

Information Presented on AJCA Performance Pedigrees

1. Animal sex, name and AJCA registration number.
Additionally, twins are labeled. The DHI herd number is printed for cows on test.
Bulls enrolled in the Young Sire Program or Genetic Diversity Program are marked YSP or GDP, respectively. Labels are printed whenever they apply to any bull in the pedigree. Unproven bulls eligible for, but not enrolled in these programs are designated GQ (qualified for YSP), DQ (qualified for GDP), or DGQ (qualified for both programs).
2. The date of birth and, for cows, the DHI processing center control number (CONTROL #).
3. Permanent identification of the animal, labeled by form (either tattoo *or* AJCA-approved tag, or tattoo *and* AJCA-approved tag). The first number is the numerical ID for the right ear; the second number is in the left ear of the animal.
For heifers, the percentile (P-level) of the Parent Average (PA) for Jersey Performance Index™ (JPI) is printed to the right of the tattoo(s). If PA JPI is not available, the P-level is based upon PA for protein. The P-level indicates how this individual ranks compared to others born in the same year.
4. Expected Future Inbreeding (EFI).
EFI is an estimate of future progeny inbreeding, assuming that an animal is mated randomly to the current population.
5. Predicted Producing Ability (PPA) and Yield Deviation (YD) for milk, fat and protein.
PPA predicts future production. Because PPA is determined relative to a constant genetic base, it can be used to compare one herd situation with another. The PPA is the most effective tool available to identify cows that will be profitable milk producers. YD is the weighted average of lactation yield minus selected management and environmental factors, expressed relative to the breed base.
6. USDA Predicted Transmitting Ability (PTA) and the AJCA Predicted Transmitting Ability for Type (PTAT).
PTA is an estimate of genetic merit for milk, fat, and protein that a cow will transmit to the offspring. Reliability (R) is a measure of the accuracy of the evaluations. The percentile (%ILE) indicates the cow's ranking relative to all cows with PTAs, with higher numbers indicating higher relative rankings. PTAs can be compared between cows to indicate which cow will, on the average, transmit higher production to offspring. PTAs for Productive Life (PL), Pregnancy Rate (PR), and Somatic Cell Score (SCS) are also provided. PL is the genetic evaluation of milk-producing lifetime. PR is the genetic evaluation of cow fertility, and SCS of mastitis resistance.
The PTAT is the cow's genetic evaluation for final score relative to the breed base. PTAs for appraisal breakdown traits may be listed. These indicate what a cow is most likely to transmit for each trait to her progeny.
Jersey Performance Index™ (JPI) combines PTA Protein, PTA Fat, Functional Trait Index (FTI), PTA PL, PTA DPR, PTA SCS, and the Functional Udder Index (FUI) with emphasis of 40% Protein : 20% Fat : 15% FTI : 12% PL : 7% DPR : 3% SCS : 3% FUI. JPI can be used to rank animals for combined genetic merit (production, type, and fitness traits). The Production Type Index (PTI98) will appear on pedigrees of individuals that have genetic evaluations dated prior to August, 2002.
7. Lactation records.
Up to 16 records are printed, listing information in this order: age at calving, days milked, times milked per day, actual pounds milk, percent fat, actual pounds fat, percent protein, actual pounds protein, data collection rating (DCR) or record type (DHIR, DHIA). If a verification test was conducted during the course of a lactation, a V is printed. The 305-day, 2x, mature equivalent lactation average for records at least 180 days in length is also printed.
8. Type evaluations, the cow's age and final score.
Final scores are on a 50 to 99 scale: Excellent (90 and above); Very Good (80-89 inclusive); Desirable (70-79); Acceptable (60-69); and Poor (50-59). Scores for breakdown traits from the most recent appraisal are listed: ST, stature; SR, strength; DF, dairy form; RA, rump angle; TW, rump width; RL, rear leg set; FA, foot angle; FU, fore udder; RH, rear udder height; RW, rear udder width; UC, udder cleft; UD, udder depth; TP, teat placement; TL, teat length.
9. The sire of the animal and his registration number.
The current USDA Sire Summary for milk, fat, protein, CM\$, NM\$ and FM\$; fitness traits [PL, Daughter Pregnancy Rate (DPR) and SCS]; and the current AJCA Sire Summary for type are given. The difference in PTAs between any two bulls is the amount their future daughters will differ in performance when matings are to dams of equal genetic merit.
10. The dam.
Her registration number, tattoo, DHIR lactation records, production summary, and genetic evaluations are given. Up to 12 lactations are printed.
11. The type breakdowns are given below the age and final score.
12. The current owner, as indicated on the records of the AJCA.
13. The breeder of the animal (owner of the dam at conception).
14. The date that the pedigree was compiled and printed.
15. The 8 youngest progeny of a cow listed by date of birth.
Registration number, sex and tattoo are listed for each progeny. The total number of registered progeny is also printed.
16. The paternal grandsire (refer to 9).
17. The paternal grandam (refer to 10).
Up to four lactations are printed. Cows with registration numbers below 2,300,000 may not have lactations printed. Only the latest final score is given.
18. The maternal grandsire (refer to 9).
19. The maternal grandam (refer to 10).
Up to 4 lactations, along with type evaluations (refer to 8) are printed.

