

Why Jerseys





More than 105,000 Jersey cows are being evaluated on AJCA performance programs. Actual production per cow in 2001 was:

15,799 lbs. milk
728 lbs. fat
567 lbs. protein
1,882 lbs. Cheddar cheese

Milk Component Comparison

Breed	Butterfat (percentage)	Protein (percentage)
Jersey	4.61	3.59
Brown Swiss	4.03	3.38
Holstein	3.62	3.05

Source: National Dairy Herd Improvement Association Annual Report

On The Cover

3,500 Jerseys are always in production and returning more on Tom and Mike Kroes' investment at Horizon Dairy of Tipton, Calif.

U.S. Jerseys are the most profitable, adaptable and responsive dairy producers in the world.

A Profitable Product

The dairy industry has entered a new age. These are times when quality matters again, when consumers want more cheese—but at a reasonable price, when the dairy industry is looking for every possible efficiency, and when everyone is more sensitive to the state of the environment around us.

Jerseys are uniquely right for these times.

Jerseys produce the highest quality milk for human food. A glass of Jersey milk has greater nutritional value than a glass of average milk, by 20% more quality protein and 15% more calcium.

Jersey milk will yield more cheese (by 20% to 25%), butter (over 30% more) and nonfat dry milk (almost 10%) than average milk, and at a lower cost per pound of product.

Jerseys produce less waste for producers to handle (about 32% less manure and 28% less total nitrogen per cow per day than the larger breeds), and leave the cheesemaker with less "white water" to dispose of.

A naturally concentrated milk that meets today's requirements for quality, efficiency, and environmental friendliness—these are just a few reasons Jerseys are making dairy business owners sit up and take notice. But the reason the Jersey is the breed to build a future on arrives in the mailbox every month:

Jersey milk is worth more.

Under reformed Federal Order multiple component pricing, Jersey milk (4.61% fat, 3.59% true protein) averaged \$3.07 higher per hundredweight than

Leading U.S. Jersey Herds, By Herd Size Category

Owner, Address	Herd Size	Milk (305-day, 2x, m.e.)	Fat	Protein
Yosemite Jersey Dairy, Calif.	300-plus	21,596	933	784
William H. (Jim) Jenks, Idaho	150-299	20,929	905	788
Edwin R. and Cheryl F. Ettinger, S.C.	80-149	21,477	916	740
Keith S. Hockett, N.C.	40-79	26,917	1,281	898
Patti Tohl, Ore.	10-39	21,904	1,056	819



Blacky Rose of Briarcliffs, E-95%
 5-6 305d 21,790 5.6% 1,230 3.8% 826 99DCR
Image of the modern Jersey cow, bred with a production pedigree, and getting better every year: 1st Aged Cow, 2001 All American Jersey Show Reserve National Grand Champion

milk at market-reference test (3.5% fat, 2.99% true protein) during 2001.

A Profitable Producer

"The sole office of the Jersey cow, broadly speaking, is to produce the largest possible amount of rich and highly-colored cream from a given amount of food."

Jersey Herd Register, Volume 1, 1871

The Jersey breed was developed so that dairy producers would have "less cow to feed, more cow to milk." U.S. Jerseys produce, on average, more than 16 times their body weight in milk each lactation.

Comparisons of national averages illustrate Jersey advantages in feed efficiency and therefore profitability.

Professor Robert James at Virginia Tech compared Jerseys to Holsteins, projecting that Jerseys, weighing an average of 900 pounds and producing 15,203 lbs. milk, 699 lbs. fat, and 569 lbs. protein, compared to Holsteins, weighing 1,300 pounds and producing 21,861 lbs. milk, 794 lbs. fat, and 686 lbs. protein, could be fed at a lower cost: about 15 cents less per cow per day.

At the same time, the Jerseys produced a pound of protein and fat at less cost: 8 cents per pound less for protein and 10 cents per pound less for fat.

Professor James has also studied daily feed intake in the Virginia Tech research herd, reporting that, "Our Jerseys eat about 4% of their body weight, while the Holsteins eat about 3.5% of their body weight." Jerseys require less feed energy for body maintenance, so more energy is converted into fat and protein. Says Dr. James, "The Jersey cow appears to be more feed efficient."

Facts like these convinced Gregory O. "Butch" Dias Jr. to replace 1,000 Holsteins with 1,000 Jerseys at Delta View Farms in California four years ago.



