Results of members survey on update to Nadudana Breed Standards

Introduction

In a previous members survey run earlier in 2023, members voted by a clear majority for a review and minor changes to the standards. The NAA committee would like to complete this update of the standards in order that the grading system for entry of Nadudana cattle to the new Appendix Registry can be based on the revised standards. It was thus decided to consult with members in a follow up survey. A review of the standards was conducted and minor changes in wording proposed with the objective of clarifying the understanding of trait descriptions in the standard. The proposed changes were not intended to fundamentally change the goals of Nadudana breeders in Australia.

A survey was conducted in May\June 2023 with the objectives of:
1. Identifying the level of member support for each individual trait within the breed standards, including those trait descriptions that have been revised, in order to identify traits that may require further revision.
2. Identify the relative importance of each trait of the standard with a view to informing the weighting of the traits in the future grading system.

The format of the survey, which was run using the jotform platform for online quizzes (see here for the link to the survey), what that three questions were asked for each of the 24 traits in the standard. The first question asked if the member supported the proposed wording of the trait description. If members did not support the description then the second question requested information on why it was not supported and asked for alternative wording. The third question asked for a rating of the relative importance of the traits in the overall development of the breed.

Results

Whilst the survey itself was not anonymous, respondents were requested to identify themselves solely to ensure that only one entry per member was recorded. Responses to the survey were received from 12 members, which is 70% of the membership at the time of the survey, and can thus be considered representative of the majority views of the membership. The results are presented below in a range of formats and the results are anonymous, with responses not identified to the members that provided them. Figure 1 represents the level of satisfaction of members for each of the 24 traits, as a percentage of responding members that agreed with the proposed wording of each trait description.

The results indicated that 16 of the 24 trait descriptions received support from over 80% of members. Of the eight traits receiving less than 80% support four traits in particular received low levels of support, these being the traits of size, horns, temperament and dewlap (42-70% support) and general appearance, tail, skin and voice (75% support). These results provide a clear indication of those traits that require further revision prior to finalizing the standards.

Figure 2 indicates the importance ranking of the 24 traits. The results did not clearly delineate important and unimportant traits but rather indicated a gradual scale of relative importance with traits of voice and tail being the least important and size, temperament, hump and legs and feet being considered the most important. These importance ranking will be used to inform the weighting of traits in the standard in the grading system to be proposed for the appendix registry.

Table 1 shows the proposed changes to the standards and identifies the detailed results from the survey including the feedback provided by members who did not support specific elements of the standard.

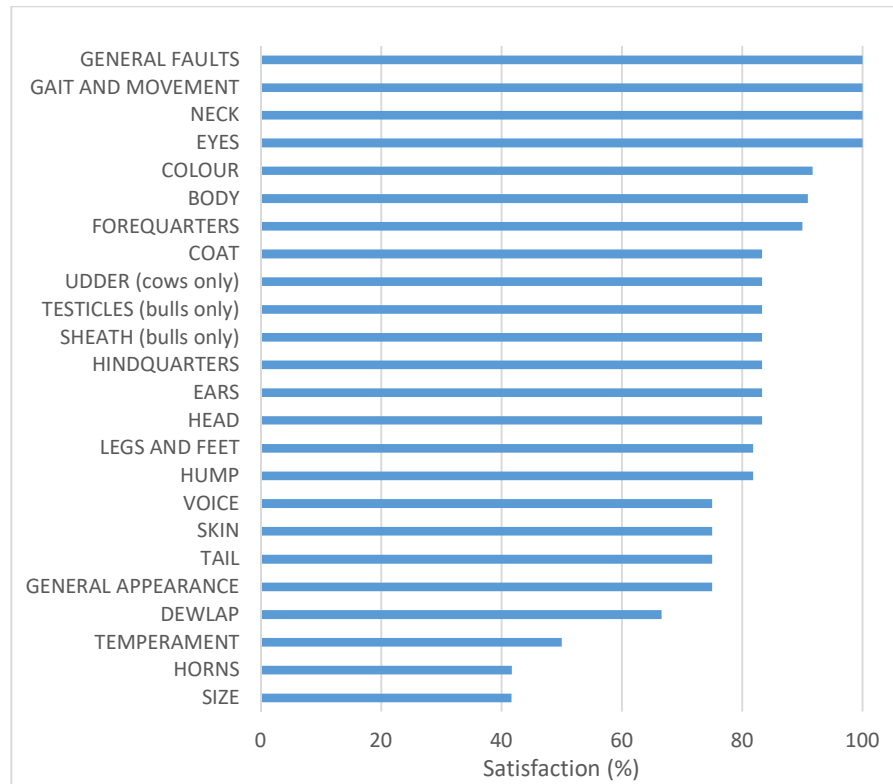*Figure 1 Summary of satisfaction scores for all revised traits.*

