Uniform Functional Type Traits Appraisal Program

Evaluation of functional type traits in individual Jersey cows is one of the oldest, and most useful services provided by the American Jersey Cattle Association. The current program was introduced in 1980, with six primary features:

- *Biological traits,* clearly defined, are evaluated on a linear scale.
- Using a numerical scale, traits are scored from one biological extreme to the other.
- Cows are scored early in their productive life in order to separate genetic from environmental effects.
- All similar-age contemporaries are evaluated.
- Evaluators do not know the sire of the cows being evaluated.
- Registered and unregistered Jerseys are evaluated.

Jersey type evaluation is not a program that "classifies" animals by comparing them to the "ideal Jersey." Instead, it is a service that gives you unbiased information about the strengths and weaknesses of your cows. The biological traits measured are related to the economic value of a cow, and the information provided can help you make mating decisions to improve herd profitability.

By utilizing the AJCA type evaluation service, you gain:

1. *Objective information* about cows and bulls to help you to achieve your breeding goals; and
2. *Marketing value,* to better promote your herd and increase sales of breeding stock.

Herds are appraised every seven (7) to ten (10) months. Cows are inspected in their "working clothes" by professional appraisers who evaluate them based on how they look that day. A cow cannot be appraised within 60 days of a previous evaluation.

Cows are assigned scores in two ways. First, evaluators assign linear scores to describe the biological traits of each cow. A total of 16 conformation traits, plus five supplemental traits are evaluated. Evaluators record scores using the range of 1 to 50, except for stature, which uses a scale of 1 to 80. Each of these scores describes what the individual trait looks like in a cow. For example, a score of 25 for udder depth means that the floor of the udder is 2" above the hock.

Then, evaluators assign the Final Score, which reflects the degree to which the cow's traits approach the most profitable expression. Scientific studies in the U.S. show certain linear traits can be useful predictors of survival rates and lifetime profitability in Jersey cattle. These traits are designated as high priority traits, and are *dairy form, foot angle, fore udder attachment, rear udder height, rear udder width, udder cleft, udder depth, and teat placement.* Evaluators focus on the high priority traits when assigning the Final Score.

Final Score is *not* an average of the individual trait scores, but range instead from 50 to 100, according to this scale:
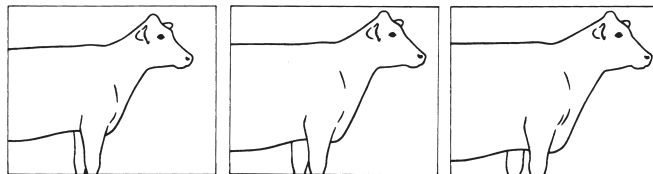
90 or higher ....Excellent
80 to 89......................................Very Good
70 to 79......................................Desirable
60 to 69......................................Acceptable
50 to 59......................................Poor

Maximum Final Score within lactation levels is: lactation number 1, maximum final score 89; lactation number 2, maximum of 91; lactation number 3, maximum 93; lactation number 4, maximum 94; and lactation number 5, maximum final score of 95 or higher. *Note:* Refer to *Rules for the Functional Type Traits Appraisal Program* for the procedure to assign Final Scores exceeding 95.
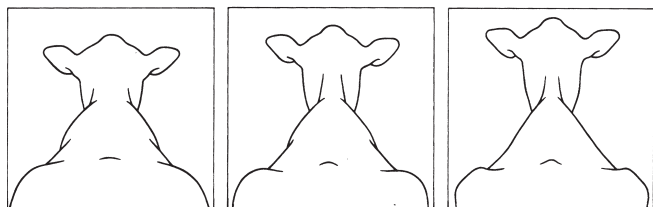
Trait Descriptions

Stature

Stature is measured as height at the hips using a scale of 1 to 80. A score of 1 indicates stature of 44", 25 indicates 49", 50 indicates 54", and 80 indicates stature of 60" or greater.

Strength

Strength is measured as the width and depth of chest, width of muzzle, and substance of bone, not to be influenced by body condition. Scores under 10 indicate extreme weakness; scores over 40 indicate extreme strength.
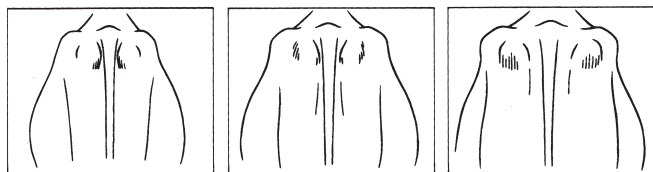

Dairy Form

Dairy Form is defined as the openness and angle of rib, angularity, flatness of bone, length of neck, and any other appearance of milkiness. This appearance, and not just the absence of fleshing, is considered. Ideally, stage of lactation should not influence the dairy form score. Scores below 20 may not only reflect smooth over-conditioned cattle, but also extreme angularity that is frailty and not dairy form.
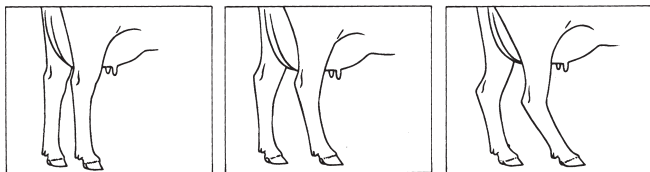

Rump Angle

Rump Angle *(pins high/low)* is the degree of slope from hooks to pins when the cow is standing. A score of 1 indicates a high rump angle and a score of 50 indicates an extremely sloped rump angle. A score of 20 indicates a level rump angle, each additional five (5) points representing every one (1) inch of slope or height of pins.

