

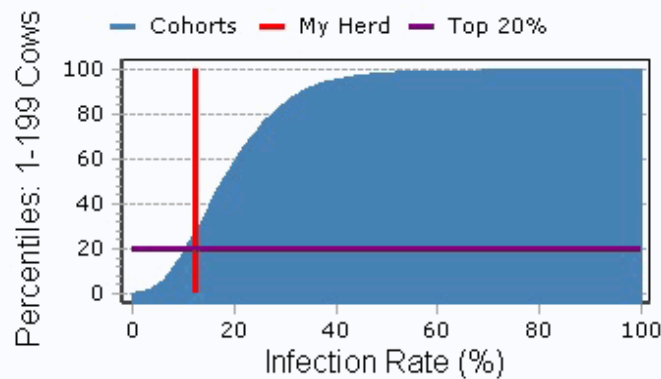
Mastitis can be caused by many factors typically related to environmental or contagious bacteria that are introduced by less than optimal milking procedures or hygiene of facilities or cattle. Mastitis can cause large economic losses from reduced milk production, discarded milk, lowered reproductive performance and excessive herd turnover.

Somatic Cell Count (SCC) from a day's milk is a standard indicator of the impact of udder infection. Cows with levels less than 100,000/ml are considered healthy - and levels of 200,000+/ml typically indicate an udder infection. This Monitor labels SCCs between 100,000 and 199,999 as SUSPECT and reveals cows that are not optimally healthy.

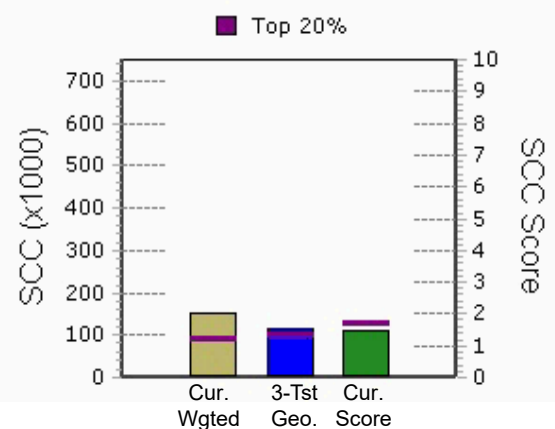
Since 2010, some processors have reported 3-month rolling geometric SCC averages to herds because of international pressure for on-farm milk to be less than the E.U.'s legal limit of 400,000/ml. A 3-test day geometric average = cube root of (current test day SCC average X prior test day SCC average X 2nd prior test day SCC average). This method reduces the impact of any single SCC on the average for the 3-month period.

How well are top herds doing? Usually herd managers should set their own goals - but 'performance of top herds' can illustrate what can practically be achieved. This Monitor defines 'Top 20%' herds using each herd's weighted average SCC. Although average performance is similar across all herd sizes, more small herds have high infection rates than larger herds. The herd size categories for the 'Top 20%' are 1 to 199 cows; 200 to 999 cows, and; 1000+ cows.

