

Type Classification(Evaluation)



تعریف تیپ

● به مجموعه اجزاء و ابعاد فیزیکی دام که قابل رویت و لمس هستند تیپ نامیده میشود.



اهداف تیپ

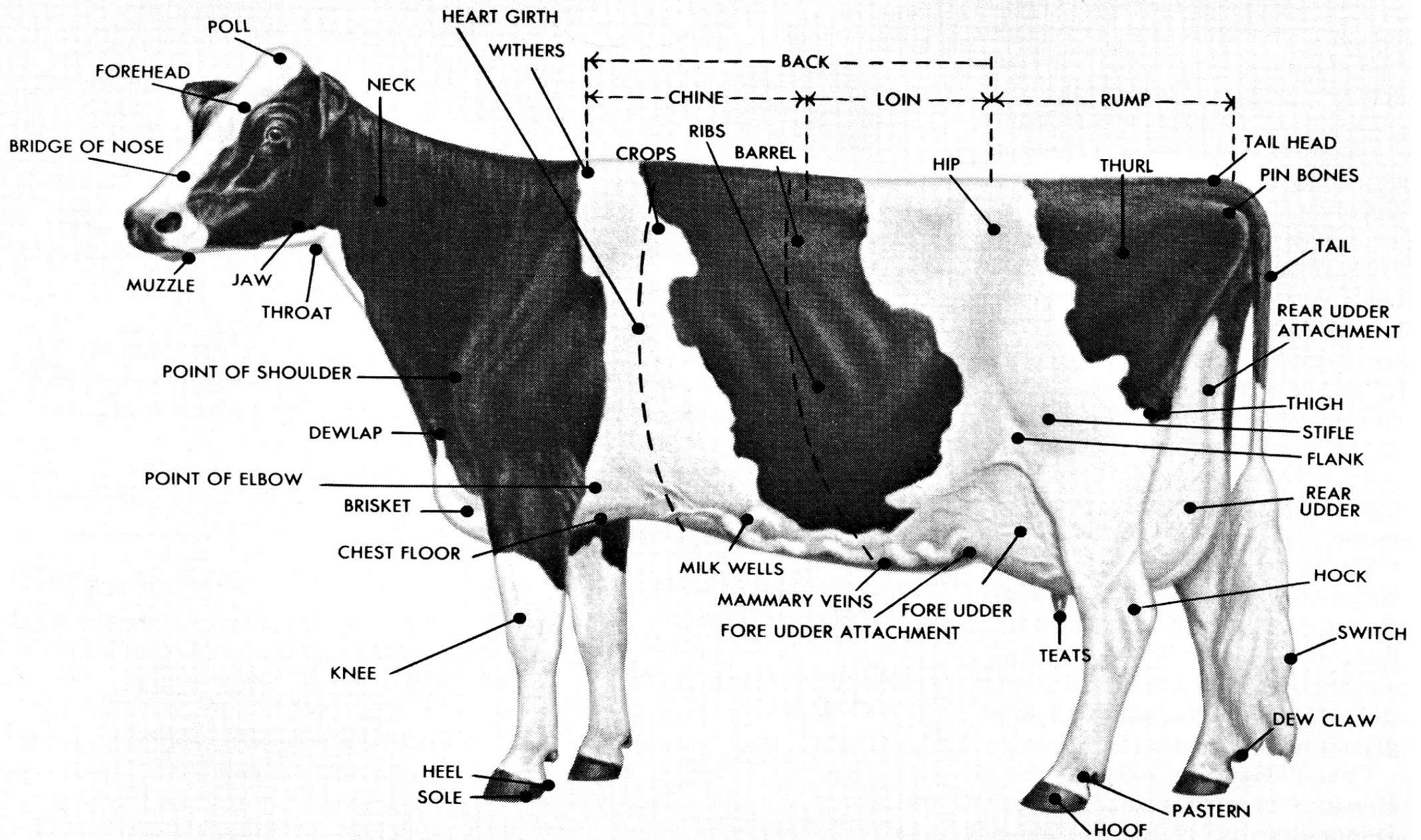
- هدف از ارزیابی تیپ به خدمت گرفتن تیپ در جهت تولید و تداوم بخشیدن به آن است.
- اهداف تیپ عبارتند از:
 - - افزایش طول عمر اقتصادی دام
 - - کاهش جایگزینها در گله
 - - اصلاح نژاد



خصوصیات فرد ارزیاب

- - توانایی بخاطر سپردن صفات گاو(تیپ) را در ذهن خود داشته باشد.
- - قابلیت بیان قسمتهای مختلف بدن گاو را در ذهن خود داشته باشد.
- - صبر و حوصله کافی در امر قضاوت داشته باشد و متاثر نشدن از ابراز عقاید اطرافیان.
- - فرد ارزیاب باید انصاف در قضاوت داشته باشد
- - فرد ارزیاب باید تعادل روحی لازم را در کار داشته باشد.
- - فرد ارزیاب باید هنر قضاوت را داشته باشد.





ردیف	صفت	ترجمه صفت	وراثت پذیری (h^2)	متوسط صفت در شکم اول
۱	Stature	قد و قامت	-/۲۲	۱۳۹/۹۹
۲	Chest width	عرض سینه	-/۲	۵/۳
۳	Size	اندازه دور سینه	-/۲۸	۱۹۲/۵
۴	Loin	قدرت کمر	-/۲۹	۶/۴
۵	Body Depth	عمق بدن	-/۲۵	۵/۵
۶	Pin Set	شیب لگن (کپل)	-/۲	۲/۲۷
۷	Rump length	طول لگن (کپل)	N/A	N/A
۸	Pin Width	عرض لگن (از نقطه pin)	-/۲۴	۱۹/۶
۹	Pear Leg Side View	نمای جانبی پای عقب	-/۲۵	۵/۲
۱۰	Pear Leg Rear View	نمای عقبی پای عقب	N/A	N/A
۱۱	Foot Angle	زاویه سم	-/۲۲	۵/۰۶
۱۲	Fore Udder Attachment	اتصال جلوی پستان	-/۲	۶/۷
۱۳	Rear Udder Height	ارتفاع عقب پستان	-/۱۹	۲۵/۸۹
۱۴	Rear Udder width	عرض عقب پستان	-/۲	۱۶/۲۸
۱۵	Suspensory Ligament	رباط نگهدارنده میانی	-/۲۲	۶
۱۶	Udder Depth	عمق پستان	-/۲۲	۵/۹
۱۷	Fore Teat Placement	استقرار سر پستانک جلو	-/۱۷	۴/۹
۱۸	Rear Teat Placement	استقرار سر پستانک عقب	-/۲۲	۶
۱۹	Teat Length	طول سر پستانک جلو	-/۲۵	۵/۹
۲۰	Angularity	زاویه دار بودن (خصوصیات شیرداری)	-/۲۲	۶/۵



Mammary System

40%

Dairy Strength

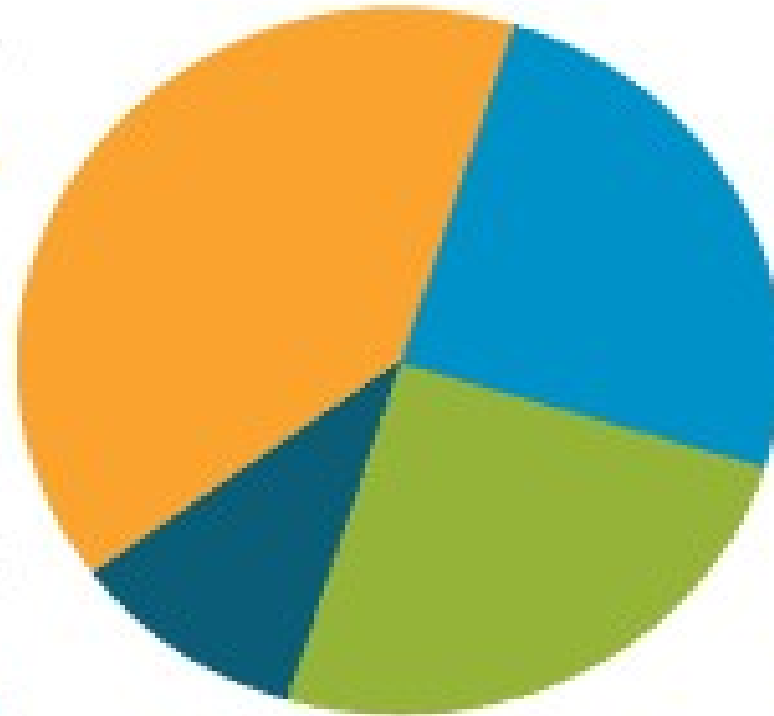
25%

Rump

10%

Feet & Legs

25%



	Udder	Feet & Legs	Frame	Rump	Dairyness
Netherlands	40	30	20	–	10
Canada	40	25	–	10	25*
U.S.	40	15	20	5	20
France	50	10	30	10	–
Germany	40	25	20	–	15
Italy	40	20	25	–	15

* dairyness and frame

Source: Veeteelt



Canadian Evaluation System

- 1 – Frame/Capacity 18
- 2 - Mammary system 40
- 3 - Feet and Leg 20
- 4- -Rump 10
- 5 - Dairy Character 12



Classification

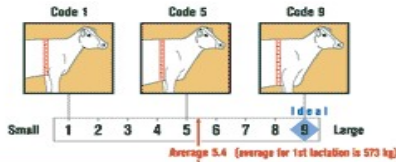
- Excellent 90-100
- Very Good 85-89
- Good Plus 80-84
- Good 75-79
- Fair 65-74
- Poor 50-64



Capacity

Size (20% weighting in Frame/Capacity)

Reference point: The overall mass of an animal is assessed by wrapping a tape weight around the fore rib behind the front legs. Kg weights are adjusted for age and stage of lactation to derive a 1 to 9 linear code.



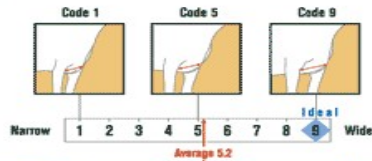
On the Proof Sheet ...

Size Small -15 -10 5 0 -5 -10 -15 Large

How genetic is it? 37% heritable

Chest Width (20% weighting in Frame/Capacity)

Reference point: When viewed from the front, chest width is assessed as the distance between the creases where the forearms join the body wall. Chest width provides the added strength for converting high forage diets.



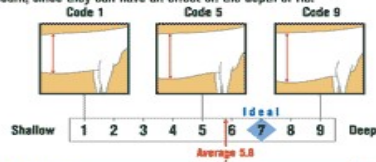
On the Proof Sheet ...

