National Milk Producers Federation Update

Miquela Hanselman, Manager, Regulatory Affairs

Enforcement of Dairy Labeling

- **FDA draft guidance sent to the Office of Management and Budget for review**
  - Anticipated release this summer
- **NMPF staff and counsel met with OMB**
  - Message: Any guidance not aligned with the Standards of Identity violates the Administrative Procedures Act
- **Califf gets it, consumers are confused!**
- **NMPF coordinating with Congress**

Synthetic “Dairy” Products

- **Synthetic (cell-based) products continue to enter the market: whey protein powder, cream cheese, cake mixes, and ice cream**
- **NMPF has submitted comments on labeling of cell-based meat, seafood and poultry, emphasizing:**
  - Need to enforce existing standards
  - The word “cultured” should not be used as a description for these products
  - USDA should coordinate policies with FDA
  - Consumers have the right to know they are consuming cell-based/lab-grown products
  - “Cell-based,” “lab-grown,” or “synthetic” would all be appropriate labels
- **Synthetic is coming!**

Nutrition Policy & Advocacy

- **NMPF continues to lead efforts to maintain and expand access to nutritious, affordable dairy foods:**

School Milk Options –

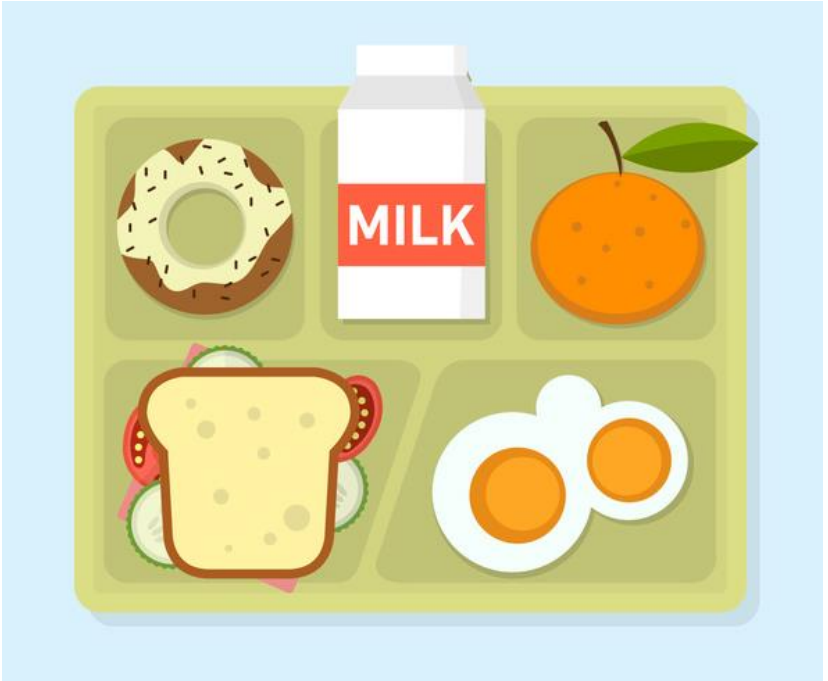
- **NMPF working to permanently secure role for 1% flavored**
  - Outreach to USDA on forthcoming school meal nutrition requirements
  - Advocating for bipartisan legislation to codify allowance of all varieties consistent w/ DGA
  - Continuing to engage congressional committees on possible child nutrition reauthorization

White House Conference on Hunger, Nutrition and Health –

- **Important avenue for NMPF's nutrition advocacy**
  - Regional listening sessions currently underway; NMPF member farmers participating
  - Many conference details still being decided; NMPF providing information and feedback

Dietary Guidelines for Americans

- **2025-2030 DGA process has started**
  - Submitted comments on the proposed scientific questions
  - Next step is selection of the Scientific Advisory Committee
- **NMPF priorities:**
  - Inclusion of full-fat dairy
  - Maintain dairy as its own food group
  - 3 servings of dairy recommended
  - Exclusion of plant-based products from the dairy group



Special Supplemental Program for Women, Infants and Children (WIC)

