

ZOETIS CALF & HEIFER ASSESSMENT



Calves and heifers are the future of every dairy operation and getting them off to a healthy start sets up a lifetime of productivity. Focusing a Calf Wellness program on growth while reducing the damaging effects of scours and pneumonia will present opportunities for earlier breeding and calving. This can pay dividends in heifers that are ready to enter the milking herd and become high-producing cows. Use this Calf & Heifer Assessment to identify improvement opportunities on your dairy.

MATERNITY PEN ASSESSMENT

Healthy starts begin at birth with a clean maternity pen and timely feeding of colostrum. The goal is to get at least 4 quarts of clean, high-quality colostrum into a newborn calf within two hours of birth.

Index		Industry standard				Comments
		Not measured	Below average	Average	Above average	
Calving difficulty		N/A	>2%	2%	<2%	
DOA	Cows	N/A	>4%	4%	<4%	
	Heifers	N/A	>8%	8%	<8%	
Perinatal mortality	1 – 48 hours	N/A	>7%	6 – 7%	<6%	
Umbilicus	Appropriate navel dip	N/A	Not every calf/ poor coverage	Every calf/ good coverage	Every calf/ excellent coverage	
Passive transfer	Serum total (%>5.5g/dL)	N/A	<85%	85%	>85%	
	Serum IgG (>10g/mL)	N/A	<85%	85%	>85%	
Colostrum	Quality (colostrometer or refractometer)	N/A	Poor	Moderate	Excellent	
	Quickly delivered	N/A	>2 hours	2 hours	<2 hours	
	Quantity*	N/A	<4 quarts	1 feeding 4 quarts	4 quarts plus additional feedings	
Quantitative colostrum culture	Total plate count	N/A	>100,000 CFU/mL	100,000 CFU/mL	<100,000 CFU/mL	
	Total coliform count	N/A	>10,000 CFU/mL	10,000 CFU/mL	<10,000 CFU/mL	

*Recommended feeding amounts for Holstein calves.

PRE-WEANED CALVES ASSESSMENT

The first 60 days are important to calf growth. Calves are most feed-efficient during this stage, so providing a high plane of nutrition, supported by comfortable housing and adequate ventilation, can result in growing calves that become high-producing herdmates. The goal is for calves to gain an average of 2 pounds per day and 4 to 5 inches of height growth by 8 weeks of age.

Index		Industry standard				Comments
		Not measured	Below average	Average	Above average	
Mortality	24 hours – 60 days	N/A	>5%	5%	<5%	
Disease incidence (morbidity)	Scours <60 days	N/A	>25%	25%	<25%	
	BRD <60 days	N/A	>15%	15%	<15%	
Nutritional requirements		N/A	No consistency	One ration all year consistently	Adjusts to meet needs consistently	
Milk solids (circle one): pasteurized/ unpasteurized		N/A	12%	13%	15%*	
Quantitative milk or MR culture	Total plate count	N/A	>100,000 CFU/mL	100,000 CFU/mL	<100,000 CFU/mL	
	Total coliform count	N/A	>10,000 CFU/mL	10,000 CFU/mL	<10,000 CFU/mL	
Water		N/A	As needed	Daily	Twice daily	
Calf starter		N/A	>7 days of age	3 – 7 days of age	0 – 2 days of age	
How starter replenished		N/A	>1/week	2 – 6 days	Every day	
Housing environment		N/A	Contact easy	Contact difficulty	No contact possible	
Housing ventilation		N/A	Poor	Average	Good	
Weaning criteria		N/A	By age only	Based on group intake	Individual starter intake	
Calf weight from birth to weaning		N/A	<Double	Double	>Double	

*Milk solids >15% may cause salt toxicity

POST-WEANED HEIFERS ASSESSMENT

Weaning is a stressful time for calves and an opportunity for disease to strike. Calves need to be transitioned gradually to the new feeding program and group housing so they maintain enough intake to keep growing and ward off disease challenges. The goal is to maintain average daily gain and minimize morbidity.

Index		Industry standard				Comments
		Not measured	Below average	Average	Above average	
Mortality	61 – 120 days	N/A	>2%	2%	<2%	
	121 – 180 days	N/A	>1%	1%	<1%	
Disease incidence (morbidity)	Scours 60 – 120 days	N/A	>2%	2%	<2%	
	BRD 60 – 120 days	N/A	>10%	10%	<10%	
Housing 60 – 120 days	Area	N/A	<34 sq. ft./calf	34 sq. ft./calf	>34 sq. ft./calf	
	Ventilation	N/A	Poor	Average	Good	
Housing 121 – 180 days	Area	N/A	<40 sq. ft./calf	40 sq. ft./calf	>40 sq. ft./calf	
	Ventilation	N/A	Poor	Average	Good	
Average daily gain	60 – 120 days	N/A	<2.2 lbs./day	2.2 lbs./day	>2.2 lbs./day	
	121 – 200 days	N/A	<2.0 lbs./day	2.0 lbs./day	>2.0 lbs./day	

HEIFER REPRODUCTION ASSESSMENT

Heifer reproduction is an overlooked profit opportunity on most dairies. Taking simple steps to aggressively manage heifer breeding by incorporating reproductive tools into protocols and moving heifers into a breeding pen routinely can create profit opportunities. Any incremental costs are minimal compared with the financial gain of heifers spending less time in the bred heifer pen and more time in the milking string. There is a sizable financial advantage for a heifer that calves for the first time at 23 months of age versus one that freshens at 25 or 26 months of age. The goal: All heifers are bred to calve for the first time at 22 to 24 months of age.

Index		Industry standard				Comments
		Not measured	Below average	Average	Above average	
Repro	% bred by 400 days	N/A	<75%	75 – 90%	>90%	
	% preg by 450 days	N/A	<75%	75 – 90%	>90%	
	Avg. preg rate	N/A	<25%	25 – 30%	>30%	
	Heat detection rate	N/A	<60%	60 – 70%	>70%	
	Conception rate					
	Conventional semen	N/A	<50%	50 – 60%	>60%	
	Sexed semen	N/A	<35%	35 – 45%	>45%	
Criteria for first service*	N/A		Age only	2 of 3 criteria		

*Criteria examples: hip height, height at withers, weight (tape or actual), age.

The Calf & Heifer Assessment was developed from industry resources, including the Dairy Calf and Heifer Association Gold Standards for calf and heifer raising. It also pulls from years of research and experience from industry experts, such as Dr. Sandra Godden, University of Minnesota and Dr. Sheila McGuirk and Dr. Ken Nordlund, University of Wisconsin.