Animals that are designated carriers of the abnormalities Limber Legs (LL) and Rectovaginal Constriction (RVC) are indicated. Progeny tested animals for the above conditions are indicated as (PTL) or (PTR).

OFFICIAL AJCA PERFORMANCE PEDIGREE

MALE

ISSUE DATE 04/07/2011

RICHIES JACE TBONE A364

USA 113672851 GT 7JE1000
BORN 09/21/2003
TATTOO A364 / A364

OWNER: 354000
DEBOER, NICO
19008 FM 3079
CHANDLER, TX 75758-7667

GFI 10.0%

BREEDER: 704212

WUBS, RICHARD
19008 FM 3079
CHANDLER, TX 75758

USDA GPTA 04/01/2011 3264DAUS 82HRDS 43%RIP
97%R 560M 0.20% 63F 83%ILE
97%R 0.09% 37P 490CM\$ 408NM\$ 345FM\$
2.5PL -0.3DPR 3.04SCS

AJCA 04/01/2011 1977DAUS
GPTAT 99%R 1.6 JPI 95%R 173
ST SR DF RA RW RL FA
1.0 0.1 1.4 L0.5 0.5 S0.9 S0.9
FU RH RUW UC UD TP TL
1.6 1.1 0.8 0.8 S1.4 C2.8 L0.8

ROCK MAPLE BROOK MONTANA-ET

USA 000658741 GT YSP 29JE3075
USDA GPTA 04/01/2011 6991DAUS 1532HRDS 3%RIP
99%R 637M -0.03% 23F 4%ILE
99%R -0.09% 6P -109CM\$ -58NM\$ -13FM\$
-2.5PL -1.0DPR 2.97SCS
AJCA 04/01/2011 3373DAUS
GPTAT 99%R 0.4 JPI 99%R -6

WINDY WILLOW MALCOLM JAQUENETTE 91%

USA 003833041 / DW10C
PPA 3631M 174F 126P / YD 1991M 102F 70P
USDA PTA 04/01/2011 5RECS 68%R 77%ILE
411M 27F 15P 178CM\$ 166NM\$ 158FM\$
0.7PL 0.2DPR 2.92SCS
AJCA 04/01/2011 PTAT 64%R 0.1 JPI 64%R 64
3-03 305 2 20620 4.6 947 3.7 759 DHIR 2468C
4-05 305 2 23270 4.5 1053 3.6 848 DHIR 2757C
5-05 305 2 25480 4.6 1168 3.6 923 DHIR 3001C
6-09 275 2 23200 4.4 1023 3.5 818 98DCR 2658C
305 2X ME AVG 5L 24217M 1067F 867P 2797C

