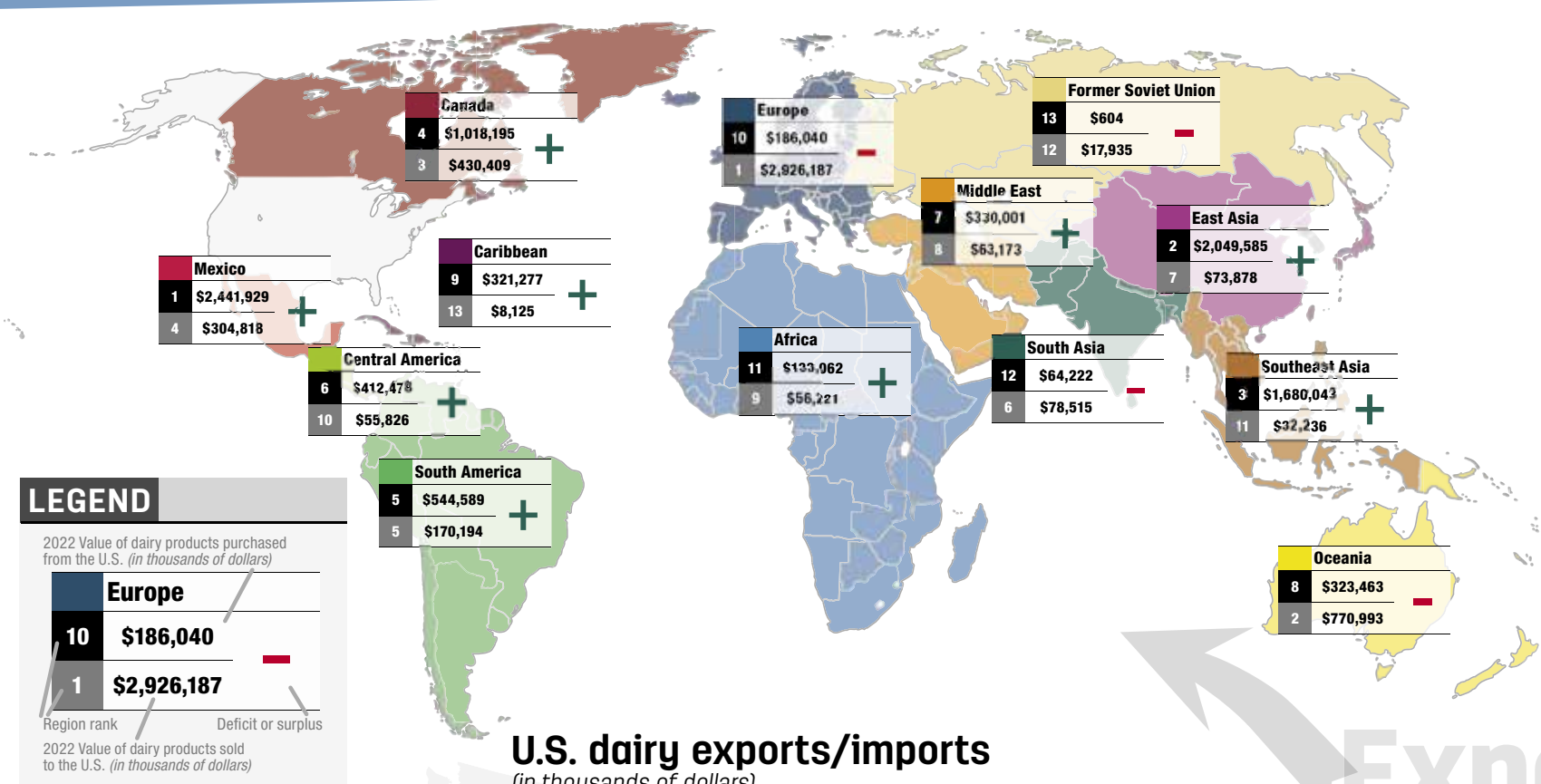


2022 U.S. dairy trade & processing

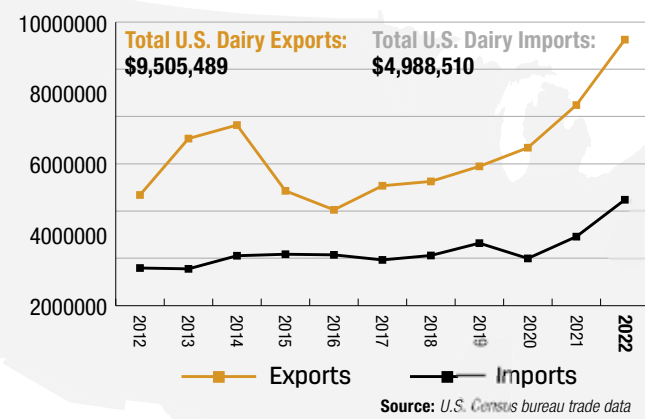
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Top 15 countries selling dairy products to the U.S.