Figure 2 Ranking of importance scores assigned my members to each trait (relates to importance of the trait in a grading system.
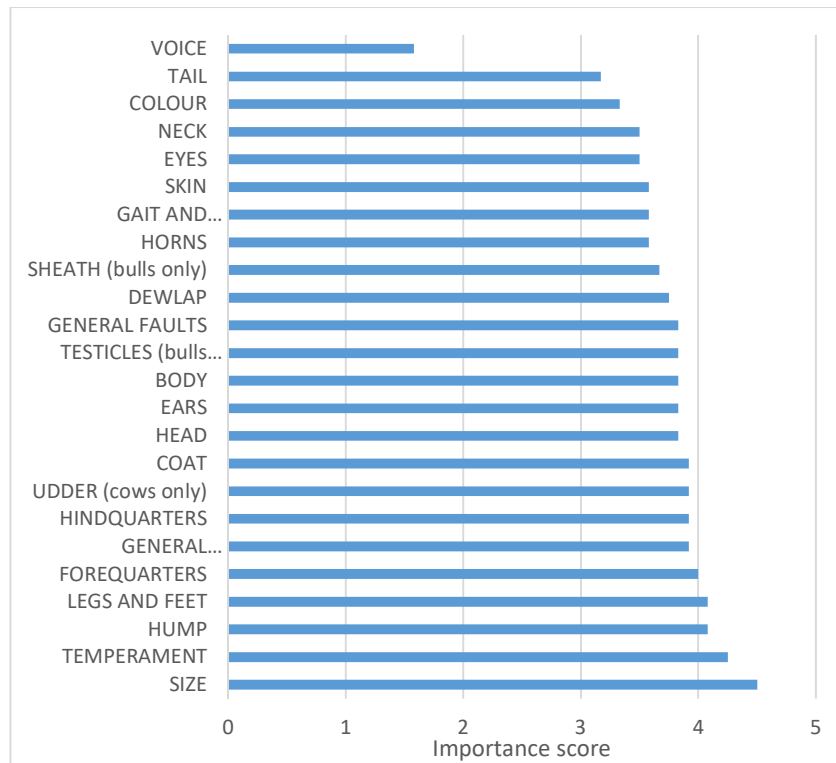
(note: traits shaded are those receiving less than 80% support from members)

Trait	Original	Suggested revision	Rationale	Support %	Importance score	Feedback
General appearance	*A robust, stylish, dual-purpose animal, active and vigorous showing breed character and vitality, well-proportioned and muscled. Bulls masculine and cows feminine*	A robust, active, general purpose, fine boned, well-proportioned and moderately-muscled animal. Bulls masculine and cows feminine	Convert 'dual-purpose' to general purpose. 'Showing breed character' removed as it has no real meaning if breed character is not also defined. 'Vigorous' removed as not fast growing or maturing breed	75	3.92	• Please don't change. The standard is the goal, this comes across as a description of a poor example of the breed. Removing the productive traits is a mistake, they should not be fine boned for their size and general purpose is not a term used in cattle. They definitely SHOULD be well-muscled, take ISA Cooper for example, it doesn't mean to the extent of euro breeds. If they are not useful for beef there is no market at all for culls which would be detrimental to both quality and popularity of the breed. • dual purpose breed. • dual purpose breed.
Temperament	*Generally alert, docile and easy to handle.*	Generally alert, docile and easy to handle. New mothers protective of calves and bulls defensive but never aggressive.	Adds additional detail on expectations of temperament.	50	4.25	• Temperament is a trait that is not easy to measure. I would prefer to use what is described in the standard for this breed. • We should remove the wording ' not aggressive' and replace with 'not known to be aggressive' • Last sentence unnecessary. A defensive bull is a cull, not something to be advertising. Same goes for protective