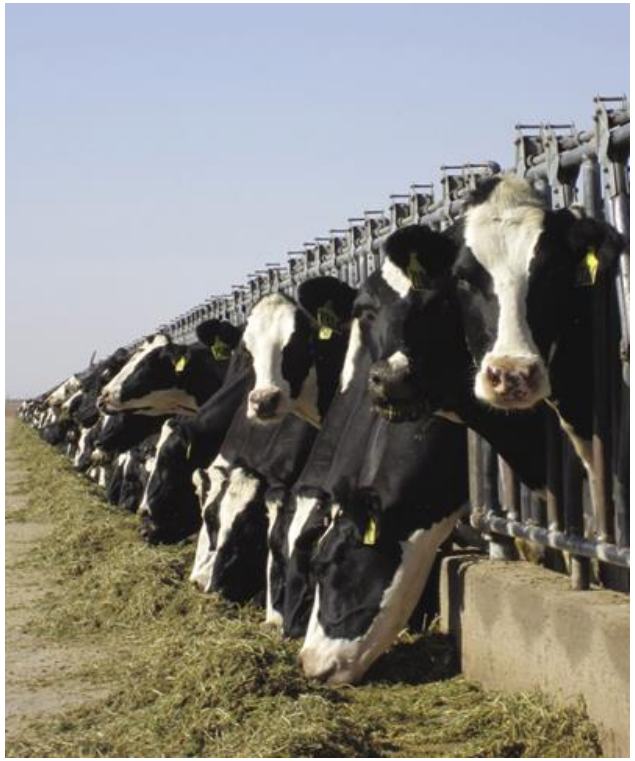
- **Expected proposed rule this fall with updates based on NASEM's 2017 recommendations**
  - Reductions in the amount of dairy provided
  - Expanded options for yogurt purchases and rejection of some plant-based alternatives

Environmental Issues

- **EPCRA**
  - Ag exemption under EPCRA has been sent back by the courts to the EPA for reconsideration
- **WOTUS**
  - NWPR vacated in 2021, returning to the pre-2015 rule (a modified 1986 WOTUS rule)
  - EPA held regional roundtables
  - 114,471 comments filed

PFAS on New Mexico Dairy

- **Contaminated groundwater from nearby Cannon Air Force base**
- **Resulted in the contamination of thousands of cows from water source**
  - Testing showed that the cows' milk and meat contained PFAS at levels deemed unsafe for human consumption by FDA
  - Milk and meat was not marketable
- **Pentagon not cooperative**
- **Farmer was forced to euthanize 3,665 cows after 2+ years of maintaining them**
  - Two-phase plan
    - ➢ Phase I: Dairy will compost PFAS-contaminated carcasses
    - ➢ Phase II: Dairy will conduct PFAS analysis on composted material and associated impacted material



PFAS State MCLs

EPA plans to release a nationwide MCL* this fall

State	PFOA	PFOS
California	5.1ppt (notification)	6.5 ppt (notification)
Michigan	8ppt (MCL)	16 ppt (MCL)
Vermont	20 ppt (MCL)	20 ppt (MCL)
New York	10 ppt (MCL)	10 ppt (MCL)
New Hampshire	12 ppt (MCL)	15 ppt (MCL)
Minnesota	47 ppt (guidance)	15 ppt (guidance)

*EPA's current health advisory limit for drinking water is 70 ppt, Maine's action level for raw milk 210ppt, 50ppt at retail, New Mexico's action level for milk 400ppt

International Dairy Federation World Dairy Summit

- **U.S. to hold IDF World Dairy Summit in Chicago in Oct. 2023**
  - DMI top-level sponsorship has made U.S. hosting viable
  - Attendees: Over 1,000 dairy industry representatives and 40 countries
  - Typical format: 3.5 days of sessions + 1.5 to 2 farm/plant tour days
- **Platform provides unique opportunity to promote U.S. dairy leadership & strength of our industry on a global stage**
  - Opportunity to engage Administration on flagship event aligned with its current agricultural policies
- **U.S.-IDF (NMPF is a member) is host of the event**
  - NMPF, USDEC staff co-chairing U.S.-IDF Organizing Committee
  - Robust involvement of additional NMPF staff on planning bodies