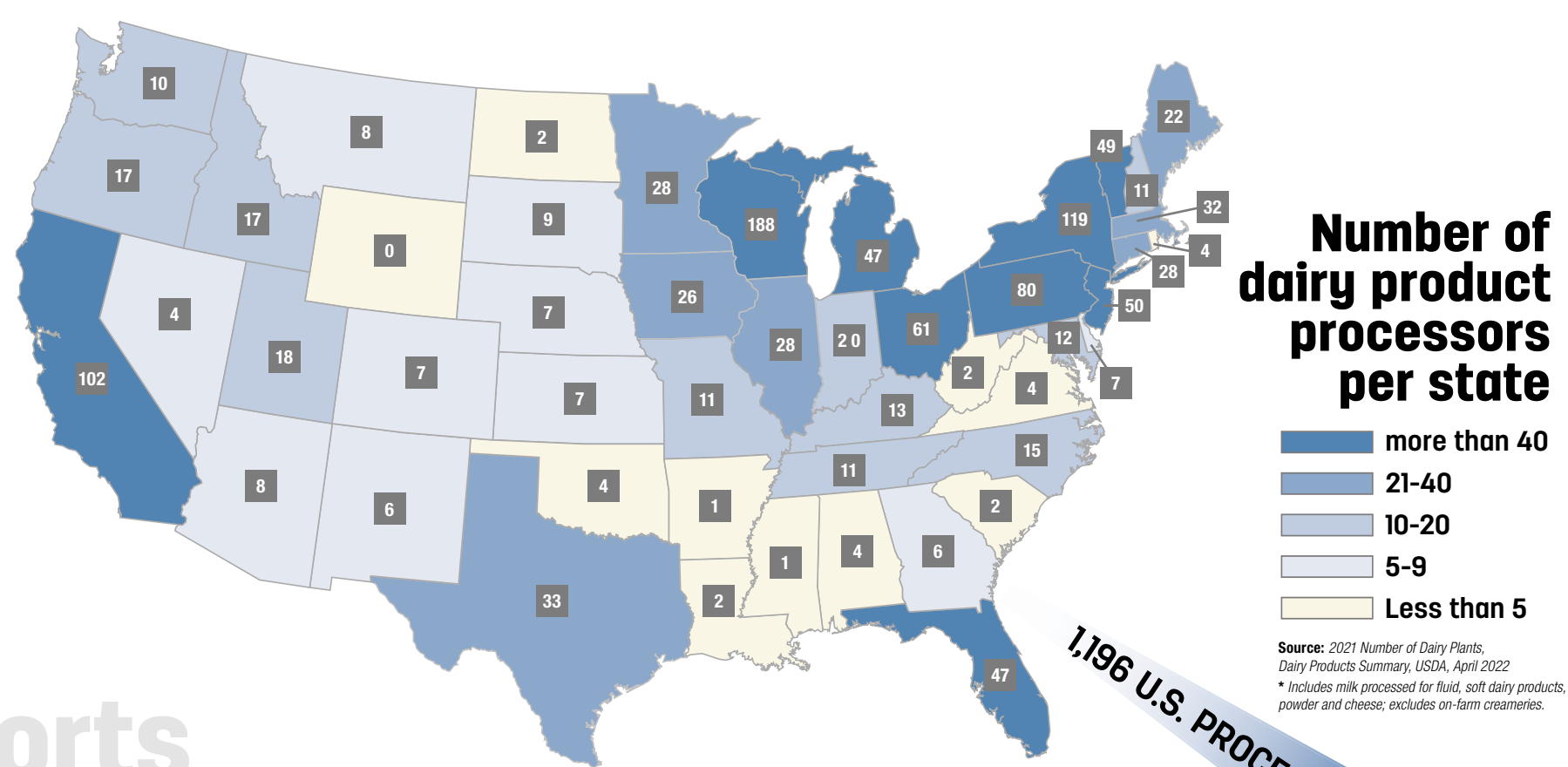
Rank	Country	2022 Imports (in thousands of dollars)
1	Ireland	752,019
2	New Zealand	719,720
3	Italy	600,803
4	Canada	430,409
5	France	353,062
6	Mexico	304,818
7	Netherlands	260,334
8	Denmark	167,507
9	Spain	156,727
10	Germany	138,966
11	Switzerland	129,363
12	United Kingdom	120,509
13	India	77,234
14	Poland	62,241
15	Argentina	57,232

U.S. dairy exports/imports (in thousands of dollars)



