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## The 4-H Motto

“Learn to Do by Doing”

## The 4-H Pledge

I pledge

My Head to clearer thinking,

My Heart to greater loyalty,

My Hands to larger service,

My Health to better living,

For my club, my community, and my country.



## The 4-H Grace

(Tune of Auld Lang Syne)

We thank thee, Lord, for blessings great  
on this, our own fair land.

Teach us to serve thee joyfully,  
with head, heart, health and hand.



## Acknowledgments:

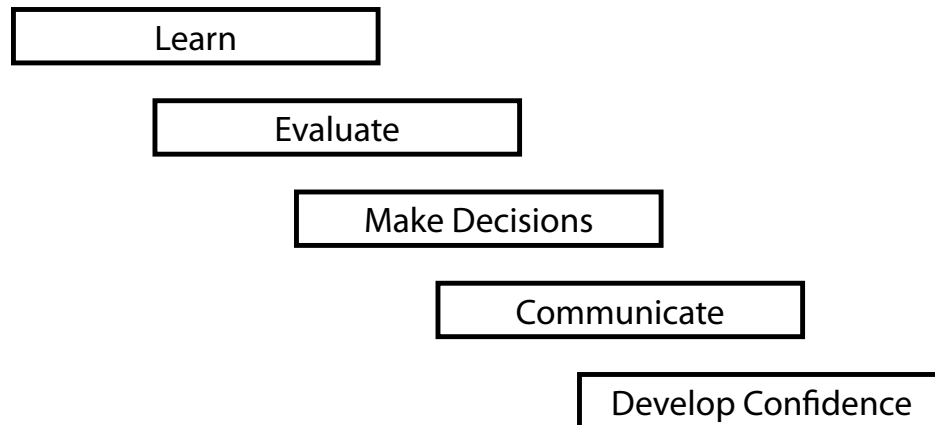
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# Let's Judge

Judging is an activity that many 4-H clubs do. If you take the time to learn a few basic steps judging can be an enjoyable and challenging activity.

## Why do we judge in 4-H?

There is so much more to judging than simply putting animals or items in the same order as the official judge. Judging in 4-H helps us to:



## How do you judge?

There are some specific steps that you can follow to make your judging easier. It doesn't matter whether you are judging in a judging competition, a show ring or a pasture, the steps are the same. Becoming familiar with these nine steps and working through them in order every time you judge will help to make judging easier.

### 1. Picture the ideal item or animal.

Before you start judging any class, picture the ideal in your mind. What does the perfect market steer look like? What about the perfect loaf of bread? In your mind, or even on a sheet of paper, list the qualities that you feel are important in a perfect item. Rank them in order of importance.



### 2. Prepare to compare.



Judging is determining the advantages an animal or item has over the next. Force yourself to think comparatively. Think about comparative terms you might use in your reasons. These terms are words ending in "er" and phrases with more or less in them. Your comparative terms should be positive.

Now you are ready to look at the class.

3. View from a distance.

Stand back and compare the animals. If you are judging livestock, stand about 6 to 7 meters away and analyze the animals. Compare and contrast them in size, structure and overall appearance. Watch how they move.



4. View from the front and the rear.

Move to the front, still looking from a distance, and view the class. Move to the back and view some more.



5. Move in for a closer examination.

Now you are ready to examine the animal up close. Move in close and give each one a thorough examination. Inspect each one individually, continuing to compare it to all of the others in the class. If you are judging small items, feel them, pick them up and look at them from all angles.

6. View again from a distance.

By now, you should be almost ready to make your final decision on the placing of the class. Once you have finished your close examination, move back and view again from a distance.

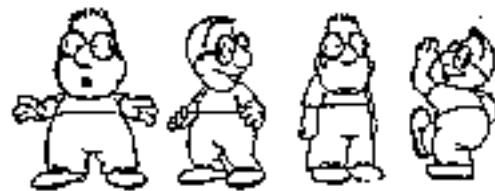


7. Build a picture.

Take time to close your eyes, and build a picture in your mind of the class as it stands in front of you. Try to choose one thing about each animal or item that will bring a picture of it back to your mind. This will help you when you are preparing and presenting your reasons.

8. Make your decision.

By now you should have made your final decision on the placing of the class in order from most desirable to least desirable. If you have any doubts, go back to step 4 or 5 and confirm your decision.



9. Mark your cards.

Mark your placings on your card. Prepare your reasons. Make sure the placing on your card is the same as the one you are using in your reasons. Hand in your card to the official.

The judge at your achievement day, or any show follows these same steps when he places your market steer or dairy heifer. Watch the judge at a show and you will see.

## Hints for easier judging:

- Select the easiest placings first
- Do your own judging
- Your first impression is usually correct
- Keep comparing
- Remember - reasons are important



## How to Manage Your Time

All of this, from the time you start judging the class, to the time you complete the preparation of your reasons will take no longer than 20 minutes.

Because each class in a judging competition has a time limit, you may want to find a way to manage your time. Here is one suggestion for a way to divide your time in each class:

Time (Minutes)	Activity
2 – 3	Stand back and look at the class as a whole.
1 each (total of 4 for 4 items or animals)	Move in for a close inspection.
3 – 4	Decide how each article compares to the others and make your final decision.
Balance of Time	Finish your notes, prepare your reasons.

## How can YOU become a more successful judge?

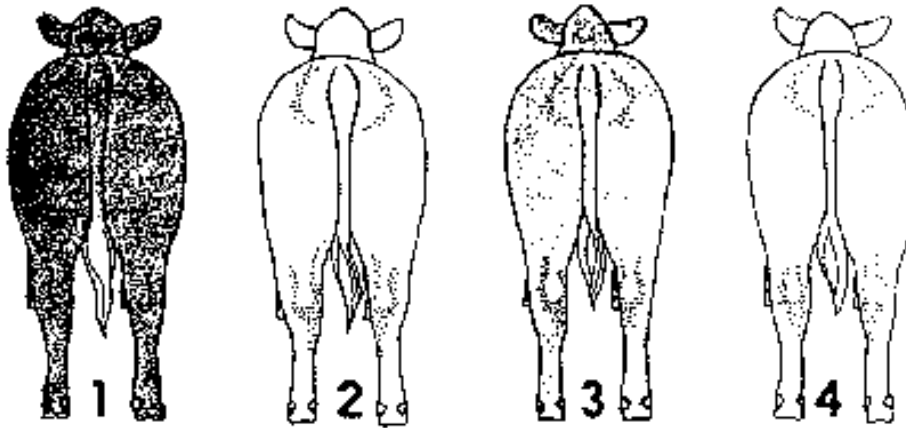
Anyone can become successful at judging any item or species. There are two things you need to do:

1. Think      Whenever you are judging, think about what you are doing. Be organized and follow a system.
2. Practice    No one becomes a good judge by judging only a few classes. You must practice, practice and practice some more to become a better judge.

Top judges across the country have judged hundreds of classes. In addition they have looked at thousands and thousands of animals or items. They became successful judges by thinking about what they were doing and with many hours of practice.

## How is the class numbered?

Any class of four animals is always numbered 1 through 4 from left to right viewing from the rear of the class.



# Reasons: Level 1

Reasons give you a chance to justify your placings. By practicing judging and reasons regularly, you will soon develop a good system for judging, and be able to justify your placings with your reasons.

## Structure

Good reasons have a specific structure. Whether you are presenting written or oral reasons, you should follow the same format. Reasons should have three parts, an introduction, a body and a conclusion. Let's look at each of these.

### The Introduction

The introduction to your reasons should be a simple statement telling the listener two things:

- the class you judged
- your placing of the class

An example of an acceptable introductory statement is:

"I placed this class of 2 year old Holstein Cows 3 1 2 4."

or

"I placed this class of 1<sup>st</sup> cut Alfalfa Hay 2 4 3 1."

Notice that the classes are not called cows or hay, but "2 year old Holstein Cows" and "1<sup>st</sup> cut Alfalfa Hay". Both of these statements identify the class completely and correctly, and state your placings of the class.

You may vary the statement slightly as you become a more experienced judge. Just remember to identify the class you judged and include how you placed the class.

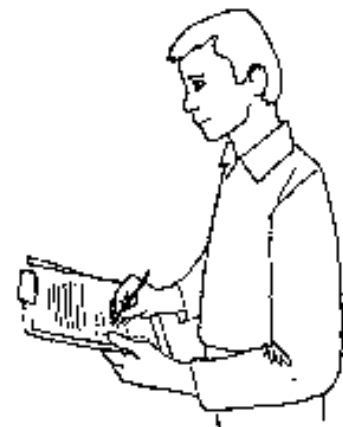
### The Conclusion

The conclusion of your reasons should be a simple statement summarizing the information from your introductory statement. Again, give a complete and correct identification of the class on which you are giving reasons and your placing of the class.

An example of an acceptable concluding statement is:

"For these reasons, I placed this class of 2 year old Holstein Cows 3 1 2 4."

or





"These are my reasons for placing this class of 1<sup>st</sup> cut Alfalfa Hay 2 4 3 1."

Again, once you become more experienced, you may wish to vary your concluding statement slightly. This is acceptable as long as you provide complete identification and placings. In advanced competitions, you may eliminate this concluding statement.