WINDY WILLOW MONTANA JACE

USA 110106571 GT 7JE535
USDA GPTA 04/01/2011 12524DAUS 1830HRDS 6%RIP
99%R 696M 0.07% 45F 65%ILE
99%R 0.01% 27P 352CM\$ 317NM\$ 285FM\$
2.0PL -0.5DPR 2.83SCS
AJCA 04/01/2011 7545DAUS
GPTAT 99%R 1.2 JPI 99%R 116

RICHIES LEMVIG STAR M1096

USA 112417424 M1096 / M1096
DHI HERD # 74-81-0162 CONTROL # 35
PPA 3924M 228F 188P / YD 3914M 217F 184P
USDA PTA 04/01/2011 2RECS 65%R 99%ILE
1018M 71F 52P 504CM\$ 412NM\$ 343FM\$
1.1PL -0.6DPR 3.12SCS
AJCA 04/01/2011 PTAT 61%R 0.8 JPI 61%R 187

1-09 288 3 24150 5.3 1278 3.8 924 88DCR 3197C
2-09 305 3 30450 5.8 1764 4.1 1240 84DCR 4295C
305 2X ME AVG 2L 31017M 1660F 1205P 4171C

2-01 86% 2-10 86%
ST SR DF RA RW RL FA FU RH RUW UC UD TP TL
25 27 38 30 26 26 34 40 36 36 23 18 27 33

ISDK FYN LEMVIG

JEDNK000000300003 GT 164JE1
USDA GPTA 04/01/2011 28253DAUS 2850HRDS 4%RIP
99%R -147M 0.28% 44F 24%ILE
99%R 0.10% 14P 244CM\$ 171NM\$ 109FM\$
1.0PL -1.8DPR 3.01SCS
AJCA 04/01/2011 8361DAUS
GPTAT 99%R 0.1 JPI 99%R 58

STARLITE BARBIE

USA 111490037 / P49
DHI HERD # 74-81-0162 CONTROL # 660
PPA 1741M 85F 63P / YD 3045M 141F 106P
USDA PTA 04/01/2011 1RECS 56%R 62%ILE
756M 27F 25P 121CM\$ 109NM\$ 104FM\$
-1.5PL 0.8DPR 3.10SCS
AJCA 08/01/2009 PTAT 44%R 0.9 JPI 50%R 105

1-11 144 3 9860 4.6 457 3.4 338 69DCR 1168C
305 2X ME AVG 1L 19115M 908F 688P 2379C

Table 1. Average Predicted Transmitting Ability (PTA) of Jersey Bulls Evaluated April, 2011

Category	No. of Bulls	Milk	% Fat	PREDICTED TRANSMITTING ABILITY								
				Fat	% Prot	Protein	SCS	PL	DPR	NMS	FMS	CMS
Active AI average	137	404	0.08	32	0.02	18	3.00	2.2	0.0	243	223	271
Genomic (G-Code Bulls) average	134	764	0.04	42	0.01	28	2.97	3.2	0.2	358	340	385
Non-AI average	439	-55	0.03	3	0.01	0	3.00	0.8	0.1	48	41	55
<i>Active AI Difference from non-AI</i>		459	0.05	29	0.01	18	0.00	1.4	-0.1	195	182	216
G Code Bull Difference from non-AI		819	0.01	39	0.00	28	-0.03	2.4	0.1	310	299	330
First-evaluation AI bulls	54	361	0.08	31	0.02	17	3.01	1.2	-0.2	190	172	215
First-evaluation non-AI	36	-26	0.02	3	0.01	0	3.00	1.0	0.1	53	49	58
<i>Difference</i>		387	0.06	28	0.01	17	0.01	0.2	-0.3	137	123	157

