
Stall width	48 in	47 in	48 in	Cows spend more time lying and are less likely to perch in wider stalls. Larger cows require larger stalls.
Stall length	96 in (single row) 94 in (double row)	93 in (single row) 89 in (double row)	108 in (single row) 102 in (double row)	Stalls should have adequate lunge space, with no obstruction, to allow cows to easily stand up and lie down.
Neck rail height from bedding	47 in	44 in	48 in or greater	Neck rails increase the time cows spend standing in the alley or perching. Moving the neck rail up and further from the curb reduces these behaviors and the risk of lameness.
Neck rail distance from curb	72 in	69 in	68 in or greater	
Brisket board height above bedding	2 in	5 in	4 in or less	Brisket board reduces the amount of time cows spend lying in the stalls, and may increase the risk of knee lesions. High brisket boards prevent the forward thrust of the front leg when the cow rises.
Brisket board distance from curb	75 in	70 in	68 in or greater	

1 Average across 185 farms in Northeast
2 Target is based on 1400lb dairy cow [The Dairyland Initiative (School of Veterinary Medicine)]

3. FEEDING AREA

	Your Measurement	Average[1]	Comments
Number of Cows / Headlock *100 (stocking rate)	N/A	163%	Overstocking at the feed bunk increases competition. In turn, this reduces the time cows spend feeding and increases the time cows spend standing in the alley.
Bunk space per cow	17 in	17 in (Target[2] = 24 in for mid lactation and 30 in for close up and fresh cows)	
Water space per cow	1.6 in	2.4 in	One lactating cow will drink between 20-30 gallons of water per day. Water quality (e.g. palatability) affects consumption; keeping water troughs clean is key to ensuring adequate water intake[3].

1 Average across 185 farms in Northeast
2 Target is based on 1400lb dairy cow [The Dairyland Initiative (School of Veterinary Medicine)]
3 Adapted from Code of Practice for the Care and Handling of Dairy Cattle (National Farm Animal Care Council)

4. MILKING MANAGEMENT

	Your Measurement	Average[1]	Comments
Distance from pen to parlor	122 ft	183 ft	Keeping high producing cows close to the parlor will minimize the amount of time they spend walking on hard surfaces.
Time away from pen for milking – (time since the first cow leaving the pen until the last cow returning to pen) * milking frequency	4 hr 32 min per day	4 hr 36 min per day	Minimizing the time spent away from the pen during milking will increase the time available for cows to rest and feed.

1 Average across 185 farms in Northeast

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