## The Body

The body will be the most detailed part of your reasons. Therefore, you should spend the most time preparing this section. Here are some hints to help make the preparation of your reasons a little easier:

- Do your analysis in pairs. There are three pairs in your reasons - a top, middle and bottom pair.
- Be comparative. It is not acceptable that you simply describe the animals or items in the class. You must use comparative terms. Words ending with "-er" and phrases beginning with "more" are ways to make your reasons comparative.
- Make sure that all the information you provide in your reasons is true and accurate for the class. You will lose marks for wrong information.
- State your most important points first, then go on to your less important points.
- Follow a logical pattern on each animal or item. Head to tail, top to bottom, most important to least important points.
- Be thorough in your reasons. Make sure you mention all of the points that you consider to be important.
- There are words you should never use in your reasons. They include "good", "better", "best" and "nice". These words are not specific enough about what you appreciate about that entry.
- Use the correct terms for the items or animals you are judging. Know the meaning of the terms you are using.
- Be positive. State the advantages one animal has over the other animal rather than pointing out the weak points of the lower placed animal. Avoid being negative.
- Grant when the lower animal of the pair has an advantage over the upper animal of the pair. Keep your grants short and simple.
- Be organized. If you can show the judge that you are organized in your judging and your reasons, you will appear more knowledgeable.
- If a placing is close, say so.
- Be concise. If possible, get your point across in a few words rather than many words. For example, 4 is wider from pin to pin.
- Avoid using "he", "she" or "it". Refer to the animals or items by their number without saying "number 4". Refer to the entry as 4.

In review, your reasons should have a basic structure like this:

I placed this class of..... 3 1 2 4.

I placed 3 over 1 because.....

- 
- 
- 

I placed 1 over 2 because.....

- 
- 
- 

I placed 2 over 4 because.....

- 
- 
- 

For these reasons, I placed this class of..... 3 1 2 4.

As you become more experienced, you will begin to add to this general structure. Beginner judges can start with one point per pair and as you become more experienced you will add more points to each pair.

The general rules for written and oral reasons are the same. In both, you must provide a good presentation. It is your method of presentation, which differs. Let's look closely at the presentation of reasons.

## Preparing Your Oral Reasons

One of the reasons that so many members find oral reasons so difficult is that they do not know how to prepare good notes.

The note taking system outlined on the next page will help you to become more organized. Make sure you use small note cards or notepads, not large pieces of paper. Use a note taking system and always keep a picture of the class in your mind, and you will soon be able to give reasons without notes!

Class: Market LambsPlacing: 1 - 3 - 4 - 2

Official: \_\_\_\_\_

Class Splits: \_\_\_\_\_

Memory	For	Grant
1/3 black face	<ul style="list-style-type: none"> <li>• fuller saddle</li> <li>• carries down leg</li> </ul>	X
3/4 all white	<ul style="list-style-type: none"> <li>• finish more desirable</li> <li>• longer loin</li> </ul>	<ul style="list-style-type: none"> <li>• thicker leg</li> </ul>
4/2 brown	<ul style="list-style-type: none"> <li>• less waste</li> <li>• wider through hind saddle</li> </ul>	<ul style="list-style-type: none"> <li>• stronger pasterns</li> </ul>

2 - over finished \_\_\_\_\_

As an experienced judge, you will be required to give oral reasons without any notes. To do this, you must keep a picture of the class in your mind at all times. For beginning judges, use of notes is acceptable.

Your reasons should also become more specific as you gain experience. You may also begin to use grants.

This is one format that you can use for making your notes. You may find another one that works well for you. Before a competition you can write the format you want to use for your notes on the paper. Remember to have a space to write the type of class you are judging and your placings.

Once you have determined your placing of the class, you can start making your notes. Your notes should be positive and comparative.

## Presenting Your Oral Reasons

Follow these rules when presenting your oral reasons:

- Speak clearly and loud enough to be easily heard.
- Be pleasant.
- Convince the judge that your reasons are right.
- Be confident in your reasons.
- Emphasize your most important points.
- Avoid reading your notes.
- Have a picture of the class in your mind.
- Look your judge in the eye.
- Stand straight - don't fidget.
- Relax and have fun!

If you can combine quality content with good presentation in your reasons, then you will be sure to get a good score.



## Guidelines for Marking Oral Reasons

Possible  
Score

Presentation ..... 10

- loud, clear, easy to hear
- speech well-paced, not too fast
- maintains eye-contact
- avoids reading (glancing at notes is acceptable for younger members)
- stands comfortably
- speaks confidently and convincingly
- uses correct grammar, phrasing and sentence structure
- avoids repetition
- uses proper pronunciation and enunciation
- avoids unacceptable words such as “good”, “better”, “best”, “nice”

Format ..... 10

- introductory statement
- concluding statement
- identifies the class completely and correctly
- compares the 3 pairs
- logical and easily followed

Content Score ..... 30

Top pair ..... 10

Middle pair ..... 10

Bottom pair ..... 10

Must be:

- accurate
- comparative
- specific
- thorough
- complete

Total ..... 50

## Guidelines for the Oral Reasons Judge

- Make sure the member feels comfortable.
- Show the member that you are interested in what he/she is saying.
- Listen actively - don't slouch or look bored.
- Avoid any gestures or movements that may throw the member off.
- Make sure you listen to the reasons in a place where other members won't overhear.
- Make sure you listen to reasons in a place where you won't be interrupted by noises or other members.
- If you are interrupted or the member stumbles, let him/her start again.
- Don't interrupt while he/she is speaking - save it for when he/she is finished.
- Ask questions at the end of the presentation. Then you will know that he/she actually "saw" the class.
- Be consistent. The absolute mark that you give the reasons is not nearly as important as being consistent across all of the members you mark.
- Remember - you are there to find out why he/she placed the class that way, not to tell the member his/her placing is wrong.
- Remember - this is difficult and new to many members. Make it as easy for them as you can -we want them to try this again next time!

Remember:

You are NOT judging the member on how they placed the class; that has already been done in the placings score. You are judging the member on WHY he/she placed the class this way.

## Preparing Written Reasons

Presenting written reasons is simply putting them down on paper. Follow these rules when presenting your written reasons:

- Be neat.
- Use correct spelling.
- Use correct grammar.

Remember: This is not a neatness, spelling or grammar test, but what the marker cannot read or understand, cannot be marked.



## Guidelines for Marking Written Reasons

Possible  
Score

Presentation ..... 15

- logical, easy to follow
- comparative throughout - uses comparative terms – “more”, words ending in “er”
- introduction and conclusion
- class is identified completely and correctly
- uses proper expressions - grant, advantage, etc
- this is not a spelling test - just as long as you can tell what the member is trying to say

Content ..... 35

Reward points for:

- accurate information
- thorough - covers all the points the judge mentions
- “seeing” the animals in the class
- uses the appropriate terms for the item or animal
- uses the terms for parts accurately
- specific

Deduct points for:

- inaccurate information
- “canned” reasons
- wrong use of terms

Total ..... 50

## Guidelines for the Written Reasons Judge

- This is not a spelling or neatness test - just as long as you can read and understand what is written. You will have to penalize the member if you cannot decide what the words are saying.
- Concentrate on the task at hand - take this seriously.
- Attempt to visualize the class as you read the card. This will make it easier for you to decide if what the member is saying is right or wrong.
- Mark your comments directly on the card.
- You may find it easier if you set yourself a range of marks that you will assign. Decide on a high mark and a low mark, then start working on the cards. If you find an exceptional card, you can expand your range.
- Be consistent. The absolute mark that you give the reasons is not nearly as important as being consistent across all the cards you mark.
- Be prepared for members who will come back to you with questions about why you marked their card the way you did.
- Remember - this is difficult and new to many members.
- Encourage the members - we want them to continue judging.

## Reasons: Level 2

As you get comfortable with your reasons, you may want to try to do a few things differently. Making some basic changes to the format of your reasons will make them easier to listen to and will make you sound more professional.

Organize the body of your reasons in a way that makes sense. You can start at the head and work to the tail, go from top to bottom, or if you are judging something where there is a standard scorecard, you can start with the section of the scorecard that has the most weight.

The object of making changes to your reasons is to make them easier to follow for the person marking them. Your reasons should flow from point to point. Try to avoid repeating words or phrases.

Here are a few possibilities for changes you may want to make to your reasons:

### Openings

Add something to your opening to make it a more complete description of the class.

Start with,

"I placed this class of \_\_\_\_\_ 3 4 2 1."

or

"3 4 2 1 is my placing for this class of \_\_\_\_\_."

Then you could add a combination statement that sums up the priority used to judge the class or to describe the class winner.

Examples are:

"I started the class with the heifer that exhibits the most muscling and balance."

or

"I appreciate that all of the ewes in today's class possess superior quality."

or

"I found that this class split itself into two pairs. A top pair that showed more balance and muscle, and a bottom pair."

## Body of Your Reasons

As you begin talking about each of the pairs that make up the body of your reasons, try starting each paragraph with something other than “I placed 2 over 3”. These statements are lead-in statements.

Some example ways to start your paragraphs include:

“Drawing your attention to my initial pair, I preferred 3 over 4.”

or

“In reference to my middle pair, I selected 4 over 2.”

or

“In the final pair, I chose 2 over 1.”

Other phrases you may want to include when you start paragraphs include:

Proceeding to

Moving to

Concerning

After closely analyzing the

If there are some similarities to the pairs, say so. Here are some ideas of ways to do that:

“In my initial pair of more dairy heifers, I preferred ...”

or

“Proceeding to the two larger framed gilts in the middle pair, I selected ...”

or

Drawing your attention to the taller, larger framed heifers, I chose ...”

If an animal has an obvious distinguishing characteristic, such as colour, you may want to refer to it by that colour. For example, if you have a class with three black heifers and one red one, you may want to say something like “Giving the advantage to the red heifer as she.....”