Jerseys return a greater profit to milk producers and to dairy manufacturers. Compared to other breeds, it costs less for Jersey farmers to produce a pound of fat or protein. Processors also spend less to produce a pound of cheese, butter, or nonfat milk solids from Jersey milk.

Product Yield Comparison

Breed	Cheddar Cheese (pounds/cwt.)
Jersey	12.35
Brown Swiss	11.10
Holstein	10.00

Source: National Dairy Herd Improvement Association Annual Reports and National All-Jersey Inc.



Products manufactured from Jersey milk are of higher quality because more protein is recovered in the cheese made from Jersey milk and the curd is firmer.

AJCA Leading Living Cows For Lifetime Protein Production

Name, Appraisal Score	Protein	Milk (pounds)	Fat
Belvidere Saint Hibiscus, E-93%	9,065	261,451	11,052
Cherish Legend Rose, E-92%	8,892	245,743	11,298
Greenridge FW Chief Althea-ET, E-92%	8,800	217,972	10,060
Crystal Spring Duncan Emily, E-92%	8,608	243,239	10,801
Lawtons Duncan Serenade, VG-88%	8,535	259,940	11,070

Greenridge FW Chief Althea-ET, E-92%

4-11 305d 20,560 4.7% 970 3.9% 809 DHIR
More than 10,000 granddaughters through nearly 20 proven sons and maternal grandsons Voted second by readers of Jersey Journal in the 2000 Great Cow Contest



All-Time U.S. Production Leaders

Milk

Normandell Khan Ariel, VG-84%
 4-3 365d 2x 43,023 4.1% 1,914 3.6% 1,529
 Greenridge Berretta Accent, E-90%
 3-11 365d 3x 41,610 4.7% 1,943 3.6% 1,501
 Queen-Acres Specialist Lydia, E-92%
 3-7 365d 3x 38,570 4.7% 1,823 3.5% 1,343

Protein

Normandell Khan Ariel, VG-84%
 4-3 365d 2x 43,023 4.1% 1,914 3.6% 1,529
 Greenridge Berretta Accent, E-90%
 3-11 365d 3x 41,610 4.7% 1,943 3.6% 1,501
 Grand Bell I Gabriel, E-94%
 4-11 365d 38,092 5.2% 1,980 3.8% 1,460

Fat

Golden MBSB of Twin Haven, E-94%
 4-1 365d 34,876 6.9% 2,421 4.1% 1,424
 Hillview Trader Babka, E-92%
 6-0 365d 32,598 6.4% 2,100 3.6% 1,180
 BW Champs Lou W546, VG-84%
 4-11 365d 3x 26,610 7.5% 1,990 4.5% 1,260



Good Jersey mothers transmit their outstanding traits. Ferreira Mannix Goldengirl-ET is a daughter of the "Golden" cow (below). She is appraised Very Good-86% and projected to 23,153-1,054-747 m.e. on her first record calving at 23 months of age. Her maternal brother ranks among the top 15 bulls for JPI on the Active A.I. Sire List (August, 2002).



Golden MBSB of Twin Haven-ET, E-94%
 4-1 365d 34,876 6.9% 2,421 4.1% 1,424 DHIR
 Holds the World Record for Jersey Fat Production

Photo credit: Frank Robinson

Comparing his Holsteins averaging 70 lbs. a day to Jerseys, Jerseys at 50 lbs. matched the revenue of the Holsteins, with no other efficiency factor considered. "I was rather surprised, to the point I didn't quite believe it," he recalls.

Dias is now expanding to 1,600 cows, taking advantage of another efficiency: increased stocking rate. Jerseys give producers the opportunity to increase herd size without increasing their investment in land and facilities. While Holsteins can weigh from 1,300 to 1,500 lbs., Jerseys range from 900 to 1,000 lbs. A pen built to hold 100 Holsteins can house up to 140 Jersey cows.

Or sometimes, more. During the permitting process for construction of Northern Plains Dairy, a high-efficiency set-up designed for Jerseys, county officials in Minnesota set a limit of 3,000 animal manure units per dairy farm. Jerseys are considered one animal manure unit to a Holstein's 1.5 unit rating.

