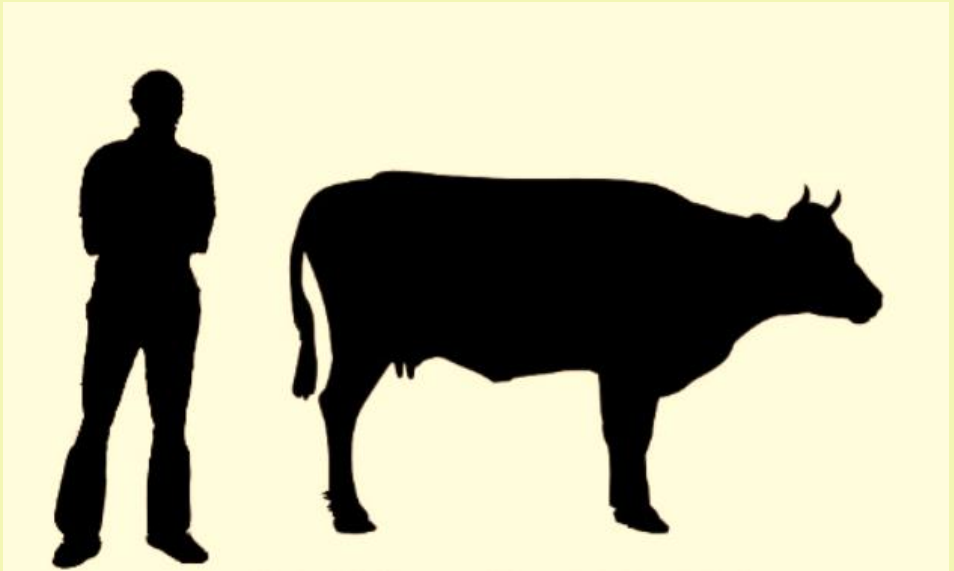


COW HANDLING, CLASSIFICATION & JUDGING



A publication sponsored by the ICSIAPL project



Learning objectives

- How to properly assess the behavior of cows
- Cows have their own body language, so our job is to understand that language well. With this knowledge it is much easier to get cows to do what you want without use of tools that are "unpleasant for the cow".
- How and when to treat a cow in some unusual situations
- There are a number of tricks that you can use for actions necessary for the cow. We should mainly think of veterinary procedures.

Basic knowledge about cattle/cow behavior



What keeps cattle calm

- Silence
- Stroking
- Talking quietly to animals
- Gentle low sounds
- Familiar people
- Working in a confident way
- Regularity



What upsets cattle

- Being hungry and or thirsty
- Loud noise e.g. shouting
- Being hit or beaten
- Being chased
- New environment
- Painful/new objects nearby
- People in their personal space, especially their head
- Sickness or injury

Keep Calm and be patient

Golden Rule number 1:

When you want to move a cow from A to B very quickly, do it very slowly.



Golden Rule number 2:

Have patience, the cow is always right.



Golden Rule number 3:

When moving cows, be **PALS**



PALS

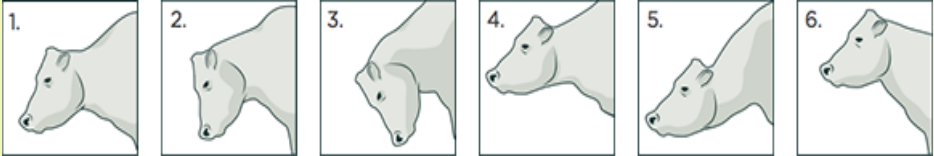
Be **P**atient
Consider the **A**ngle of your approach
Think about your **L**ocation relative to the cow
Slow the **S**peed of your movements

Cows know where to go !!!

Golden Rule number 4:

Recognize **danger** signs

Most important Danger signs to look out for:



Neutral position

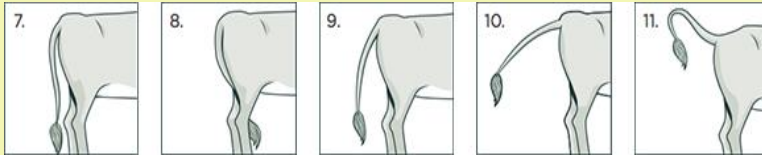
Slightly antagonistic position

Highly antagonistic position

Confident approach

Submissive approach

Alert before flight position



Grazing and/or walking

Cold/ill frightened

Threatening curiosity/sexual excitement

Galloping

Kicking or playing

Alert before flight position



Golden Rule number 5:

Cows have good memories

Memories, will stay in their mind for a very long time

Cows can very well remember how they were treated and by whom

Gentle treatment, especially when animals come into a stressful situation, will pay off in the future.

Of course I remember



Golden Rule number 6:

Cows are color blind for red and blue

Tips

Visitors like Artificial Insemination (AI) technicians and Veterinarians should wear dark clothes (no white skirts/coats) when they come near the animal

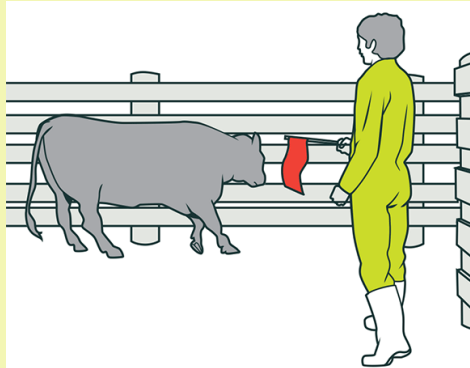
Cows do recognize light colors like yellow and white, unusual for farmers, but very common for Vets and AI technicians



Making contact with cows

In some situations, you may use a waddy or a little flag

In the eyes of the cow you are much taller/bigger. This means the cow respects you more.