Chest Width Narrow -15 -10 5 0 -5 -10 -15 Wide

How genetic is it? 27% heritable

Body Depth (20% weighting in Frame/Capacity)

Reference point: the distance from the vertebrae to the deepest part of the rearmost rib. A code 7 (ideal) has sufficient body depth in proportion to the dimensions of the animal. A well-sprung rib with adequate depth provides space for the internal organs to operate. Feeding programs are taken into account, since they can have an effect on the depth of rib.



On the Proof Sheet ...

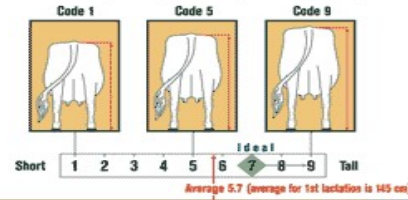
Body Depth Shallow -15 -10 5 0 -5 -10 -15 Deep

How genetic is it? 32% heritable

Frame

Stature (15% weighting in Frame/Capacity)

Reference point: Height at the rump is assessed by taking a measurement from the ground to a point on the vertebrae between the two hip bones. Higher accuracy is achieved by measuring at the rear of the animal—by avoiding the tendency of crouching at the front end. A code 7 is considered to be adequate height, receiving maximum weighting.



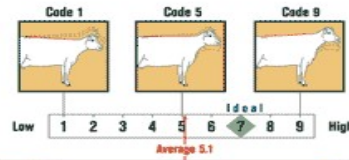
On the Proof Sheet ...

Stature Short -15 -10 5 0 -5 -10 -15 Tall

How genetic is it? 52% heritable

Height at Front End (8% weighting in Frame/Capacity)

Reference point: assessed by comparing the height of chine (just before the point of shoulder) with the height at rump. The reference point for front end remains stationary whether the head is up or down. A code 5 (level) is assigned when the heights are equal at front and rear. An ideal code 7 describes a topline that is slightly higher at the front end. Extreme height at the front end can put added pressure on the rear legs and hinder mobility.



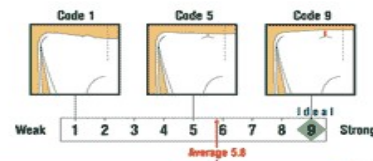
On the Proof Sheet ...

Height at Front End Low -15 -10 5 0 -5 -10 -15 High

How genetic is it? 25% heritable

Loin Strength (8% weighting in Frame/Capacity)

Reference point: A strong loin requires both height and width. The height is evaluated by comparing the level of the center vertebrae with the hip bones. The width component is an assessment of how widely the short ribs angle out to the hips. A strong, well-structured loin is the primary support (backbone) for all working parts.



On the Proof Sheet ...

Loin Strength Weak -15 -10 5 0 -5 -10 -15 Strong

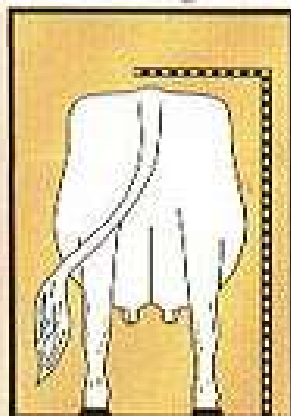
How genetic is it? 20% heritable



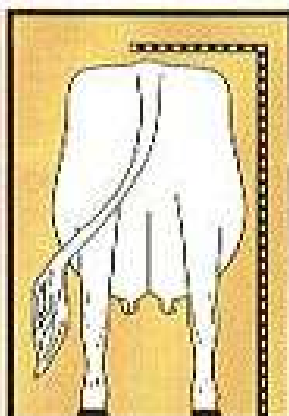
FRAME / CAPACITY

18 POINTS

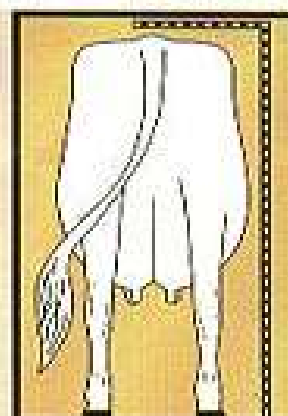
STATURE height at rump



1 EXTREMELY SHORT



5 INTERMEDIATE



9 EXTREMELY TALL

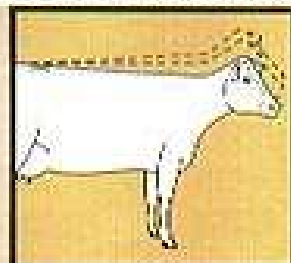
7-9

15%

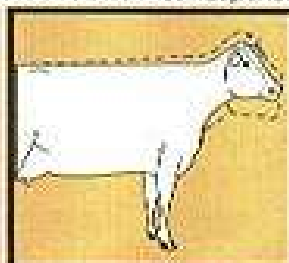
IDEAL
CODE

WEIGHT

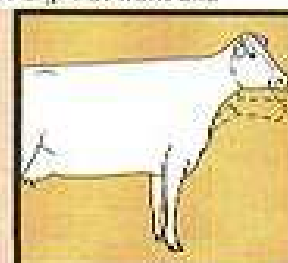
RELATIVE HEIGHT AT FRONT END corresponding height at front end



1 EXTREMELY LOW



5 LEVEL



9 EXTREMELY HIGH

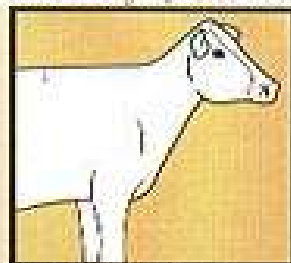
7

8%

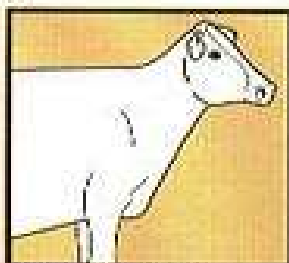
IDEAL
CODE

WEIGHT

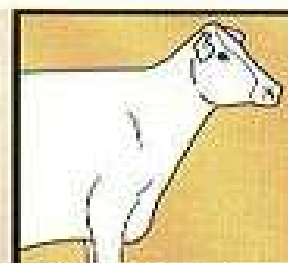
SIZE weight (mass) of animal



1 EXTREMELY SMALL



5 INTERMEDIATE



9 EXTREMELY LARGE

9

20%

IDEAL
CODE

WEIGHT



CHEST WIDTH width of chest floor

1 EXTREMELY NARROW 5 INTERMEDIATE 9 EXTREMELY WIDE

IDEAL CODE	WEIGHT
9	29%

BODY DEPTH depth of body at the rear rib

1 EXTREMELY SHALLOW 5 INTERMEDIATE 9 EXTREMELY DEEP

IDEAL CODE	WEIGHT
7	20%

LOIN STRENGTH strength of vertebrae between back and rump

1 EXTREMELY WEAK 5 INTERMEDIATE 9 EXTREMELY STRONG

IDEAL CODE	WEIGHT
9	8%

DEFECTIVE CHARACTERISTICS (double-ticked severe, receives double deduction)

DEFECT	DEDUCTION	DEFECT	DEDUCTION	DEFECT	DEDUCTION
✓ wry face.....	2.0	✓ weak back.....	1.0	✓ low loin.....	0.5
✓ undesirable head.....	1.0	✓ lacks balance.....	1.0	✓ narrow heart.....	1.0
✓ weak cross.....	1.0	✓ not well sprung.....	1.0	✓ frail.....	1.0

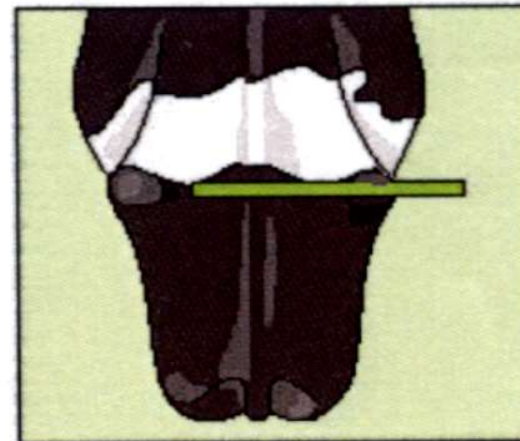
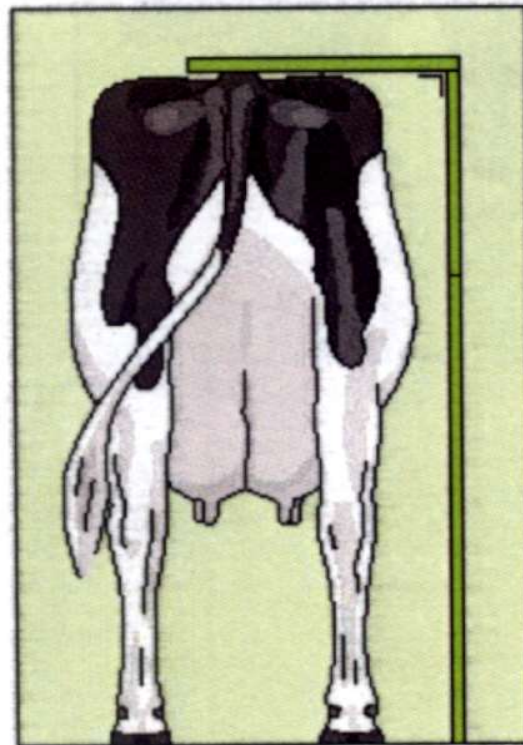


1. Stature
Ref. point:

Measured from top of the spine in between hips to ground.
Precise measurement in centimetres or inches, or linear scale.