But that was just one of many comparative advantages for Jerseys, according to Northern Plains head Mitch Davis. "Jerseys are more efficient cheese makers," Davis told the *Minnesota Dairy Star*, "which is what we are really interested in. They also take up less room, live longer, have less foot problems, do better in the heat, eat less and calve easier."

Sometimes expansion is not a goal. In that case, Jersey dairies can be operated with less labor, less capital investment, fewer crop acres and with less purchased feed.

In either situation, the smaller Jersey cow will cause less wear-and-tear on facilities and equipment, so expenses for repair and replacement are lower.

Jerseys have notable advantages over other dairy breeds in reproductive areas, according to Dr. Robert E. McDowell's review of the research literature. Jerseys mature more quickly. When a dairy heifer matures earlier, she can be

Comparison of Reproductive Efficiency

	Jersey	Holstein	Brown Swiss
Average age at first calving (months)	25	26	27
Calving interval (months)	14.0	14.6	14.8
Percent (%) sold for dairy purposes	9	3	5
Percent (%) culled for non-dairy purposes	14	22	18

Source: Dairy Records Management Systems, Raleigh, N.C., 2001

bred at a younger age (and smaller size). She'll then enter the milking herd sooner. The bottom line: Jerseys are quicker to generate income for a dairy producer.

Jerseys are renowned for their ease of calving. Few calving problems reduce worry, labor and veterinary costs. After calving, Jerseys stand up, clean and get to work. They return to their heat cycle earlier and breed back more quickly.

These advantages are very apparent in areas where cows are subjected to heat stress. Longitudinal studies of Southeast U.S. dairy operations by North Carolina State University researchers confirmed that Jerseys had a significant advantage over Holsteins in conception rate and overall fertility.

Arizona producer Paul Rovey knows that first-hand in his 2,000-cow largely Jersey operation. Jerseys average 20 fewer days open compared to the Holsteins at his dairy. Plus, the Holstein conception rate is 10% to 15% less compared to the Jerseys. Herd veterinarian Dr. Steve Smalley remarked to *Dairy Herd Management*, "Jerseys are a breeding machine compared to Holsteins."

Finally, Jerseys survive to produce profitably for a longer period of time. The herd life of Jerseys is longer than any other breed. The genetic trend for productive life for Jerseys is about twice that for Holsteins, according to USDA.

With more total days of productive life, Jerseys produce profits longer.

Adaptable

Jerseys adapt to every management system that has been designed for dairying. They thrive in confinement barns and dry lot operations, in large herds and small ones.

Jerseys also adapt to different feeding schemes, from TMR programs to grazing operations. For example, perennial ryegrass, clover, puna chicory, and orchardgrass are the foundation of the feeding program at Long Meadows Farm in Pennsylvania. The 101 Jersey cows in the herd owned by Robert and Helene Dreisbach produced an average of 15,822 lbs. milk, 703 lbs. fat, and 565 lbs. protein actual in 2001.

Jerseys adjust more easily to all climates. There are no climatic or geographic barriers for Jerseys.

Jerseys are also favored in arid or desert areas of the United States. Nearly 1,800 Jersey cows at the William Ahlem Dairy in California's Central Valley



The Jersey youth development program includes recognitions for personal achievement and production records, scholarships, awards for shows and judging competitions, plus the All American Junior Jersey Show and Pot O'Gold program. At the 1999 Pot O'Gold sale, Ava Koebel of Michigan invested two years of savings to purchase Alean Frosty Garnet 14H. Ava and "Garnet" ranked third in the 2002 Pot O'Gold production contest with a record of 28,217-1,192-1,015 m.e. and received a check for \$1,405.90. Photo courtesy Jennie Koebel.



Another illustration of Jersey maternal transmitting ability: BW Master H825, E-92%, is one of nine milking daughters of the cow pictured below. All are ranked at the 98th or 99th percentile for USDA Net Merit dollars.



BW Berretta Prize G525, E-92%
 3-1 305d 25,570 4.0% 1,014 3.7% 936 DHIR
 Four daughters ranked in the Top 100 for Jersey
 Performance Index™ (August, 2002)



Odyssey 9103

2-0 321d 27,740 4.3% 1,193 3.3% 922
 Sired by a Registered Jersey bull and out of a Holstein dam, she calved back at 36 months of age (3-0) and had a peak test day of 122 lbs. milk.