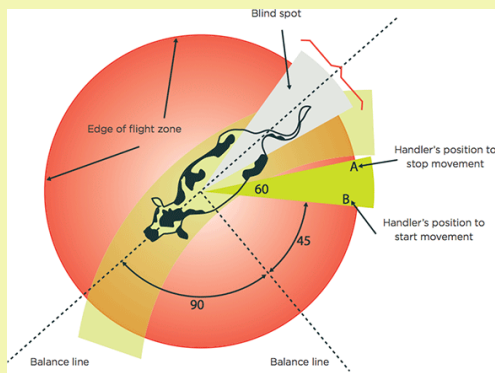
Flight Zone in Cows

Flight zone means how close you can come before the cow starts moving

While entering the flight zone, the cow will start moving

Blind spot means a position where cow can't see you

Your position in relation to the balance lines dictates whether the cow moves either forward or backwards



How to get a cow moving

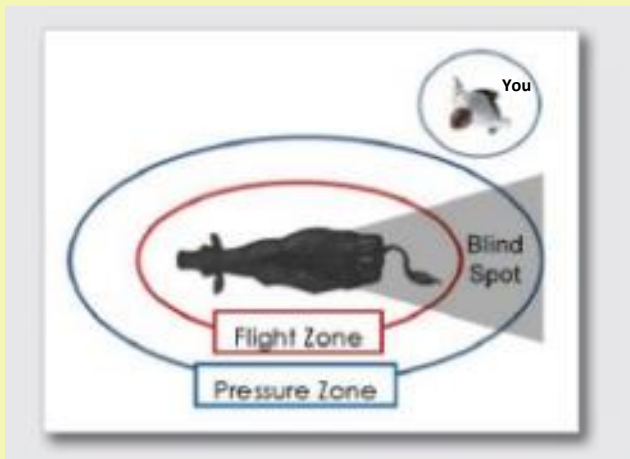
Start the cow movement by slowly approaching her pressure zone

Give the cow some time and space to react to you

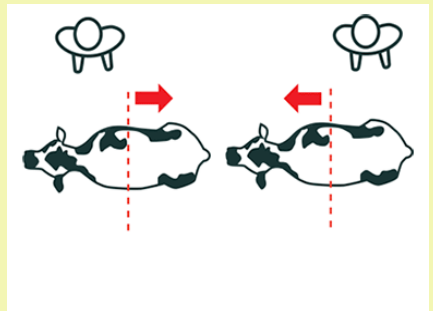
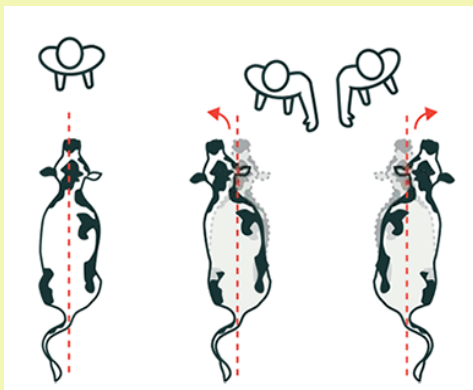
Walk at a speed that keeps you away from the cow's flight zone

Flight zones vary depending on individual cows

The angle at which you approach a cow will influence the direction she moves.



Understand the cow's movement behavior



Look at the balance lines (dotted red), where you are and what the cow is doing

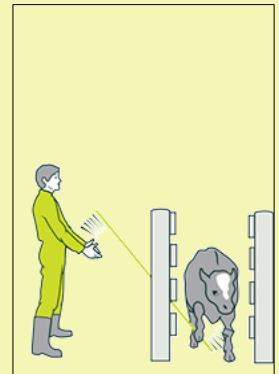
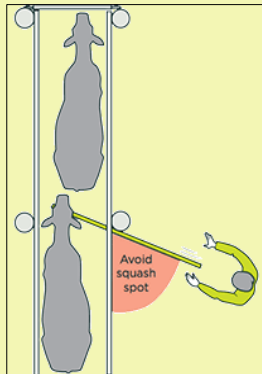
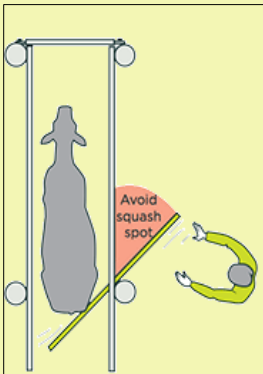
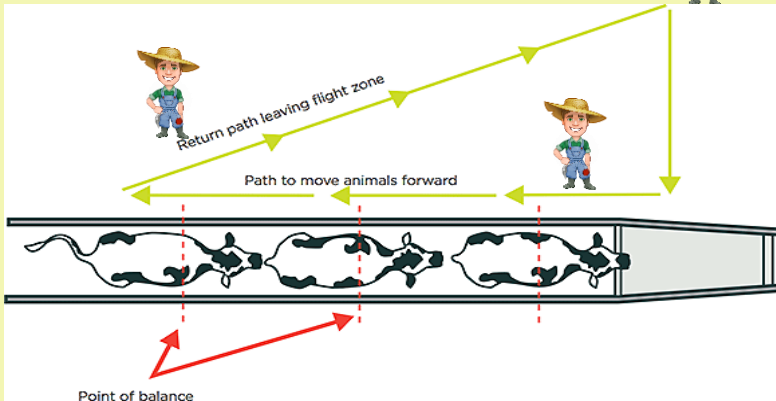
Working with cows through a crush

You want the animals to go forward...walk backwards

Return to the path by leaving the flight zone...and walk back

Animals will do exactly what you want.....go forward.