1 Short	(1.30 cm)
5 Intermediate	(1.42 cm)
9 Tall	(1.54 cm)

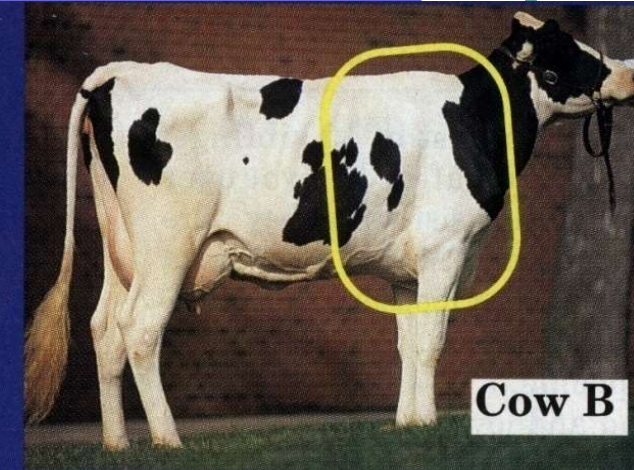
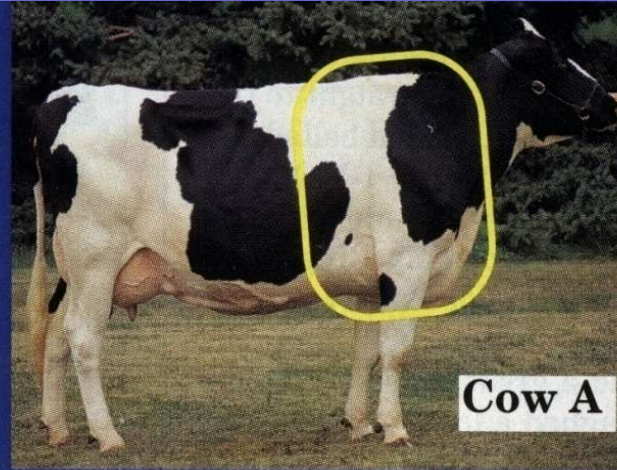
Reference scale: 1.30 cm – 1.54 cm; 3 cm per point



Front end & strength

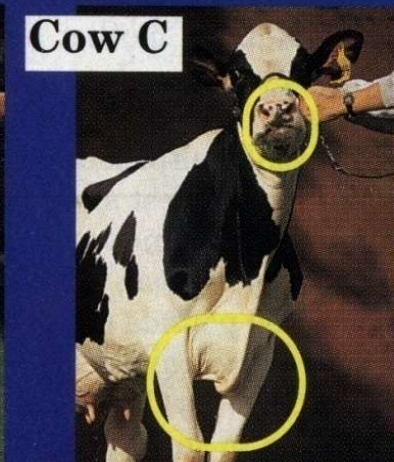
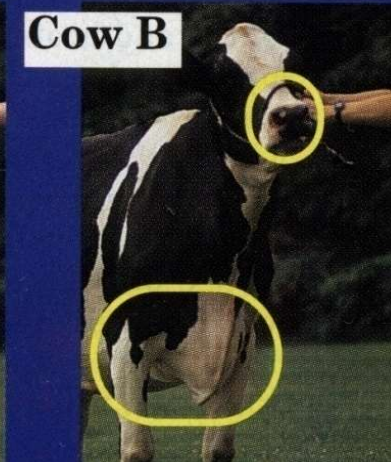
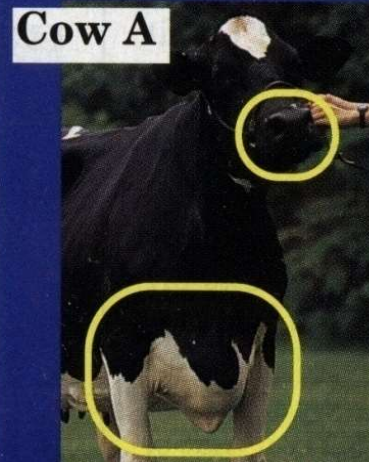
When you get to the **front end** take a look at the front legs. They should be set fairly wide apart while being straight and squarely placed. The shoulder blades and elbows of the cow should also blend smoothly into the body wall. A cow with “wing-shoulders” is a sure sign of a cow with a weak front end. The chest floor should be wide, and the crops should have adequate fullness. A cow should also appear to “walk uphill” when viewed from a little farther away. This means that she is slightly taller in her front end than her rear.

Cow A is much stronger in her front end and appears to walk more uphill than Cow B that is weak in her front end.



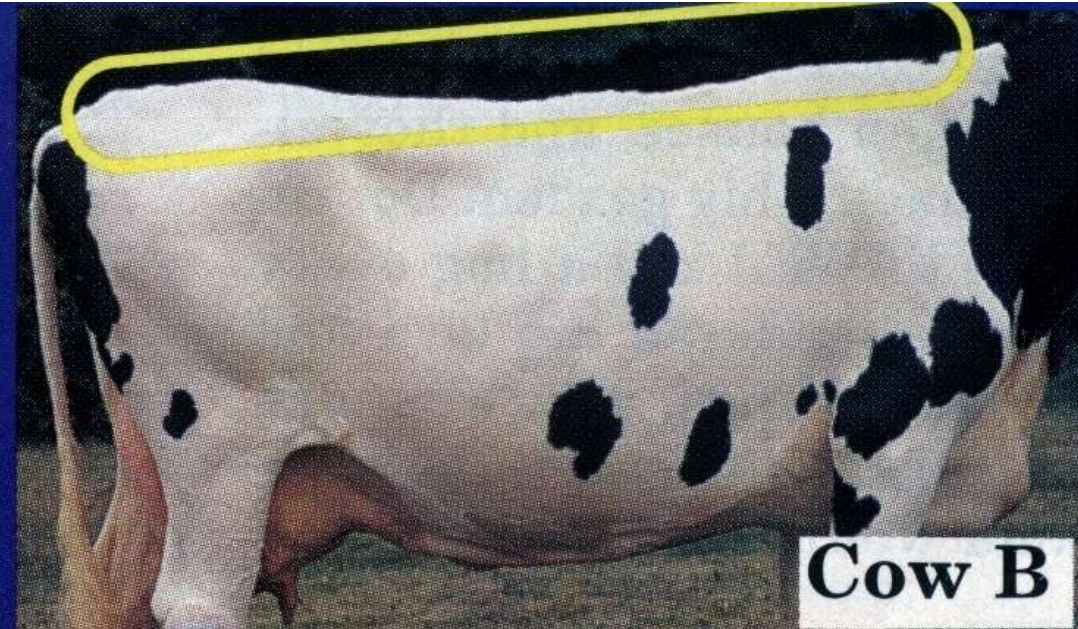
Looking at the front end, **strength** is also evaluated. Strength is a trait that plays into the body capacity and dairy character breakdowns, as well as the frame, but it is officially analyzed under the frame category. A strong cow will show strength in her bone structure and be very wide in her rump (see below), pins (see below), chest floor, and muzzle.

Cow A is an extremely strong cow, while Cow B has average to slightly above average strength while C is very narrow and frail. Which cow would you prefer to have working for you in the milking string?





Cow A



Cow B

Moving forward from the rump, we can now analyze the **back** of the cow. This would include her withers as well as her chine and loin. The cow should be straight and strong over her entire “topline” without showing signs of being dipped or “easy” in her loin. At times, cows and heifers that are close to calving may dip slightly in the loin, but broad, strong, and straight is always better regardless of condition.

Cow A is extremely strong and straight over her topline, while Cow B is a bit weak in her loin.

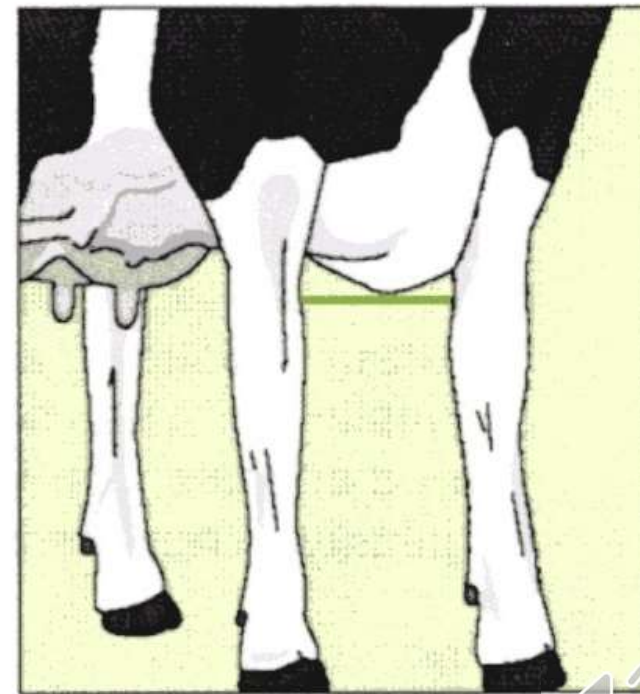
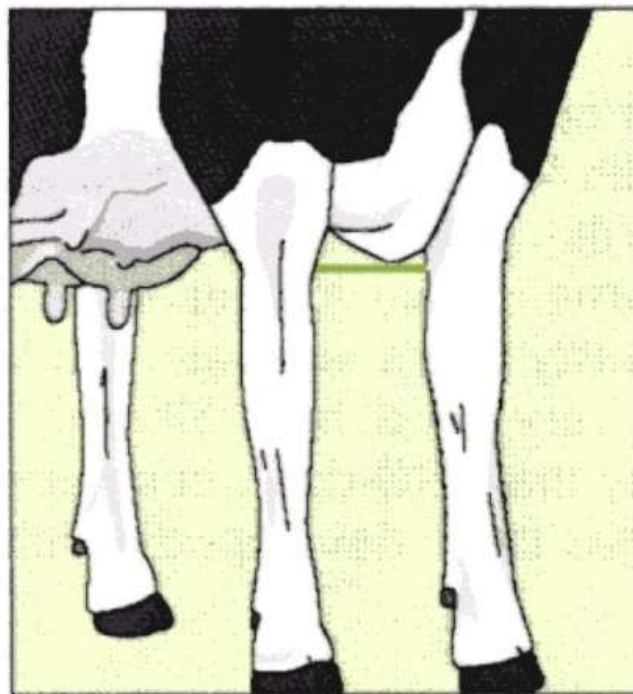


Chest Width

Ref. point: Measured from the inside surface between the top of the front legs.