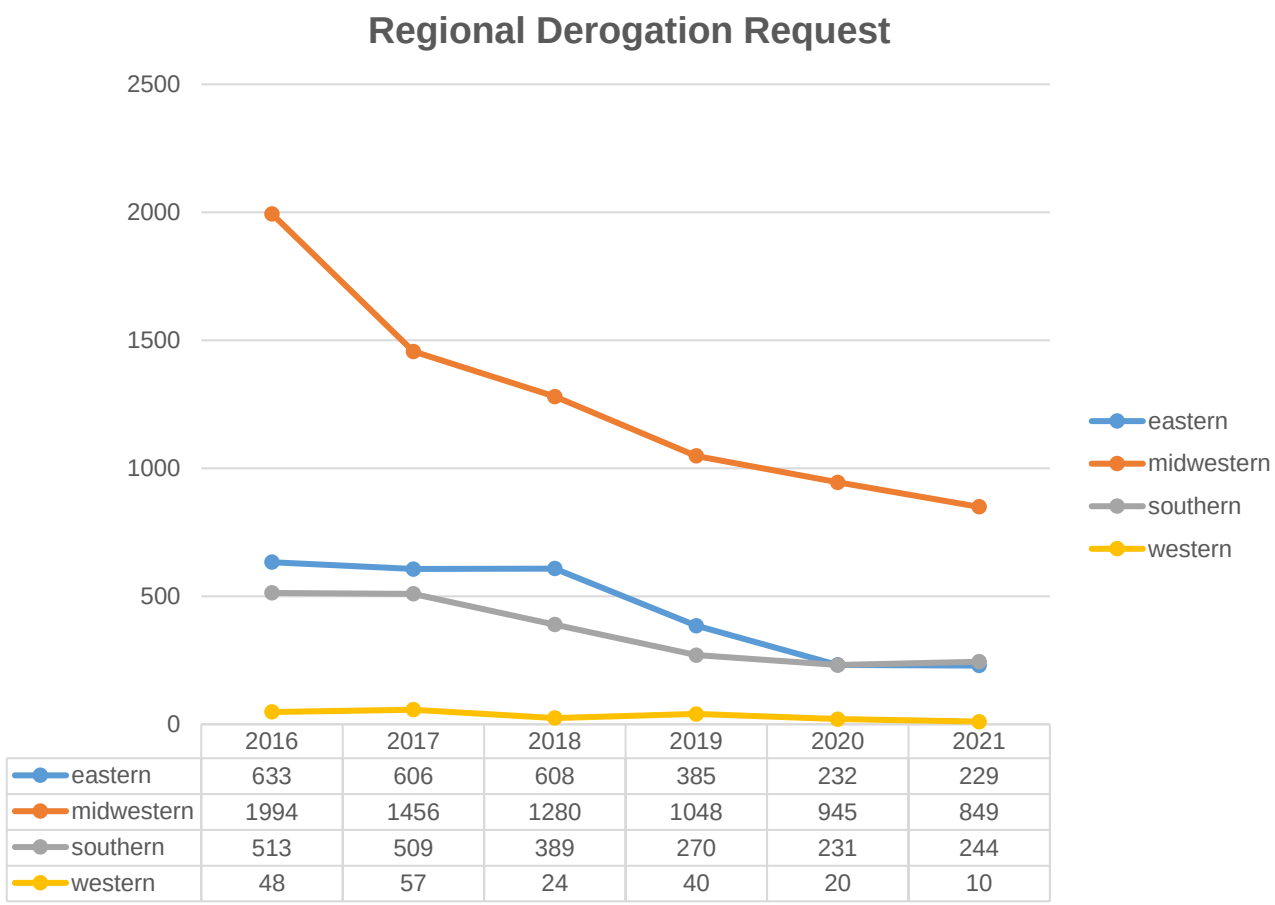
NMPF Tuberculosis Working Group

- **Evolved from NMPF TB Task Force**
- **Multi-Sector Bovine TB Working Group led by NMPF**
  - Members include state animal and public health officials, USDA staff, dairy farmers, and now CDC
- **Goal: Develop best practices to prevent human to cattle, and cattle to human transmission**

Lowering the Somatic Cell Limit

- Lower SCC limit to 400,000 per ml
- Has been proposed a handful of times at NCIMS conference but failed every time
- Dairy industry has continued to have improved SCCs

USDA Derogation Data

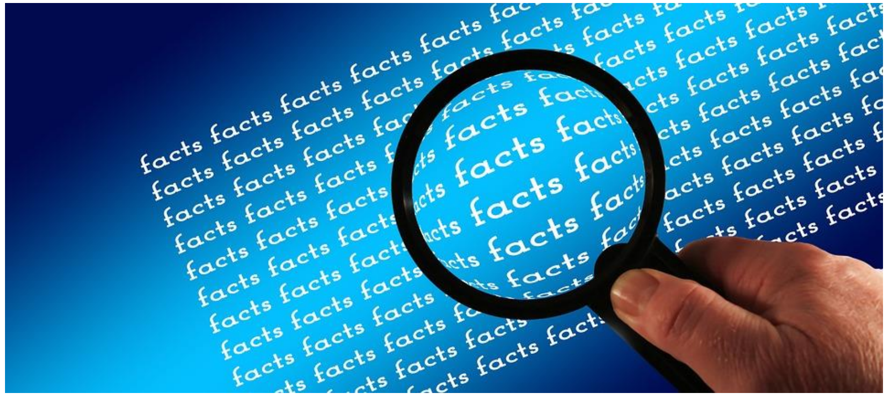


	2016	2017	2018	2019	2020	2021
eastern	633	606	608	385	232	229
midwestern	1994	1456	1280	1048	945	849
southern	513	509	389	270	231	244
western	48	57	24	40	20	10

Year	Number of Derogation Request
2016	3190
2017	2629
2018	2301
2019	1743
2020	1428
2021	1332
2022 (YTD as of April)	261
Total	12884