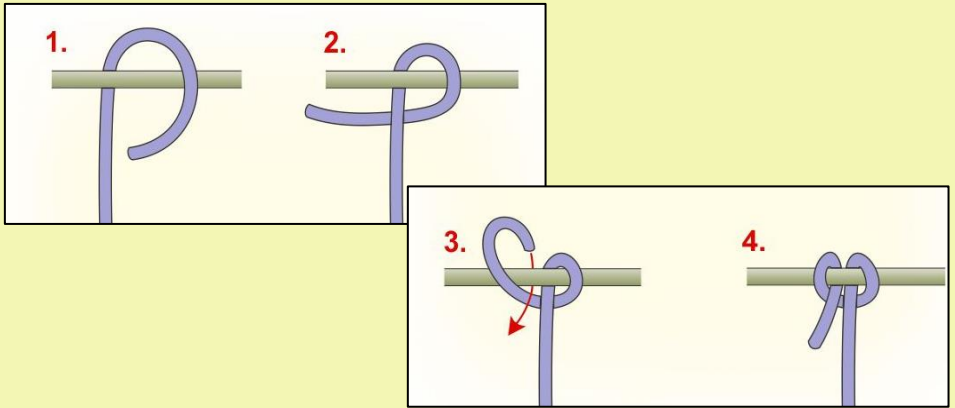
No Shouting! No hitting!



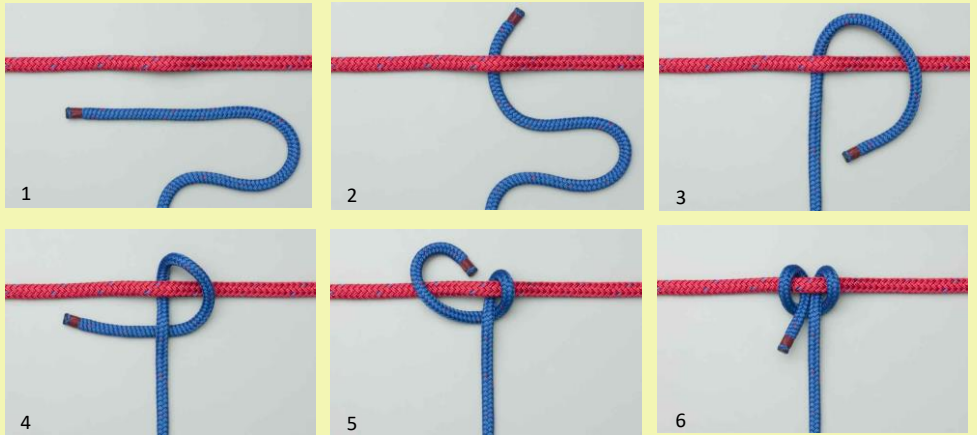
Always be aware of sudden movements, animals are strong, and avoid serious injuries. Keep out of reach of the iron bar.

Restraining Cows

How to tie a cow with **easy escape/loosening**



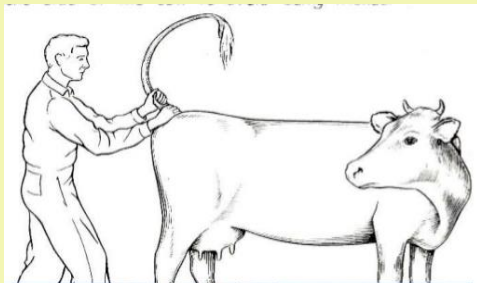
How to tie a cow using the "Cow Hitch knot"



Some individual restraining techniques

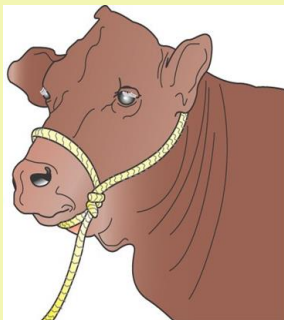
Tail Restraint

A technique applied by an assistant whenever it is necessary to distract the attention from another part of the cow's body, for example milking



Head Restraint

Examples of a proper placement of a halter



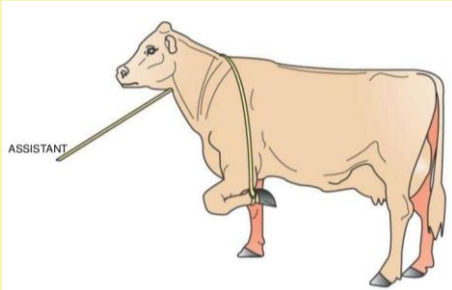
Nose Restraint

If you do not have a halter, the best way to hold a large ruminant is to take a firm grip of the nostril using the thumb and forefinger of one hand while holding the horn or the ear with the other hand.



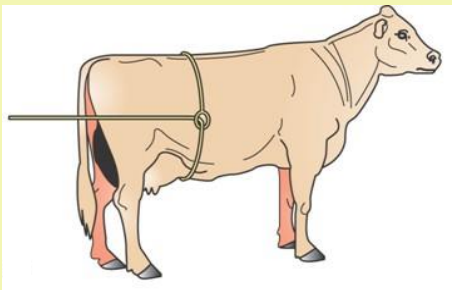
Front leg Restraint

The front leg may be raised and held off the ground for examination or treatment. It is also a good method to make the cow stand still and avoid her from kicking with the hind leg.