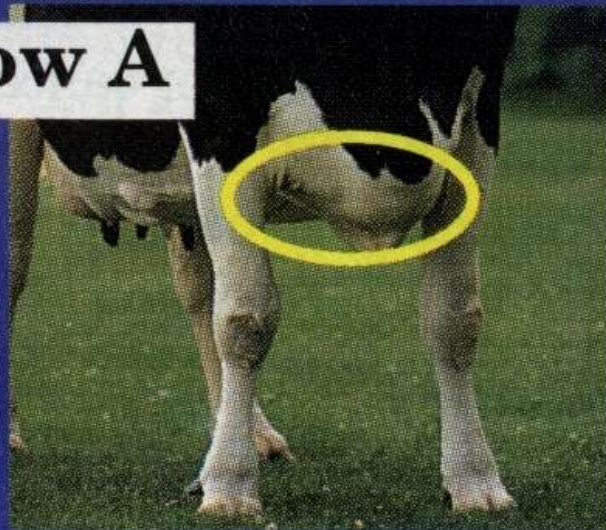
- 1 – 3 Narrow
- 4 – 6 Intermediate
- 7 – 9 Wide

Reference scale: 13 cm – 29 cm; 2 cm per point

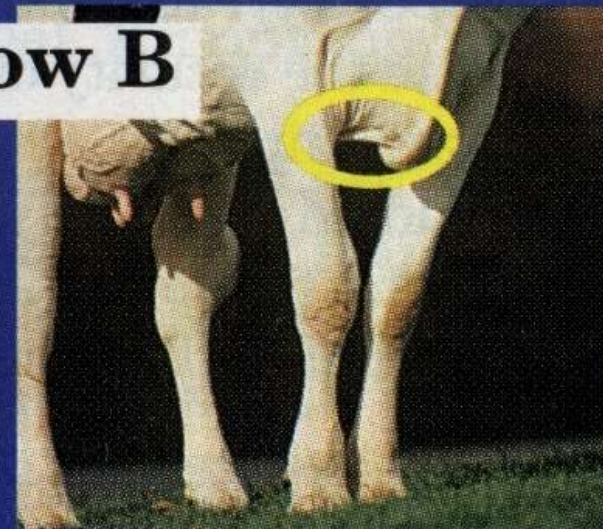


Chest width

Cow A



Cow B



The final trait to look at when analyzing body capacity is **chest width**. This naturally goes hand in hand with spring and depth of rib. A cow with a wide chest floor and strong front end will most likely have more depth and openness throughout, allowing for more body capacity and ultimately more room for feed.

You can compare the cows in the two pictures and see how much wider Cow A is than Cow B at the chest floor.

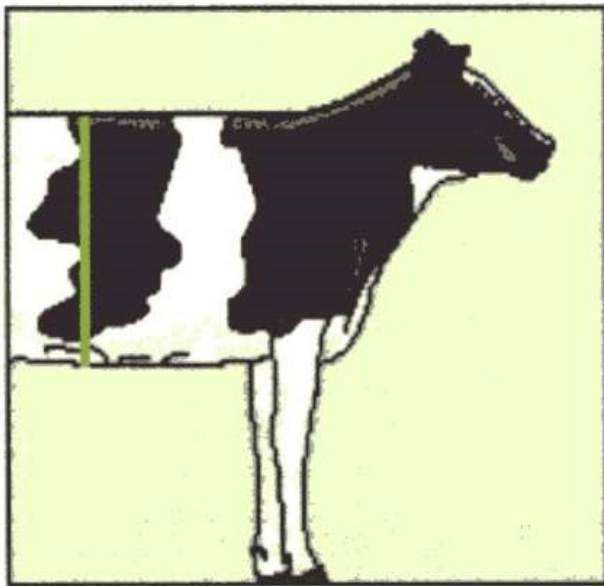


3. Body Depth

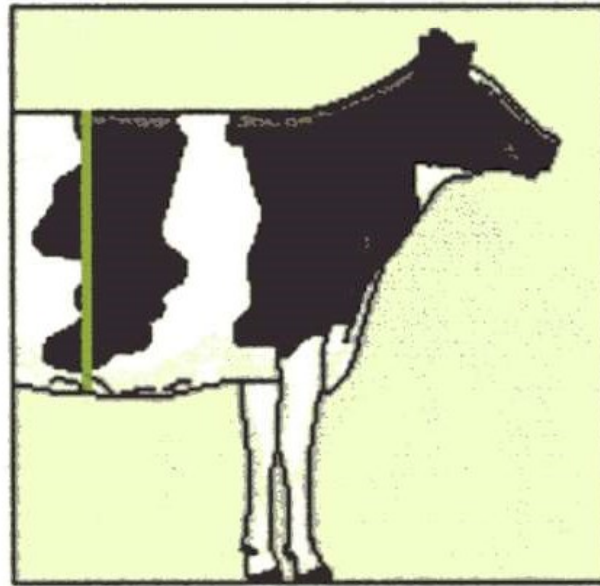
Ref. point: Distance between the top of spine and bottom of barrel at last rib – the deepest point. Independent of stature.

- 1 – 3 Shallow
- 4 – 6 Intermediate
- 7 – 9 Deep

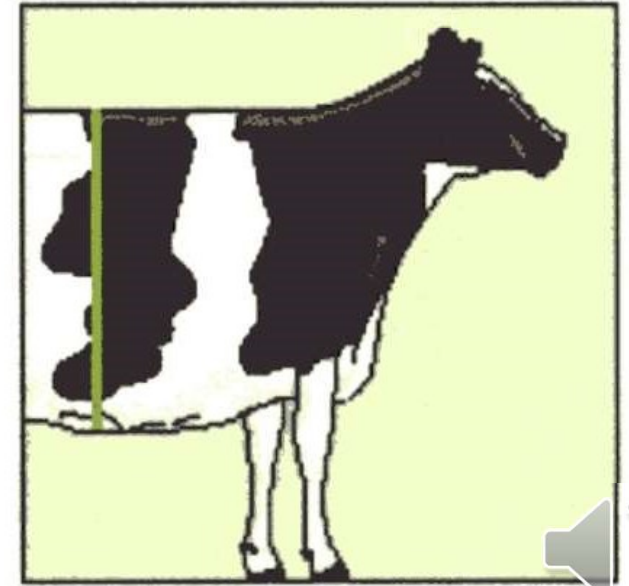
Reference scale: optical in relation with the balance of the animal



1



5



9



Body depth & spring of rib

The first trait to look at when analyzing body capacity is the **barrel**. The barrel is evaluated by **body depth** and spring of rib. Body depth simply measures a cow's depth of rib, or how much room a cow has from the top of her back to the bottom of her barrel.

Compare Cow A to Cow B. Cow A has much more depth of rib than Cow B, and will be able to consume a lot more feed and most likely produce a lot more milk.

A good way to remember body depth is to think about "filling" a cow or a heifer when you are at a show. You want to "fill" the cow so it appears that she has a lot of depth and spring of rib. She will naturally look wider and deeper when she is full of feed and water.

Spring of rib is another trait that falls under body capacity. It is best to measure spring of rib by standing behind the cow. This way, you can get a good look at how much the ribs "spring out" from the side of the cow. The more rib you can see from behind, the better.

When looking at the pictures, you can see that Cow A has much more spring of rib than Cow B.

One other point to remember is that a cow's body capacity will gradually increase with age, so don't be too worried about younger cows that seem to lack a little capacity.

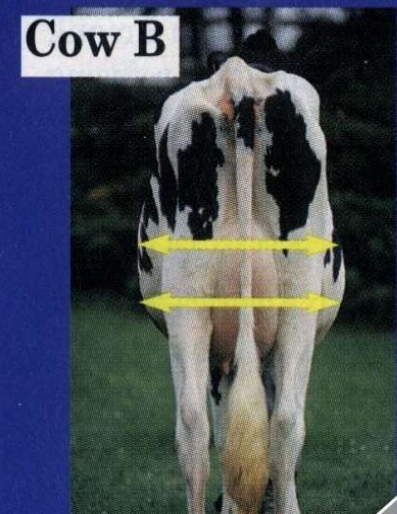
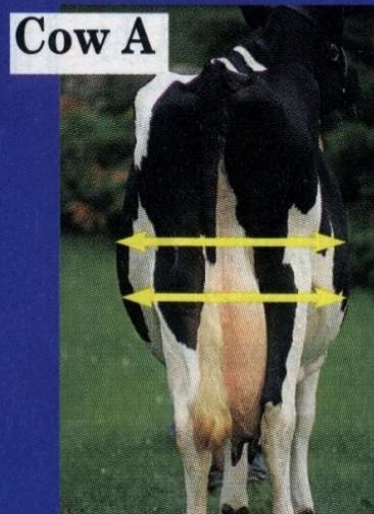
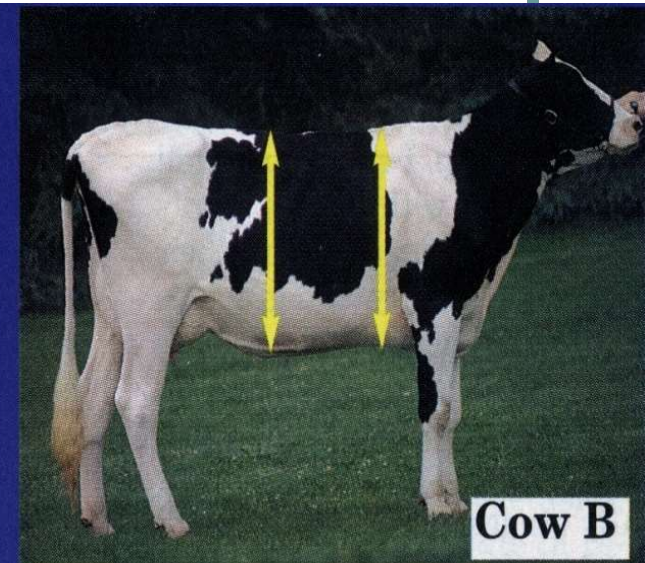
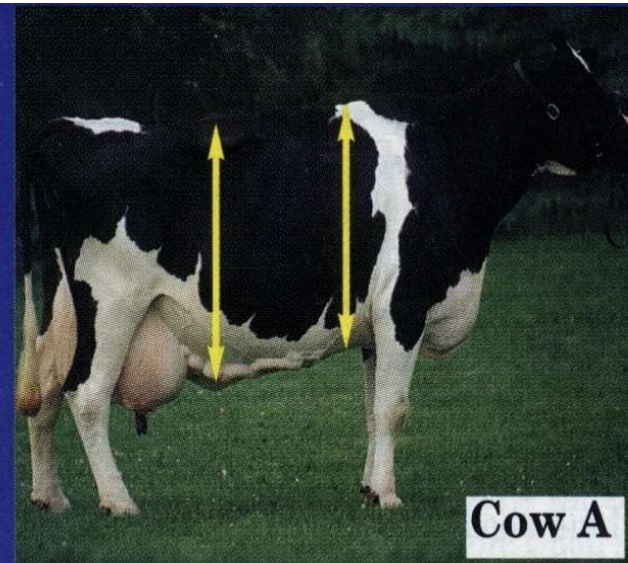
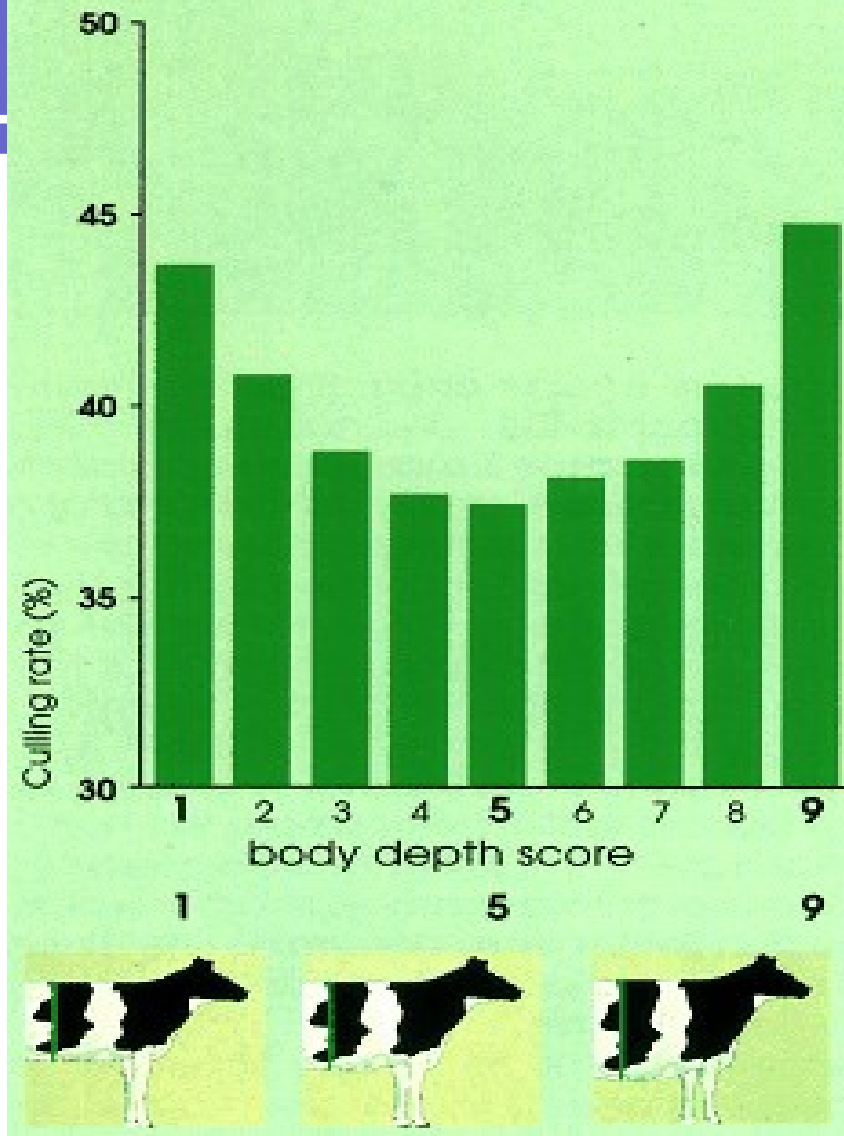