A Tale of Contrary Milk SCC Micro-Standards

……. a reality in the USA vs. ROW



ADPI American Dairy® Products Institute

Presented by Dan Meyer, ADPI

May 2022

Federal / California

Bacteriological Federal Standard	Grade A Milk	Bacteriological CA Standard
=/< 100,000 per ml	Bacterial (SPC) Limits	=/< 50,000 per ml
=/< 750,000 per ml	Somatic Cell Counts	=/< 600,000 per ml
No Standard	Coliform (Raw Milk for Past.)	=/< 750 per ml
=/< 10 per ml	Coliform (Pasteurized)	=/< 10 per ml
No Standard	Lab. Pasteuried Count(Raw milk)	=/< 750 per ml
=/< 20,000 per ml	Standard Plate Count	=/<15,000 per ml

Federal / California

Bacteriological Federal Standard	Grade A Reduced Fat Milk	Bacteriological CA Standard
=/< 100,000 per ml	Bacterial (SPC) Limits	=/< 50,000 per ml
=/< 750,000 per ml	Somatic Cell Counts	=/< 600,000 per ml
No Standard	Coliform (Raw Milk for Past.)	=/< 750 per ml
=/< 10 per ml	Coliform (Pasteurized)	=/< 10 per ml
No Standard	Lab. Pasteuried Count(Raw milk)	=/< 750 per ml
=/< 20,000 per ml	Standard Plate Count	=/<15,000 per ml

Federal / California

Bacteriological Federal Standard	Grade A Lowfat Milk	Bacteriological CA Standard
=/< 100,000 per ml	Bacterial (SPC) Limits	=/< 50,000 per ml
=/< 750,000 per ml	Somatic Cell Counts	=/< 600,000 per ml
No Standard	Coliform (Raw Milk for Past.)	=/< 750 per ml
=/< 10 per ml	Coliform (Pasteurized)	=/< 10 per ml
No Standard	Lab. Pasteuried Count(Raw milk)	=/< 750 per ml
=/< 20,000 per ml	Standard Plate Count	=/<15,000 per ml

Federal / California

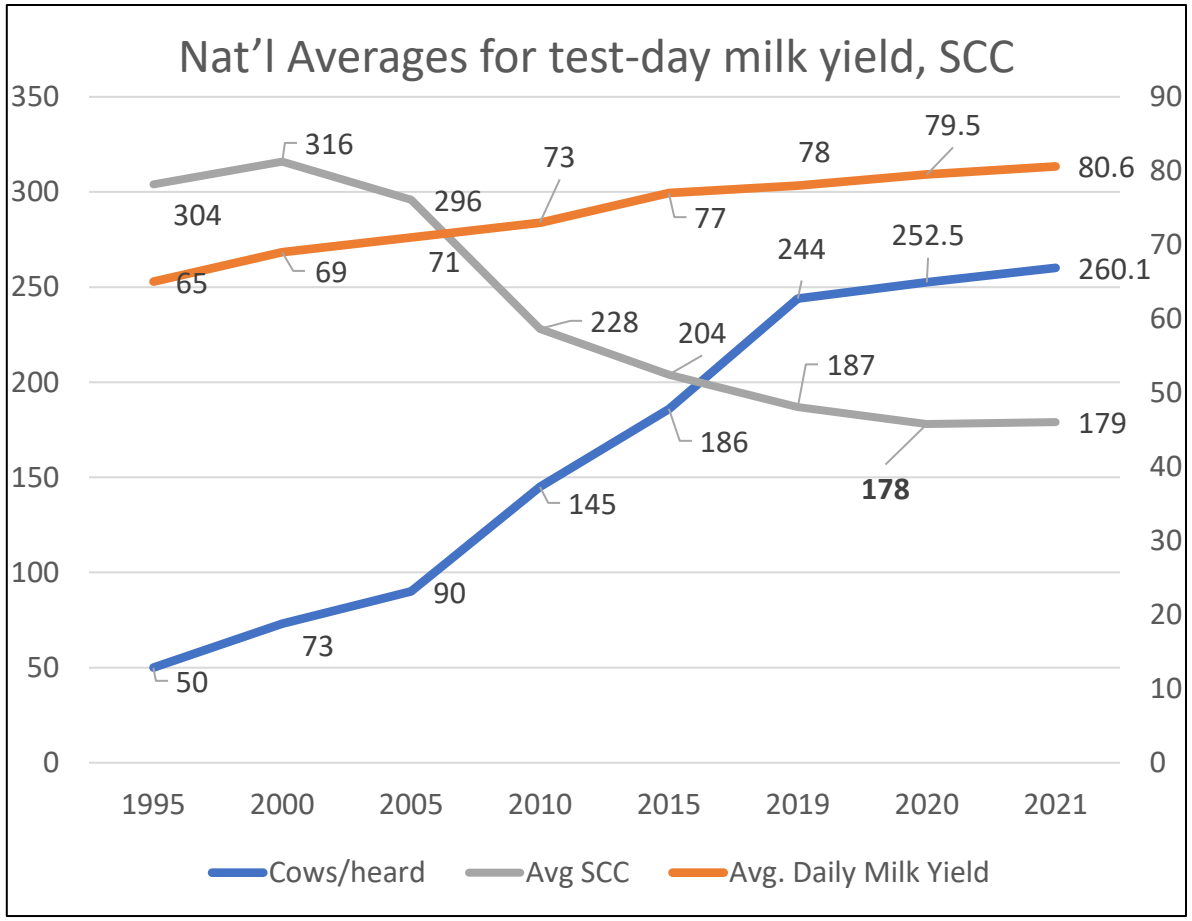
Bacteriological Federal Standard	Grade A Nonfat Milk	Bacteriological CA Standard
=/< 100,000 per ml	Bacterial (SPC) Limits	=/< 50,000 per ml
=/< 750,000 per ml	Somatic Cell Counts	=/< 600,000 per ml
No Standard	Coliform (Raw Milk for Past.)	=/< 750 per ml
=/< 10 per ml	Coliform (Pasteurized)	=/< 10 per ml
No Standard	Lab. Pasteuried Count(Raw milk)	=/< 750 per ml
=/< 20,000 per ml	Standard Plate Count	=/<15,000 per ml