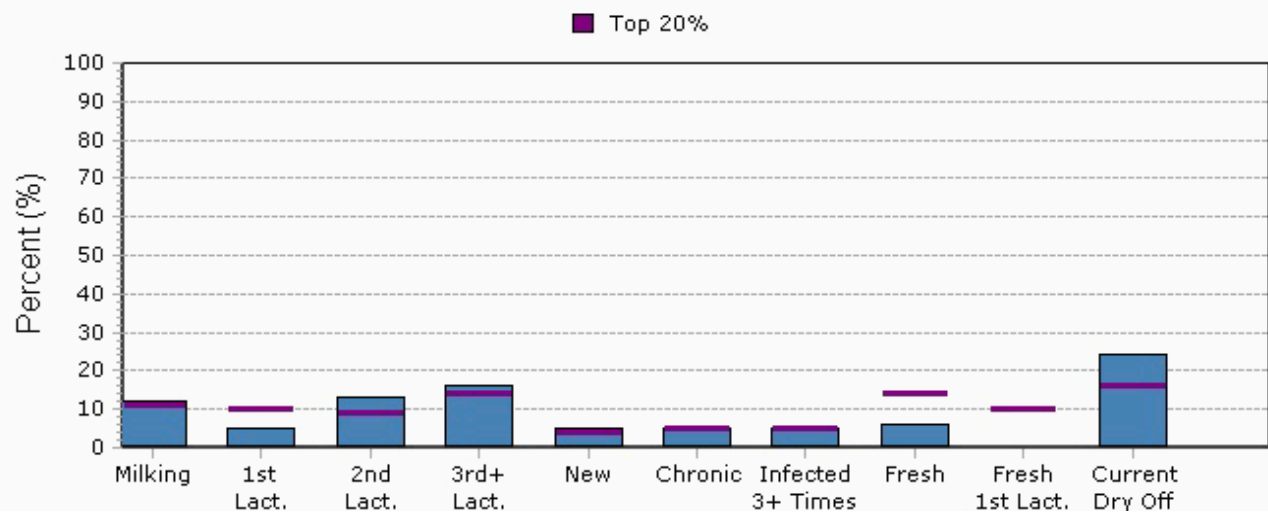
Current Infection in Cohort Herds



SCC Averages



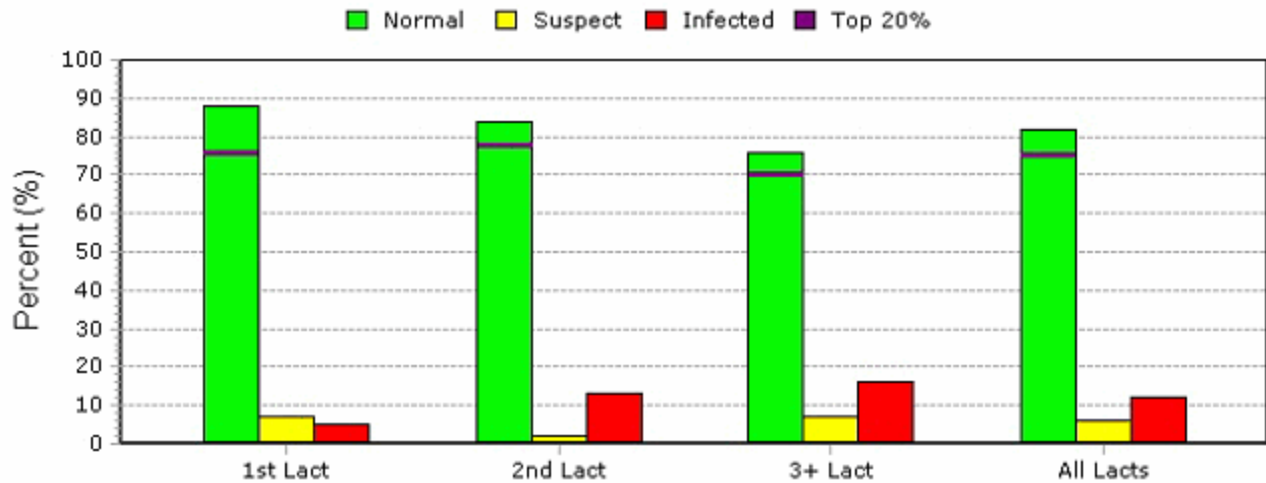
Current SCC Infection Rates



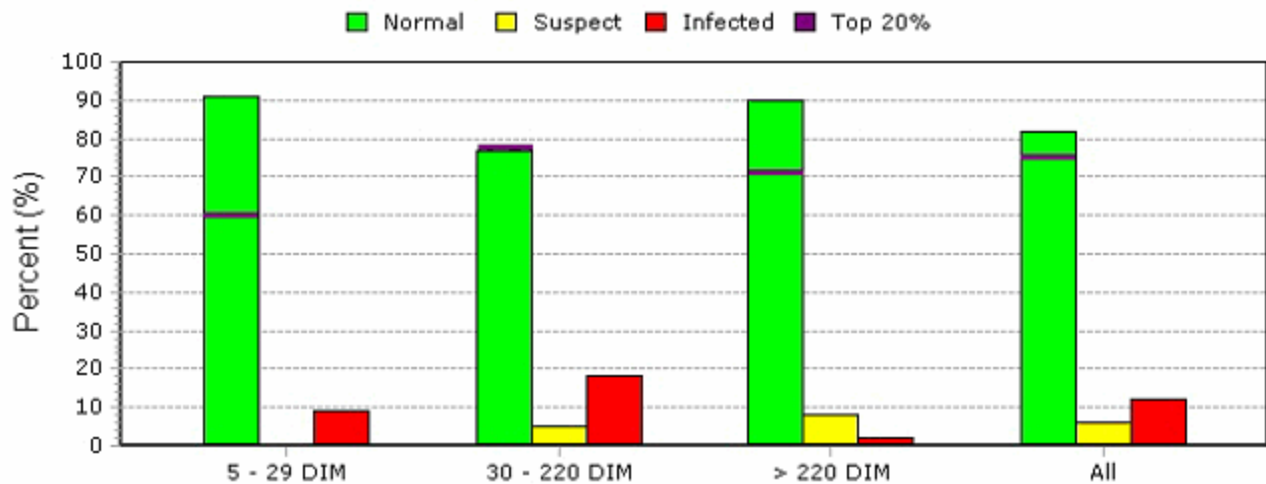
	Milking	1st Lact.	2nd Lact.	3rd+ Lact.	New	Chronic	Infected 3+ Times	Fresh	Fresh 1st Lact.	Current Dry Off
# Infected	19	2	6	11	7	8	7	1		8
# Cows	155	43	45	67	155	155	155	17	8	33