Top 15 countries buying U.S. dairy products

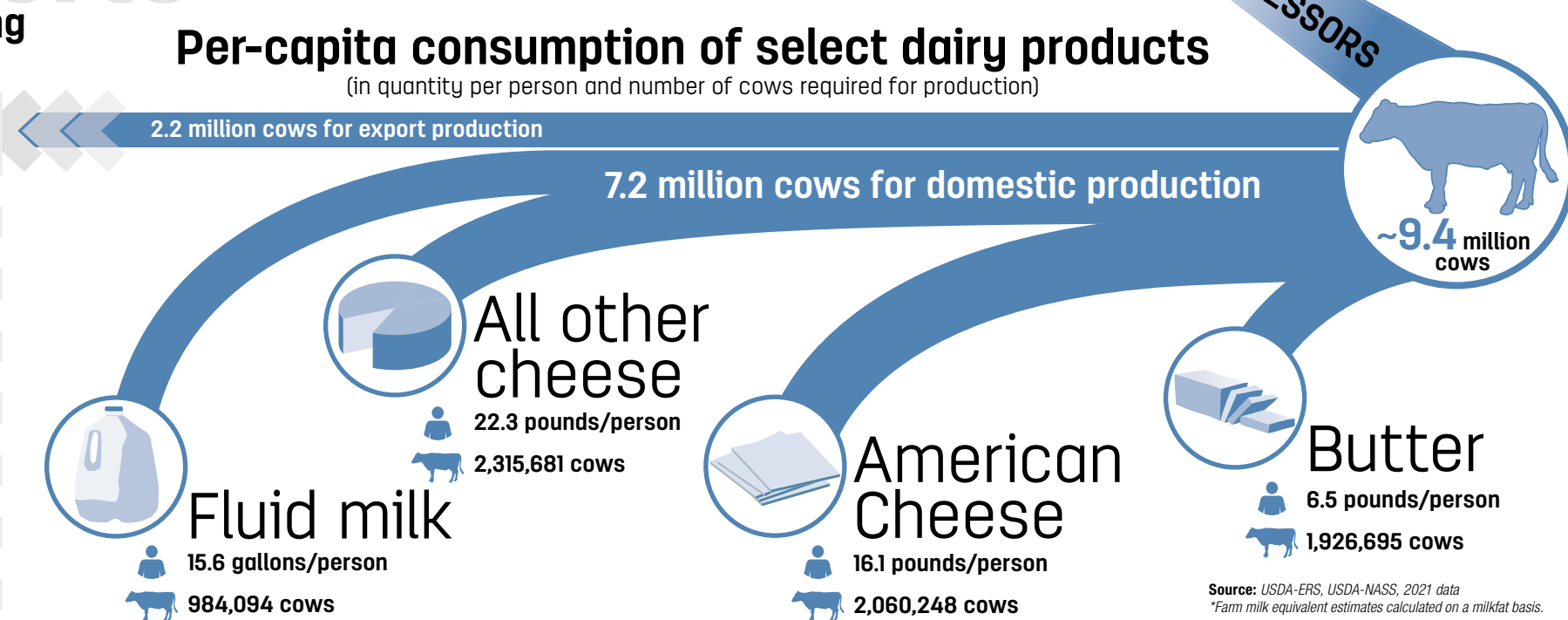
Rank	Country	2022 Exports (in thousands of dollars)
1	Mexico	2,441,929
2	Canada	1,018,195
3	China	801,320
4	South Korea	565,963
5	Philippines	557,914
6	Japan	519,776
7	Indonesia	447,439
8	Vietnam	222,806
9	Malaysia	219,682
10	Australia	214,021
11	Colombia	165,842
12	Peru	159,621
13	Dominican Republic	156,825
14	Taiwan	141,177
15	Saudi Arabia	123,617



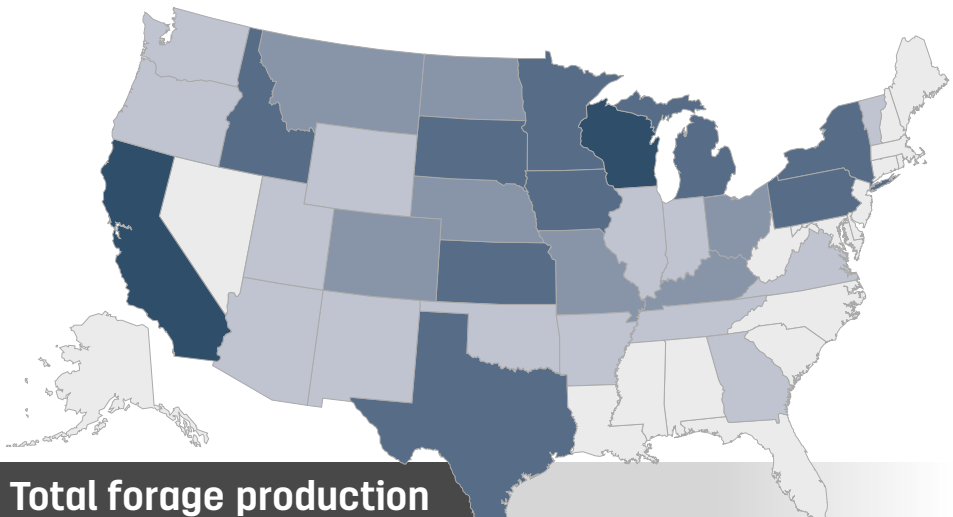
Number of dairy product processors per state