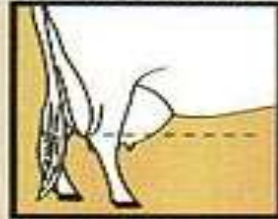
Figure 1 The relation between body depth score with the culling rate (adjusted for herd-year-season effect and production level)



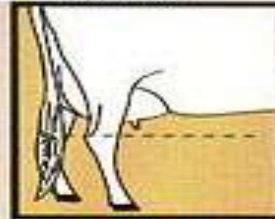
MAMMARY SYSTEM

40 POINTS

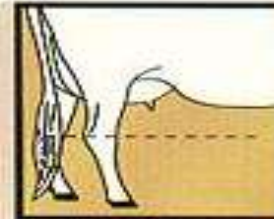
UDDER DEPTH from hock to floor of udder



1 EXTREMELY DEEP



5 INTERMEDIATE



9 EXTREMELY SHALLOW

5

IDEAL
CODE

6%

WEIGHT

UDDER TEXTURE softness and expandability



1 EXTREMELY FLESHY



5 INTERMEDIATE



9 EXTREMELY SOFT

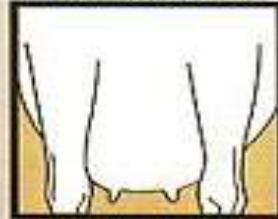
9

IDEAL
CODE

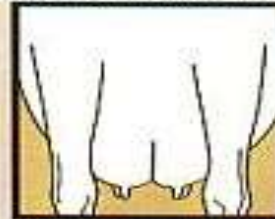
7%

WEIGHT

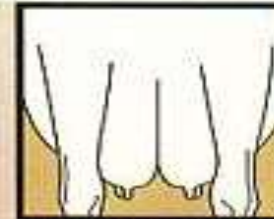
MEDIAN SUSPENSORY depth of cleft [fore/rear]



1 EXTREMELY WEAK



5 INTERMEDIATE



9 EXTREMELY STRONG

9

IDEAL
CODE

7%

WEIGHT

FORE UDDER [Click here](#)

35%

REAR UDDER [Click here](#)

45%

DEFECTIVE CHARACTERISTICS if double-ticked severe, receives double deduction

DEFECT	DEDUCTION
✓ tilt	1.0
✓ reverse tilt	0.5

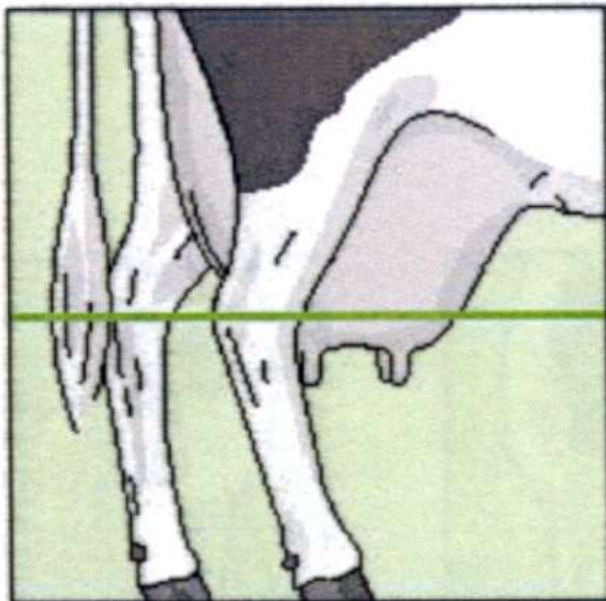


13. Udder Depth

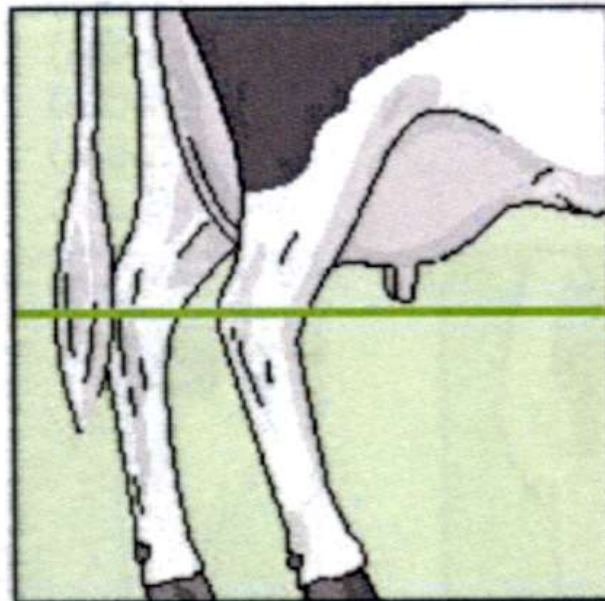
Ref. point: The distance from the lowest part of the udder floor to the hock.

- 1 Below hock
- 2 Level with hock
- 5 Intermediate
- 9 Shallow

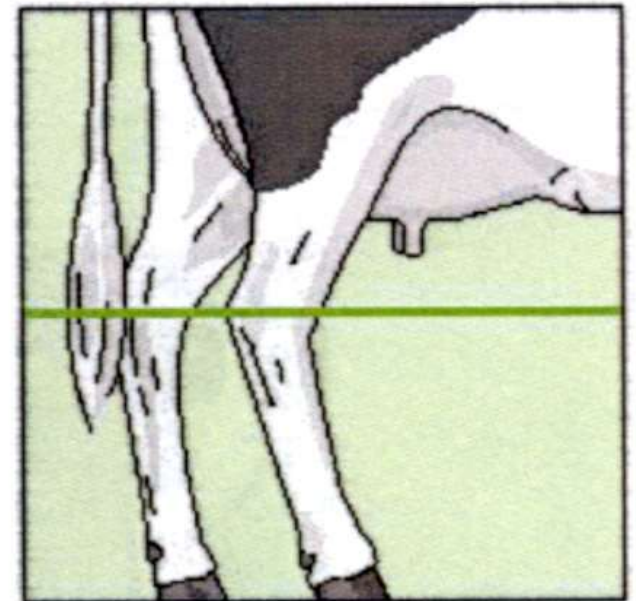
Reference scale: level=2 (0 cm); 3 per point



