# A Closer Look at JPI™ Updates

*"Pound for pound, Jerseys put more money into your pocket, while taking less out."*

That's the Jersey cow's reputation, one which should not just be maintained, but improved upon. Updates to the Jersey Performance Index™ approved by the AJCA Board of Directors at its meeting, March 13-14 in Columbus, are designed with those ends in mind.

Traits and their relative weights in $JPI_{2010}$, with 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)*. The new formula was implemented for the April USDA-AJCA genetic evaluations.

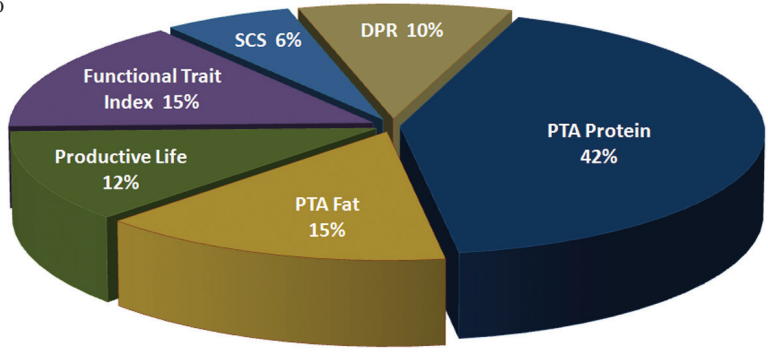


Fig. 1. Updated weights for components included in 2010 update to Jersey Performance Index™ (JPI).

While there's not much space here to delve into the details *(look for that in the new "Green Book" and upcoming* Journal *stories)*, we do want to make several key points.

$JPI_{2010}$ is the outcome of the most extensive and intensive analysis of production, longevity and health data yet conducted for a JPI™ update. Data from more than 116,000 Jersey cows were analyzed by Dr. Ronald E. Pearson, who has done the R&D work for the AJCA's breed-specific selection indexes since 1992. Long hours of study and lengthy meetings with Dr. Pearson preceded the AJCA Board's decision to approve the recommended updates to the JPI™ formula.

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>
> *Dr. Ronald E. Pearson, Virginia Tech*

The cornerstone of Jersey Performance Index™ is to increase lifetime net profits. With that in mind, take a look at the way $JPI_{2010}$ puts emphasis on the "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 the Productive Life trait plus the body traits in the Functional Trait Index (FTI). Udder health at 14% is a combination of direct selection for lower Somatic Cell Score (especially important to capture quality premiums), plus the FTI udder traits. Lastly, 10% is placed on fertility, using the trait of Daughter Pregnancy Rate.

How does the 57:43 JPI™ compare to the USDA selection indexes reviewed in the February issue? With its ratio of 42% production and 58% fitness, Net Merit dollars (NM$) is practically a reverse image of $JPI_{2010}$. Cheese Merit dollars (CM$) is, for all intents and purposes, identical at 60:40.

JPI™ is designed to meet the needs of the vast majority of Jersey milk producers in the United States. The regional JPI™ rankings for full-fat and fluid markets will continue to be calculated and sire rankings included in the *Jersey Genetic Summary*.

"Over time," Dr. Pearson noted during a Board conference call on March 4, "we started out with virtually all our pressure on selecting for yield. As we have gotten more accurate measures of type and the traits that have been added since then, we've reduced our selection pressure for yield. The [production] increases for the Jersey breed have been very, very good. We don't want to walk away from that. On the other hand, we don't want some other problem being what causes a [loss of profits]. We have to keep a balance between the FTI, SCC, Daughter Pregnancy Rate and Productive Life.

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