						cows, not a breed trait - all breeds can do this (particularly indicus) it is just culled for in most. This is only negative marketing for the breed. ● Their is a lot of changes need to be done ● It claims bulls never aggressive . It's a lie . ● "stick with original description. Agree that mothers and bulls may be defensive and this is expected but this should not be a trait that is bred for so not needed in the standard. Note: This is a very important trait but will be difficult to include in a grading system
Horns	*Relatively short horned (~30cm/12") curving outward and upwards, although down swept is seen. De-horning allowable and not penalised in the show ring. Poll cattle accepted.* *FAULT - Uneven, small thin and stumpy horns.*	Relatively short horned (~30cm/12") curving outward and upwards is preferred, but straight, forward pointing or downswept is acceptable. De-horning allowable. Poll cattle accepted. SPECIFIC FAULT - Uneven, small, thin or stumpy horns.	Indicates preference for upward and outward curving horns. Simplifies and clarifies wording and removes reference to show ring.	41.7	3.58	● The description in the standard is fine but needs to clarify the description on physical and genetic defects. ● Polled are not natural breeding back to the original? ● While the Miniature zebu (Nadudana) typically have a defined horn shape. I feel there is too much emphasis on the horns when other traits are more important. The original imports have been cross bred and we are going to see in animals a variation in horn style and shape. While this can be bred to improve it takes generations to do so. I do not wish to see horns the size they typically are on bulls on cows. Cows should be feminine and delicate. Therefore I don't believe animals should be disqualified on

	Polls must be free of scurs.	Polls should be free of scurs.	Minor grammar changes. Note: Scurs in polled cattle is a genetic issue and should be graded down to try to reduce or eliminate the gene from the national herd. (Dehorning should eventually be discouraged over breeding polled as it often produces scurs if done incorrectly)			thin horns. Also if horns are damaged will this also be a disqualification?" • This is just saying the same as before with slightly different words. Would change straight, forward or downswept back to seen (would not show a cow with those), and dehorning acceptable & not penalised if you are going to keep the changes. • It says uneven is a fault , it's not preferred but it's not a fault • I support the basic text but the fault needs more detail to distinguish physical defect (which is OK) from genetic defect (not OK)
Eyes	*Almond shaped, medium to large, dark, luminous, with soft expression.*	No change		100	3.5	• None
Ears	*Horizontal to head and pointed on ends. DISQUALIFICATION - Pendulous ears, never Brahman type*	Set horizontal to head and pointed. SPECIFIC FAULT – Long or pendulous ears.	Minor rewording. Long and pendulous ears now classed a fault that can be included in grading rather than	83.3	3.83	• Less clear than having the example of Brahman. Don't see why that had to be removed. • Not sure how the shape of an ear is important to the beast overall.

			disqualification, removed comparison to other breeds.			
Neck	*Strong and medium length.*	No change		100	3.50	• None
Hump	*Large in bulls and small in cows. Placed ahead of/or directly above shoulders. Upright and firm*	Large in bulls and smaller but still evident in cows. Placed ahead of/or directly above shoulders. Upright and firm	Slight expansion further clarifying the expectation of humps in females.	81.8	4.08	• Hump size needs to be considered to animal size. Females typically do not have 'defined' humps. Bull humps can vary in size. I feel too much focus is on the size of a bulls hump. While it looks impressive it serves no other purpose. Therefore I personally feel the hump size is not a major contributing factor in grading of the animal. • No need for "but still evident", it's a bit condescending. Just "smaller in cows" is fine. *Placed
Dewlap	*Moderately developed, free of fleshiness with few folds*	Moderately developed, loose skin running from chin to sternum	More detailed description of the expectation for the dewlap. Remove reference to fleshiness as this can occur periodically.	66.6	3.75	• I suggest to using the description written on the draft proposal, "Moderately developed, loose skin running from chin to sternum". • Dewlap are standard on zebu cattle. Some will be more pronounced i.e. Braham however on the Miniature zebu I feel they should be not overly fleshy but in proportionate of the animal. The dewlap does serve a purpose. Will only be more prominent on the Nadudana bulls.

						• Do not change. This revision achieves nothing but a description of WHAT a dewlap is - not something to put in a standard. • Loose skin running from chin to sternum is more or less the definition of a dewlap so is not needed in the standard. "Moderately developed" is sufficient but this would be benefit from photos of what a small and overly developed dewlap looks like by comparison
Forequarters	*Shoulders muscular and free moving, giving width of chest with room for heart and lung with well-developed brisket.*	No change		90.0	4.00	• Why big chest for heart and lungs ? Who made that up ?
Tail	*Long and slender, 'whiplike', usually set high at rump, extending to about the hock. Black switch*	Long and slender, 'whip like', without kinks, transitioning smoothly from the rump and extending to the hock region. Black switch.	Addition of 'without kinks' and a modified description of the set of the top of the tail (differentiating it from dairy breeds) minor rewording to remove "about the hock"	75.00	3.17	• "In this breed the tail typically extends well beyond the hock of the animal. Almost touching the ground. While a switch is typically black I do not believe any disqualification should occur if the switch is fair in colour. It is no different in humans with offspring where kids born may have black hair but parents fair. • It should say generally black switch but not only black switch • Not sure why the colour (when some stock are spotted/speckled & may have different colouration) of a tail adds or