1



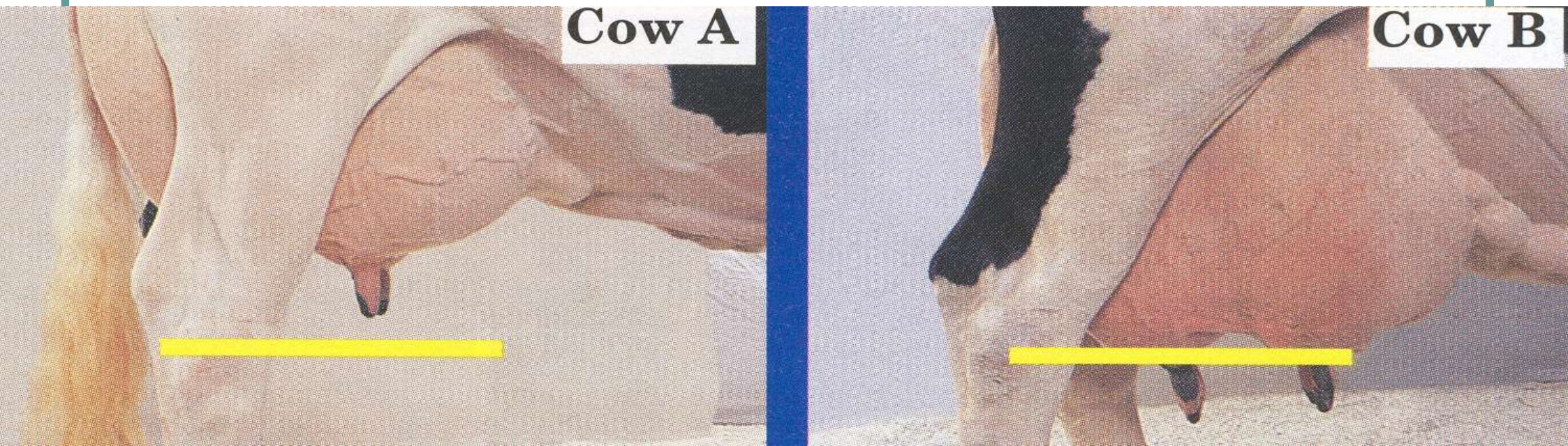
5



9



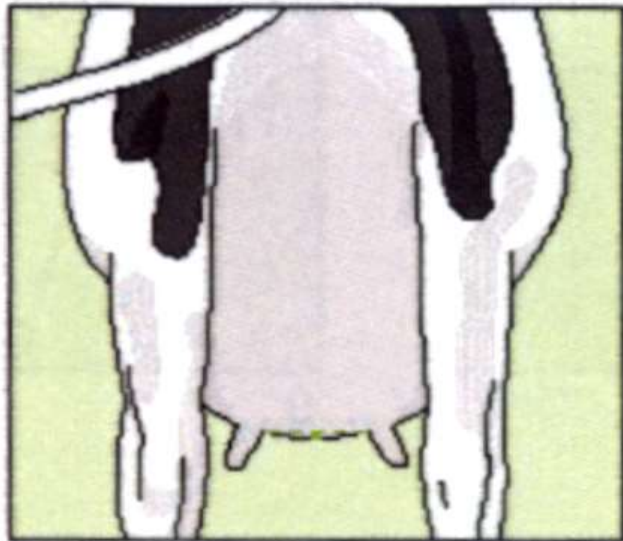
Udder depth



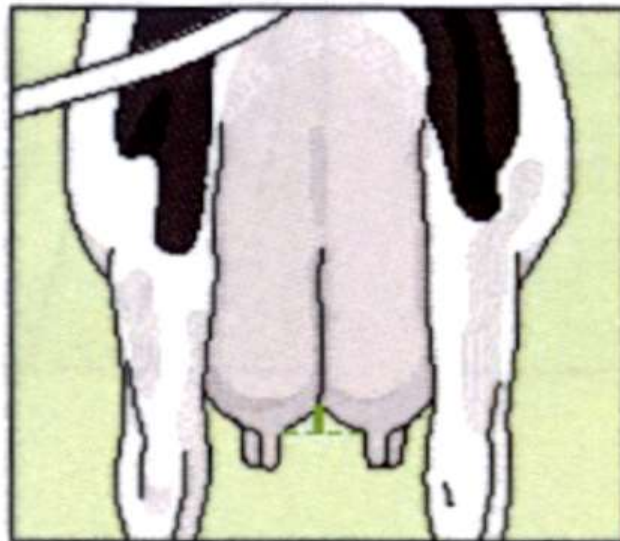
15. Central Ligament

Ref. point: The depth of cleft, measured at the base of the rear udder.

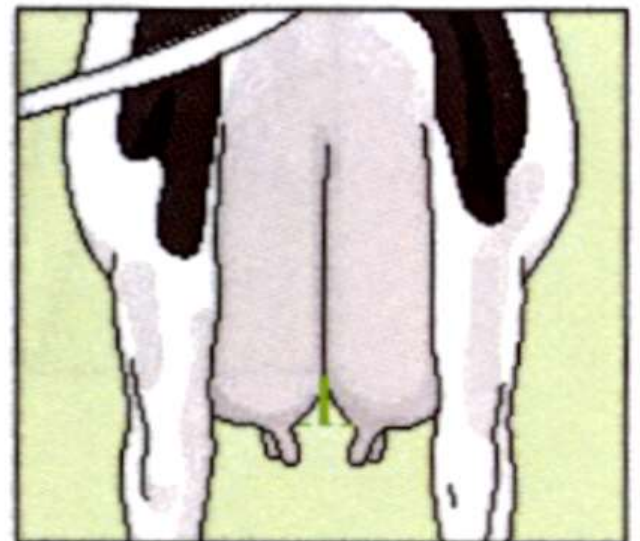
1	Convex to flat floor	(+1 cm)
2		(+0.5 cm)
3		(+0 cm)
4	Slight definition	(-1 cm)
5		(-2 cm)
6		(-3 cm)
7	Deep definition	(-4 cm)
8		(-5 cm)
9		(-6 cm)



1



5

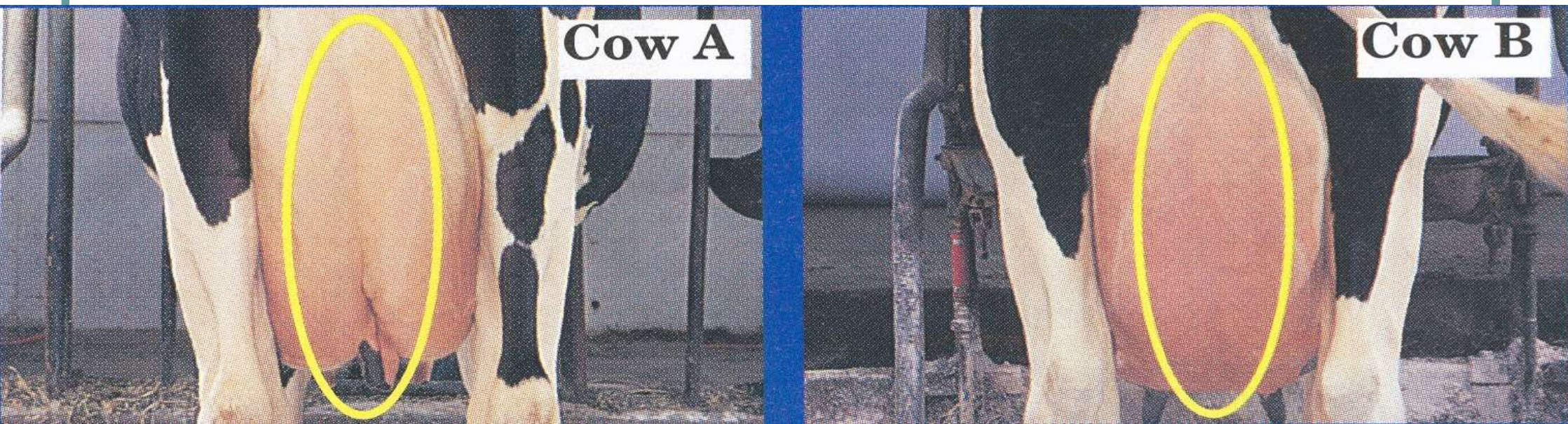


9



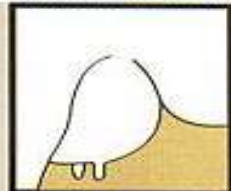


Udder cleft



FORE UDDER

FORE ATTACHMENT attachment to abdominal wall



1 EXTREMELY WEAK



5 INTERMEDIATE



9 EXTREMELY STRONG

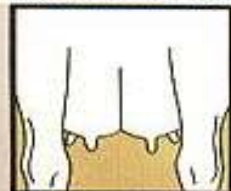
9

45%

IDEAL
CODE

WEIGHT

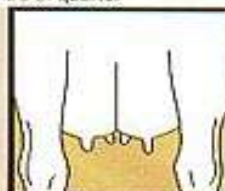
FRONT TEAT PLACEMENT teat placement from centre of quarter



1 EXTREMELY OUTSIDE



5 CENTRE



9 EXTREMELY INSIDE

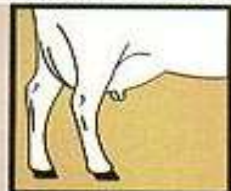
6

20%

IDEAL
CODE

WEIGHT

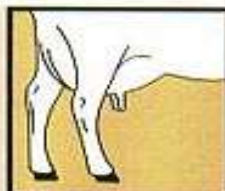
FRONT TEAT LENGTH average length of teats



1 EXTREMELY SHORT



5 INTERMEDIATE



9 EXTREMELY LONG

5

5%

IDEAL
CODE

WEIGHT

UDDER DEPTH from mammary system

5

8%

UDDER TEXTURE from mammary system

9

12%

MEDIAN SUSPENSORY from mammary system

9

10%

DEFECTIVE CHARACTERISTICS if double-ticked severe, receives double deduction

DEFECT	DEDUCTION	DEFECT	DEDUCTION	DEFECT	DEDUCTION
✓ bony fore.....	1.0	✓ fore short.....	1.0	✓ front webbed.....	1.5
✓ heavy fore.....	1.0	✓ front teats not plumb...	1.0	✓ blind fore.....	3.0
✓ fore unbalanced.....	1.0				



10. Fore Udder Attachment

Ref. point: The strength of attachment of the fore udder to the abdominal wall.
Not a true linear trait.