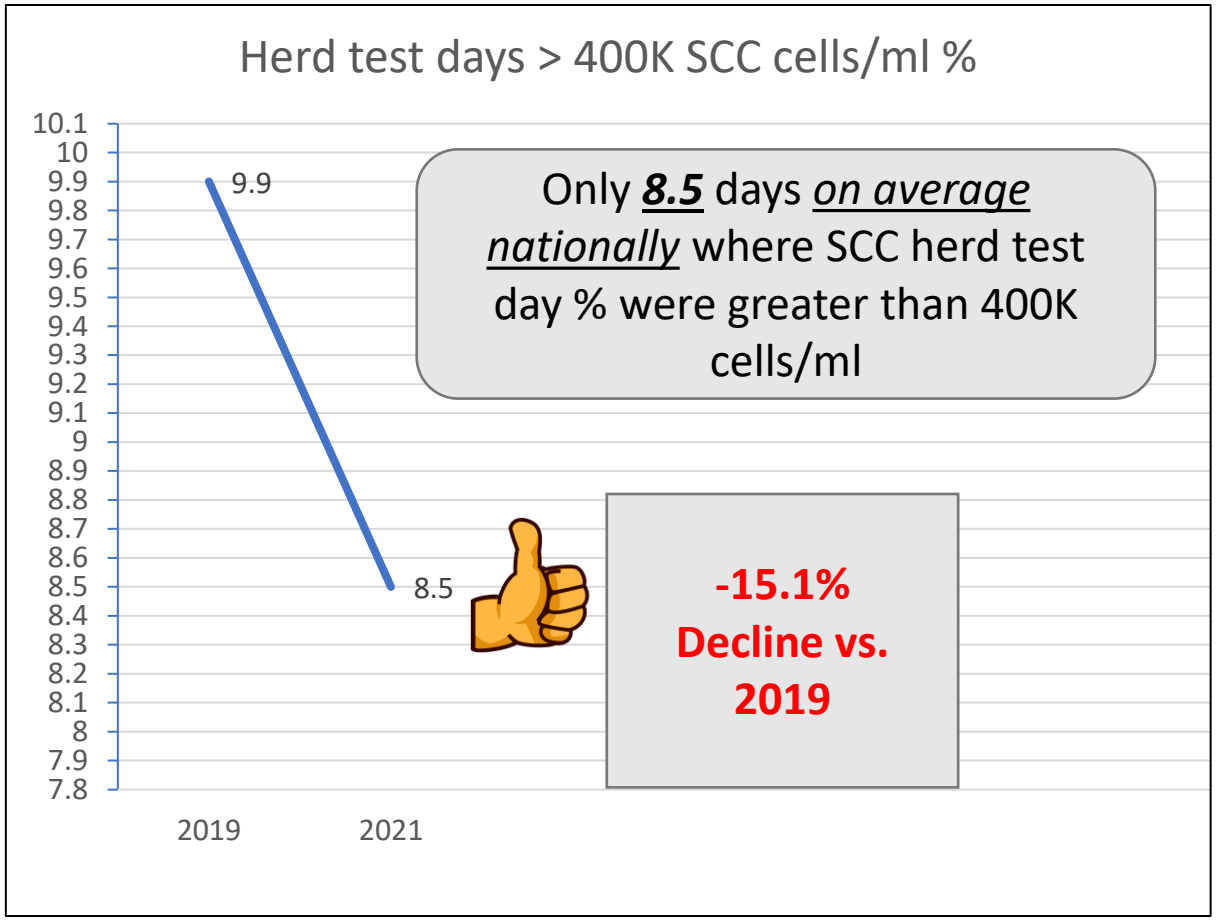
The EU, CN, NZ, AUS, CH “SCC” Standard as reported is =/< 400,000 per ml