## Grants

There may be times when you want to give credit to an animal you have placed lower. This is referred to as “Granting”. You can say things like “I grant that 2 is wider from pin to pin”. Other terms you may want to use in place of grant are:

- Admit
- Giving the advantage to .....
- I realize that ....
- I concede that .....
- I credit .....
- However, 4 is clearly .....
- I appreciate the ..... of 4,

## Transitions

In each paragraph, you may move from a positive point to a grant and back to a positive point, include some transition statements such as "Just as importantly", "On the other hand", "At the same time", "However", "Nevertheless".

## Indicating Close or Obvious Placings

When you are judging classes you may find that some placings are very close. If they are, say so. Conversely, if the placing is an easy placing, say so too. Some ways you may want to state that a placing is close are:

- In a close placing, 1 goes over 2 because
- In a close pair, I chose 1 over 2
- 2 gets the edge because she is
- 2 has a slight advantage
- 2 has slightly more

If a placing is obvious, you may want to use one of these phrases:

- A logical winner in the class
- An easy winner in the class
- A clear cut winner
- 1 has a decided advantage
- 4 has a definite advantage
- 3 has a distinct advantage
- 2 has much more
- An outstanding ..... in the class.

## Words and Phrases to Avoid in Reasons

- Nice, Good, Better, Best – these words are weak, they are not comparative and explain nothing.
- Animal or Individual – Say what the animal is (barrow, gilt, gelding, heifer, etc.).
- Lacks or Lacking – non-descriptive; instead of saying a gilt “is lacking width”, say the one above her “is wider” and then say where this is most noticeable.
- Words ending with “ing” – These words tend to be weak: placing, criticizing, faulting. Instead say “I placed”, “I fault”, “I criticized”, etc. Words ending in “ed” make you sound more sure of your placing.
- Number - don’t say “number 1” say “1”.
- Avoid excessive use of “he”, or “she”. Be more specific; use an ID. For example, “The black heifer”, “The roan gelding”.
- “For being” or “kind of” – For example “I placed 3 last for being light muscled.” Instead say “I placed 3 last because he is light muscled.” Again, you sound more sure of your reasons.
- “It” – every animal has a gender. Use either “he” or “she” – whichever is appropriate.
- “That” – For example “that rump”, that top”, instead say “squarer rumped” or “leveler-topped”.

## Adding Depth

Beginning judges may use statements like: “I placed 2 over 3 because 2 has more correct legs.” As you become more experienced, you should add some depth to that statement. Your reasons should have some specifics about what was more correct. You now should say something like, “2 has more correct legs with a more desirable set and a cleaner hock.”

Work toward adding specific points to the general comparisons you make.

## Presenting Your Oral Reasons

As you become more experienced with judging, you may want to improve the presentation of your reasons. Here are a few hints that you can use to improve your oral reasons:

- Stand about as far from the judge as you are tall
- Speak clearly
- Speak so that the judge can hear you
- Stand still, don't fidget
- Don't chew gum
- Don't wear a hat
- Dress neatly and professionally - you are the judge!
- Smile!
- Say "Good Afternoon" or "Good Morning", whatever is appropriate
- Use eye contact
- Clasp your hands either behind or in front of you - this will help you avoid using gestures
- Avoid using notes - if possible don't even have them in your hand
- Make sure the placings in your reasons match the placings on your card
- Pause when giving your placings, say "4, 3, ..... 1, 2"
- Pause briefly between paragraphs
- Speak for between a minute and a half and two minutes
- Keep a picture of the class in your mind
- Know the appropriate terms for each species
- Use comparative terms
- Don't memorize the reasons, but think of the class as you are speaking
- Don't learn one or two sets of reasons and apply them to every class
- Be prepared to answer questions
- Practice giving reasons to other people
- Practice giving reasons in front of the mirror
- Practice giving reasons into a tape recorder or video camera and critique yourself or have someone else critique you

Here is a scorecard that you may want to use to evaluate the structure and presentation of your reasons:

Item	Needs Work	Okay	You Nailed It!						
<b>Appearance</b>									
Neat, Well Groomed									
Stood Still with Correct Posture									
Confident & Poised									
<b>Voice</b>									
Easily Heard, Used Vocal Variation									
Pause Between Paragraphs									
<b>Overall Impression</b>									
Reasons Well Organized									
Proper Grammar & Pronunciation									
Spoke with Conviction									
Did Not Use Notes									
<b>Opening Statement</b>									
Class Named Correctly and Completely									
Placings Match Card									
<b>Combination Statement</b>									
Sums up priority used to judge OR Description of Class Winner									
<b>Pairs</b>	<b>T</b>	<b>M</b>	<b>B</b>	<b>T</b>	<b>M</b>	<b>B</b>	<b>T</b>	<b>M</b>	<b>B</b>
Lead In Statement									
Identification Points									
Used Proper Terms									
Used Comparisons									
Was Positive									
Used Grants									
<b>Concluding Statement</b>									
Class Named Correctly and Completely									

Note - T M B indicates Top Pair, Middle Pair, Bottom Pair.

This comment sheet is only for the presentation of your oral reasons. Your reasons must be relevant and accurate for you to score well.



## Written Reasons

The format of written reasons is the same as that for oral reasons. You can apply all of the pointers in this section to your written reasons.

You may want to evaluate your written reasons. Following is a form that you can use:

### Guidelines for Marking Your Own Written Reasons

Format	Possible Points
Introduction .....	1
<p>Do you have a statement such as "I placed this class of Simmental replacement yearling heifers 2 4 3 1."?</p> <p>Make sure you have named the class correctly and completely.</p> <p>Make sure your placings here agree with those above and below.</p>	
Body .....	3
<p>Do you have three paragraphs, one comparing each of the top pair, the middle pair, and the bottom pair?</p> <p>Give yourself a point for each paragraph in the body of your reasons.</p>	
Conclusion .....	1
<p>Do you have a summary statement such as "I placed this class of 1<sup>st</sup> cut alfalfa hay 3 1 4 2."?</p> <p>Again, make sure you named the class correctly and completely.</p> <p>Make sure your placings agree with those above.</p>	
<b>Total for Format .....</b>	<b>5</b>

## Presentation

Use comparative terms to state your reasons.

Words ending in “er”, such as longer, thicker, taller.

Phrases beginning with “more”, such as more feminine, more finish.

Give yourself one point for each positive comparison made. You should have at least three comparisons for each of the three pairs.

### Deduct:

- 2 points each time you use one of the following words: “good”, “better”, “best”, “nice”.
- 1 point each time you make reference to an entry as “he”, “she”, or “it”. Always refer to an entry by the number given.
- 2 points for each negative comment. Make your comments positive. State the advantages of an entry and not the weak points of another by comparison. “I placed 2 over 3 because 3 has a weak topline.” is incorrect. “I placed 2 over 3 because 2 has a stronger topline.” is correct.

**Total for Presentation ..... 10**

## Content

**Thoroughness ..... 8**

- Do your reasons for placing one entry over another reflect those of the official judge?
- Your placings do not need to be the same as the official judge, but you should recognize the same strengths and weaknesses of each entry with relation to another entry.

**Correct Information.....27**

- The reasons and terms that you use must be true and accurate for the class as specified by the official judge.

Deduct 3 points for each invalid statement about a pair

**Total for Content..... 35**

**Grand Total..... 50**

REMEMBER - When evaluating your card, you must score the points on your reasons only. You have already been scored on how you placed the class in placings. Be sure to score yourself on WHY you placed the class as you did.

# Form and Function

One of the most difficult things for many beginning multi species judges to develop is an appreciation and an eye for species other than the one they are most familiar with.

When looking at different species of animals, there are a couple of points to remember:

- All animals have the same bones in their skeleton and they are attached to the same muscles.
- What is the function of that animal? Is it for meat? for riding? for milk production? for pulling something?

If you keep these points in mind, then you can work through what to look for in each species of animal.

Because structural correctness is important in all species, it is important to develop an appreciation for it. To be able to understand structural correctness, you need to have knowledge of the skeleton of animals and the correct angulations of joints.

Structural correctness is important in both market and breeding animals, although generally more emphasis is placed on the structural correctness of breeding animals. Market animals that are not structurally correct will not perform as well, as they may have difficulty moving and will require more days on feed to finish. Breeding animals that are not structurally correct may not have the longevity of more structurally correct animals.

When evaluating structural correctness, you need to look at the angles in a skeleton. This evident in a number of places, including:

- Shoulder
- Hoof
- Pastern
- Hock

When moving from judging one species to another, it is important to remember what the purpose of that species is and how that will effect it's function. For example, market animals (beef, sheep and swine) all need to have adequate muscling. This muscling should be most prominent in the areas where the higher priced cuts of meat are. Those higher priced cuts are most often in the loin and hindquarter.

Dairy animals need to have some evidence of dairyness. This is shown through angularity and sharpness – pretty much the opposite of market animals. The roundness of animals is due to fat and muscling. Neither one of those components is important to a dairy animal. In fact, if they are using their feed to build fat and muscle on their back they are not using that feed energy to produce milk. Another important factor in judging dairy animals is their udder. The udder is where the milk is produced and stored and if

it is not well attached and balanced there can be a variety of problems that may develop which can lead to culling that animal.

Horses are a bit different again, as they are used for either riding or draft purposes. In either case balance is an important factor, as are feet and legs.

Remember, when you are faced with a class that you are unfamiliar with, think about the function of the item or animal and then you can begin your judging.

It is important to know the correct terminology for the species and type of animal you are judging. For example, while market hogs, sheep and beef have finish, breeding animals, horses and dairy cattle have condition.

Thinking through these points can make it easier for you to judge a species you are unfamiliar with.