Flank rope Restraint

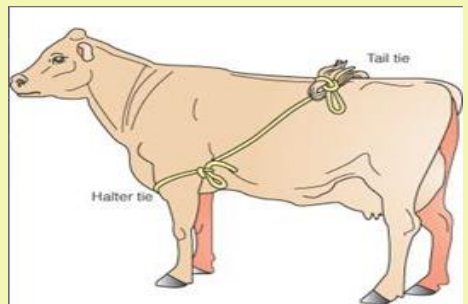
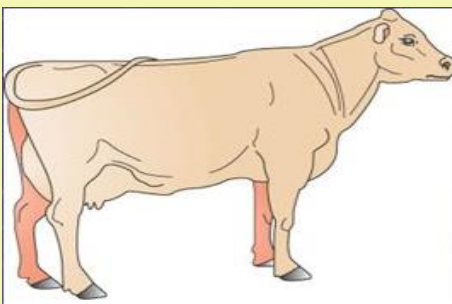
The flank rope technique helps to avoid unexpected kicking



Tail rope Restraint

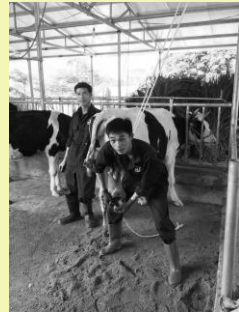
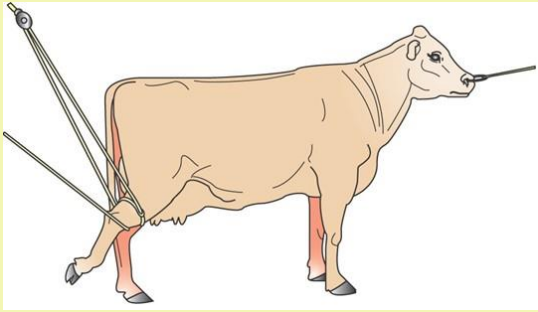
The purpose of this restraint is to keep the cow's tail out of the way during udder treatment or calving

Tie the tail over the back to the opposite for limb



Hind leg Restraint

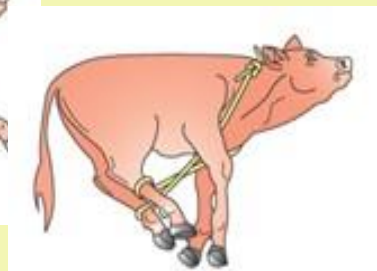
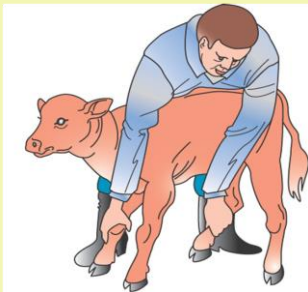
Is used for example in case of lameness/hoof trimming to make work very simple/easy.



Calf Restraint

Flanking the calf might be necessary for example when dehorning.

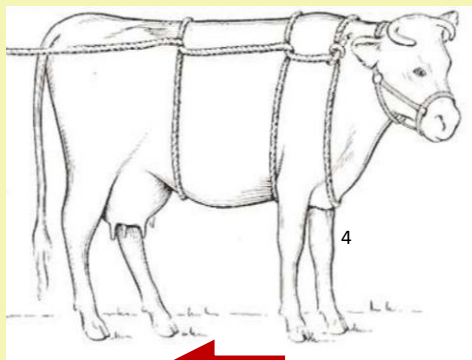
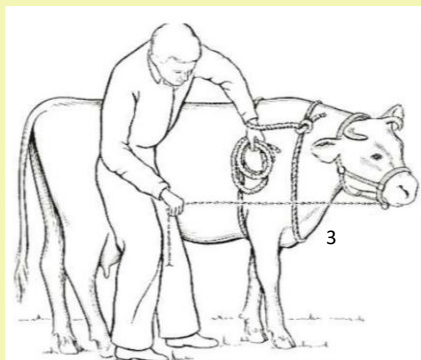
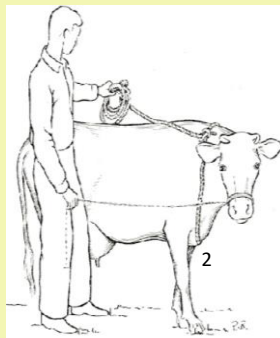
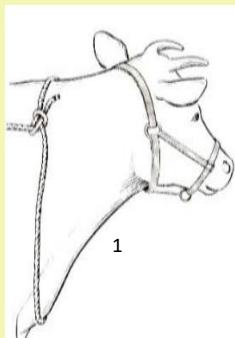
The handler's legs are used to slide the calf to the ground. Do not put your entire weight on the calf. Do not occlude the trachea.



Rope Squeeze

This the standard method of casting a cow

By pulling the rope in stage four(4) the cow will be forced to lay down.




Direction of pull



Conformation, Classification And Judging

The exterior look (conformation) of the cow is for many farmers, not the most important part to emphasize when it comes to cattle judging.