Normal SCC = 0-99K (0-2.9 SCS) Suspect SCC = 100K-199K (3.0-3.9 SCS) Infected SCC = 200K+ (4.0-9.9 SCS)
 Both 'Normal' and 'Suspect' are considered Not Infected and are sometimes called 'Negative'

Current SCC by Lactation



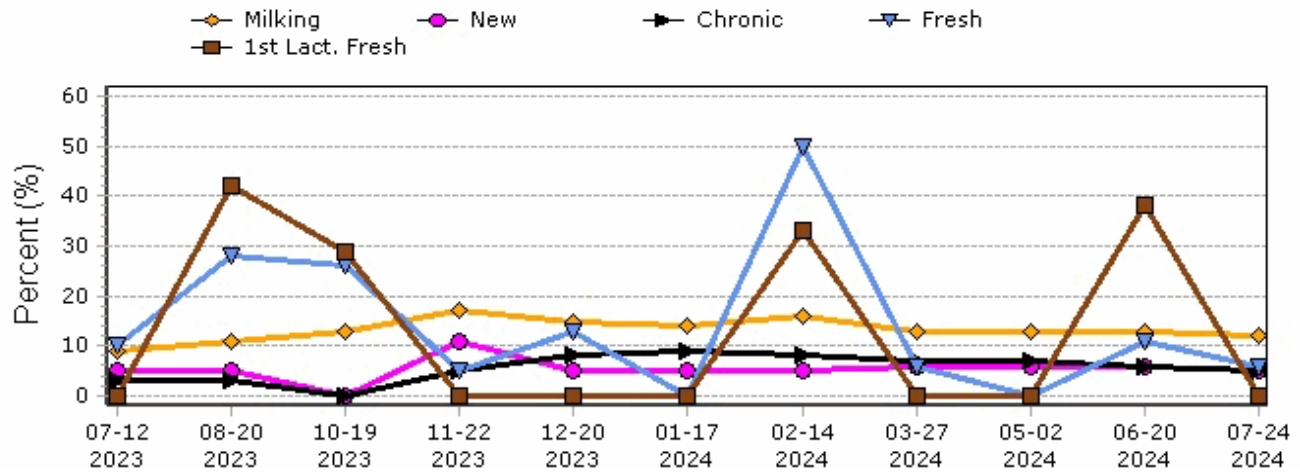
Current SCC by Stage of Lactation



Current SCC by Lactation, Stage of Lactation (Days in Milk) and Level

Lact.	DIM	Current Test							Previous Test		
		# Cows with SCC	Normal	Suspect	Mod-Inf	Sev-Inf	Total-Inf		Total-Inf		# Cows with SCC
			0-99K 0-2.9	100-199K 3.0-3.9	200-799K 4.0-5.9	800K+ 6.0+	200K+ 4.0+		200K+ 4.0+		
			%	%	%	%	#	%	%	#	
1	5 - 29	5	100						50	3	6
	30 - 220	25	80	12	8		2	8	5	1	22
	220+	13	100						17	2	12
	All	43	88	7	5		2	5	15	6	40
2	5 - 29	2	50			50	1	50			6
	30 - 220	30	80	3	7	10	5	17	15	4	27
	220+	13	100						11	2	18
	All	45	84	2	4	9	6	13	12	6	51
3+	5 - 29	4	100								10
	30 - 220	40	73	3	20	5	10	25	13	5	38
	220+	23	78	17	4		1	4	20	4	20
	All	67	76	7	13	3	11	16	13	9	68
All		155	82	6	8	4	19	12	13	21	159

