



THE GLOBAL STANDARD
FOR LIVESTOCK DATA

Network. Guidelines. Certification.

Migrating ICAR's Guidelines to a Wiki

Update to the members

(Abstract 85)

B. L. Golden, R. G. Banks, A. R. Cromie and M. C. Burke

- Background
- Beef Guidelines Prototype development
- Opportunities
- Discussion and Next Steps

Background:

- Everyone is familiar with Wikipedia
- ChatGPT: A wiki is a website or software that allows users to collaboratively create, edit, and organize content.
- Google: 3,467 wikis in English and about 2,000 more in 16 different languages

Background:

- ICAR Guidelines currently in 22 text format documents, with editing and updating at intervals
- ICAR-BIF discussions re comparing Guidelines structure and content (2021-22)
- Wiki approach simplifies flexibility (layout, content) and participation
- Pilot project

Beef Guidelines prototype development:

- A wiki version of the ICAR Beef Guidelines now exists:
 - <http://beefwiki.icar.org>
- Maps the structure of the text document
- Development via small team
 - Bulk of work required c. 1 person working week
- Small footprint virtual machine (vmware)
- 1 core CPU at 2.2 GHz and 2Gb memory
- Ubuntu 22.04 server
- LAMP stack
- Mediawiki 1.39.1

- Navigation
 - Main page
 - Table of Contents
 - Categories TOC
 - Recent changes
 - Random page
 - Help about MediaWiki
- Wiki tools
 - Special pages

Main Page

[Main Page](#) [Discussion](#)

[Read](#) [View source](#) [View history](#) 

UNDER CONSTRUCTION

Forward:

Welcome to ICAR's [prototype Beef Guidelines Wiki](#). The content on this wiki is derived from the [March 2018 version of the Beef Guidelines](#). It is intended to grow into a production wiki over time and as an editorial organization is established. The ICAR Guidelines attempt to provide the world-wide farm livestock recording sector with detailed standards and guidelines representing the state-of-the-art for the full range of activities involved in the identification, performance recording and evaluation of farm livestock.

Beef Guidelines Sections:

- ▼ Main
 - ▶ 1. Introduction
 - ▶ 2. General
 - ▼ 3 Specific recommendations for data collection
 - 3.1 Identification
 - 3.2 Life History
 - 3.3 Reproduction and fertility of males and females
 - 3.4 Longevity Traits
 - 3.5 Live Animal Weights
 - 3.6 Live animal assessments
 - 3.7 Ultrasound Measurements
 - 3.8 Test period feeding and test arrangements
 - 3.9 Health Traits
 - ▶ 4. Organisation and execution of testing schemes
 - ▶ 5. Data transfer
 - ▶ 6. Glossary of Terms
 - ▶ 7. Literature

If you have questions or comments please contact ????

3.5. Live Animal Weights

[Page](#) [Discussion](#)

[Read](#) [View source](#) [View history](#)

The collection of live animal weights is critical to the analysis of productivity in the beef herd. Typical weights collected by producers are birth, weaning and yearling weights. It is important that these weights are collected consistently to ensure an informative analysis. Animals are typically weighed using suspension scales or electronic load cells. It is important to ensure that the weighing equipment particularly mobile scales are suitably located on a level surface. Scales should be regularly calibrated to ensure the accuracy of the recorded data. As a minimum, a scale that measures to an accuracy of 1kg/2lb should be used for birth weights and 2kg/5lb for later weights.

When weighing cattle several aspects must be considered. Birth weights are typically recorded on suspension scales. It is imperative that the calf is completely off the ground and is not obstructed in any way. It is best if the scale is mounted on a stand so that an accurate measure can be recorded. For weighing cattle on platform or suspension scales it is necessary that the scales are checked regularly for obstructions and that they are cleaned and balanced frequently.

Contents [hide]

- 1 Birth weight
- 2 Weaning weight
- 3 Post-weaning growth
- 4 Finish weights
- 5 Test weights
- 6 Chest girth circumference as a predictor of growth
- 7 Adjusted growths and weights
- 8 Recommendation for weight correction to standardized age
 - 8.1 Calculation method
- 9 Recommendation for growth traits calculation

1 Birth weight

Birth weight is the major contributor to dystocia in cattle. Therefore, collecting and analysing birth weight information is useful for many beef breeding programs. Birth weights should be collected within 48 hours of birth. Data that should be collected at birth include: Dam ID; Calf ID; birth date; birth weight; date of weighing and calving ease score. The calf should be dry and should be allowed to nurse the cow.