Plant Based Milk Alternatives =/< 0 per ml

PROUD MEMBER PLANT BASED FOODS ASSOCIATION

Updated data to include ***2021***

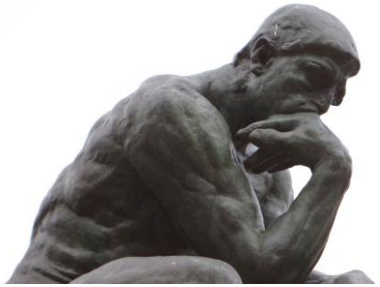




Since 1995, herd size has increased, milk volume per cow increased and avg. SCC have *continued to decrease*.
[Cows & Avg. SCC on left axis; Daily milk yield on right axis]

SCC per/ml test days with SCC > 400K have continued to decline and 2021 was at a rate that represents a -15.1% decrease vs. 2019

Source:



Points to Ponder?

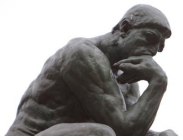
- Why are there currently two different sets of standards re: SCC micro for fluid milk in the US and a third for Europe, CN, AUS, NZ and CH?

- What would the justification be to continue to have two standards for fluid milk as opposed to other dairy products and ingredients having only “one” on the books within CFR? Especially poignant, given the ability today for the US to easily adopt a greatly enhanced single micro (SCC)standard that matches that in The EU and key ROW countries (AUS, NA, CN, SWZ).?

- Should ADPI recommend and/or endorse one enhanced SCC micro standard?

- Given the data you are going to see, we have an opportunity to embrace a SCC micro standard that dramatically enhances this aspect of the US fluid Milk Standard and that in 2021 all states met or performed better than, and would put the US *on par* with the EU.

- This change, if made would greatly showcase the enhanced capabilities of US milk producers related to *quality improvement*……so……. what’s not to like?



Points to Ponder?

What level of somatic cells in milk would be consistent with normal milk from a cow that does not have mastitis?

These thresholds can vary between dairy companies and geographical regions. The generally accepted threshold for a healthy cow is **up to 100,000 somatic cells/mL of milk**. The generally accepted indicator of mastitis is 200,000 cells/mL of milk, with higher cell counts used as an indicator of the severity of infection.

How many somatic cells are allowed in milk USA?

750,000 somatic cells

*The often-cited SCC difference is that the U.S. allows milk with up to **750,000 somatic cells per milliliter** where the other major global dairy exporters limit the count to 400,000 cells per milliliter.*

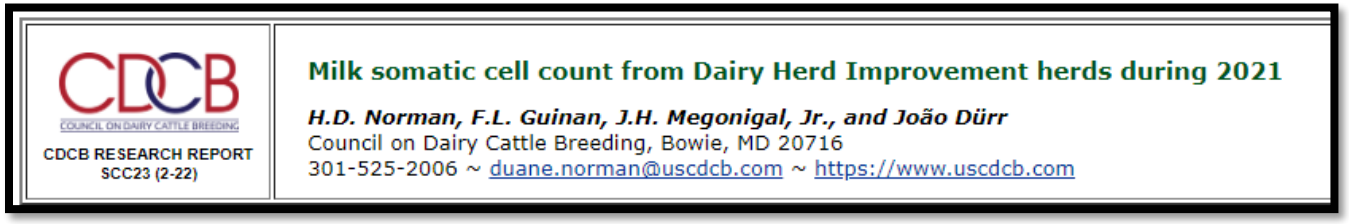
One of the *unique disadvantages* for the U.S. dairy industry in international dairy markets is the standard for milk quality. The specific standard allowed for somatic cell count (SCC) *is a barrier for U.S. dairy sales to some countries, and a marketing disadvantage in others.*

https://www.progressivedairy.com/topics/management/how-far-off-are-we-from-global-somatic-cell-count-standards

Appendix

[Reference Materials and background data]

New ~ 2021 Data Follows


CDCB
COUNCIL ON DAIRY CATTLE BREEDING
CDCB RESEARCH REPORT
SCC23 (2-22)