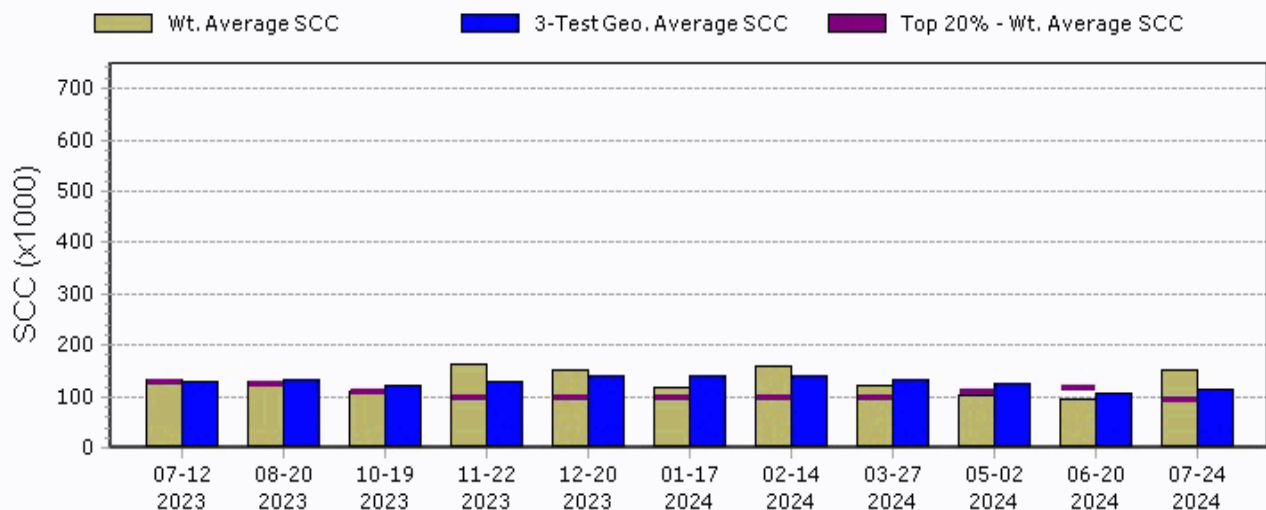
Changes in Infection Rates for Milking, New, Chronic, Fresh and 1st Lactation Fresh



Number of Cows and Infections

	Date of Test													Avg.
	~~~~	~~~~	07-12 2023	08-20 2023	10-19 2023	11-22 2023	12-20 2023	01-17 2024	02-14 2024	03-27 2024	05-02 2024	06-20 2024	07-24 2024	
Infected Cows			25	29	36	44	39	36	40	33	30	21	19	32
New Infections			12	13		27	12	13	12	15	13	9	7	12
Chronic Infections			9	8		13	20	22	19	16	16	9	8	13
Milking Cows			261	265	259	248	245	252	246	246	229	159	155	233
Fresh Infections			3	8	5	1	3		8	2		3	1	3
Fresh Cows			29	29	19	20	24	14	16	35	14	28	17	22
1st Lact. Fresh Inf.				5	2				1			3		1
1st Lact. Fresh			5	12	7	7	8	2	3	11	4	8	8	7

### Changes in Weighted Average and Rolling 3-Test Geometric Average SCC

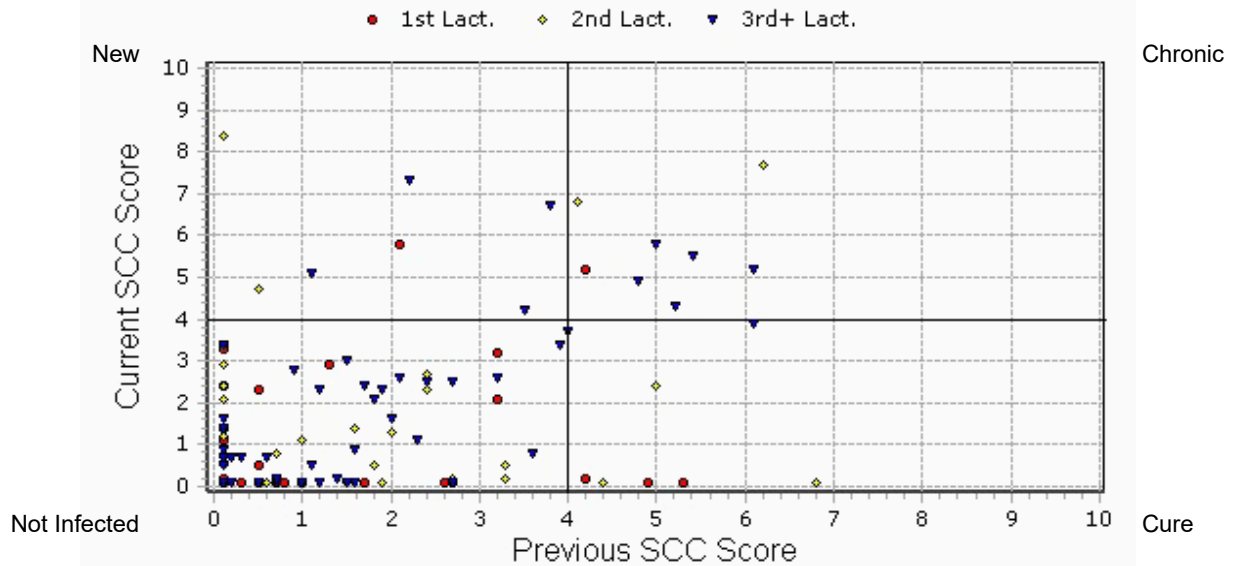


### Average SCC Score

	Date of Test													Avg.
	~~~~	~~~~	07-12 2023	08-20 2023	10-19 2023	11-22 2023	12-20 2023	01-17 2024	02-14 2024	03-27 2024	05-02 2024	06-20 2024	07-24 2024	
Avg. SCC Score			1.5	1.6	1.8	2.5	2.0	2.0	1.9	1.9	1.6	1.6	1.5	1.8