						detracts from the animal. As an example, if this were important, a person could resort to dye if they wanted to show! Happens in the horse world. Also, no-one eats the tail. At some point, some of these cattle will be eaten. Bit of an elephant in the room, but yes, some will be eaten.
Legs and Feet	*Medium length and well proportioned. To show some strength of bone. Short pasterns and hard small black hooves with equal halves and small cleft. Found and recognised brown hooves.*	Leg medium length and well proportioned. To show some strength of bone. Short pasterns and hard, small, black hooves with equal halves and small cleft. Brown hooves acceptable.	Minor rewording.	81.82	4.08	• "Agree, hooves typically black but no disqualification should be applied for a mixed coloured hoof i.e. fair and black. It is not common but may occur. Black hooves are preferred. We need to also address the 'cleft'" • Should say thin legs with fine bone , small hooves , no big joints or thick bones
Hindquarters	*General shape above hock joint is round, wide at the pins, with good width between hips and between thurls. Rump broad, strong and rounded.*	General shape above hock joint is round, moderately wide at the pins. Rump broad, strong and rounded but not overly muscled.	Cleaner description with width and pins, hips and thurls and broad rump appearing repetitive. Indication that the breed is not strongly muscled.	83.3	3.92	• Do not change. Here is where I'm lost as to why we are suggesting a change at all. This revision changes the whole structure of the animal. We want wide at pins, hips and thurls for easy calving (something they are known for!). "Not overly muscled" is a joke, it is a mistake to remove productive traits as I stated earlier.

						• Hindquarters aren't meaty they are lean and generally always narrower than the shoulders
Body	*Good length of barrel, proportionate to height, rib cage well rounded*	No change		90.91	3.83	• Well rounded ? What does that mean ? A balloon ?
Gait and movement	*Straight, covering the ground*	Straight and smooth, covering the ground well.	Slight expansion of the description	100	3.58	•
Sheath	*Tight and firmly attached.* *DISQUALIFICATION - Descended sheath. Eg. Brahman or Santa Gertrudis type.*	Tight and firmly attached. SPECIFIC FAULT – Overly descended sheath.	Convert the descended sheath to Specific fault as the basis for disqualification in previous standard is not clear. Removed reference to other breeds	83.3	3.67	• This is fine, but again, why remove the example when the aim of this whole exercise is to clarify? Perhaps should mention that females should have a clean underside - usually cows that throw looser sheaths will show some evidence of it themselves. • There needs to be a talk what people call closely attached and what is none, you don't allow Zebu features like sheath and navel cover then you will loose Zebu features
Testicles	*Two moderately descended small testicles.* *DISQUALIFICATION - One or both undescended*	Two moderately descended, small testicles. DISQUALIFICATION - One or both undescended	Added an exception for steers.	83.3	3.83	• Would be interested in defining 'moderately decended' I feel we need to define this more clearly. Also teats on testicle/ scrotum?" • No need for "exception for steers" if that's not obvious they probably shouldn't be breeding cattle- just sounds

		(exception for steers)				silly in a standard. Also no need to state "Bulls only".
Udder	*Compact, well attached, high with even quarters. Small to medium length teats with dark pigmentation and good capacity.* *FAULT - Pendulous or divided.*	Compact, well attached, balanced with even quarters. Small to medium length teats with good capacity. SPECIFIC FAULT - Pendulous or divided.	Replace high (meaning unclear) with balanced and remove reference to dark pigmentation	83.3	3.92	• Agree with current grading however will we be also including teat placement? • Small teats - no need to lie to sell it as a milking breed .
Skin	*Dark pigmentation, black nose and rounded eyes. Found and recognised dark brown skin around eyes.* *FAULT - Pink skin*	Generally dark pigmentation, black nose leather. SPECIFIC FAULT - Pink skin around eyes or nose.	Simplified to generally dark with black nose leather (as opposed to the muzzle). Removed reference to rounded eyes which is irrelevant (may have meant around). Made fault specific to pink skin around eyes and nose due to	75.0	3.58	• Take out ""leather", not a thing. Should still be dark points - would rather this not be changed at all. No need for "Specific". It is just a fault." • Ok what if an animal has a light colour muzzle ? If it's a fault what level of fault. ██████████████████ . • Not saying its wrong; re reiterate, spotted or speckled stock may have different pigmentation. Yes it should be avoided, but shouldn't be a excluding factor in an otherwise excellent animal

