

# INTRODUCTION TO CGS CLASSIFICATION

July 27,2021 Callum McLeod



# **KEY POINTS**

- The core purpose of classification
- How the traits being assessed translate into a productive and sturdy animal
- How classification can be used as a breeding and a culling tool



# WHAT IS CLASSIFICATION?

- A program administered by the Canadian Goat Society
- Quantifies type traits
- Non-selective program with all first lactation does on farm being assessed
- Collects data for Genetic Evaluations



#### HOW DOES IT WORK?

- Compares all animals to a 'True Type' breed standard
- Assesses 24 individual traits
- Quantifies all the traits, both linear and qualitative
- Organized in 4 sections: Rump, Mammary System, Dairy Strength and Feet and Legs
- Age, Lactation Number and Stage of Lactation taken into account
- Generates a final score out of 100



# LINEAR VS QUALITATIVE TRAITS

- Traits being assessed are either linear or qualitative
- Linear traits are a measurement
- Qualitative traits are assessed against an 'ideal'
- Linear trait examples include Rump Angle, Rear Udder Width, Stature and Heel Depth
- Qualitative trait examples include Bone Quality, Udder Texture, Angularity and Loin Strength



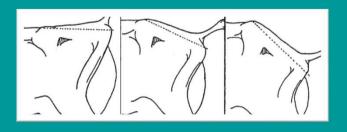
# **RUMP**

- Makes up 10% of the final score
- Has significant impacts on reproduction, mammary system and rear feet and legs
- The 'scaffolding' for the productive end of the goat
- Made up of 4 traits



### **RUMP TRAITS**

- Rump Angle Linear Trait Ideal is 25, not too steep, not too level
- Thurl Width Linear Trait Wider thurls are preferred
- Thurl Placement Linear Trait Ideally placed 2/3 of the way from the hip bones to the pin bones
- Loin Strenght Qualitative Trait Broad and slightly arched, attached high and wide to pelvis







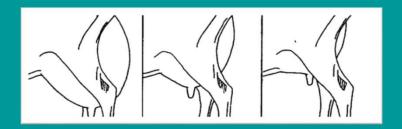
# MAMMARY SYSTEM

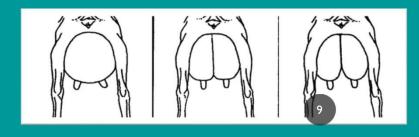
- Contributes 42% of final score
- The goal is a capacious productive mammary system that will hold up to many lactation cycles and is resistant to mastitis
- Selects for ease of milking and strong attachments
- Made up of 8 traits



#### MAMMARY SYSTEM TRAITS

- Udder Depth Linear Trait A deep capacious udder without udder floor being lower than the hocks
- Udder texture Qualitative Trait A soft udder without excess flesh, pliable, elastic and well collapsed after milking
- Teat Placement— Qualitative Trait Teats placed centrally in the udder halves preferred, to avoid contact with the legs while walking and facilitate easy milking
- Medial Suspensory Ligament Qualitative Trait The depth of cleavage and evidence of division between halves of the udder, stronger ligament preferred







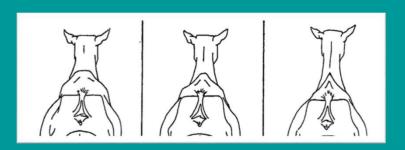
### DAIRY STRENGTH

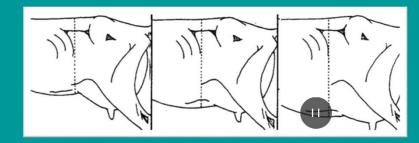
- Worth 20% of final score
- A collection of traits that contribute to the ability of an animal to maintain a high level of production over a long productive lifespan
- Combines strength and refinement
- Body capacity and strength of frame without carrying excess condition to the detriment of milk production
- Made up of 6 traits



#### DAIRY STRENGTH CONT.

- Stature Linear Trait Measured at the hips, compared to breed standard, animals meeting breed standard are the ideal
- Chest Width Linear Trait Width of the chest floor, wider is preferred to for large capacious respiratory and circulatory systems
- Body Depth Linear Trait Depth of body at the rear rib, deeper is preferred to house large capacious digestive system
- Angularity Qualitative Trait Angularity and sharpness of shoulders, freedom from coarseness (head to tail), spring of rib and cleanness of thighs







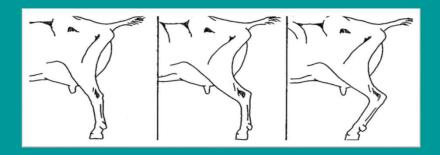
#### FEET AND LEGS

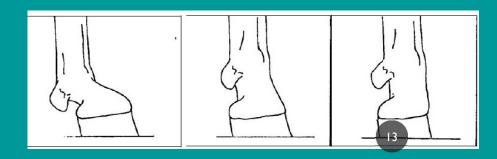
- Worth 28% of final score
- Assesses the structure of the hoof, pasterns and legs
- Vitally important to support a productive dairy animal with good body capacity and a capacious productive mammary system
- Necessary for an animal to comfortably move, feed and do the daily tasks we ask of a dairy animal such as climbing/jumping onto a milking stanchion.
- Made up of 5 traits