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# Expected Progeny Differences (EPD)

The information which follows is a general overview of EPDs, including what they mean, how they are used, and why they are beneficial. This is basic information that will help you use EPDs when evaluating animals in a judging competition. For more in depth information on EPDs, refer to most animal breeding textbooks or search for “expected progeny differences” on the internet.

Expected progeny differences are used to predict the performance of an animal’s offspring, or progeny.

## Background

One of the main goals of today’s livestock producers is to make a profit. Generally, that profit comes from selling the product of an animal, whether it is milk, meat, or fleece. In order to obtain the highest possible profit, a livestock producer favours animals with superior performance of these profitable traits. Animals that demonstrate superior performance are often selected to be a sire or dam in order to pass on their genetics to their progeny. By continually selecting top quality animals for sires and dams, a livestock producer will tend to have progeny that are also top quality.

In a judging competition, you are evaluating the animals based on how close they are to the “ideal”. Ideal animals not only possess all the best qualities, but they are also able to pass these qualities on to their progeny. Animals that are able to produce superior performing progeny are of great value to a livestock producer. But how can a livestock producer predict whether or not an animal will produce superior progeny?

## What are EPDs?

A livestock producer can predict the performance of an animal’s progeny based on the animal’s EPD, or expected progeny difference. An EPD is a number, either positive or negative, that predicts how the animal’s progeny will perform compared to the average of all other progeny, for a specific trait. An EPD is a prediction of the difference, not an absolute measurement.

For example:

- A bull with a “birth weight” EPD of +5 lbs will be expected to produce progeny that are, on average, 5 lbs heavier than the average of all other progeny.
- A mare with a “time to trot 1 mile” EPD of –1.0 seconds will be expected to produce progeny that trot 1 mile, on average, 1.0 second faster than the average of all other progeny.
- A dam with a “milk yield” EPD of +250 kg/year will be expected to produce progeny that have a milk yield, on average, 250 kg/year higher than the average of all other progeny.

Knowing an animal's EPD can help a livestock producer make decisions about which animals will produce superior performing progeny.

### EPDs are Trait Specific

Livestock producers have the ability to measure a vast number of traits. Dairy producers may measure milk yield, milk fat percentage and calving interval. Beef producers may measure calving ease, yearling weight, and feed conversion. Poultry producers may measure egg weight, mature body weight, and hatchability. Sheep producers may measure birth weight, loin eye area, and grease fleece weight. EPDs for these traits are generally expressed in plus or minus variations of the actual units of measurement. Keep in mind that a positive EPD for some traits is desirable, while in other traits is undesirable. The same is also true for a negative EPD.

For example:

#### Desirable

- a positive EPD for milk yield (milk yield will be higher)
- a negative EPD for fleece grade (wool will be finer)

#### Undesirable

- a positive EPD for time to trot 1 mile (time will be slower)
- a negative EPD for weaning weight (animals will wean lighter)

### Accuracy





An EPD may be accompanied by a measurement of accuracy, which is an expression of reliability of the EPD and may range from 0 to 1. Accuracy measurements fall into three categories:

- Low – 0.0 to 0.25
- Medium – 0.25 to 0.50
- High – 0.50 to 1.0

Animals with favorable EPD values and corresponding high accuracy values can be used with confidence that they will contribute favorably to the genetic improvement of the herd.

## Using EPDs to Compare Animals

The following example will illustrate the use of EPDs when comparing two bulls:

<b>BULL A</b> Birth weight EPD+5.0 lbs	<b>BULL B</b> Birth weight EPD-1.5 lbs
	
Both are bred to identical groups of cows in terms of genetic makeup and management conditions.	
	
<b>CALVES A</b> An average of 5.0 lbs heavier than all other calves	<b>CALVES B</b> An average of 1.5 lbs lighter than all other calves
Therefore, the Average Birth Weight difference between the groups of calves is 6.5 lbs. $5.0 \text{ lbs} - (-1.5 \text{ lbs}) = 6.5 \text{ lbs}$	

### Information Sources:

- Understanding Animal Breeding by Richard M. Bourdon
- Using EPDs by the University of Kentucky College of Agriculture
- South Devon Sire Summary by the North American South Devon Association VB/2003

## Important EPDs for Sheep

EPD Abbreviation	EPD	Unit of Change	Impact
NLB	Number of lambs born	Lambs	More lambs = more lamb production per ewe
MM	Maternal Milk	Pounds (lbs)	More pounds = heavier lambs at weaning
60-DW	60 day weight	Pounds (lbs)	More pounds = more ewe milk production More pounds = heavier lamb at weaning
90-DW	90 day weight	Pounds (lbs)	More pounds = faster lamb growth
CFW	Clean Fleece Weight	Pounds (lbs)	More pounds = more wool per ewe
REA	Ribeye Area	Inches <sup>2</sup> (in <sup>2</sup> )	More in <sup>2</sup> = heavier muscled lambs

## Important EPDs for Swine

EPD Abbreviation	EPD	Unit of Change	Impact
NBA	Number of pigs born alive	Piglets	More pigs = more piglet production per sow
21-DLW	21-day litter weight	Pounds (lbs)	More pounds = more sow milk production More pounds = heavier pig weaning weight
DAYS	Days to 260 pounds	Days	Fewer days = faster pig growth Fewer days = fewer days to market
BF	Backfat	Inches (in)	Few inches = less fat in carcass
LEA	Loin eye area	Inches <sup>2</sup> (in <sup>2</sup> )	More in <sup>2</sup> = heavier muscled pig



## Important EPDs for Beef

EPD Abbreviation	EPD	Unit of Change	Impact
BW	Birth Weight	Pounds (lbs)	Fewer pounds = fewer calving problems
WW	Weaning Weight (adjusted to 205 days)	Pounds (lbs)	More pounds = faster calf growth More pounds = heavier feeder calves
MILK	Milk – maternal	Pounds (lbs)	More pounds = more cow milk production
YW	Yearling Weight (adjusted to 365 days)	Pounds (lbs)	More pounds = faster steer growth More pounds = reach market faster More pounds = greater mature size
REA	Rib Eye Area	Inches <sup>2</sup> (in <sup>2</sup> )	More inches <sup>2</sup> = heavier muscled calves
MARB	Marbling	Percent (%)	Higher percent = more intramuscular fat Higher percent = higher quality grade

Adapted from: Georgia Agricultural Education – <http://www.aged.ces.uga.edu>  
Mississippi 4-H Livestock Judging Guide

## Using EPD Scenarios in Judging Classes

At some competitions, EPD information is given to the members. Often a scenario or situation is presented that animals will be placed in once the selection process is complete.

Generally, scenarios contain information on three factors:

- Production Environment - “Will the selected animal(s) need to perform in a high stress or low stress environment?” Some examples of things that might be mentioned in this portion of the scenario are information about the availability and quality of feed, climate conditions, housing conditions, assistance at birth.
- Performance Needs – “What type of performance does the breeder need from the selected animal?” Performance needs break themselves down into maternal and paternal needs. Maternal needs are those associated with milking ability, fleshing ability, early sexual maturity and moderate maintenance needs. Paternal traits include rapid growth, muscle production, acceptable birth weights and lean composition.

- Marketing Goals – “Will the breeder sell seedstock (or use as a replacement for a seedstock program where “genetic pieces” are sold)? Will the selected individual produce offspring for commercial production (i.e. feeder calf, pig or lamb sales)? Or, will the selected individual need to produce offspring that excel in carcass merit due to the marketing program?”

When given this information, take a look at the scenario and look for some priorities. Generally, these should describe what function the animals must serve – growth, leanness, muscle, etc.

Once you have determined the priorities, take a look at the performance data given and rank the animals based on the performance data presented.

You should also rank the animals on conformation after giving them a visual appraisal.

Once you have done both of the evaluations (performance data and visual appraisal), compare them and make your final decision on the class. If the placings are similar, your decisions are easy. If there are differences in your placings, you must use your skills of compromise and logic to make a final decision. Your final placing must combine both the placings on the performance data and the visual appraisal. If you are having difficulties making a final decision, go back to the priorities for the class and that should help you make a final decision.

If you have been given performance data for a class, you should refer to the performance data in your reasons.

At the beginning of your reasons, you may indicate what the priorities for the class were. This may be done in a statement such as:

“I placed this class of Yorkshire gilts with performance data 1 3 2 4. Emphasis was placed on growth, soundness and maternal excellence in my selection.”

or

“Based on the scenario given for the Yorkshire gilts, which emphasized growth, soundness and maternal excellence, I placed them 1 3 2 4.”

As you work through your pairs, you should also refer to the performance data as it was used to make your placings.