Table 2. Summary of Active A.I. Bull Averages, with Standard Deviations, April 2011

Trait	Average	SD
Jersey Performance Index™	92	65
JPI™ Reliability	82	9
Herds	224	709
Daughters	1,347	4222
Milk	404	671
Fat %	0.08	0.15
Fat	32	25
Protein %	0.02	0.06
Protein	18	19
Cheese Merit Dollars	\$271	\$190
Net Merit Dollars	\$243	\$174
Fluid Merit Dollars	\$223	\$167
Productive Life	2.2	1.78
Somatic Cell Score	3.00	0.13
Final Score (Type)	0.85	0.70
Stature	0.71	1.27
Strength	0.38	0.77
Dairy Form	0.64	0.72
Rump Angle	H0.10	0.83
Rump Width	0.35	0.73
Rear Legs	S0.08	0.54
Foot Angle	S0.57	0.39
Fore Udder Attachment	0.78	0.92
Rear Udder Height	0.91	0.82
Rear Udder Width	0.69	0.66
Udder Cleft	0.33	0.62
Udder Depth	S0.73	1.17
Front Teat Placement	C0.50	0.87
Front Teat Length	L0.26	0.69
Jersey Udder Index™ (JUI)	2.01	1.95
Expected Future Inbreeding (EFI/GFI)	7.1	2.7
Daughter Pregnancy Rate	0.02	0.98

Table 3. Heritability Estimates of Selected Traits

Trait	Heritability (h ²)
Milk	0.35
Fat	0.35
Protein	0.35
Productive Life	0.08
Somatic Cell Score	0.12
Daughter Pregnancy Rate	0.04

Glossary of Terms

Daughter Pregnancy Rate (DPR): Genetic evaluation of fertility based on the percentage of non-pregnant, eligible cows that become pregnant during each 21-day period. 1% DPR equals 4 less days open.

Expected Future Inbreeding (EFI): Estimate of future progeny inbreeding, assuming that an animal is mated randomly.

Genomic “G” Codes: GT, animal has been genotyped; GT3K, genotyped with 3K chip; GT50K, genotyped with 50K chip; GI for genotype through imputation from progeny; and GA for inclusion of genomic information from genotyped ancestors.

Genomic Estimate of Future Inbreeding (GFI): Estimate of inbreeding in future offspring, based upon DNA testing of parent’s actual homozygosity and percentages of genes in common with the genotyped breed population.

Genomic Predicted Transmitting Abilities (GPTAs): Estimate of genetic merit calculated from (1) information from genotypes or imputed genotypes of ancestors DNA analysis of functional genes inherited by a particular animal; plus (2) individual performance and (3) pedigree information.

Heritability: The proportion of observed differences in a trait between individuals attributed to transmittable genetic factors in contrast with environmental factors. (See Table 3)

Jersey Performance Index™ (JPI): Combines PTA or GPTA Protein, Fat, Functional Trait Index (FTI), PL, DPR, and SCS with the emphasis of 42% Protein : 15% Fat : 15% FTI : 12% PL : 10% DPR and 6% SCS. Used to rank animals for combined genetic merit for production, type and fitness traits.

Jersey Udder Index™ (JUI): Based on the Functional Trait Index (FTI) weightings for udder traits (refer to Table 2, page 5).

Net Merit dollars (NMS): Expected lifetime profit as compared with the breed base cows born in 2005. Described at <http://aipl.arsusda.gov/reference/nmcalc.htm>.

Parent Average: Estimate of an individual’s eventual PTA based on the average of the parents’ traditional PTAs.

Percentile: A ranking relative to the population. For example, a bull with a 90 percentile ranking or a heifer that is a P9 is ranked higher than 90 percent of the population.

Predicted Transmitting Ability (PTA): The best predictor of genetic merit; specifically what a bull or cow is expected to transmit for a particular trait to their offspring. See also GPTA (above).