#### FEET AND LEGS CONT.

- Rear Legs-Side View Qualitative Trait Angle of rear leg from stifle to hock, avoiding being 'posty' or 'sickled'
- Pastern Strength Qualitative Trait Strong and flexible without being too upright or with too much angulation
- Bone Quality Qualitative Trait Flat, fine and wide bone pattern, assessed at the cannon bones
- Rear Legs-Rear View Qualitative Trait Rear legs widely set and parallel, accommodating a large capacious udder







#### WHY DOES ALL OF THIS MATTER?

- Three of the most frequent reasons animals are removed from the herd include: reproductive problems, feet and leg problems, and mastitis/high somatic cell count
- A dairy goats peak production is between 3-6 years of age, so they need to be built to last
- If they are able to maintain good levels of production past 6, you need to raise fewer replacements
- A healthy/structurally sound animal costs less to maintain than an animal than an animal that contracts mastitis or has feet and leg issues
- Ease of reproduction is essential to continued improvement and development of a dairy herd



### HOW DOES THIS HELP ME?

- Clearly identifies the strengths and weaknesses on a given animal
- Can help identify trends in a family line or progeny of a specific animal
- Gets an impartial expert assessment of your animals



#### CLASSIFICATION REPORT

DAIRY SENIOR DOE

O wner: 0
Classification Date: 2013-01-25

Body Condition Score

SIRE:		D138539 D138558	Breed: NGBYUN DW							Days Fresh: <b>86</b> Age: <b>2-8</b>				
Section	Descriptive Trait	Code		1	2	3 4		5 6	7	8	9		(Ideal)	Defects
Rump (1	10%)		N-003											
90	Rump Angle (47%)	5	High		_[_		J.	/ _		L	□   bo	W	(4-6)	
	Thurl Width (31%)	9	Narrow				I	II			Z w	de	(8-9)	
	Loin Strength (22%)	6	Weak				Т	V			∭ Str	ong	(8-9)	
	Thurl Placement (Research)	6	Back		_[		L	V		L	□Ah	ead	(6)	
Dairy St	rength (22%)							SS						
82	Stature (12%)	-5	Short		_(			7			□ Tal	l:	(7-9)	
	Height at Front End (3%)	5	Low		$\equiv$ C			7					(5-7)	
	Chest Width (23%)	6	Namow				I	1	i.	8%	□ w	de	(7-8)	
	Body Depth (17%)	6	Shallow				I	W			□le	ep	(7-8)	
	Angularity (28%)	6	Coarse		Ξī	J	I	V		匸	M An	gular	(9)	
	Body Condition Score (5%)	9	Low				Ι				V H	h	(6-7)	
Feet & L	.egs (26%)			8	-52	235		- N	0		- 10			
86	Pastern Strength (20%)	6	Weak		_,	72	Ţ	V			_	ong	(7-8)	
	Heel Depth (20%)	6	Shallow				Т	V			<b>□</b>     □•	ep	(8-9)	
	Bone Quality (12%)	6	Coarse		$\equiv$ L		J	V	Š.	L		e	(7)	
	Rear Legs-Side View (17%)	6	Straight		$\equiv 0$		Ų	ΙV			$\square$	rved	(4-5)	
	Rear Legs-Rear View (31%)	6	Hocked-in				I	V	Ξ	L	9:	aight	(9)	
Mamma	ry System (42%)		215											
88	Udder Depth (14%)	6	Deep				Ų	Ī₹		L	⊟ sh	allo w	(4-6)	
	Udder Texture (10%)	5	Heshy				Ę	7			<u> </u>	t	(9)	
	Medial Suspensory Ligament (20%)	6	Weak				L	V		200	□  st	ong	(8)	
	Fore Attachment (20%)	8	Weak		_(		Т	IC	]_	V	<u> </u>	ong	(9)	
	Rear Attachment Height (14%)	9	Low		$\equiv$ r	J	I		]_	L	V H	h	(9)	
	Rear Attachment Width (12%)	8	Narrow		_(		Т	IΠ		V	<u></u> ₩	de	(9)	
	Teat Placement (8%)	6	Vilde			J	I	V			□la	se	(6-8)	
	Teat Length (2%)	3	Short		Ţ,	/	I					ng	(5-6)	
Final 3	Score: VERY	GOOD	86		Ī	Ī	Ī		Ī				31118	

Rump Angle



# HOW DO I USE THIS ON THE FARM?

- Final scores can be used as a marketing tool for breeding stock
- Specific trait scores can be used to select matings and plan culling
- Can be used to benchmark improvement in a herd
- Contributes to genetic indexes that can further help breed advancement



# **BREEDING BY NUMBERS**

- Select breeding to improve specific traits
- Use a buck with strong feet and legs if this is weaker in the doe
- Breed does with wide teat placement to a buck whose dam has more centrally placed teats
- Overall, select compensatory matings to get the best of both the buck and the doe



# **CULLING BY NUMBERS**

- Select young does and bucks with high thurl width scores
- Cull young animals with low pastern length scores
- Cull young animals with low rear leg side view scores
- Cull animals with extreme teat length or udder depth scores
- Some traits are useful for culling young animals while others are useful for mature animals





# THANK YOU!

- https://www.goats.ca/classification/
- http://www.goatgenetics.ca/index.cfm