			insufficient pigmentation commonly leading to cancer.			
Colour	*Any colour or combination of colours most common black, red, steel grey to almost pure white. All colours and broken colours should have black points - eyes, nose, horns and tail switch.*	Any colour or combination of colours, with or without white markings, most common - black, red, steel grey or white.	Simplified language and added white markings. Removed the second line as all points are covered in each specific trait and already considered standard for all colours	91.7	3.33	• This means exactly the same thing, not any more descriptive - why change it? Broken colours is correct term for white markings in cattle."
Coat	*Short, dense and sleek.*	Short, dense and sleek. Moderately longer winter coat is acceptable.	Added reference to longer winter coat being acceptable, as cattle are kept in cooler climates than their origins - not to be hairy year round (potential specific fault?)	83.3	3.92	• No need to change here either. We know they will grow some hair in winter but we don't show/assess them then. That is something for an info book not the standard. • Why claim that moderately long is ok when Zebu are supposed to specifically have ' short sleek coat ' .

Size						
Size	*At withers behind hump not to exceed 107cm/42" at two years of age.* *Mature bulls from 250-280kg / 500-600lb; Mature cows should be 180-230kg / 400-500lb*	Measured at point of hip, not to exceed 107cm (42") at three years of age. DISQUALIFICATION - More than 10cm over height Mature bulls 280kg /600lb or less, Mature cows 230kg/500lb or less	Not fully agreed on this as yet - 2 yrs is not an accurate height as they don't stop maturing until 3+. Change to measure at the hip like all other cattle breeds to avoid interference from hump placement. 42" is considered universal miniature size, over height considered a fault up to 10cm and disqualification after that (117cm). Minor rewording for weight in line with upper limits vs range. Trait currently has no minimum size. This was	41.67	4.50	• We consider the size of Nadudana breed as one of the most important trait to include in the standard. Other breed of cows are measured from hip of the cow which makes sense so I would like to use the method used in other breeds to avoid deviation from the normal way of measuring height of cows. • Measure at point of shoulder not hip. And typically 110cm. • Typically this breed is known between 107cms and 110cms. I feel we need to allow a percentage above the average height. While all efforts of breeders will be to adhere to the average height of the breed, we need to allow a slight variation. Percentage to be discussed with members and agreed upon. We should also consider a height too small as a disqualification. Such as below 70cms for example.The breed is not a micro mini." • Keep as shoulder measurement - far more accurate for the breed, can supply evidence of this. Would not change this section at all due to history of the breed. Disqualification for 10cm is a bit harsh - particularly without a standard measure or guaranteed accuracy. I don't know any small breed that penalises height like this as it is very subjective in the first place.

			considered by the first members survey to be the most important trait to change			• Height is measured at the shoulder not the hip for accurate height • Size is probably the most important trait for Nadudana and I am 100% committed to ensuring the the national herd has an average size within the expected size range of 91-107cm. I support switching the measure to the hip as it removes ambiguity as to where to measure height related hump. However, I am strongly opposed to disqualifying cattle based on size. Size is a quantitative trait and can be brought down by selective breeding. If an oversized animal is strong in other Nadudana traits, and especially if it is pure bred with documented breeding history, the breeder should be able to make up their mind if they want to use that animal in their breeding programme. In the case of the appendix registry crossbred with larger breeds will also need to be brought down in size. Oversized animals should be downgraded via the grading system, NOT disqualification. I also favour an ideal size range rather than just a maximum but I would not penalise undersized animals as some breeders may wish to produce micro Nadudana. I would thus propose a further modification to the Standard as follows: (1) Ideal height 91-107cm (36 to

						42"") measured at point of hip, at three years of age. Specific Fault: More than 10cm over height. I would support a category of micro Nadudana being created for animals under 91cm but this may not need to be included in the standard but we could add to the standard: Animals below 91cm shall be classed as micro Nadudana."
						• I actually agree with the height regs. But over emphasis may lead to the pushing of "micro" cattle and gets back to; what are they for? What was their original use?

Voice	Bull cough, grunt and roar. Cows to a lesser extent.	Removed	This part of the standard is redundant as this is not a specific feature of Nadudana.	75.00	1.58	• The breed has a very unique bellow.I feel it should stay, especially for the bulls. They have a very 'throaty' bellow specific to the breed. • It most certainly is a breed trait. I have had new breeders call me thinking something was wrong when they didn't sound like "normal cows". It is on the same level as temperament. • Their voice is one of their traits of the breed
Faults	Any departure from the foregoing points should be considered a fault and the seriousness with which the fault should be regarded should be in exact proportion to its degree.	GENERAL FAULTS: Any departure from the foregoing points should be considered a fault and the seriousness with which the fault should be regarded should be in exact proportion to its degree.	Recognized now as general faults as opposed to specific fault related to individual traits. Second most important to be changed by members	100	3.83	