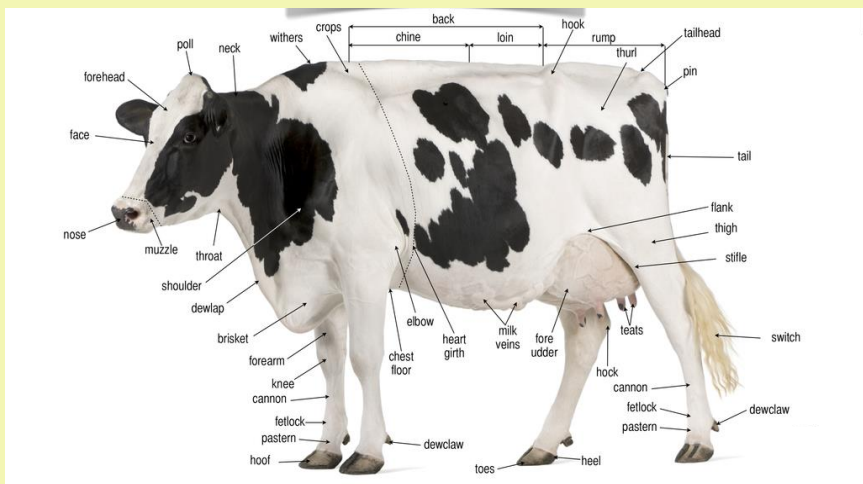
Cattle judging is important in influencing decision making e.g. during selection. Judging entails evaluating and ranking/scoring cattle based on their closeness to 'ideal' dairy conformation.

Of course, breeding values are much more reliable, but in case breeding values are not available more emphasis should be given to linear traits of the cow and bull.



Parts of a dairy cow

Familiarizing with (thorough knowledge of) the body parts of a cow is a key step in successful cattle judging.



Classification of body parts

The judging exercise can be broken down into major classes that entail specific body parts to be evaluated and ranked/scored namely;

Udder. = Tilted, Nice texture, Slightly deep

Fertility. = Steep rump angle, strong loin.

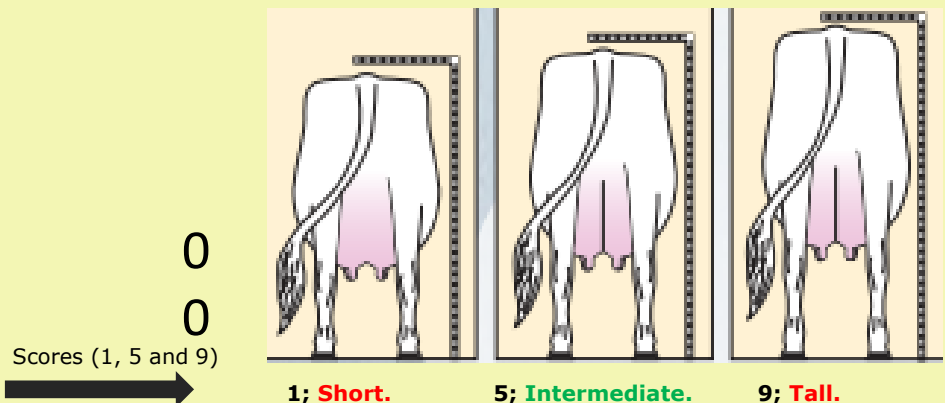
Capacity. = Wide and Deep, low stature.

Feet & **L**egs. = Straight and coarse



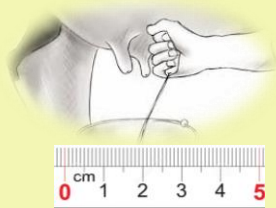
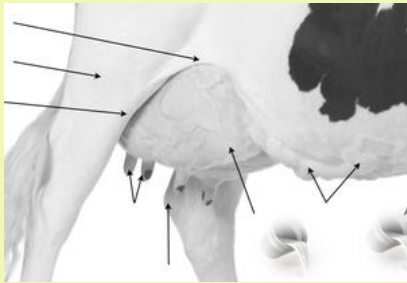
Body frame

It is important to have an impression of the body of the cow. This is done by assessing the Rump height.



Udder

Major consideration is given to the traits that contribute to high milk yield and a long productive life.