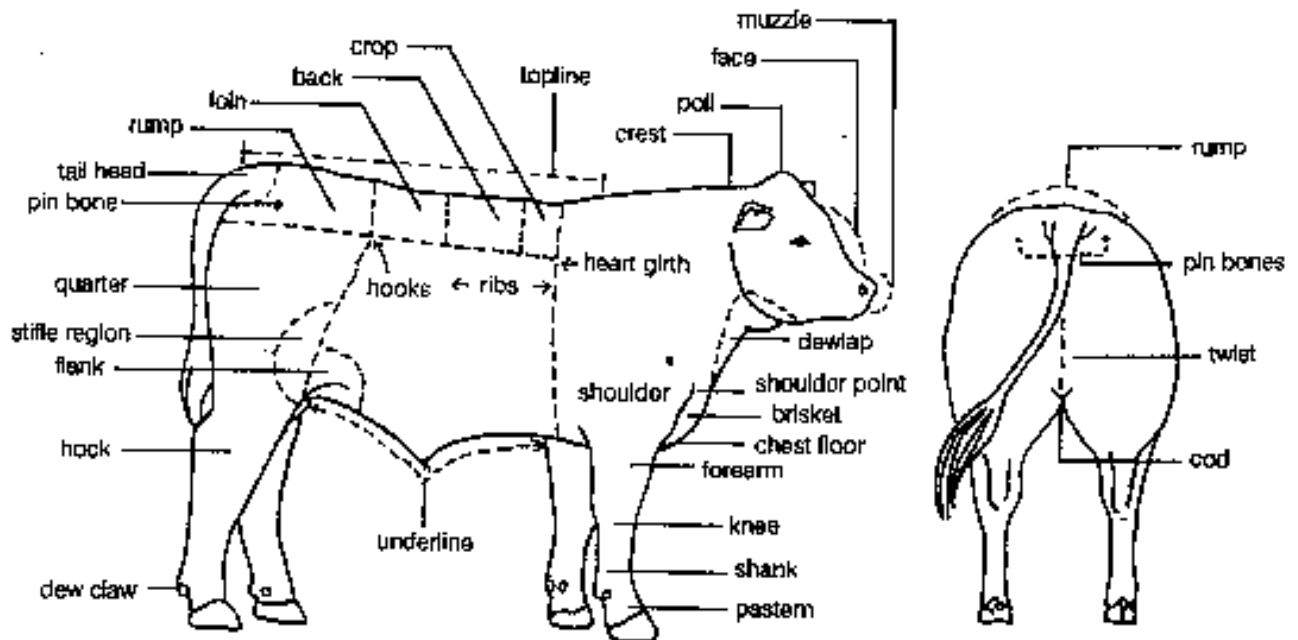
# Judging Beef

The aim of the beef industry is to efficiently produce carcasses of the type and quality demanded by the consumer. The ability to look at the live beef animal and evaluate its potential to produce these carcasses is a challenge to you and to others in the beef industry. We use live animal appraisal techniques in the show ring, the feedlot, the pasture and at the auction sale to assess the quality of our beef animals. This is what we refer to as judging beef - the art of visually comparing and ranking beef cattle.

The objective of this unit is to:

1. Give you background knowledge of the structure and function of the beef animal so you know the important points to look for when judging beef.
2. Show you how to determine if a particular animal possesses these important traits.

## Parts of the Beef Animal



## Beef Terminology

One of the most confusing things about judging is the terms we use to describe the animals. It may be hard to define some of these terms because they have different meanings to different people. Let's have a look at some of the more common terms and their definitions.

### Market Steer Terminology

Muscle	<ul style="list-style-type: none"> <li>• Red meat or lean.</li> <li>• That part of the carcass which is not bone or fat.</li> </ul>
Carcass	<ul style="list-style-type: none"> <li>• The part of the animal which remains after the removal of the head, feet, hide and internal organs.</li> <li>• The carcass is composed of bone, muscle, fat and connective tissue.</li> </ul>
Finish	<ul style="list-style-type: none"> <li>• The amount of fat covering on a market animal.</li> <li>• Overfinished - the animal has too much fat cover.</li> <li>• Underfinished - the animal doesn't have enough fat cover to fall into a desired grade.</li> </ul>
Lean Yield	<ul style="list-style-type: none"> <li>• Estimation of the percentage of the carcass that is red meat.</li> </ul>
Frame	<ul style="list-style-type: none"> <li>• Skeleton size.</li> <li>• This can be determined by looking at bone length and width and is easy to see in areas where there is nothing but bone, such as the cannon bones.</li> </ul>
Structure	<ul style="list-style-type: none"> <li>• Must be sound or free from any defects which inhibit performance.</li> <li>• Must be correct and show the desired structural traits.</li> </ul>
Balance	<ul style="list-style-type: none"> <li>• The overall view of the animal, including how well the parts blend into one another and how freely and smoothly the animal moves.</li> </ul>
Trimness	<ul style="list-style-type: none"> <li>• Freedom from excess fat or finish.</li> <li>• This can be determined by looking at places where fat tends to accumulate; the brisket, flank and twist.</li> </ul>
Grade	<ul style="list-style-type: none"> <li>• The description a carcass receives based on the maturity of the carcass, colour, texture, and firmness of the muscle, fat and marbling and fat measurement.</li> </ul>
Style	<ul style="list-style-type: none"> <li>• Way of going, alertness, gait, colouring.</li> <li>• This is often referred to as eye appeal.</li> </ul>
Meatiness	<ul style="list-style-type: none"> <li>• The degree of muscling.</li> <li>• A meaty animal will have superior muscling.</li> </ul>

## Breeding Animal Terminology

The terms used for breeding stock are similar to those used for market animals. Soundness, correctness and breed character are most important in conformation of beef breeding stock. There are several terms which relate to these qualities.

Conformation	<ul style="list-style-type: none"> <li>The overall structure of the animal.</li> <li>Includes all the points mentioned.</li> </ul>
Masculinity	<ul style="list-style-type: none"> <li>This term is used to describe bulls.</li> <li>Size and strength of the animal.</li> <li>Secondary sex characteristics such as well developed and defined muscles, thickness throughout the shoulder, neck and crest regions, overall well developed forequarters and a well developed scrotum.</li> </ul>
Femininity	<ul style="list-style-type: none"> <li>This term is used to describe heifers and cows.</li> <li>Refinement of the head, neck and shoulders, the degree of muscling, evidence of udder and teat development.</li> <li>Females should have smoother muscling than bulls and should be more refined through the head, neck and shoulder.</li> </ul>
Breed Character	<ul style="list-style-type: none"> <li>The shape of head, length of body, height, colour markings and other characteristics defined by the breed associations as characteristic of that breed.</li> </ul>
Condition	<ul style="list-style-type: none"> <li>This means the same thing as finish does for the market animal.</li> <li>It is the amount of fat and muscle that the animal is carrying.</li> </ul>
Broodiness	<ul style="list-style-type: none"> <li>Indicators that a female will be or is a good mother.</li> <li>Includes adequate size and frame to carry a calf, udder and teat development and disposition.</li> </ul>
Capacity	<ul style="list-style-type: none"> <li>Also means volume or depth.</li> <li>The greater the capacity of an animal, the better their ability to eat and breathe. A greater ability to eat and breathe means that the animal will be better able to grow and develop.</li> <li>The size and frame of an animal in relation to its ability to carry a calf, develop desirable muscling and remain structurally sound over the years.</li> </ul>
Progeny	<ul style="list-style-type: none"> <li>The offspring or calves of a female or bull.</li> </ul>

## Carcass Terminology

In addition to the terms already defined, there are many other terms you will encounter when working with carcasses.

Because, in the beef industry, our product is meat, we need to understand the importance of the characteristics whether we are judging live animals or carcasses.

Connective Tissue	<ul style="list-style-type: none"> <li>• Includes tendons, ligaments and cartilage.</li> <li>• These all help to hold the body and organs together.</li> <li>• Connective tissue looks like white or colourless ribbons and threads through the meat.</li> </ul>
Gristle	<ul style="list-style-type: none"> <li>• Refers to the heavy deposits of connective tissue found in the muscle.</li> <li>• Meat with lots of connective tissue will be tough to cut and chew.</li> </ul>
Cartilage	<ul style="list-style-type: none"> <li>• Connective tissue which may be replaced by bone as the animal matures and develops.</li> <li>• In the mature animal, cartilage is only found in places where there needs to be elasticity and flex such as the ears and the joints.</li> </ul>
Maturity	<ul style="list-style-type: none"> <li>• The age of the animal or carcass.</li> <li>• Affects the eating quality of the meat.</li> <li>• Is determined by the degree of bone ossification or hardening of cartilage into bone.</li> </ul>
Colour	<ul style="list-style-type: none"> <li>• When grading a carcass, colour is important.</li> <li>• The meat must be bright red and the fat must be white or amber to receive Canada Grade A or higher.</li> </ul>
Marbling	<ul style="list-style-type: none"> <li>• Amount of fat within the meat.</li> <li>• This does not include the outside covering found on many cuts nor any large fat deposits within the muscle.</li> <li>• Looks like little white flecks in the meat.</li> <li>• Marbling gives the meat flavour and tenderness.</li> </ul>



T bone Steak with Marbling



T bone Steak with No Marbling

Did you know that all meat would taste exactly the same if it were not for fat? Lamb, pork and beef would all taste the same. But, because of the type and amount of fat, we have three very different tasting meats.

Before we learn about the live animal, let's discuss what to look for in a slaughtered animal, or in the meat. When the consumer buys meat, he or she looks mainly at price and grade. Grade gives the consumer an indication of colour, tenderness, juiciness, flavour and the amount of fat or marbling.

## Cuts of Beef

The wholesale cuts on the beef carcass are shown below. Note the locations of the higher priced cuts.