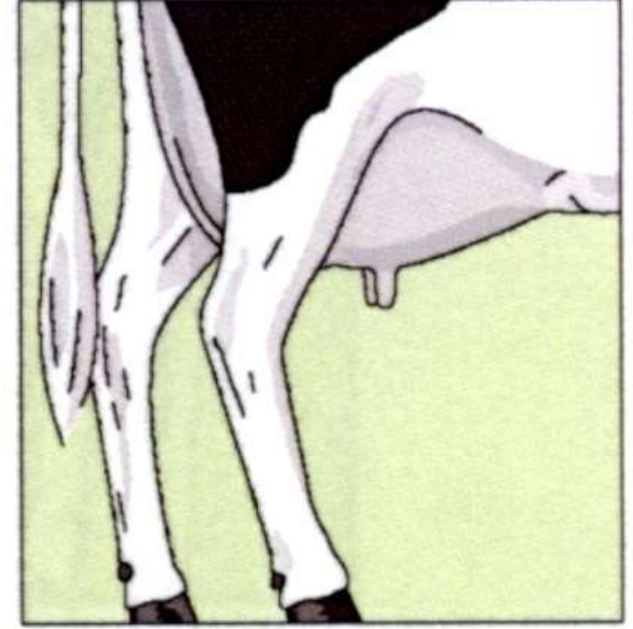
- 1 – 3 Weak and loose
- 4 – 6 Intermediate acceptable
- 7 – 9 Extremely strong and tight



1



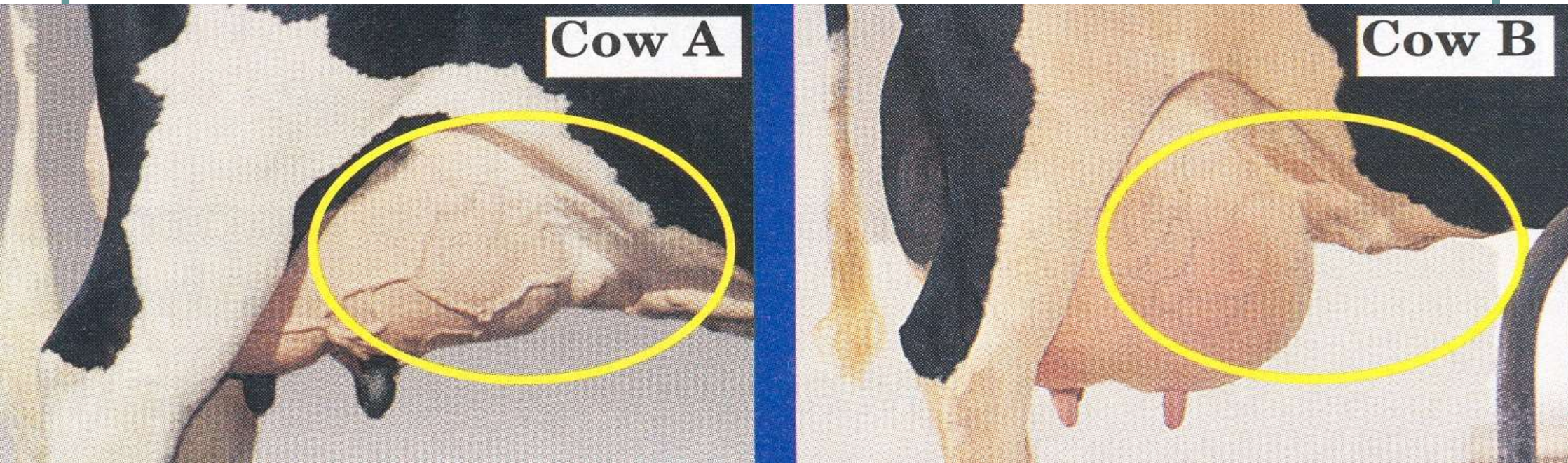
5



9



Fore udder attachment



11. Front Teat Placement

Ref. point: The position of the front teat from centre of quarter.

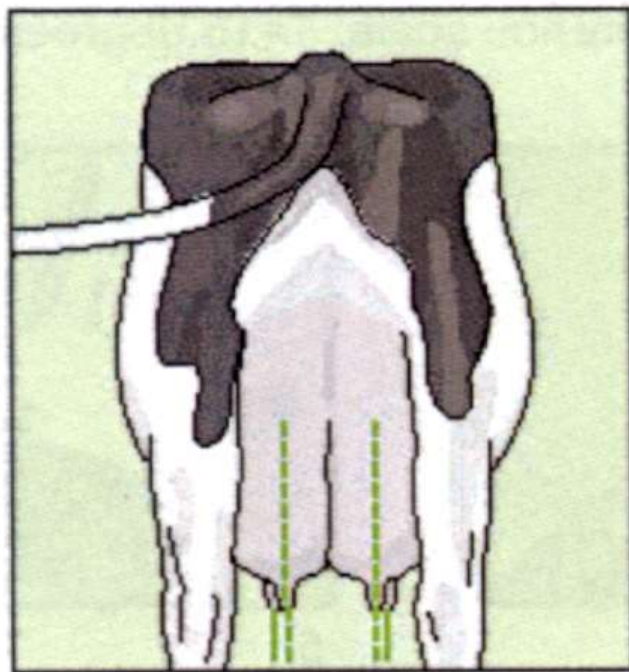
1 – 3 Outside of quarter

4 – 6 Middle of quarter

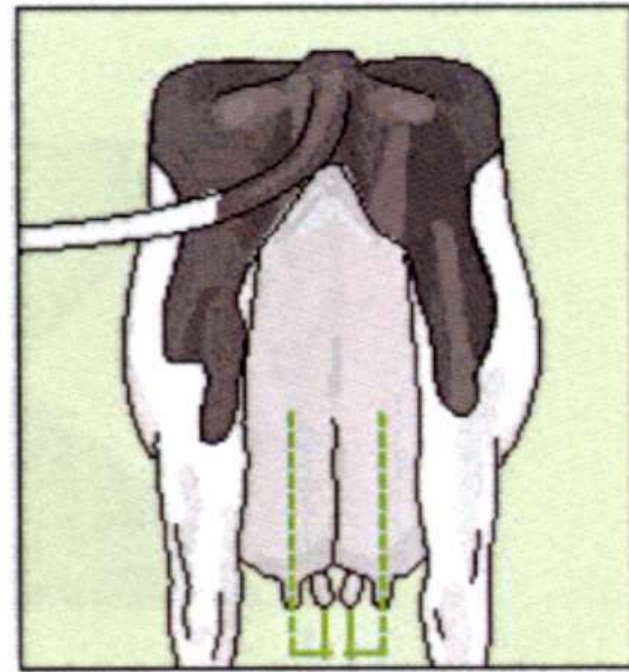
7 – 9 Inside of quarter



1



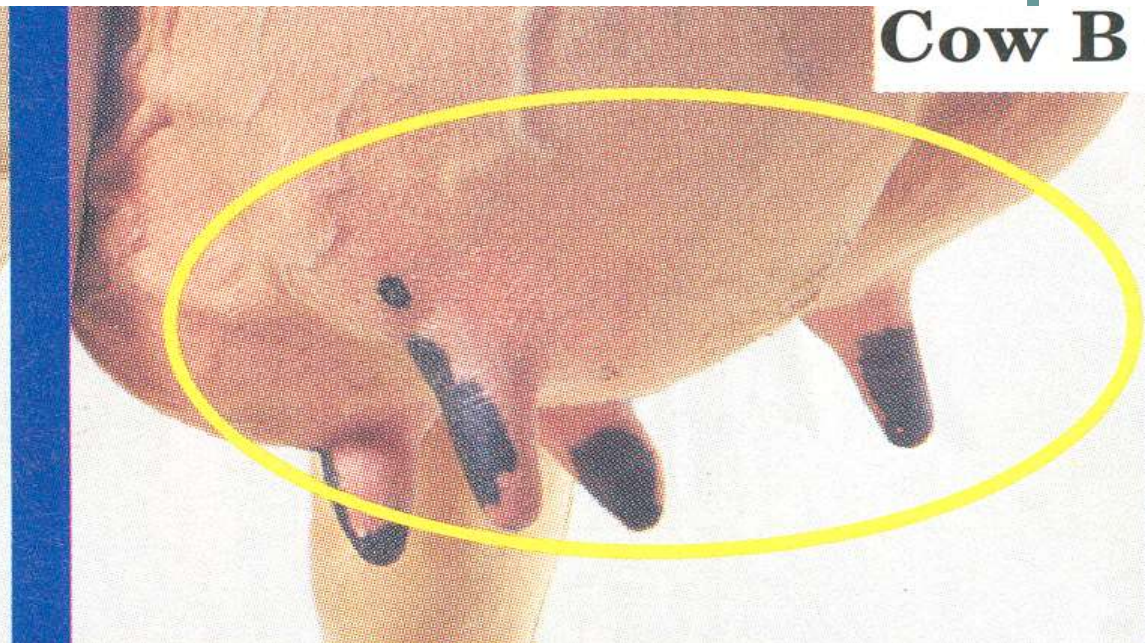
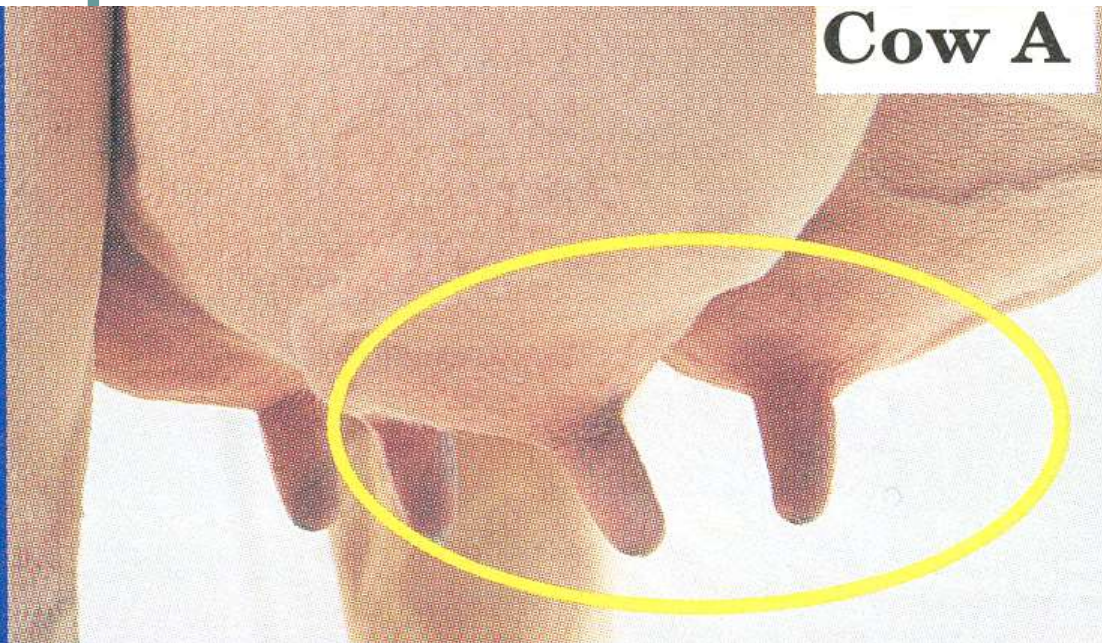
5



9



Teat placement



12. Teat Length

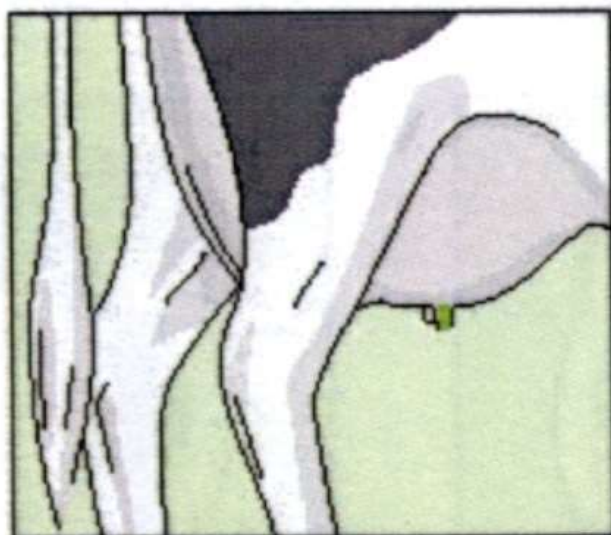
Ref. point: The length of the front teat.