- more than 40
- 21-40
- 10-20
- 5-9
- Less than 5

Source: 2021 Number of Dairy Plants, Dairy Products Summary, USDA, April 2022
* Includes milk processors for fluid, soft dairy products, powder and cheese; excludes on-farm creameries.



2022 U.S. forage statistics

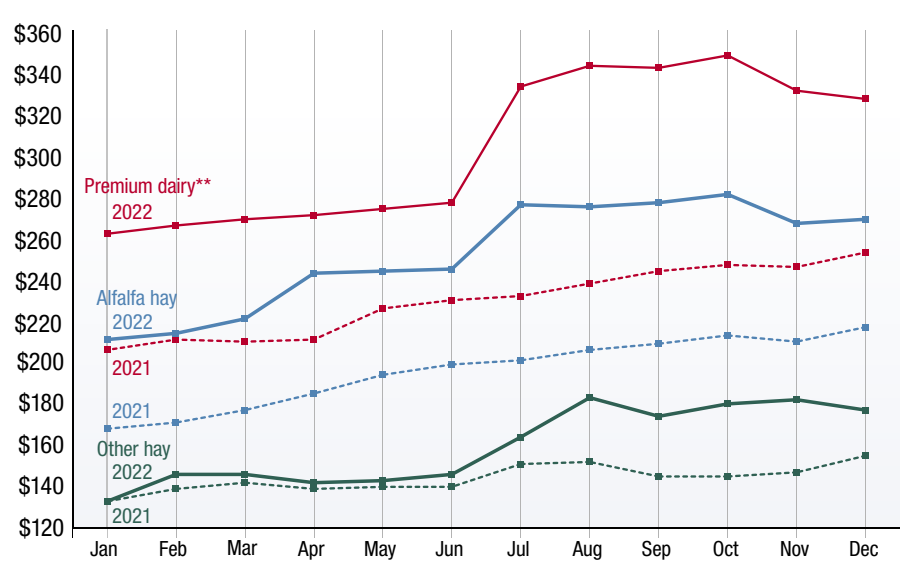


Total forage production

- More than 15,000 thousand tons
- 10,000 to 15,000 thousand tons
- 5,000 to 10,000 thousand tons
- 2,000 to 5,000 thousand tons
- 0 to 2,000 thousand tons

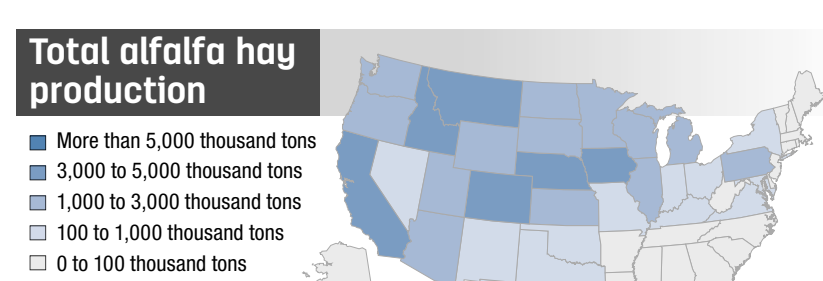
Total forage production is represented by the total of alfalfa, other hay, silage and greenchop production.

U.S. monthly average* prices, alfalfa, other and premium dairy hay (dollars per ton)



* Average prices paid in 27 major hay-producing states
** Weighted average price for Premium/Supreme alfalfa hay in the five largest milk-producing states: California, Idaho, New York, Texas and Wisconsin.

Source: USDA National Agricultural Statistics Service
For market reports updated monthly, visit progressiveforage.com/news/hay-market-reports



Total alfalfa hay production

- More than 5,000 thousand tons
- 3,000 to 5,000 thousand tons
- 1,000 to 3,000 thousand tons
- 100 to 1,000 thousand tons
- 0 to 100 thousand tons

Total other hay production

- More than 5,000 thousand tons
- 2,000 to 5,000 thousand tons
- 1,000 to 2,000 thousand tons
- 500 to 1,000 thousand tons
- 0 to 500 thousand tons

Total corn silage production

- More than 10,000 thousand tons
- 5,000 to 10,000 thousand tons
- 1,000 to 5,000 thousand tons
- 500 to 1,000 thousand tons
- 0 to 500 thousand tons

Total greenchop production

- More than 5,000 thousand tons
- 2,000 to 5,000 thousand tons
- 1,000 to 2,000 thousand tons
- 500 to 1,000 thousand tons
- 0 to 500 thousand tons

2022 U.S. dairy statistics

2022 was a year of limited growth

Progressive Dairy Editor Dave Natzke

Record-high milk prices were countered by even higher feed and input costs and implementation of base-excess programs, putting a lid on U.S. milk production growth in 2022.