Not Infected SCC = 0-199K (0-3.9 SCS) Infected SCC = 200K+ (4.0-9.9 SCS)
 Both 'Normal' and 'Suspect' are considered Not Infected and are sometimes called 'Negative'

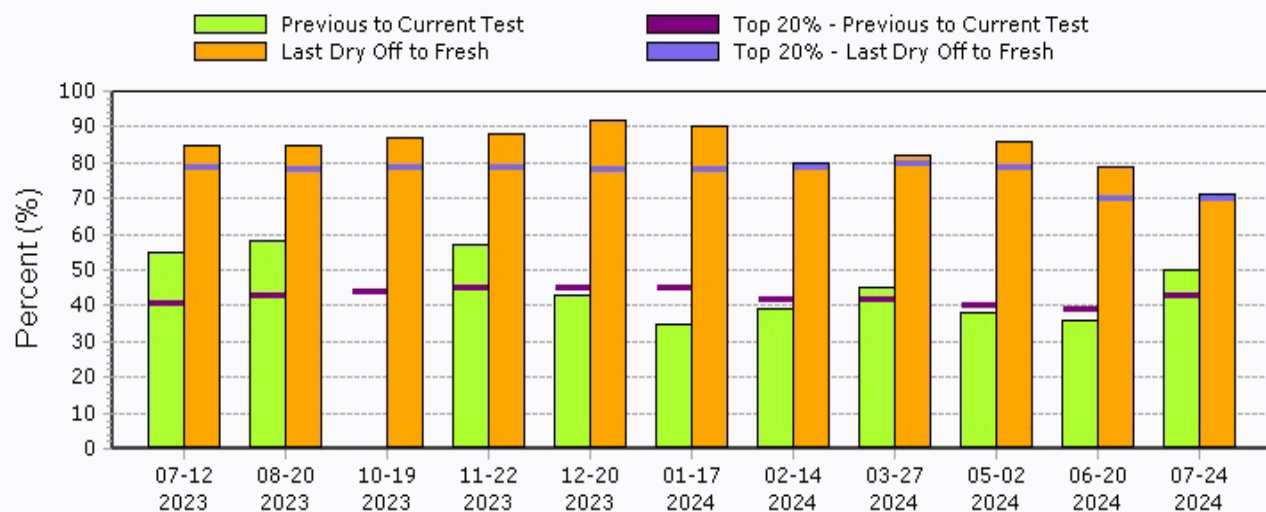
Changes in SCC Status - Previous to Current Test by Lactation