Productive Life (PL): Time in the milking herd before removal by voluntary culling, involuntary culling, or death.

Sire Conception Rate (SCR): Phenotypic predictor of bull fertility, expressed as a relative conception rate, measured for the first seven (7) breedings of the cow (no heifer breedings).

Somatic Cell Score (SCS): Indicator trait for mastitis resistance based on the direct measure of somatic cells in milk samples.

2010 Jersey Performance Index™ (JPI)

Trait weightings for the AJCA Jersey Performance Index™ and a major component, the AJCA Functional Trait Index, were updated for the April 2010 bull and cow genetic evaluations.

In JPI₁₀, 57% of the index's value is placed on production traits (PTA protein and PTA fat). The remaining 43% is contributed by four fitness and longevity traits: the Functional Trait Index (FTI₁₀), and USDA PTAs for Productive Life (PL), Somatic Cell Score (SCS), and Daughter Pregnancy Rating (DPR).

Specific weights for each trait included in JPI₁₀ (changes from the previous version noted in parentheses), are 42% PTA protein (+2%); 15% PTA fat (-5%); 12% Productive Life (no change); 6% Somatic Cell Score (+3%); 10% Daughter Pregnancy Rate (+3%); and 15% Functional Trait Index (no change) (see also Table 1, below).

Regrouping traits by functional categories reveals a set of “Big Four” factors that determine whether cows put money into your pocket, and how much. Production gets 57% of the emphasis in the new formula. There's 19% on herd life, through Productive Life plus the body traits in the Functional Trait Index (FTI). Udder health at 14% combines direct selection for lower Somatic Cell Score (especially important to capture quality premiums) and the udder traits in FTI. Lastly, 10% is placed on fertility, using the trait of Daughter Pregnancy Rate.

More About Component Traits

Functional Trait Index (15%) is designed to separate the impact of production and type traits on lifetime profitability. It is composed of the sum of the PTAs for the linear traits times their relative economic values. Udder Depth is set to 1.0, and all other

traits are expressed relative to it. FTI is not published separately. The reason is, since estimates of trait economic importance are calculated holding production constant, FTI needs to be combined with the production traits to be interpreted correctly. Introduced in January of 1992, FTI weights were previously updated in 1998 and 2006. Study of changes in these weights reflects the change in Jersey type over time (see Table 2, next page).

Productive Life (12%) is defined as “time in the milking herd before removal by voluntary culling, involuntary culling, or death.” An economic definition of PL has been in place since 2006. Credits

are based on standard lactation curves, with highest credits at the peak of lactation and diminishing credits across the remainder of lactation. The standard is that a second-lactation cow with 305 days in milk gets 10 months credit. First lactations get less credit and later lactations slightly more credit in proportion to average production. Cows get credit for continuing in milk after 305 days of lactation and after 84 months of age. Lactation-curve credits ensure that cows with multiple lactations get more total credit than cows with just one long lactation.

Daughter Pregnancy Rate (10%) is defined as the percentage of non-pregnant cows that become pregnant during each 21-day period. A bull with a DPR of 1 indicates that his daughters are 1% more likely to become pregnant during an estrus cycle than a bull with an evaluation of 0. Each 1% increase in PTA DPR equals a decrease of four (4) days in days open. The heritability estimate for DPR is 4%. While modest, the economic impact of reproductive performance is significant and variation for DPR does exist. The April 2010 Active A.I. and Foreign Jersey bulls range from 2.6 to -2.7 DPR. That translates into a genetic difference of 21.2 days open among the daughters of these bulls.