1 – 3 Short

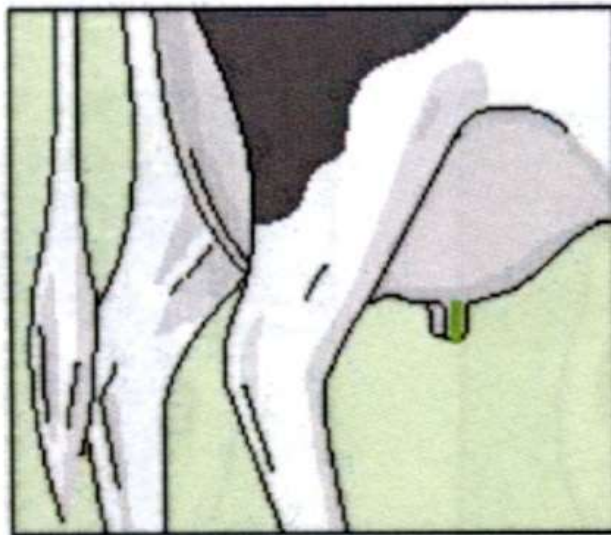
4 – 6 Intermediate

7 – 9 Long

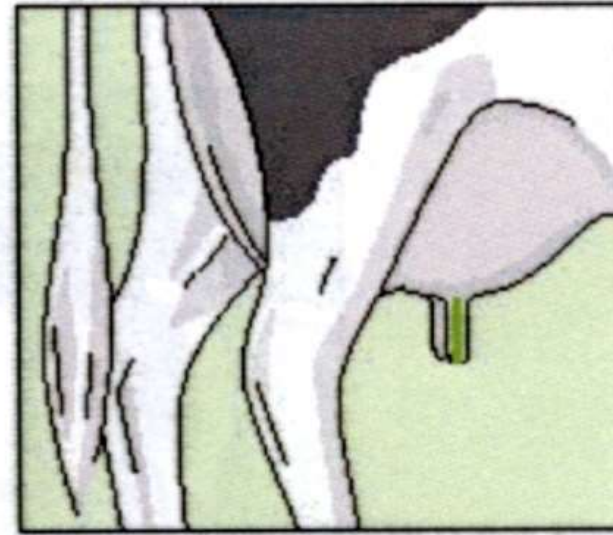
Reference scale: 1-9 cm; 1 cm per point



1



5

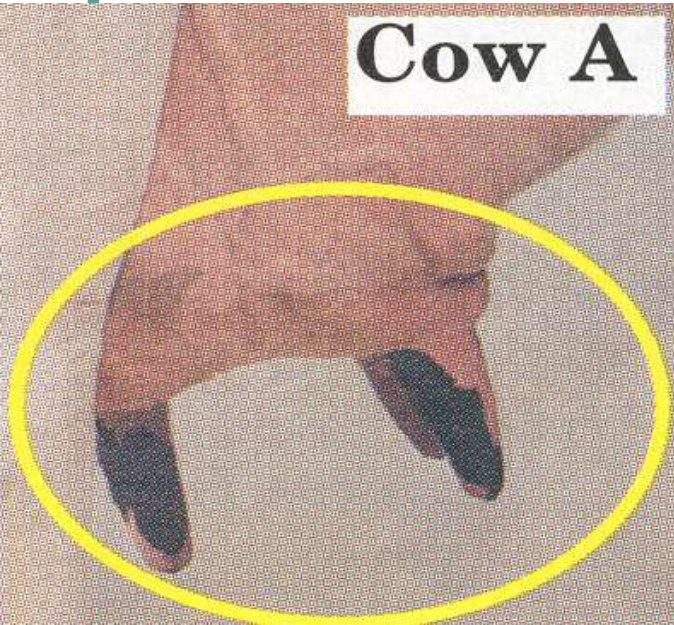


9

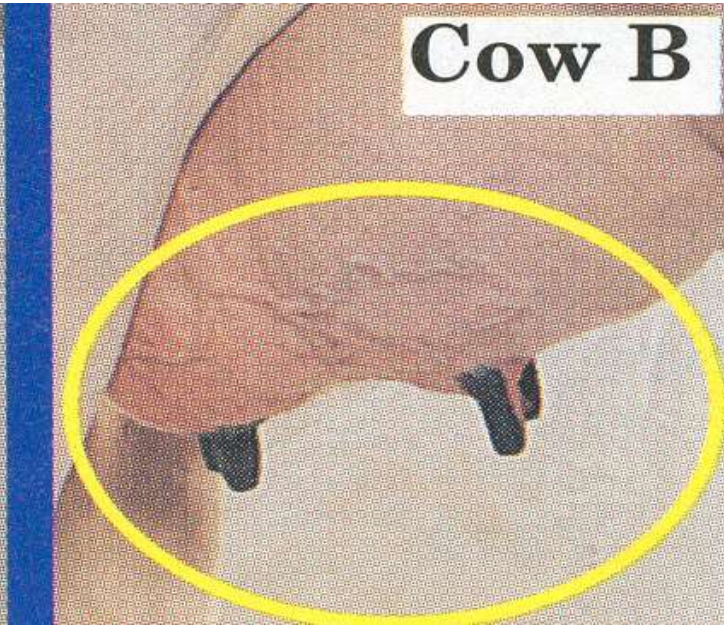


Teat size and shape

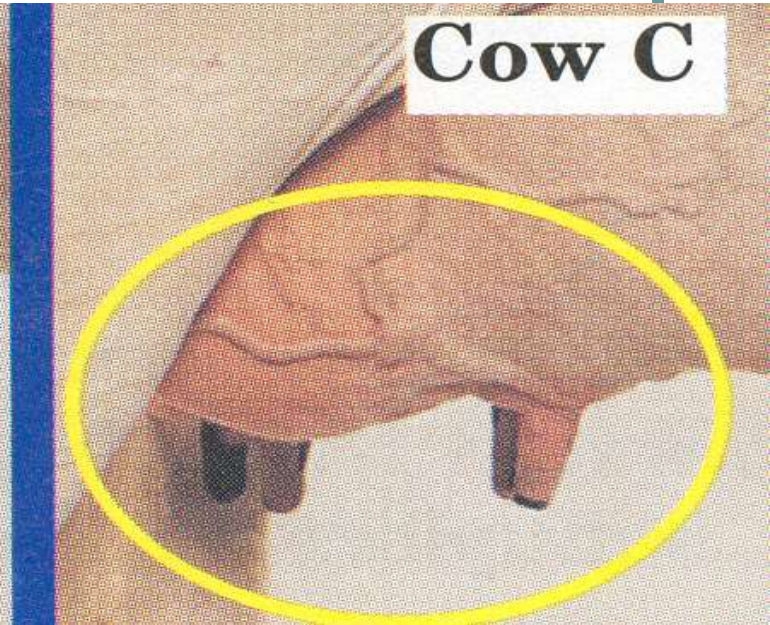
Cow A



Cow B

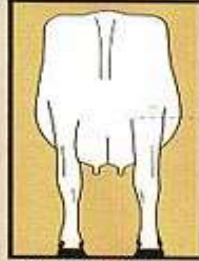


Cow C

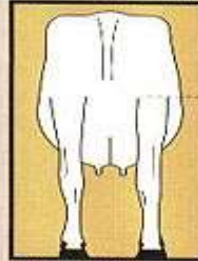


REAR UDDER

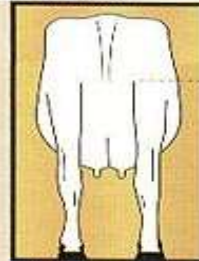
REAR ATTACHMENT HEIGHT milk secreting tissue to base of vulva



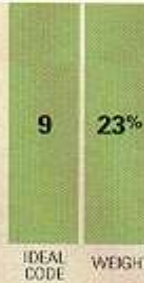
1 EXTREMELY LOW



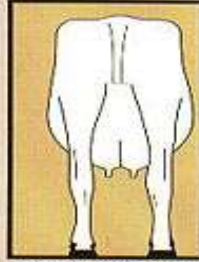
5 INTERMEDIATE



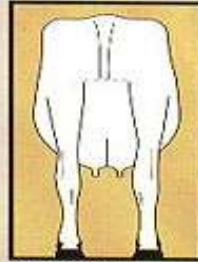
9 EXTREMELY HIGH



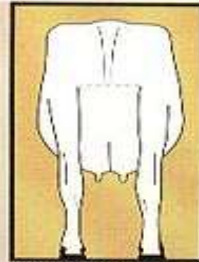
REAR ATTACHMENT WIDTH width at milk secreting tissue



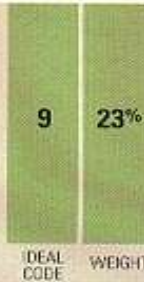
1 EXTREMELY NARROW



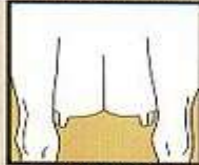
5 INTERMEDIATE



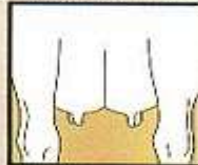
9 EXTREMELY WIDE



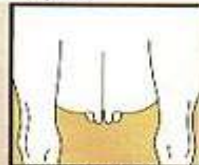
REAR TEAT PLACEMENT teat placement from centre of quarter



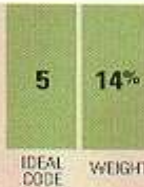
1 EXTREMELY OUTSIDE



5 CENTRE



9 EXTREMELY INSIDE



UDDER DEPTH from mammary system



UDDER TEXTURE from mammary system



MEDIAN SUSPENSORY from mammary system



DEFECTIVE CHARACTERISTICS

DEFECT	DEDUCTION	DEFECT	DEDUCTION	DEFECT	DEDUCTION
✓ lacks udder shape.....	1.0	✓ rear teats not plumb.....	1.0	✓ rear webbed.....	1.5
✓ rear unbalanced.....	1.0	✓ rear teats too far back.....	1.0	✓ blind rear.....	3.0
✓ rear short.....	1.0				