Milk somatic cell count from Dairy Herd Improvement herds during 2021

H.D. Norman, F.L. Guinan, J.H. Megonigal, Jr., and João Dürr
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Table 1. Characteristics of test-day milk yield, somatic cell count (SCC), fat and protein percentages from Dairy Herd Improvement herds by state during 2021

	Herd test days[1]	Cows[2] per herd	Average daily milk yield	Average Fat	Average Protein	Average SCC	Herd test days[3] with SCC greater than			
State	(no.)	(no.)	(lb)	(%)	(%)	(cells/ml, 1000's)	750,000 cells/ml (%)	600,000 cells/ml (%)	500,000 cells/ml (%)	400,000 cells/ml (%)
Alabama	19	25.8	64.0	3.49	3.01	303	5.3	5.3	5.3	5.3
Arizona	118	2603.2	77.3	3.70	3.14	170	0.0	0.0	0.0	0.0
Arkansas	82	112.4	49.4	3.96	3.25	351	1.2	4.9	12.2	29.3
California	5,005	1287.9	78.7	3.99	3.11	191	0.5	1.2	2.1	4.3
Colorado	223	1064.9	82.1	3.84	3.12	180	0.4	0.4	0.9	5.8
Connecticut	389	161.2	76.5	4.03	3.06	199	1.3	2.3	4.4	9.5
Delaware	93	138.6	73.9	4.13	3.20	242	0.0	0.0	0.0	4.3
Florida	123	1332.2	81.0	3.63	3.06	223	0.8	1.6	5.7	10.6
Georgia	296	195.7	79.0	3.93	3.12	212	0.7	1.0	3.4	12.5
Idaho	867	1204.7	80.7	3.95	3.24	148	0.5	0.5	0.9	1.6
Illinois	1,782	153.9	82.2	4.00	3.16	204	1.5	2.9	4.4	9.1
Indiana	1,481	206.8	82.0	3.99	3.16	191	0.8	2.2	3.8	8.0
Iowa	3,151	247.8	80.6	4.13	3.24	186	0.9	1.9	3.8	8.8
Kansas	819	232.1	85.1	3.83	3.23	208	0.6	2.7	6.8	17.6
Kentucky	615	132.9	83.5	3.59	3.09	257	1.8	3.3	5.5	11.4
Louisiana	124	70.8	60.1	3.82	3.13	301	7.3	7.3	16.9	25.8
Maine	759	124.3	78.1	4.09	3.13	179	0.8	2.0	4.2	7.6
Maryland	1,589	106.4	73.5	3.99	3.12	205	1.1	2.7	5.6	11.3
Massachusetts	467	50.2	66.7	4.17	3.21	199	1.9	3.0	5.6	9.9

Table 1. Characteristics of test-day milk yield, somatic cell count (SCC), fat and protein percentages from Dairy Herd Improvement herds by state during 2021

State	Herd test days[1] (no.)	Cows[2] per herd (no.)	Average daily milk yield (lb)	Average Fat (%)	Average Protein (%)	Average SCC (cells/ml, 1000's)	Herd test days[3] with SCC greater than 750,000 cells/ml (%)	600,000 cells/ml (%)	500,000 cells/ml (%)	400,000 cells/ml (%)
Michigan	3,438	374.2	85.7	3.91	3.15	150	0.3	0.6	1.3	3.4
Minnesota	9,585	158.0	80.0	4.08	3.22	202	1.9	4.0	7.0	12.9
Mississippi	131	121.8	54.7	4.12	3.43	276	3.1	9.2	16.0	21.4
Missouri	1,267	70.2	64.6	3.94	3.23	258	4.8	7.7	12.1	19.6
Montana	88	145.1	77.7	3.93	3.11	183	0.0	0.0	1.1	1.1
Nebraska	438	403.2	73.7	4.05	3.23	193	3.0	5.0	8.4	15.1
Nevada	7	2132.6	79.7	3.94	3.22	191	0.0	0.0	0.0	0.0
New Hampshire	462	97.3	73.4	4.33	3.21	154	1.7	2.6	4.8	8.0
New Jersey	268	65.7	71.1	3.88	3.11	262	4.1	7.1	12.3	22.0
New Mexico	109	3259.3	76.8	3.82	3.27	175	0.0	0.0	0.0	0.0
New York	9,893	255.2	83.8	4.01	3.15	174	0.6	1.6	3.2	7.2
North Carolina	609	238.6	81.1	4.09	3.15	192	1.3	2.6	4.9	12.5
North Dakota	106	339.1	83.4	3.89	3.25	170	0.9	1.9	5.7	10.4
Ohio	4,022	131.2	80.2	4.06	3.19	180	1.0	2.1	3.6	7.3
Oklahoma	229	78.0	57.6	3.84	3.27	307	4.4	8.7	14.4	24.0
Oregon	737	330.8	64.5	4.59	3.54	153	0.4	1.6	2.2	4.9
Pennsylvania	23,862	80.3	78.7	3.99	3.14	189	1.1	2.2	4.0	7.8
Rhode Island	21	40.0	77.6	4.17	3.20	190	0.0	0.0	0.0	0.0

[1]Number of cows reported in milk.
[2]All herd test days with usable records.
[3]Cows with usable records (less than total cows on test).
[4]Herd test days with ≥10 usable records.