Nationally, most of the year was marked by slow but steady growth in cow numbers, while the increase in milk per cow was subdued. Dairy herd attrition and consolidation continued.

U.S. milk production

U.S. milk production rose to 226.46 billion pounds in 2022, up just 169 million pounds (0.1%) from 2021, one of the smallest year-over-year increases on record.

Thirteen states registered annual milk production increases during 2022, led by Texas and South Dakota. Offsetting those gains, 34 states yielded production declines compared with 2021, led by New Mexico and Washington.

State ranking

Based on annual milk production, there were several minor changes in major dairy state rankings compared to 2021: Iowa and Ohio swapped positions at 11-12; South Dakota moved ahead of Kansas at 16-17; and Georgia jumped ahead of Florida at 21-22.

Licensed herds

In another year of attrition and consolidation, the annual average number of dairy farms commercially licensed to sell milk fell to 27,932, a decline of 1,910 (about 6%) from the year before and down 21,349 (43%) since 2012.

On a percentage basis, year-over-year declines were fairly steady across the U.S., but 90% of the decline in herd numbers occurred in the Midwest and East regions. Wisconsin remains the nation's leader

in the number of herds, at 6,350, but declined by 420 in 2022. Herd numbers were down a combined 420 in New York and Pennsylvania, and down 180 in Minnesota.

Cow numbers

The U.S. cow herd averaged 9,402 million cows in 2022, down 47,000 head from 2021. Even though average numbers were down, 2022 represented a steady but small rebuilding period.

Cow numbers started the year at 9,367 million, down 140,000 from mid 2021. By October 2022, cow numbers hit 9,412 million, a 45,000-cow increase, before dipping somewhat to end the year.

Ten states increased cow numbers in 2022, but almost two-thirds of the total increase came in just two states, Texas and South Dakota.

Twenty-nine states had fewer cows than the year before, with 11 others unchanged. Largest declines were in New Mexico (-30,000), Michigan (-13,000) Washington (-12,000) and Florida (-11,000).

California remains the national leader in cow numbers, with 1.722 million head; followed by Wisconsin, with 1.272 million head.

Herd size

The national average dairy herd size grew to 337 cows in 2022, up 20 cows (6.3%) from 2021. The Southwest showed the largest increase, up 93 head, and held claim to the largest average herd size, at 1,690 head.

The largest herds were in New Mexico, which averaged 2,618 cows, a 32-cow decline from 2021. Georgia and South Dakota recorded the largest increases from the year before, up 223

U.S. dairy industry 15-year overview

Year	Total milk production (in millions of lbs)	Number of cows (in thousands)	Milk per cow (lbs per year)	Licensed dairy herds	Average herd size
2008	189,982	9,315	20,395	57,127	163
2009	189,334	9,203	20,573	54,942	168
2010	192,848	9,119	21,148	53,132	172
2011	196,164	9,194	21,336	51,291	179
2012	200,537	9,233	21,720	49,281	187
2013	201,231	9,224	21,816	46,975	196
2014	206,054	9,257	22,259	44,809	207
2015	208,597	9,314	22,396	43,534	214
2016	212,405	9,325	22,778	41,819	223
2017	215,466	9,392	22,941	40,219	234
2018	217,568	9,398	23,150	37,468	251
2019	218,441	9,337	23,395	34,207	273
2020	223,220	9,388	23,777	31,657	297
2021	226,293	9,449	23,949	29,842	317
2022	226,462	9,402	24,087	27,932	337

Milk per cow (lbs of milk)

Top 10	Value
Michigan	27,430
Colorado	25,922
Wyoming	25,763
Texas	25,579
Idaho	25,348
New York	25,096
Wisconsin	24,064
Nebraska	24,842
New Mexico	24,819
Nevada	24,813

Number of licensed herds

Top 10	Value
Wisconsin	6,350
Pennsylvania	5,000
New York	3,210
Minnesota	2,035
Ohio	1,525
California	1,115
Michigan	1,010
Iowa	800
Indiana	735
Missouri	560

Dairy receipts as a % of state's total farm receipts

Top 10	Value
Vermont	63%
New York	50%
Wisconsin	46%
New Mexico	40%
Idaho	36%
Pennsylvania	26%
New Hampshire	23%
Michigan	22%
Arizona	21%
Utah	21%

and 216, respectively.