Somatic Cell Score (6%) is an indicator trait for mastitis re-
(continued on next page)

Calculation of the Jersey Performance Index™

Effective April 2010, bull and cow JPI™ are calculated as follows:

$$\text{JPI}_{2010} = (42 \times \text{PTA protein} / 16.8) + (15 \times \text{PTA fat} / 23.5) + (15 \times (\text{FTI}_{10} / 2.0) + (12 \times \text{Productive Life} / 1.9) + (10 \times \text{PTA Daughter Pregnancy Rate} / 1.0) + (6 \times (3.00 - \text{PTA Somatic Cell Score}) / 0.15)$$

where:
 FTI₁₀ (Functional Trait Index) = Sum of the bull/cow PTAs of linear type traits multiplied by the respective relative economic value, updated for 2010 (see Table 2, next page)

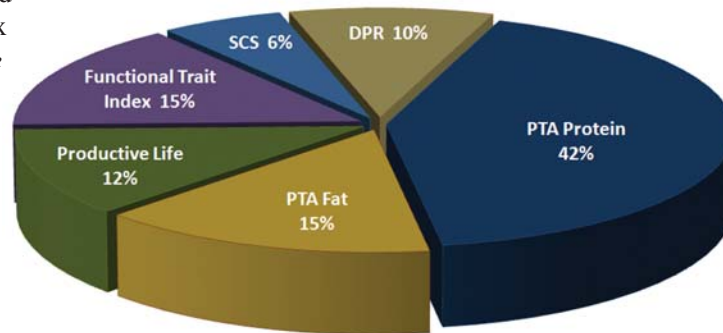


Table 1. History of Weights Used to Calculate PTI (1998) and Jersey Performance Index™.

Year	Protein	Fat	FTI	PL	SCS	FUI	DPR
1998	55.5%	22.2%	16.7%	—	5.6%	—	—
2002	50.0	20.0	15.0	5.0%	5.0	5.0%	—
2005	50.0	20.0	15.0	3.75	3.75	3.75	3.75%
2006	40.0	20.0	15.0	12.0	3.0	3.0	7.0
2010	42.0	15.0	15.0	12.0	6.0	—	10.0

Table 2. Relative Economic Importance of Linear Traits for Calculating Functional Trait Index (FTI) (see note).

Year	Stature	Strength	Dairy Form	Foot Angle	Rear Legs	Rump Angle	Rump Width	Fore Udder	Rear Udder Height	Rear Udder Width	Udder Depth	Udder Cleft	Teat Placement	Teat Length
1998	-0.29	-0.22	-0.31	1.97	-0.83	-0.51	0.17	0.86	1.26	0.78	1.00	0.06	0.38	-1.37
2006	-0.31	-0.23	0.00	1.46	-0.51	0.37	0.18	0.32	1.33	0.82	1.00	0.06	0.19	0.21
2010	-0.50	-0.85	0.00	0.30	0.00	0.35	0.70	0.30	0.35	0.61	1.00	0.85	0.10	0.00

Note: Udder Depth is set to 1.0, and all other traits are expressed relative to Udder Depth.

sistance based on the direct measure of somatic cells in milk samples. The genetic correlation between Somatic Cell Score and clinical mastitis is about 0.6.

Method Used For 2010 Updates

The revisions implemented for JPI₁₀ were based on extensive research conducted by Dr. Ronald E. Pearson of Virginia Tech, with recommendations based on simultaneous evaluation of multiple traits and their relationships to lifetime net income for nearly 117,000 Jersey cows.

Pearson used lactation records for Jersey cows born after 1995 and in herds that continued on production testing programs for eight years after the cow was born. All lactations started by cows' eighth birthday were included. Total milk yield of the cows ranged from 41 to 179,169 lbs., with a group average of 51,272 lbs. milk, 2,343 lbs. fat and 1,839 lbs. protein. Lifetime average days in milk was 956 and the average number of calvings was 3.05.

Relative lifetime net income (RNI) was estimated for each cow, calculated from DHI lactation data for total yield of fat and protein, multiplied by the net price for each component; number of calvings, with net value calculated for each calf born; rearing cost for the cow plus net salvage value at culling; less the daily costs of feed for maintenance, labor and fixed and other operating costs across the cow's lifetime. RNI is relative because the same prices were used for all herds across the United States.