(Fore) udder should be firmly attached with moderate length and ample capacity

Udder

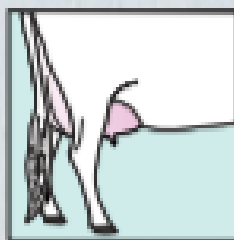


Floor and depth

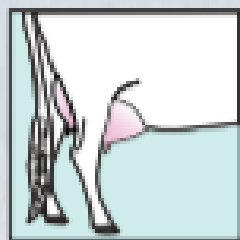
1



1; **Tilt.**



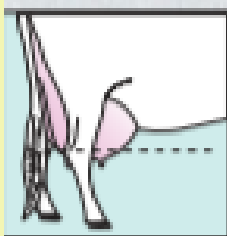
5; **Intermediate.**



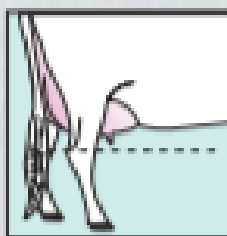
9; **Reverse Tilt**

Udder Floor

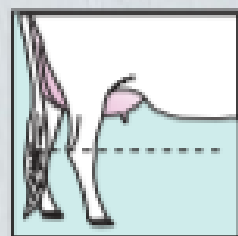
2



1; **Deep.**



5; **Intermediate.**

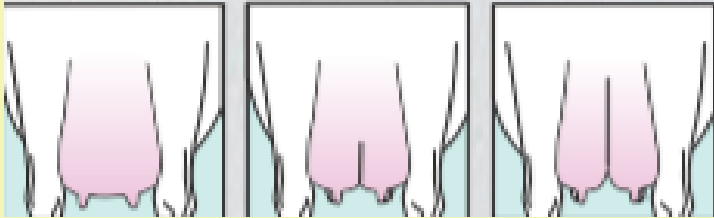


9; **Shallow.**

Udder Depth

Suspensory ligament and Udder attachment

3



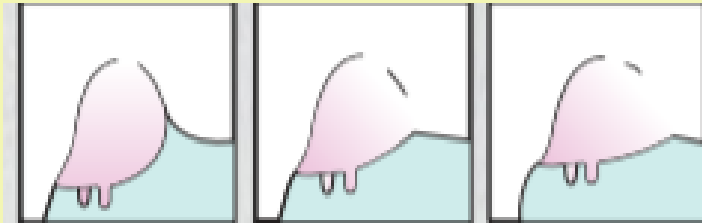
**Median
Suspensory
Ligament.**

1; **Weak**

5; **Intermediate.**

9; **Strong.**

4



**Fore Udder
Attachment.**

1; **Weak**

5; **Intermediate.**

9; **Strong**

Front and rear teats placement

5



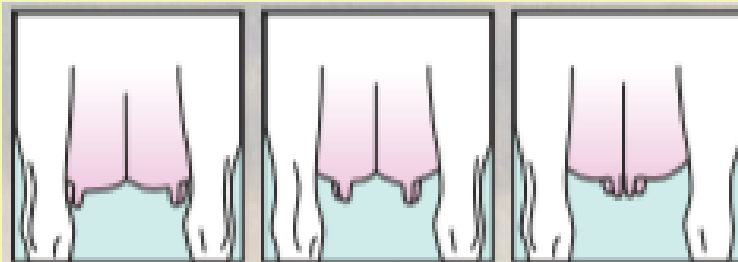
**Front Teat
Placement.**

1; **Wide**

5; **Centre.**

9; **Close**

6



**Rear Teat
Placement.**

1; **Wide**

5; **Centre.**

9; **Close**

Teat length and Udder texture

7



1; **Short.**

5; **Intermediate.**

9; **Long.**

Teat
Length.

8



1; **Fleshy.**

5; **Intermediate.**

9; **Soft**

Udder
Texture.

Rear udder height and width

9



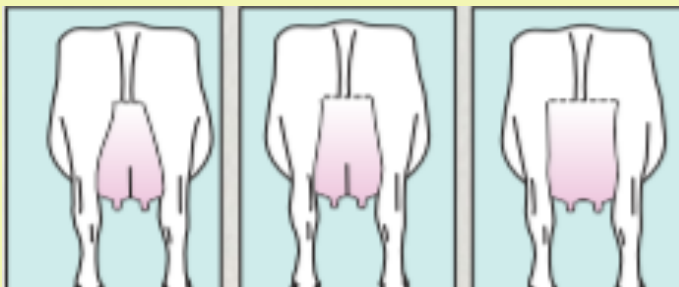
1; **Low**

5; **Intermediate.**

9; **High**

Rear
Udder
Height.

10



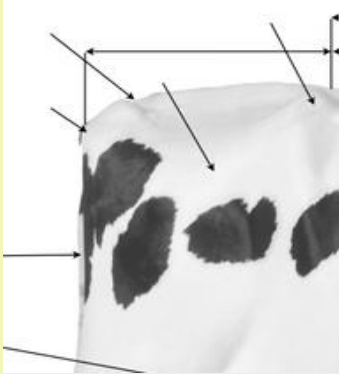
1; **Narrow**

5; **Intermediate.**

9; **Wide.**

Rear
Udder
Width.

Fertility



Assessing Thurl placement



Assessing Rump angle

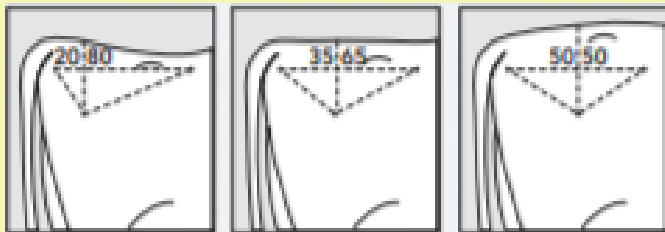
Fertility

Fertility relates to calving with ease and having annual calving



Thurl placement and Rump angle

11



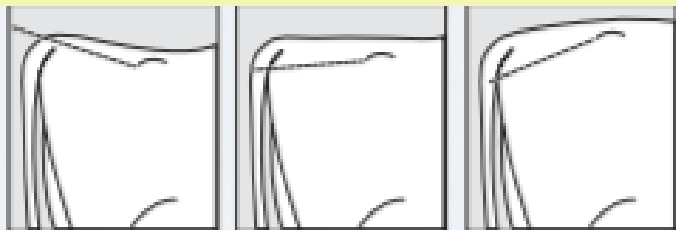
1; Back.

5; Intermediate.

9; Ahead

Thurl Placement.

12



1; High.

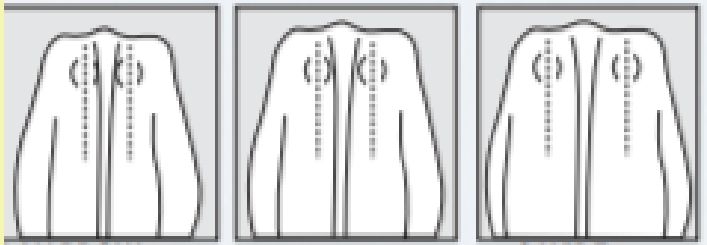
5; Intermediate.

9; Low

Rump Angle.