Dairy herds averaged more than 2,000 head in three states (New Mexico, Arizona and Texas) and more than 1,000 head in seven others. The size of Midwest herds grew by an average of 8%, reaching 252 cows per herd.

Milk per cow

Influenced by high feed costs and base-excess programs, national average annual milk production per cow increased just 0.6%, up 138 pounds in 2022 to 24,087 pounds.

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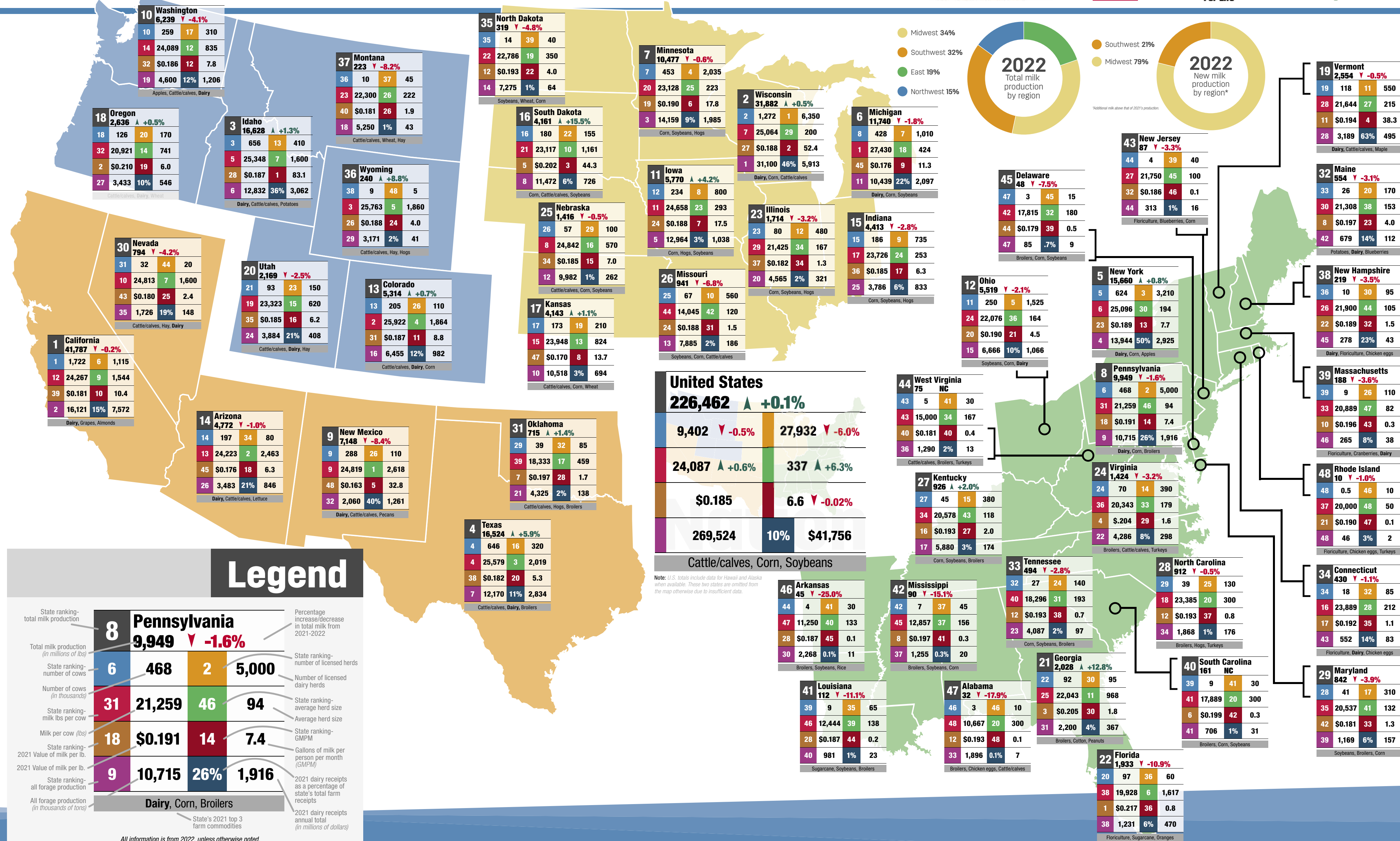
2022 U.S. dairy statistics