	Previous to Current Test			Last Dry Off to Fresh		
	My Herd		Top 20%	My Herd		Top 20%
	#	%	%	#	%	%
Not Infected	119	89	85	98	87	84
New Infections	7	5	4	11	10	10
Cures	8	50	41	10	71	69
Chronics	8	6	6	4	4	4
Net Trans. Rate	~~~~	88	71	~~~~	110	82

Net Transmission Rate
 New Inf. / Cures * 100

Cure Rates for SCC



Number of SCC Cures

	Date of Test													Avg.
	~~~~	~~~~	07-12 2023	08-20 2023	10-19 2023	11-22 2023	12-20 2023	01-17 2024	02-14 2024	03-27 2024	05-02 2024	06-20 2024	07-24 2024	
Previous to Current			11	11		17	15	12	12	13	10	5	8	10
Dry Off to Fresh			22	23	20	22	22	19	16	18	18	11	10	18



### Cows to Treat or Watch - 1st Lactation

Infected this test or last test (SCC >= 200K (SCS >= 4.0)) and DIM >= 5

Index	Grp	Lact. #	DIM	Milk	SCC	Prev. SCC	Inf. Level	Lact. Avg. SCC	Prev. Lact. Avg. SCC	Tests Infected		Date 1st Infected	DIM 1st Inf.	30 Day Milk Loss	305 ME Milk	Prev. Lact. 305 ME Milk	Days Since Bred	P Reg.
										#	%							
3197		1	154	73.8	696	54	NEW	164	~~~~	1	25	7-24-24	154	87	24,045	~~~~	53	P
3252		1	42	90.0	460	230	CHR	326	~~~~	2	100	6-20-24	8	89	24,823	~~~~		
3254		1	42	72.3	14	230	PRV	137	~~~~	1	50	6-20-24	8		20,745	~~~~		
3193		1	238	97.8	13	492	PRV	102	~~~~	1	14	6-20-24	204		34,802	~~~~	161	P
3267		1	39	105.9	13	373	PRV	207	~~~~	1	50	6-20-24	5		27,626	~~~~		

### Cows to Treat or Watch - 2nd+ Lactations

New infections (SCC >= 200K (SCS >= 4.0)) and DIM >= 5

Index	Grp	Lact. #	DIM	Milk	SCC	Prev. SCC	Inf. Level	Lact. Avg. SCC	Prev. Lact. Avg. SCC	Tests Infected		Date 1st Infected	DIM 1st Inf.	30 Day Milk Loss	305 ME Milk	Prev. Lact. 305 ME Milk	Days Since Bred	P Reg.
										#	%							
3106		2	20	84.0	4851		NEW	4851	108	1	100	7-24-24	20	369		23,951		
2964		2	194	58.2	4223	13	NEW	320	65	1	17	7-24-24	194	431	20,234	24,798	97	P
2907		3	73	94.5	1970	57	NEW	494	607	1	50	7-24-24	73	264	19,906	27,190		
2534		5	175	66.9	1300	174	NEW	851	36	4	80	2-14-24	14	290	20,098	26,385	100	P
2739		4	173	63.0	429	27	NEW	108	90	2	40	2-14-24	12	190	20,164	22,445	70	P
3073		2	124	63.9	325	18	NEW	60	24	1	25	7-24-24	124	140	17,681	28,142	30	
3068		2	38	144.9	303		NEW	303	59	1	100	7-24-24	38	138		33,058		
2781		4	37	111.9	283		NEW	283	45	1	100	7-24-24	37	133		26,974		
2919		3	38	88.5	246		NEW	246	51	1	100	7-24-24	38	122		19,035		
2632		4	74	111.3	230	141	NEW	162	177	1	50	7-24-24	74	110	20,648	22,291		

### Cows to Cull for Poor Udder Health

Infected (Current SCC >= 200K (SCS >= 4.0)) AND Infected 3+ tests this lactation AND Milk < 50 lbs

Index	Grp	Lact. #	DIM	Milk	SCC	Prev. SCC	Inf. Level	Lact. Avg. SCC	Prev. Lact. Avg. SCC	Tests Infected		Date 1st Infected	DIM 1st Inf.	30 Day Milk Loss	305 ME Milk	Prev. Lact. 305 ME Milk	Days Since Bred	P Reg.
										#	%							
2892		3	169	18.3	460	857	CHR	872	567	3	60	2-14-24	8	193	7,320	23,814	76	