RNI was then adjusted for costs not directly measured in DHI records. For mastitis, these included treatments and added labor cost for mastitis, value of discarded milk and cost of lost premiums for lower somatic cell score. For fertility, the costs included were for increased heat detection, pregnancy exams and drugs for treatment. The additional costs of rearing and maintaining animals with larger body size was included, as was their increased salvage value. Adjustments were also included for costs incurred because of udder and feet and legs problems.

There were significant shifts from the previous update (2006) to the Functional Trait Index (see Table 2, above). For FTI₁₀, udder traits as a group receive the greatest emphasis, 54%, followed by 41% for body traits, and 5% on foot angle. Udder depth is the largest single contributor to FTI.

Based on milk prices over the past four years, and more

specifically projections for the next five years, emphasis on protein relative to fat was increased in JPI₂₀₁₀.

Other Considerations

In reporting his analysis and recommendations to the AJCA Board of Directors, Dr. Pearson commented, "With the economic approach we are using here, we must use data from a generation of cows that have completed a life to predict the future. You would much rather use the cows that are just coming into the herd and get information from them. But because we are interested in how the animal is going to perform over her lifetime, it is hard to get out of this bind. I appreciate that problem, but I can't change time frames."

Compared to previous JPI formulas, he noted, "We have a continuing decrease in the emphasis on the yield traits. There are people who are bothered by that and I understand their concern.

"We've been selecting for yield traits for a long time. Now people are starting to realize that if you don't keep some pressure on improvement of fertility, disease resistance and longevity traits, you're going to end up with a cow that is not as profitable and is more problematic. We need to reach balances on some of these traits: Productive Life, Daughter Pregnancy Rate and Somatic Cell Score.

"We're not going to make quick progress on any of them," Pearson continued, "because they do not have a high enough

heritability to do that. However, if you do not have to work out of a big hole, you've got a much better situation. The decision the Board made [in 2006 to increase

emphasis on] Daughter Pregnancy Rate turned out to be a superb decision from its timing and degree."

Summary

- Jersey Performance Index™ (JPI™) is a breed-specific selection tool that has been continually reviewed and updated based on sound science and relative to the economics of dairying.
- JPI₁₀ includes six traits as follows: 42% Protein : 15% Fat : 15% FTI : 12% PL : 10% DPR : 6% SCS. Overall, 57% of its emphasis is on production, 14% on udder health, 19% on longevity, and 10% on fertility.

Calculation of the Jersey Udder Index™

This index is the sum of sire PTAs for udder traits multiplied by their weights in the Functional Trait Index (see Table 2, above):

$$\text{Jersey Udder Index (JUI}_{10}) = [(.30 \times \text{FU}) + (.35 \times \text{RUH}) + (.61 \times \text{RUW}) + (1.0 \times \text{UD}) + (.85 \times \text{UC}) + (.10 \times \text{TP}) + (0 \times \text{TL})]$$

Explanation of Headings for Summarized Bulls: Left Page

Name of Bull	Registration Number	GT	NAAB Code	No. Hrds	No. Daus	% RIP	REL %	Milk	% Fat	Fat	% Prot	Prot	CM\$	NM\$	FM\$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Identification	USDA Production Information							8. Reliability of production summary							
1. Registered name of bull	5. Number of herds with bull's daughters on test, providing milk, fat and production information for the summary								9-13. PTA values for production, milk, fat percent, pounds of fat, protein percent and pounds of protein						
2. Registration number with country code	6. Number of daughters that have production data included in the summary								14. Index for Cheese Merit Dollars						
3. Asterisk in this column indicates that animal's DNA genotype used in evaluations	7. % of first lactations that were in progress at the time the summary was completed								15. Index for Net Merit Dollars						
4. A.I. stud code of bull: stud code, breed code, and stud's number for bull									16. Index for Fluid Merit Dollars						