10-year changes by state

State rank- total milk production	State	Total milk production (in millions of lbs)	Total milk production (in millions of lbs)	Change in total milk from 2012-2022	Number of cows (1,000 head)	Number of cows (1,000 head)	Change in number of cows 2012-2022	Milk per cow (lbs. per year)	Milk per cow (lbs. per year)	Change in milk per cow 2012-2022	Number of licensed dairy herds	Number of licensed dairy herds	Change in licensed dairy herds from 2012-2022	Average herd size	Average herd size	Change in average herd size from 2012-2022
2012	2022	2012	2022	2012	2022	2012	2022	2012	2022	2012	2022	2012	2022	2012	2022	2012
1	California	41,801	41,787	-14	1,782	1,722	-60	23,457	24,267	+810	1,605	1,115	-490	1,110	1,544	+434
2	Wisconsin	27,224	31,882	+4,658	1,270	1,272	+2	21,436	25,064	+3,628	11,490	6,350	-5,140	111	200	+90
3	Idaho	13,558	16,828	+3,270	580	656	+76	23,376	25,348	+1,972	565	410	-155	1,027	1,600	+573
4	Texas	9,596	16,524	+6,928	436	646	+210	22,009	25,579	+3,570	500	320	-180	872	2,019	+1,147
5	New York	13,190	15,660	+2,470	610	624	+14	21,623	25,096	+3,473	5,150	3,210	-1,940	118	194	+76
6	Michigan	8,991	11,740	+2,749	375	428	+53	23,976	27,430	+3,454	2,130	1,010	-1,120	176	424	+248
7	Minnesota	9,073	10,477	+1,404	465	453	-12	19,512	23,128	+3,616	4,125	2,035	-2,090	113	223	+110
8	Pennsylvania	10,478	9,949	-529	536	468	-68	19,549	21,259	+1,710	7,140	5,000	-2,140	75	94	+19
9	New Mexico	8,149	7,148	-1,001	330	288	-42	24,694	24,819	+125	140	110	-30	2,357	2,618	+261
10	Washington	6,234	6,239	+5	262	259	-3	23,794	24,089	+295	480	310	-170	546	835	+290
11	Iowa	4,512	5,770	+1,258	205	234	+29	22,010	24,658	+2,648	1,580	800	-780	130	293	+163
12	Ohio	5,355	5,519	+164	270	250	-20	19,833	22,076	+2,243	3,060	1,525	-1,535	88	164	+76
13	Colorado	3,213	5,314	+2,101	134	205	+71	23,978	25,922	+1,944	130	110	-20	1,031	1,864	+833
14	Arizona	4,508	4,772	+264	188	197	+9	23,979	24,223	+244	110	80	-30	1,709	2,463	+753
15	Indiana	3,746	4,413	+667	175	186	+11	21,406	23,726	+2,320	1,570	735	-835	111	253	+142
16	South Dakota	1,968	4,161	+2,193	92	180	+88	21,391	23,117	+1,726	325	155	-170	283	1,161	+878
17	Kansas	2,732	4,143	+1,411	126	173	+47	21,683	23,948	+2,265	340	210	-130	371	824	+453
18	Oregon	2,513	2,636	+123	123	126	+3	20,431	20,921	+490	270	170	-100	456	741	+286
19	Vermont	2,569	2,554	-15	133	118	-15	19,316	21,644	+2,328	970	550	-420	137	215	+77
20	Utah	2,033	2,169	+136	91	93	+2	22,341	23,323	+982	230	150	-80	396	620	+224
21	Georgia	1,530	2,028	+498	80	92	+12	19,125	22,043	+2,918	250	95	-155	320	968	+648
22	Florida	2,340	1,933	-407	123	97	-26	19,024	19,928	+904	130	60	-70	946	1,617	+671
23	Illinois	1,915	1,714	-201	98	80	-18	19,541	21,425	+1,884	760	480	-280	129	167	+38
24	Virginia	1,727	1,424	-303	96	70	-26	17,990	20,343	+2,353	680	390	-290	141	179	+38
25	Nebraska	1,727	1,416	-311	56	57	+1	21,179	20,442	+3,663	210	100	-110	267	570	+303
26	Missouri	1,406	941	-465	94	67	-27	14,957	14,045	-912	1,430	560	-870	66	120	+54
27	Kentucky	1,120	926	-194	74	45	-29	15,135	20,578	+5,443	840	380	-460	88	118	+30
28	North Carolina	940	912	-28	46	39	-7	20,435	23,385	+2,950	270	130	-140	170	300	+130
29	Maryland	979	842	-137	51	41	-10	19,196	20,537	+1,341	500	310	-190	102	132	+30
30	Nevada	666	794	+128	29	32	+3	22,966	24,813	+1,847	20	20	NC	1,450	1,600	+150
31	Oklahoma	849	715	-134	48	39	-9	17,688	18,333	+645	200	85	-115	240	459	+219
32	Maine	613	554	-59	33	26	-7	18,576	21,308	+2,732	310	170	-140	106	153	+46
33	Tennessee	805	494	-311	50	27	-23	16,100	18,296	+2,196	420	140	-280	119	193	+74
34	Connecticut	358	430	+72	18	18	NC	19,889	23,889	+4,000	130	85	-45	138	212	+73
35	North Dakota	347	319	-28	18	14	-4	19,278	22,786	+3,508	130	40	-90	138	350	+212
36	Wyoming	124	240	+116	6	9	+3	20,650	25,763	+5,113	20	5	-15	300	1,860	+1,560
37	Montana	299	223	-76	14	10	-4	21,357	22,300	+943	70	45	-25	200	222	+22
38	New Hampshire	275	219	-56	14	10	-4	19,643	21,900	+2,257	120	95	-25	117	105	-11
39	Massachusetts	219	188	-31	12	9	-3	18,250	20,889	+2,639	155	110	-45	77	82	+4
40	South Carolina	276	161	-115	16	9	-7	17,250	17,889	+639	80	30	-50	200	300	+100
41	Louisiana	222	112	-110	17	9	-8	13,059	12,444	-615	140	65	-75	121	138	+17
42	Mississippi	199	90	-109	14	7	-7	14,214	12,857	-1,357	110	45	-65	127	156	+28
43	New Jersey	130	87	-43	7	4	-3	18,571	21,750	+3,179	80	40	-40	88	100	+13
44	West Virginia	158	75	-83	10	5	-5	15,800	15,000	-800	95	30	-65	105	167	+61
45	Delaware	94	48	-46	4.9	2.7	-2	19,143	17,815	-1,328	50	15	-35	98	180	+82
46	Arkansas	133	45	-88	10	4	-6	13,300	11,250	-2,050	100	30	-70	100	133	+33
47	Alabama	132	32	-100	10	3	-7	13,200	10,667	-2,533	50	10	-40	200	300	+100
48	Rhode Island	18	10	-8	1	0.5	-1	18,300	20,000	+1,700	15	10	-5	67	50	-17
U.S. total		200,537	226,462	+25,925	9,233	9,402	+169	21,720	24,087	+2,367	49,281	27,932	-21,349	187	337	+149