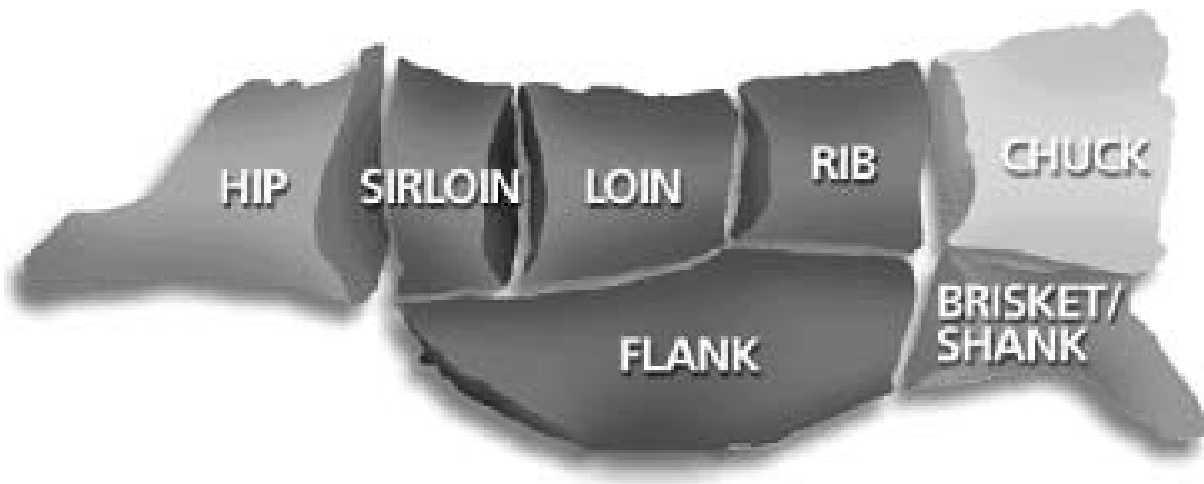
### Wholesale Cuts of a Beef Carcass

#### High Priced Cuts

1. Hip
2. Sirloin
3. Loin
4. Rib

#### Low Priced Cuts

5. Chuck
6. Flank
7. Brisket/Shank



Source: Beef Information Centre ([www.beefinfo.org](http://www.beefinfo.org))

## Judging The Carcass Class

When you judge a carcass class, you do the same thing as the graders.

You look for the carcass or carcasses which will grade Canada A or higher. You place the carcasses in order from highest to lowest quality.

The steps you should follow are:

1. Determine the maturity. You can determine this by looking at the amount of the ossification or hardening of the bones.
2. Check the colour of the muscle and fat. Look for bright red meat and white or amber fat cover.
3. Check the amount of muscling by looking between the 12th and 13th ribs.
4. Check the amount of marbling and fat cover.

Look for a carcass that has ample red meat. The muscles should be large and bulging with the appropriate amount of fat cover. The muscles should be long and tapered where they attach to the bones and full and thick in the middle. Check to make sure the meat is firm and “bounces” back when you press into it. Remember that muscle is firm and fat is soft.

Place the class from most desirable to least desirable according to how you think the carcasses would be graded. For more information on the Canadian grading system and producing a top quality carcass, consult Beef Project Manual, Unit #17 - The Beef Carcass, or check [www.beefgradingagency.ca](http://www.beefgradingagency.ca).

## More About Beef

Let’s learn a few simple rules about beef cattle. You can apply these to judging both market animals and breeding stock. Circle “Truth” or “Not”.

Tell Me – “Is this a Truth ... or Not?”

Rule #1	Cattle grow and develop in a genetically determined way. We cannot change the composition of cattle.	Truth	or	Not
Rule #2	Muscle and fat are laid down evenly over the body of the beef animal.	Truth	or	Not
Rule #3	Of the three components of lean yield (bone, muscle and fat), bone changes the least from one animal to the next.	Truth	or	Not
Rule #4	Muscles are always located in the same place on each animal. These muscles always have a similar size and shape in proportion to the animal.	Truth	or	Not





these locations at the same rate. Look at the brisket, flank and twist. By determining the amount of fat your animal is carrying in any of these three places, you can predict the amount of total fat on your animal. A very fat cow will also have fat in the pin bone, a very fat bull will also accumulate fat in the neck of the scrotum.

### Rule #3

Of the three components of lean yield (bone, muscle and fat), bone changes the least from one animal to the next. The amount of bone or size of skeleton as a percentage of the total weight varies very little between cattle of similar height or weight.

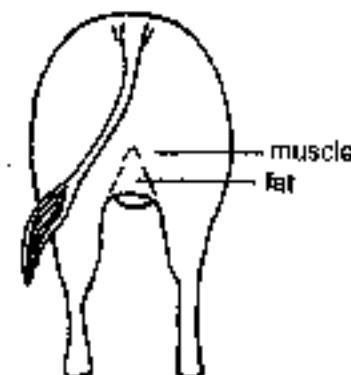
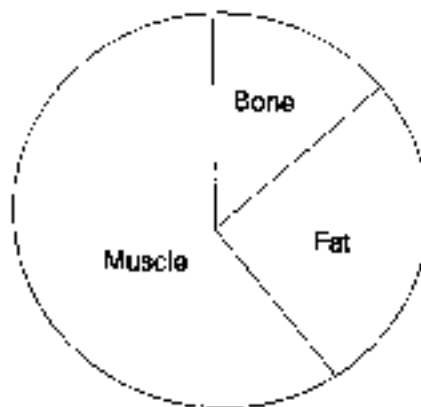
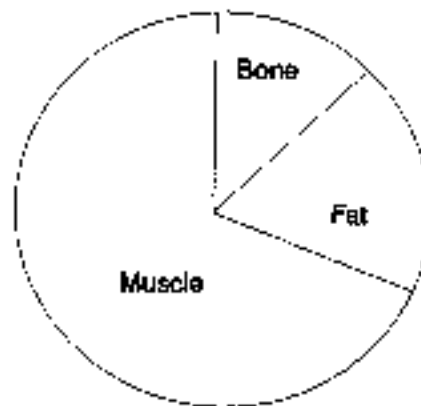
You can tell if animals have a similar skeletal structure by looking at the areas where there is only bone. Look at the cannon bone. If two animals have the same length of cannon bone, they have a similar size of skeleton because the length of the cannon bone is always a constant percentage of the whole skeletal size.

This will help you if you see two steers - one that looks taller and heavier and another that appears smaller and lighter. When you look at their cannon bones, you find that the cannon bones are the same length. This tells you that they have the same size of skeleton. What could account for the difference you see in their size and weight? It must be either muscle or fat.

### Rule #4

Muscles are always located in the same place on each animal. These muscles always have a similar size and shape in proportion to the animal. They do not increase in number or size or change location as the steer grows or gains weight. Double muscled steers are an exception to this.

This is an important point to remember because looking for the amount of red meat on an animal while the animal is still alive can be very difficult. If you know that the muscles covering the rump of the beef animal are long and tapered, you know that a square, flat hind end cannot be composed of entirely muscle because these muscles are rounded and tapered, not flat and square. The rump must have an appreciable amount of fat on it to make it look square. Remember, muscle is round - fat is square.



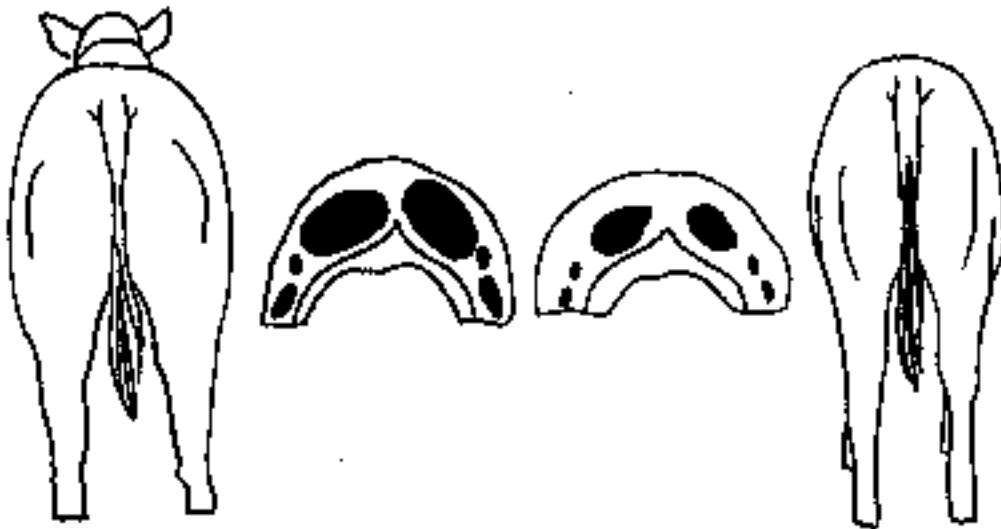
The same goes for the twist area. All beef animals are cut up in the twist. The muscle located in the twist is long and flat and cuts up high into the hip. If your live steer is full in the twist most of the way down to the hock, you know that this area must be filled with fat as muscles do not and never will develop in that fashion.

#### Rule #5

Animals grow and develop in a set way. They always lay down muscle before they lay down any significant amount of fat. So you know that if you find much fat on a market ready steer, his muscles are not going to grow any more. He will just keep getting fatter.

Never think that a fat steer is going to develop more muscle - he has already developed all the muscle he is going to.

Both of these steers have finished developing muscle. If you continue to feed them they will lay down more fat, but no more muscle or meat.



## Judging The Market Animal

When you judge market steers, you are trying to visually assess the lean yield in an animal that is still breathing, walking and dragging its owner all over the ring!

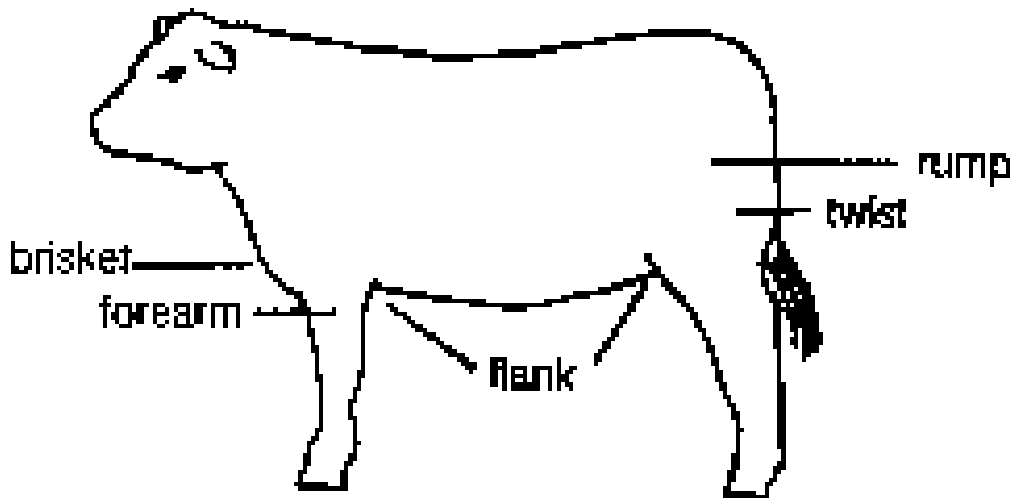
There are three components influencing lean yield. These are bone, muscle and fat. Your first place animal should be the one with the highest lean yield. This will be the one with the highest percentage of lean meat compared to bone and fat. How can you find this animal?