Jerseys lead the way to profitability at the 500-cow Full Circle Dairy, a seasonal grass-based operation in Denair, Calif. Of the smaller-framed Jerseys and Jersey-sired cows, owner Christina Burroughs says, "They are more efficient. More body energy is put into making milk rather than body maintenance." Photo courtesy Hilmar Cheese Company.

averaged a yield of 2,198 lbs. cheese per cow in 2001. More than 1,100 Jerseys are at A&H Dairy in Arizona, with an actual herd average of 16,211 lbs. milk, 747 lbs. fat, and 599 lbs. protein. Owner Gary Allen reports that even when the temperature rises above 100° Fahrenheit, the Jerseys will be at the feed bunks. "The best decision I ever made in the dairy business was going from Holstein to Jersey," stated Allen.

Responsive

Jerseys are responsive to good care and working with them is a pleasure. Kevin Blount of California is convinced that, "Milking Jerseys is the best move I ever made."

Seven years ago, Blount compared the earning potential of Jerseys and Holsteins on paper and discovered that Jerseys had greater earning power. So the dairyman from a "die-hard Holstein family" purchased Jerseys for Dreamview Dairy.

This family-managed herd of 197 cows produced an average of 18,964 lbs. milk, 885 lbs. fat, and 690 lbs. protein actual during 2001. That's an average of 2,304 lbs. cheese per cow.

Blount also likes the other Jersey advantages. He reports that his veterinary bills are lower than they were when he milked Holsteins. By making some adjustments to his facilities, he can stock more cows on the dairy and continues to expanding the herd's size.

Increasing Jersey Genetics In Commercial Herds

Commercial producers are looking more closely at Jerseys today because they need a higher value product from a cow that stays healthier and breeds back earlier. To increase the number of Jerseys in their herds, some are breeding the cows and heifers they now own to Registered Jersey sires.

Most who have taken this route in the past did so because they wanted to reduce calving stress and prevent loss of milk production and sometimes the heifer herself following a difficult calving. That includes Keith Hockett of North Carolina, who puts it this way:

"Why take two years of raising a nice heifer and waste it in 15 minutes?"

Lost production, lost cows, lost calves . . . it wasn't something that this enthusiastic dairyman, who says from the heart, "All I ever wanted to do was milk cows" could



Hases Babes Lad Charo (EX 2, 4E Canada)

5-9 365d 39,546 4.4% 1,726 3.6% 1,411
 Former World Production Champion
 Bred in the United States and purchased through the All American Jersey Sale

endure. The solution? "About 13 years ago, we went breeding to all Jerseys."

Today, about half of his 400-plus cow herd is sired by Registered Jersey bulls and, with the young stock, all are identified through Jersey Expansion on the AJCA database.

"There are a lot of people that just don't understand why we are breeding our Holsteins to Jerseys," Hockett acknowledges. "But if they get so busy that they don't have time to look after them, then they will appreciate the crossbreed cows."

Jersey-sired cows "put on good udders, and you never see one with feet and leg problems," he explains, adding that there are "no breeding problems."

"When you don't have herd health problems, it makes life a lot easier for everybody," Hockett concludes. "And, we're way ahead of the game in butterfat and protein."

He knows. For more than two years, Hockett has been enrolled on REAP, the complete package of AJCA herd management services. For 2001, the average of Hockett's Jersey lactation records was 26,917 lbs. milk, 1,281 lbs. fat, and 898 lbs. protein, ranking first for milk and fat and second for protein in the nation.

Other commercial managers, like Bob Kimmel at Odyssey Farm in New York, agree that Jersey-sired cows have less health problems in general, less feet trouble, and less mastitis. "One of the things I like is (the difference in) somatic cell count. For the last six or eight years, I've been keeping track of it," Kimmel says. "The bulk tank sample at the milk plant is usually between 200,000 and 250,000 somatic cell count. The Jersey herd has averaged somewhere between 75,000 and 80,000."

Even more impressive: "It's pretty difficult to tell any difference in production between the crossbreeds and Holsteins."

U.S. Jersey Genetics

U.S. Jersey genetics are simply the best available anywhere on the globe. U.S. Jersey sires rank highly in progeny evaluations across a number of countries, and are some of the "sires of sires" for large Jersey populations in Australia, Denmark, New Zealand and South Africa. Dairy producers located on every continent have used U.S. Jersey sires to develop national production-leading herds and cows. Jersey females and embryos purchased from U.S. Jersey breeders have been equally outstanding performers in other countries.