Rump width and Loin strength

13



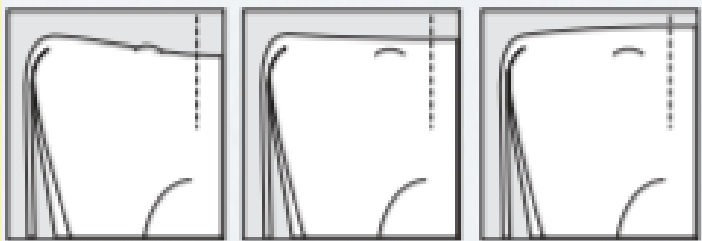
Rump Width

1; **Narrow.**

5; **Intermediate.**

9; **Wide.**

14



Loin Strength

1; **Weak.**

5; **Intermediate.**

9; **Strong.**

Capacity



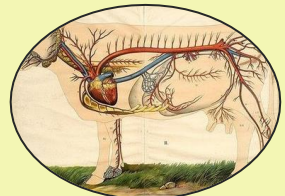
Body depth relates with enough capacity to consume roughages



1 litre milk circulation



= 400 litre blood

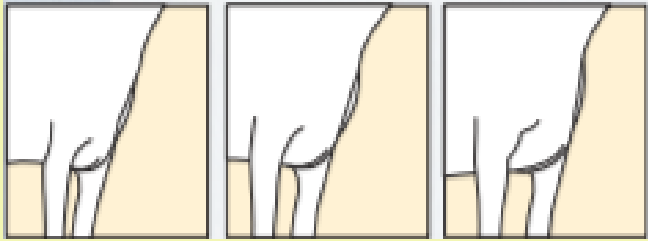


Chest width relates to enough space for heart and lungs

Capacity

Chest width and body depth

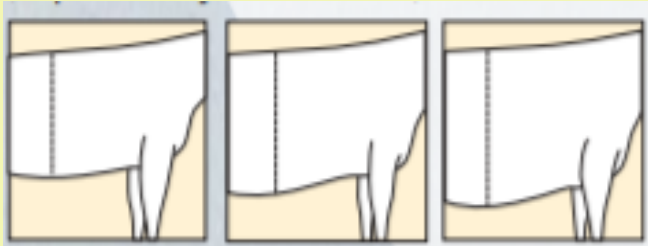
15



1; **Narrow.** 5; **Intermediate.** 9; **Wide.**

Chest Width

16

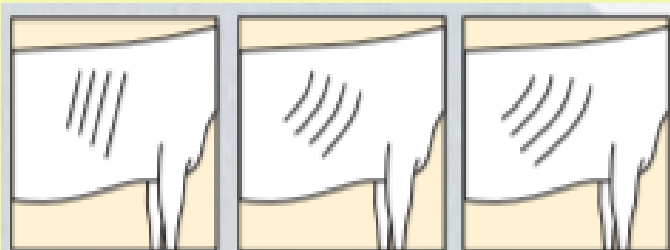


1; **Shallow.** 5; **Intermediate.** 9; **Deep.**

Body Depth.

Angularity and Body Condition Score

17



1; **Non Angular.** 5; **Intermediate.** 9; **Angular.**

Angularity.

18



1; **Low.** 5; **Intermediate.** 9; **High.**

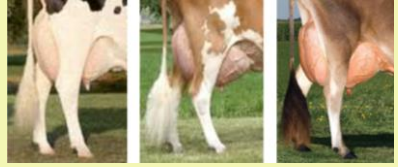
Body Condition Score.

Legs and feet



Foot angle and heel depth are evaluated

Degree of curvature is considered for Rear Leg Set side view



++

0-



=



Desired trait eases locomotion, equals walking in comfortable pair of shoes

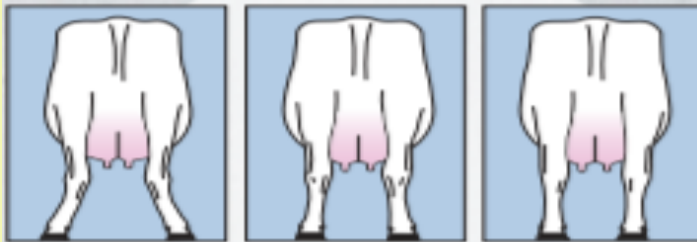
Legs & **F**eet

Locomotion is also given consideration



Rear leg set view

19



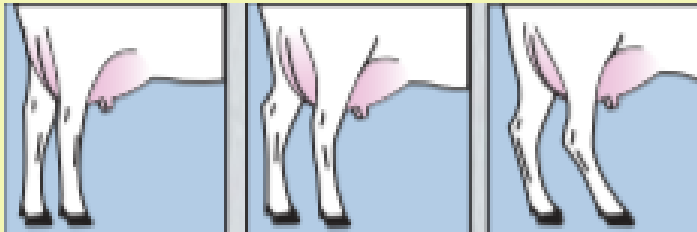
1; **Hocked inn.**

5; **Intermediate.**

9; **Straight.**

Rear Leg Set Hind View.

20



1; **Straight.**

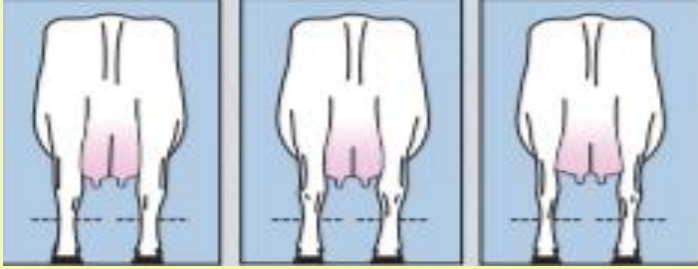
5; **Intermediate.**

9; **Sickled.**

Rear Leg Set Side View.

Bone quality and locomotion

21



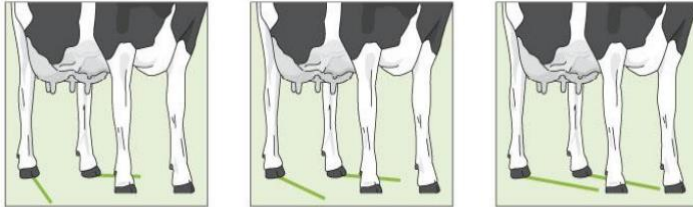
1; Coarse.