There are some fairly accurate steps you can take to estimate the lean yield if you first understand how a beef animal grows and develops. The idea is to “undress” the steer with your eye to see the meat parts. Your difficulty is trying to “see through” the fat and hide in order to evaluate the meat that is underneath.

The five rules gave you a quick lesson in cattle biology. Let’s now relate this to judging a class of steers.

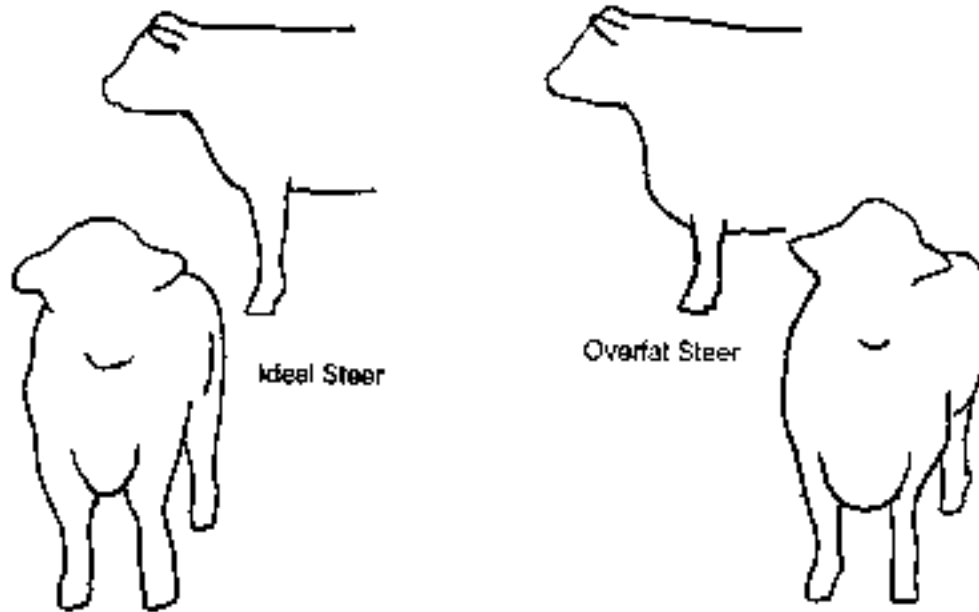
The most important thing to find in market animals is a desirable degree of finish, or amount of fat covering. Graders look for the fat between the 12th and 13th rib. Obviously, we cannot check that area in a live animal but we can look at other areas that indicate fat amount. The challenge you is to identify which is fat and which is muscle.

There are five key areas where you should check for the amounts of fat and muscle. These are the brisket, flank, twist, rump and forearm. Let’s take a close look at each of these key areas.



### The Brisket (view from the front and the side)

The brisket is located underneath the breastbone. The breastbone has very little muscle over it just the tips of two long and narrow muscles. Therefore, if the brisket is deep and full it must be full of waste fat not muscle. If there are fat deposits here, there will be deposits of waste fat in other areas of the carcass.



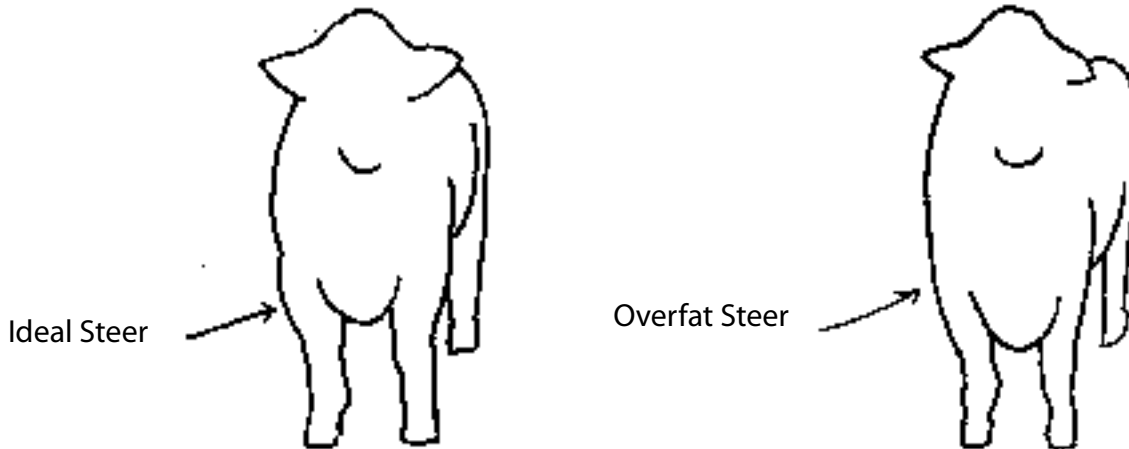
### The Flank (view from the side)

If we look at the muscular structure of the beef animal in the flank area, we can see that there is no muscle or meat there at all. There is also no bone or skeletal structure. It is an area of skin and tough connective tissue. If the flank is deep and full, what could account for this? Nothing but fat. If there is fat here, then there will be other deposits of waste fat in the carcass, because the flank is the final place the animal deposits fat.



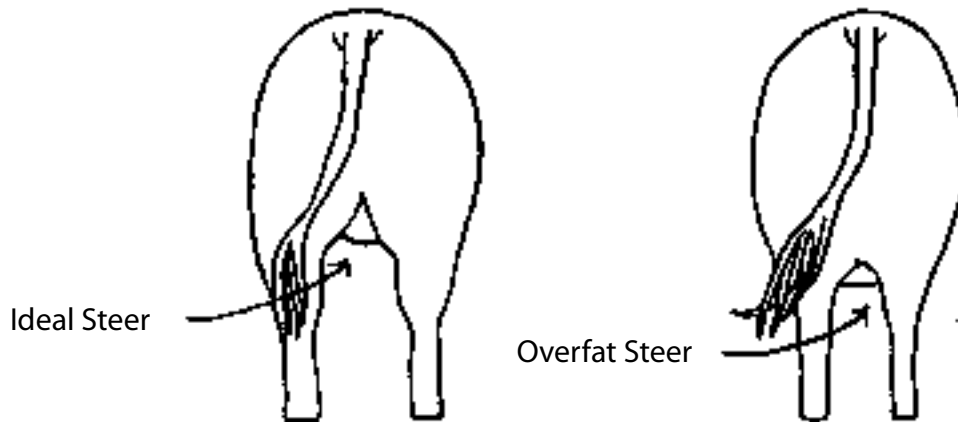
### The Forearm (view from the front)

Examination of the forearm will give you an indication of how well muscled the animal is all over. Look at the forearm because no fat ever accumulates here. It is composed entirely of muscle and bone. If the forearm is bulging and muscular, the animal will have well developed muscles all over its body because, as we already know, muscle develops evenly.



### The Twist (view from directly behind)

A deep, full twist indicates fat, not muscle. If your steer is full all the way down to the hock, this must be fat because the muscles do not extend all the way down to the hock.



## The Rump (view directly from behind)

A desirable steer is thick when viewed from the rear. This indicates good muscling. The muscles covering the rear should be curved and rounded. If the steer has a flat, square rump, it cannot be full of muscle because muscles are not square and rectangular. It must be fat.

Thickness is desirable low in the stifle area. The steer should be thicker through the stifle area than anywhere else. Very little fat is ever laid down on the outside of the stifle region. If the steer is thick here we know it must be full of meat.

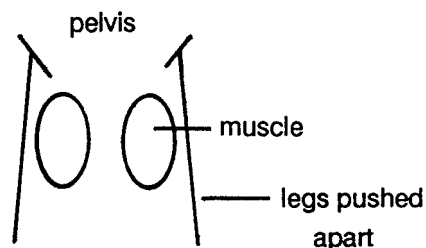
We can observe most about the amount of muscling on the steer by looking directly from behind. Look at the placement of the hind legs. Does the steer stand wide on his hind legs? The hind legs are attached way up in the hip area. If there is lots of meat through this area, the legs will be pushed apart and the steer will stand wide. The hind end contains the high priced cuts. An animal with a wide leg stance, indicating superior muscling in this area, will yield lots of red meat from the rump.



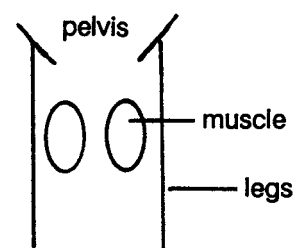
Ideal Steer Rump



Narrow Steer Rump



Pelvis Tilted



Pelvis Straight

Once you have viewed the animal at a distance and evaluated five areas, move in for a closer look. There are points on the steer that contain no muscle or meat, just bone and hide, and... if the animal is finished, a certain amount of fat.