Averages of Active A.I. Jersey Sires

Trait	Average
PTA Milk	+1,071 lb.
PTA Fat	+ 40 lb.
PTA Protein	+ 36 lb.
Cheese Merit Dollars	+ \$325
Net Merit Dollars	+ \$316
Fluid Merit Dollars	+ \$293
Productive Life	+ 1.02
Somatic Cell Score	+ 3.31
PTA Final Score	+ 1.46

Source: *Animal Improvement Programs Laboratory, United States Department of Agriculture (August, 2002)*

What Is JPI?

Determining which Jersey cows and bulls excel by their combined genetic merit for production and functional type is easy when you start with the Jersey Performance Index™.

JPI emphasizes commercial profitability in two ways. First, 70% of the index is weighted on PTA protein and PTA fat. The remaining 30% includes information on herd life, through udder traits and mastitis resistance, reproductive measures, and overall durability factors that lower involuntary culling.

The five factors used to calculate JPI and their weights in the formula are:

- PTA protein, 50%;
- PTA fat, 20%;
- Functional Trait Index, 15%;
- PTA somatic cell score, 5%;
- PTA Productive Life, 5%; and
- Functional Udder Index, 5%.

Refer to the USJersey website and the August, 2002 Jersey Genetic Summary (*the Green Book*) for more information on the Jersey Performance Index™.

Differences You Can See

High, wide rear udders, good feet and legs, hard black hooves, and they keep working through the heat of the day

Photo credit: Julie DeLavergne



Jerseys are changing the color of dairying all across the United States. The demand for the Jersey cow is at the highest level the breed has experienced in 50 years. The reason is simple.

The Jersey is the most profitable cow for today's dairy business:

- She produces a pound of milk components at a lower cost compared to the other major breeds.
- She has little or no calving problems, greater fertility, a shorter calving interval, and earlier maturity.
- Jerseys stay in the herd longer than any other dairy breed.
- Jersey milk has greater nutritional value, plus the highest yield and greater efficiency when processed into cheese and other value-added products.
- Jersey milk commands a premium price in many markets.

The missions of the American Jersey Cattle Association and National All-Jersey Inc., as outlined in their respective constitutions, are to:

- Improve and promote Jersey cattle;
- Maintain records and activities that are in the best interests of Jersey cattle breeders;
- Promote the increase sale of Jersey milk and milk products; and
- Promote the increased sale of Jersey genetics.

We invite you to investigate the advantages of Jerseys and how they can help you reap greater profits from your dairy business.



Information on U.S. Jerseys is as close and as fast as your connection to the World Wide Web.

The USJersey Organizations

When you want to take advantage of the many advantages Jerseys offer, call upon the services of the two membership organizations that work to add value to Jersey genetics and Jersey milk.

The American Jersey Cattle Association promotes Jersey breed improvement through recording of production records, identification services, type evaluation, and the application of advanced research and genetic evaluations.

National All-Jersey Inc. provides the information producers need to understand milk marketing and to obtain equitable pricing for their higher yielding product. Its subsidiary, Jersey Marketing Service, specializes in helping producers find quality Jersey cattle through private treaty and auction sales management.

Each organization is governed by a Board of Directors elected from its membership. Because the leaders of the Jersey organizations understand the economics of profit, AJCA and NAJ services are both cost effective and user friendly.

Contact the Jersey organizations to learn more about:

- Identification Services: Registration, Genetic Recovery, Jersey Expansion
- Performance Evaluation: Production Testing, Type Appraisal
- REAP: The all-in-one package of key programs and services
- Genetic Evaluations and Official Performance Pedigrees
- JerseyMate™, JerseyMate™ Online
- JerseyTags, American ID eartags approved for registration
- Young Sire Development Programs
- Multiple Component Pricing, Milk Market Analysis and Forecasting
- Cattle marketing services for the buyer and seller
- *Jersey Journal*, official publication of the AJCA and NAJ

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Information on programs and services, performance and market statistics, and Jersey news

www.InfoJersey.com

Online recording of registrations and transfers, plus real-time compilation of Official Performance Pedigrees, complete with current USDA-AJCA genetic evaluations, production summaries, and type information. Gateway to JerseyMate™ and online ordering of JerseyTags

www.JerseyDirectory.com

The online directory of Jersey breeders