Table 1. Characteristics of test-day milk yield, somatic cell count (SCC), fat and protein percentage from Dairy Herd Improvement herds by state during 2021

State	Herd test days[1] (no.)	Cows[2] per herd (no.)	Average daily milk yield (lb)	Average Fat (%)	Average Protein (%)	Average SCC (cells/ml, 1000's)	Herd test days[3] with SCC greater than 750,000 cells/ml (%)	600,000 cells/ml (%)	500,000 cells/ml (%)	400,000 cells/ml (%)
South Carolina	163	157.7	61.8	4.14	3.30	251	2.5	3.7	3.7	11.7
South Dakota	391	776.5	76.8	4.22	3.35	202	0.5	1.5	3.6	8.4
Tennessee	358	100.0	65.8	4.11	3.13	274	1.7	3.6	8.4	16.2
Texas	556	1885.5	69.6	4.29	3.46	194	0.2	2.7	7.0	14.6
Utah	474	258.3	74.7	4.14	3.30	157	0.6	1.3	1.3	3.0
Vermont	1,963	170.7	79.0	4.07	3.22	149	0.6	1.6	2.4	4.6
Virginia	1,519	148.6	78.6	3.89	3.09	204	0.9	2.1	3.8	7.4
Washington	452	887.8	79.2	4.07	3.25	158	1.1	2.4	3.5	5.8
West Virginia	85	64.6	66.6	3.86	3.18	206	0.0	0.0	5.9	15.3
Wisconsin	22,114	210.3	87.0	4.03	3.16	159	1.7	3.0	4.8	8.4
United States[4]	**101,350**	**260.1**	**80.6**	**4.01**	**3.17**	**179**	**1.2**	**2.5**	**4.4**	**8.5**

[1]Number of cows reported in milk.

[2]All herd test days with usable records.

[3]Cows with usable records (less than total cows on test).

[4]Herd test days with ≥10 usable records.

Table 3. Characteristics of test-day milk yield, somatic cell count (SCC), fat and protein percentages from Dairy Herd Improvement herds during 2021 by herd size

Herd size[1]	Herd test days[2]	Cows[3] per herd	Average daily milk yield	Average Fat	Average Protein	Average SCC	Herd test days[4] with SCC greater than			
(cows)	(no.)	(no.)	(lb)	(%)	(%)	(cells/ml, 1000's)	750,000 cells/ml (%)	600,000 cells/ml (%)	500,000 cells/ml (%)	400,000 cells/ml (%)
<50	37,937	25.9	67.3	4.02	3.16	219	3.0	5.5	8.7	14.5
50 - 99	26,158	70.1	72.6	4.01	3.17	199	0.3	1.2	3.0	7.4
100 - 149	9,702	120.8	75.3	4.02	3.18	189	0.2	0.5	1.7	5.2
150 - 199	5,206	172.6	77.5	4.00	3.16	187	0.1	0.5	1.4	4.2
200 - 299	5,785	242.6	79.7	4.00	3.17	177	0.0	0.3	1.0	3.0
300 - 499	5,323	386.5	83.0	4.00	3.16	170	0.0	0.3	0.9	2.6
500 - 999	5,079	691.8	85.1	4.01	3.17	169	0.0	0.1	0.3	1.7
1000 - 1999	3,596	1403.4	83.6	4.01	3.12	176	0.0	0.0	0.0	0.7
2000 - 2999	1,313	2458.1	83.7	4.02	3.11	176	0.0	0.0	0.0	0.2
3000 - 3999	603	3446.9	80.6	4.01	3.22	185	0.0	0.0	0.0	1.0
>4000	648	6404.0	79.0	4.04	3.29	177	0.0	0.0	0.2	0.2
All herds	**101,350**	**260.1**	**80.6**	**4.01**	**3.17**	**179**	**1.2**	**2.5**	**4.4**	**8.5**

[1]Number of cows reported in milk.
[2]All herd test days with usable records.
[3]Cows with usable records (less than total cows on test).
[4]Herd test days with ≥10 usable records.

All 47 US reporting states had an Avg. SCC – cells/ml, of < 400K in 2021!