5; Intermediate.

9; Flat.

Bone Quality.

22



1; Severe abduction
short stride.

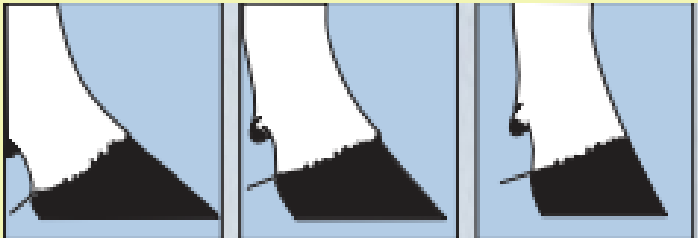
5; Intermediate.

9; No abduction
long stride.

Locomotion.

Foot angle and heel depth

23



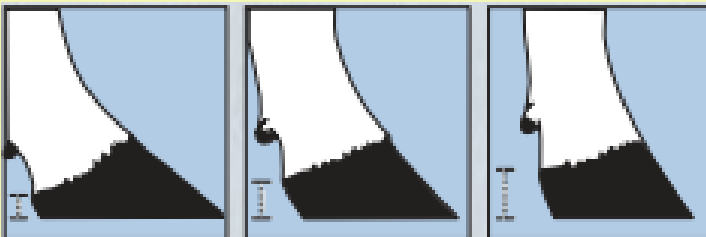
1; Low.

5; Intermediate

9; Steep.

Foot Angle.

24



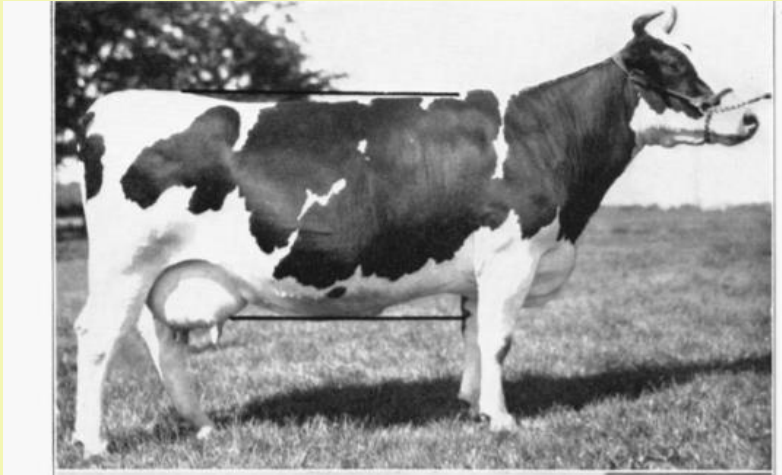
1; Shallow.

5; Intermediate.

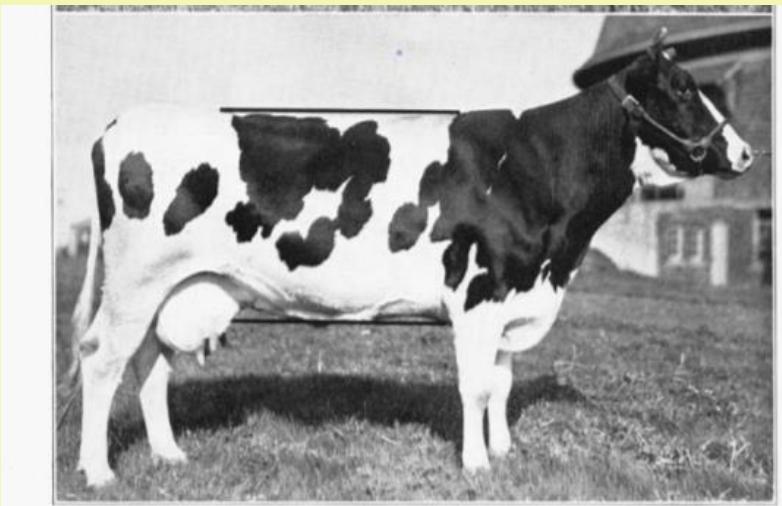
9; Steep.

Heel Depth.

Example of a cattle judging



Udder	=	-	
Fertility		=	0
Capacity		=	++
Feet & Legs	=	+	



Udder	=	---	
Fertility		=	+
Capacity		=	---
Feet & Legs	=	+	

Summary (Quick Take home)

1. Handling cows in a correct and decent way always pays back
2. Cows will treat you like you treat them
3. Cows are happy and friendly when you are happy and friendly
4. Cow handling starts when calves are young.
5. Cows have a very good memory system, they will remember/they will not forget
6. Cows have their own body language, try to understand
7. If restraining is necessary, do it quietly.





Ministry of Foreign Affairs of the
Netherlands

About the ICSIAPL Project

The Integrated & Climate Smart Innovations for Agro-Pastoralist Economies and Landscapes in Kenya's Arid and Semi-arid Lands (ICSIAPL) is a three-year (2021 -2023) project funded by the European Union (EU) and the Ministry of Foreign Affairs of the Kingdom of the Netherlands (DGIS). It is managed through a delegated cooperation with the Embassy of the Kingdom of the Netherlands (EKN) in Nairobi.

The EU fund is attached to the DeSIRA Initiative (Development Smart Innovation through Research in Agriculture).

The project is implemented by SNV Netherlands Development Organisation, SNV, (lead partner) and the Kenya Agriculture Livestock Research Organization, KALRO (research partner).