Source: February 2023 Milk Production Report, USDA
Statistical ties are represented by the same numerical ranking.

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Top 100 dairy counties (based on May 2022's milk production)

Rank	State	County	Rank	State	County
1	CA	Tulare	51	WI	Outagamie
2	CA	Merced	52	NY	St. Lawrence
3	CA	Kings	53	WI	Grant
4	CA	Kern	54	ID	Lincoln
5	CA	Stanislaus	55	WI	Calumet
6	ID	Cassia	56	PA	Franklin
7	ID	Gooding	57	NM	Lea
8	CO	Weld	58	WA	Grant
9	CA	Fresno	59	MI	Sanilac
10	TX	Hartley	60	ID	Canyon
11	WA	Yakima	61	OH	Wayne
12	ID	Twin Falls	62	VT	Franklin
13	AZ	Maricopa	63	SD	Grant
14	CA	San Joaquin	64	WA	Whatcom
15	PA	Lancaster	65	NY	Jefferson
16	ID	Jerome	66	MI	Ottawa
17	AZ	Pinal	67	VT	Addison
18	NM	Curry	68	MI	Missaukee
19	TX	Castro	69	WI	Oconto
20	CA	Madera	70	NY	Ontario
21	NM	Chaves	71	WA	Franklin
22	NM	Roosevelt	72	WI	Shoebog
23	TX	Parmer	73	WI	Lafayette
24	WI	Manitowoc	74	TX	Bailey
25	WI	Fond du lac	75	WI	Green
26	WI	Clark	76	NY	Onondaga
27	TX	Moore	77	MI	Winona
28	WI	Marathon	78	TX	Comanche
29	WI	Dane	79	TX	Ballou
30	TX	Erath	80	ID	Owyhee
31	MI	Stearns	81	ID	Elmore
32	WI	Kewaunee	82	NY	Livingston
33	NY	Cayuga	83	GA	Macon
34	WI	Brown	84	KS	Gray
35	TX	Deaf Smith	85	CA	San Bernardino
36	MI	Grafton	86	OR	Tillamook
37	NY	Wyoming	87	PA	Lebanon
38	IL	Jasper	88	WI	Waupaca
39	WI	Shawano	89	TX	Hale
40	MI	Huron	90	VA	Rockingham
41	CO	Morgan	91	WI	Dunn
42	IA	Sioux	92	NY	Lewis
43	TX	Lamb	93	MI	Morrison
44	MI	Stevens	94	MI	Wabasha
45	OR	Morrow	95	WI	Chippewa
46	MI	Clinton	96	SD	Brookings
47	KS	Hamilton	97	ID	Ada
48	NY	Genesee	98	IN	Elkhart
49	WI	Dodge	99	MI	Lenawee
50	CA	Riverside	100	WI	St. Croix

Source: May 2022 Federal Milk Marketing Data, USDA
Note: This data represents only one month of federally marketed milk production. It may not accurately reflect a county's annual milk production and does not account for milk disposed due to price. Estimated May 2022 milk production for Idaho counties.

Northwest Southwest Midwest East Coast