Rump Width

Rump Width is the width of hips. Scores below 15 indicate extreme narrowness in the rump and scores above 35 indicate extreme rump width.
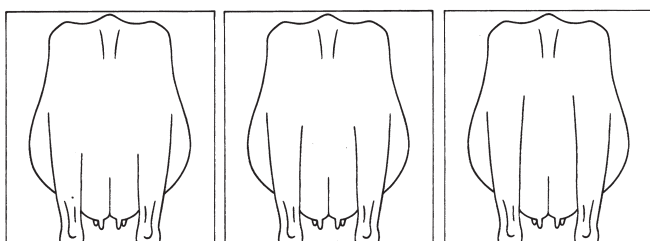
Rear Legs

Rear Legs *(posty/sickle)* is a measurement of the set of hock. A score of 1 indicates extremely posty legs and a score of 50 indicates sickle hocked legs. A score of 25 indicates a slight set to the legs.
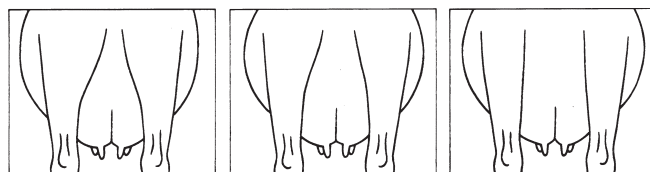
Fore Udder Attachment

Fore Udder Attachment is an evaluation of the strength of attachment of the fore udder to the body wall. A score of 1 indicates a loose attachment and a score of 50 indicates a tight attachment. A score of 25 indicates a slight bulge in the fore udder.
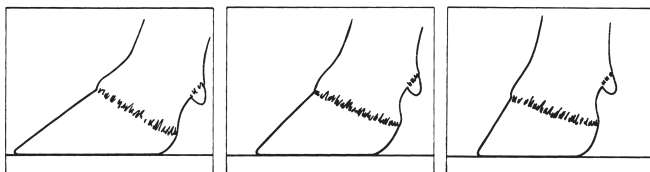
Rear Udder Height

Rear Udder Height is measured as viewed from the rear, at the crease where the udder meets the leg, in relation to the midpoint between the point of hock and pins. A score of 1 indicates low rear udder height and a score of 50 indicates high rear udder height. A score of 15 is assigned to a rear udder attached at the midpoint between the point of hock and pins. An additional 5 points is added or subtracted for every inch above or below the midpoint, respectively.

Rear Udder Width

Rear Udder Width is measured at the crease where the udder meets the leg. The midpoint score of 25 corresponds to a 7" wide rear udder, with incremental change of 5 points per inch in either direction (e.g., score of 15 indicates 5" wide rear udder, score of 35 indicates width of 9").
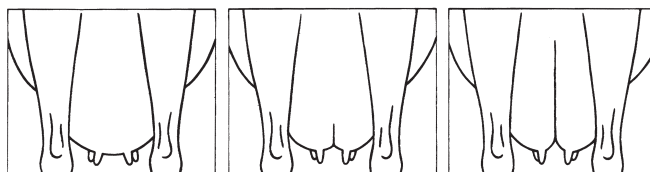
Foot Angle

Foot Angle *(low/steep)* is measured as the steepness of the angle of the rear foot from the hairline to 1" anterior to the hairline. A score of 1 indicates an extremely low foot angle and a score of 50 indicates an extremely steep foot angle. A score of 25 is assigned to a medium foot angle and a score of 40 to a 45° foot angle.
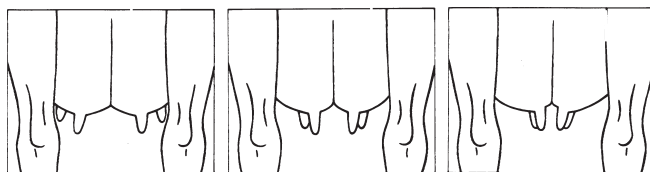
Udder Depth

Udder Depth *(deep/shallow)* is a measure of the depth of udder floor relative to the hock. A score of 1 indicates an udder below the hock, 15 an udder at the hock, 25 an udder 2" above the hock, 35 an udder 4" above the hock, and 50 an udder 7" above the hock.

Udder Cleft

Udder Cleft is a measure of the depth of cleft of the udder between the rear teats from the base of the rear teats to the point where the halves of the udder come together. The midpoint score of 25 indicates a cleft of 1½" with an incremental change of 5 points per half-inch from the midpoint. A score of 15 indicates an udder with a ½" cleft, and 35 an udder with a 2½" cleft.

Front Teat Placement

Front Teat Placement *(wide/close)* is a measurement of the placement of the front teats on the quarter. A score of 1 indicates wide placed teats, 20 slightly wide placed teats, 30 centrally placed teats, and 50 teats that are closely placed.

Front Teat Length *(long/short)* is the length of the front teats from the base to the end of the teat. A score of 1 indicates short teats (0"), 25 indicates intermediate teats (2½") and 50 indicates long teats (5").

Rear Teat Placement

Rear Teat Placement *(side view)* is a measurement of the placement of the rear teats on the quarter when viewed from the side. A score of 1 indicates that the rear teats are too closely placed to the front teats, 25 teats are centrally placed on the rear quarter, and 50 teats are placed too far back and attached at nearly a 90° angle (parallel to the ground) and the teat end is visible when viewed from the rear.

Rear Teat Placement *(rear view)* is the placement of the base of the rear teats when viewed from the rear. A score of 1 indicates teats are too wide, 25 indicates teats are centrally placed on the rear quarter, and 50 indicates teats are too close and the bases touch.

The *Rules for the Functional Type Traits Appraisal Program* are published on the USJersey website at *http://bit.do/ AppraisalRules,* or available by contacting the Appraisal Program Coordinator at 614/322-4457.

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