2 Weaning weight

- Navigation
- Main page
- Table of Contents
- Categories TOC
- Recent changes
- Random page
- Help about MediaWiki
- Wiki tools
- Special pages



8.1 Calculation method

Different situations can occur:

a. Where with the exception of birth weight, there is only one weight record available after birth:

1. let A_R be reference age
2. let W_R be weight at reference age
3. let D_B be birth date
4. let D_t be recording date t
5. let W_B be birth weight
6. let W_t be recorded weight at date t
7. let A_t be age of animal at recording date ($= D_t - D_B$)

If $A_R > A_t$

$$W_R = \frac{W_t - W_B}{A_t} \times A_R + W_B$$

Else

$$W_R = \frac{W_t - W_B}{A_t} \times (A_R - A_t) + W_t$$

b. Where there is more than one weight recordings are carried out after the birth is recorded. The following formula refers to the case of two recordings ($n = 2$). The procedure can be applied to any number n of recordings, noting that the reference age in this case should be comprised of the age intervals from two successive recordings, or, if this is not possible, should be closest to the last available record. The age range tolerance or limitation values should be specified by the recording organization, based on recording frequencies etc.

- let R_A be reference age
- let R_W be weight at reference age
- let D_B be birth date
- let D_{t-1} be recording date 1
- let D_{t-2} be recording date 2

Navigation

- [Main page](#)
- [Table of Contents](#)
- [Categories TOC](#)
- [Recent changes](#)
- [Random page](#)
- [Help about MediaWiki](#)

Wiki tools

- [Special pages](#)

- Navigation
- Main page
- Table of Contents
- Categories TOC
- Recent changes
- Random page
- Help about MediaWiki
- Wiki tools
- Special pages

Page Discussion Read View source View history

Score		Description
1	Very thin (Emaciated)	Animal markedly emaciated; bone structure easily seen over body; little muscle present; animal weak, lethargic.
2	Thin	Animal emaciated; individual spinous processes, ribs, hooks (tuber coxae), pins (tuber ischii), shoulder blades and spine all prominent, sharply defined; some muscle development; neck thin; prominent withers; shoulders sharply angular. Area around the tail-head completely sunken.
3	Less thin	Vertebral column prominent and individual spinous processes can be felt; little fat, but superspinous muscle over spinous processes apparent; ribs, pins, (tuber ischii) and hooks (tuber coxae) prominent; loin area and rump concave; little muscle or fat covering over withers and shoulders.
4	Less than moderate	Vertebral column prominent and individual spinous processes can be felt; little fat, but superspinous muscle over spinous processes apparent; ribs, pins, (tuber ischii) and hooks (tuber coxae) prominent; loin area and rump concave; little muscle or fat covering over withers and shoulders.
5	Moderate	Superspinous muscles developed and readily apparent; vertebral column can be felt; hooks (tuber coxae) rounded; rump rounded, convex; pins (tuber ischii) not visible; some fat can be felt in shoulder area region and at base of neck; can feel ribs, but not visible.
6	More than moderate	Cannot feel spinous processes easily; back becoming flat well covered; rump convex and well muscled; some fat can be felt on neck, base of neck and shoulder area; neck filled into shoulder; hooks (tuber coxae) just visible.

The following series of illustrations can serve as a guide in scoring cattle for condition (Figure 3.2).

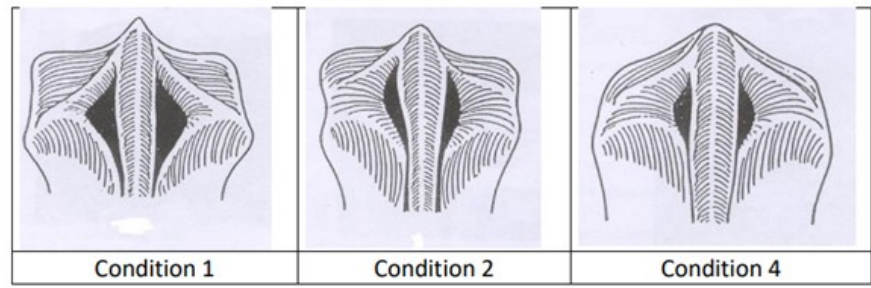


Figure 3.2. Illustration of body condition scores.

Opportunities:

- Easy updating or expanding of text, with automatic updating of indexing
- Simple change log management
- Simple administrative control
- Between page links, and links to external resources, and inclusion of references within each page
- Ability to monitor usage via Google analytics – who is using the resource, and which components of the resource are accessed
- Can become the focus or link for much more “active” participation and use
- Everyone involved gets to contribute to answering the question “what are these guidelines for?”

Next steps:

- Establish three working groups to pilot three further sections:
 - Section 2 Dairy Cattle Milk Recording,
 - Section 19 Recording Feed Efficiency
 - Section 20 Methane emission measurement
- Establish an Editorial Team - build up small team of experts who would likely be a combination of ICAR staff and selected group members from the above 3:
 - Training of the Editorial Team in the wiki approach, including definition of most cost-effective approach to upskilling working teams
- Once the Editorial Team has been established, start development of principles for policy questions including:
 - content licensing,
 - content approval and review,
 - conflict resolution procedures,
 - attribution credit,
 - policy on linking to other online content, e.g. BIF Guidelines

Questions?

Wiki Q&A For Members
Thursday May 25, 4PM
Room A