Explanation of Headings for Summarized Bulls: Right Page

SCS	PL	DPR	EFI	NM\$ %ile	JPI	REL	Type Hrds	Type Daus	Type REL	FS	ST	SR	DF	RA	RW	RL	FA	FU	RH	RUW	UC	UD	TP	TL	JUI
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
USDA Production Information							9. Number of daughters in type summary								18. Foot Angle (FA): L=Low, S=Steep										
1. PTA Somatic Cell Score								10. Reliability of PTA type (based on final score)								19. Fore Udder Attachment (FU)									
2. PTA for Productive Life								11. PTA for Final Score and Type								20. Rear Udder Height (RH)									
3. PTA for Daughter Pregnancy Rate								PTA Values for Linear Type Traits								21. Read Udder Width (RUW)									
4. Expected Future Inbreeding								12. Stature (ST)								22. Udder Cleft (UC)									
5. Percentile ranking of bull based on Net Merit dollars								13. Strength (SR)								23. Udder Depth (UD): D=Deep, S=Shallow									
JPI								14. Dairy Form (DF)								24. Front Teat Placement (TP): W=Wide, C=Close									
6. Jersey Performance Index™								15. Rump Angle (RA): H=High Pins, L=Low Pins								25. Teat Length (TL): L=Long, S=Short									
7. Reliability of JPI								16. Rump Width (RW)								26. Jersey Udder Index™									
Predicted Transmitting Ability for Type								17. Rear Leg Set (RL): P=Posty, S=Sickle																	
8. Number of herds with daughters contributing information to the sire's type summary																									

Heifer Percentile Ranking Levels (P-Level)

The P-level may be the most important guide on the pedigree when evaluating Jersey heifers' genetic merit. The P-level is a percentile ranking of the Parent Average (PA) Jersey Production Index™ (JPI), displayed as P0 through P9. When PA JPI is not available, percentile rankings are based on PA Protein.

The P-level indicates how one heifer ranks compared to all other Registered Jersey™ heifers born in the same year. To interpret, insert the P-level in the blank in the following statement:

"This heifer has a higher PA JPI than ___0 percent of the registered Jersey heifers born in the same year." Example: A P8 heifer born in 2008 has a higher PA JPI than 80 percent of the Registered Jersey heifers born in 2008.

The tables show means and minimum values for percentile ranking levels based on Parent Average JPI for the birth years 2006 to 2010 and projected for 2011 and 2012; and also for PA Protein for 2006 to 2010, with projections for 2011 and 2012.

Table 1. Parent Average JPI for P-Levels

Birth Year	Mean	P0	P1	P2	P3	P4	P5	P6	P7	P8	P9
2006	10	< -51	-51	-23	-8	4	15	25	36	49	67
2007	20	< -42	-42	-14	2	15	26	36	47	60	77
2008	30	< -33	-33	-5	11	24	36	47	58	72	90
2009	44	< -18	-18	11	27	39	49	60	71	84	102
2010	61	< 2	2	29	44	55	66	76	87	100	117
2011 <i>projected</i>	71	< 11	11	38	54	65	76	87	98	111	128
2012 <i>projected</i>	83	< 24	24	51	67	78	88	99	110	123	141

Table 2. Parent Average Protein at P-Levels

Birth Year	Mean	P0	P1	P2	P3	P4	P5	P6	P7	P8	P9
2006	0	< -21	-21	-10	-5	-1	2	5	9	12	17
2007	1	< -20	-20	-8	-3	1	5	7	10	14	19
2008	4	< -17	-17	-6	-1	3	7	10	13	17	22
2009	7	< -13	-13	-3	3	7	10	13	17	20	25
2010	11	< -8	-8	2	7	11	14	17	20	23	28
2011 <i>projected</i>	13	< -6	-6	4	9	13	16	19	23	26	31
2012 <i>projected</i>	16	< -3	-3	7	12	16	19	22	25	28	33