The easiest place to determine the finish of the steer is over the ribs. Feel the ribs about half way down. There should be about 1 cm of fat between the hide and the bone.

Feel the shoulder blade, for there is no muscle here either. There should be only a thin covering of fat over the bone. Handle the steer with the flat surfaces of your fingers or your whole hand, not just your finger tips. The tips of your fingers tickle the animal and make it prone to kick or fidget.



In the show ring, market animals are also evaluated on the way they walk, style and eye appeal, shape of the head, etc. Remember that these things do not affect the quality of meat so don't place more importance on these points than you do on muscling and fat. When placing your class of steers, consider the most important things first - muscle, fat and finish. Then consider the less important characteristics.

The Ideal Steer	
From the front	<ul style="list-style-type: none"> <li>• Stands wide and shows trimness in the brisket and neck.</li> </ul>
From the rear	<ul style="list-style-type: none"> <li>• The top is rounded with the widest point through the stifle.</li> <li>• The legs stand wide apart and the twist shows evidence of muscle development.</li> </ul>
From the side	<ul style="list-style-type: none"> <li>• The brisket and neck are trim, the topline is long and legs are straight and the flank and middle are trim.</li> <li>• Assess the size and scale of the animal.</li> <li>• Remember to look at the cannon bone for an indication of size of bone and skeleton.</li> </ul>

A steer should be sound, alert, healthy, and move without any hindrances. Remember, he has to be able to make it from his bed to his trough and then to the slaughterhouse!



## Judging Breeding Animals

There is more to judging the breeding animal than just evaluating muscle and fat. The breeding animal must be able to last substantially longer than the market steer. Structure and conformation are important. The better the conformation of a cow or bull, the greater the chance that their offspring will also have good conformation.

We want our males and females to consistently produce calves that will:

- produce more quality calves, or
- go to the slaughterhouse and return maximum profit.

The market animal must make it from the calving pen to the feedlot in about a year. A breeding animal must last for many years, withstanding harsh winters, flies, calving, breeding and foraging. Therefore, structure and soundness are very important considerations when selecting breeding stock.

If you are in the purebred industry, you want animals that meet the breed specifications. Breed character and type are also extremely important. Consult breed associations for more information on breed types either by contacting them or checking their web-sites.

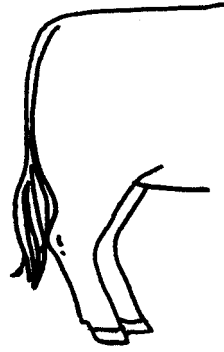
How do you look for these things? It is harder than predicting how a steer will grade but we'll give you a few hints. Remember - all those things that you looked for in a steer are still important because breeding stock must produce those steers. Your breeding stock should have exceptional muscling characteristics just like in a steer. So, all that time and energy spent learning about the market animal has not gone to waste! First, let's look at the ideal breeding animal.

## Feet and Legs

The legs should be set squarely underneath the animal. They should be widely placed and straight when viewed from in front and behind. They should not be bow legged or cow hocked. The hooves should be solid and healthy with no cracks or lesions, and should not be long in the toe. The dew claws should also be short and without any curl. The pastern should be strong yet flexible and should be at a reasonable angle. When viewed from the side, the hock should have the correct set (degree of angulation). Rear legs should be constructed of clean flat bones and the hocks should be free from swelling.



Correct Rear Side



Sickle Hocked



Post Legged



Correct Rear



Bow Legged



Cow Hocked



Rear Leg Correct Pastern



Rear Leg Weak Pastern



Correct Pastern Straight Front Leg



Straight Front Leg Weak Pastern



Back at the Knee



Buck Kneed

### General Appearance

The animal should be healthy and alert, moving freely and easily. The desirable head has good distance between the eyes and a wide muzzle. The shoulder should be smooth and the body parts blended well.

The bull should have more muscle definition than the cow or heifer and his muscles should bunch or ripple when he walks. Remember that the animal, when viewed from the rear, should be widest in the stifle area as this indicates superior muscling. A bull should be more massive than a cow of the same breed. In the bull, the development of the crest, scrotum and other secondary sex characteristics give you evidence of maturity.

The heifer and cow should appear feminine. The head and neck should be refined. She should show appropriate udder and teat development. She should have a wide muzzle so she can forage effectively.

### Capacity

All beef animals should have adequate capacity or internal size. This is shown by a good spring of rib and depth through the chest and heart. Width through the chest which carries right through to the pins is desirable. Greater capacity is always more desirable.

### Breed Character

The animal should exhibit breed characteristics according to the breed association standards. This will include size, frame, shape and conformation.

It is difficult to compare animals of different breeds in the same class. You can make this easier by becoming familiar with characteristics of the different breeds.

### Fertility and Reproductive Capacity

This is where judging can be inaccurate. We do not know for a fact that any heifer will be a good mother, an easy calver, or will produce progeny with a good rate of gain. We do not know by looking at a bull that he will be a successful breeder. However, we do have indicators that assist us in predicting fertility. These are all you have to go on in the show ring. Here are some clues that the industry uses:

#### The Bull

- Head, neck and shoulders in proportion to the rest of the animal
- Head should be carried with poll slightly above the topline of the animal, indicating alertness
- A crest over the neck region, with size dependent on age
- Scrotum should be large and hang straight, not twisted
- Sheath should be compact and close to body

#### The Heifer

- Refined about the head, neck and shoulder
- Pins slightly below the hooks with good distance between the pins
- Signs of udder development with four evenly spaced teats
- Vulva should be tight and firm to guard against infection

#### The Cow

- The producing cow should show the same refined features as the heifer
- Udder balanced with four functioning teats
- Vulva healthy and flush with the body

In a cow-calf class, look at the calf. Is it healthy and thriving? Does it have energy, size and frame? Is its conformation better than that of the cow? An exceptional cow which produces an inferior calf will not be profitable to you. We want cows which pass on their superior qualities to their calves.

### Condition

Condition means the same thing in breeding animals as “finish” does in the market animal. The breeding animal should have less fat than the finished steer. The breeding animal should not have excess finish or be ready for market.

Assess the amount of fat and muscle present to determine growth characteristics. If a heifer carries a lot of fat at one year of age, she will be a less efficient cow than a heifer

on the same diet carrying minimal fat or condition. You are not looking for skinny animals - you are looking for muscular, healthy cattle which are not fat.

There must be a desirable amount of muscle expression in both the sire and dam for the offspring to have the chance of developing desirable muscle. A bull will look meatier and have more overall muscle than a heifer or a cow. A bull should also have less fat than a heifer or cow. Females should show good muscling even though the muscles will not be as pronounced as in bulls.

## Structure

Structure is the skeleton and frame or size of an animal. While there are differences in structure between the breeds, certain things remain true for all cattle. Good feet and legs are essential for good structure. The animal must travel for many years on these feet and legs, so they must be sound and correct. All beef animals must show good size and frame as determined by their breed. They should be long over the top and show capacity and depth.

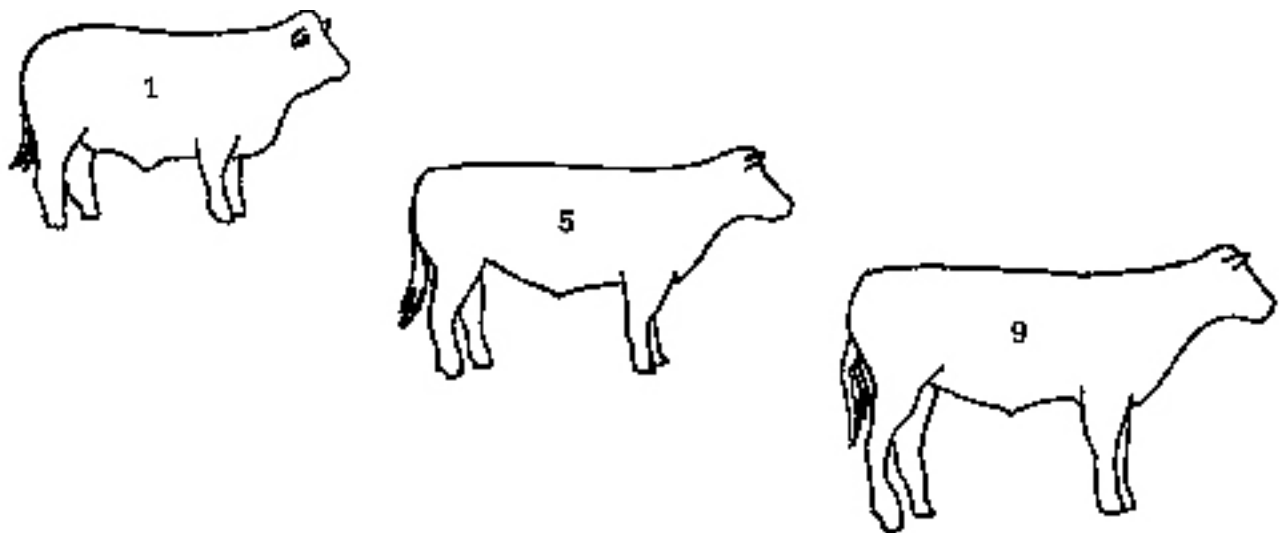
In addition to feet and legs, you should evaluate the rump when checking the structure of an animal. The pins should be slightly lower than the hooks. The tailhead should blend smoothly into the rump and spine. When viewed from behind, the rump should be wide between the pins and nearly square.

The animal should move straight and true. The front hooves should point straight ahead. The back hooves may turn in a little bit at the toe. The back hooves should be set down almost straight behind the front hooves when the animal walks. To see the hoof placement, look at the prints the animal makes in the dirt when it walks.

Body type or frame and muscling are economically important traits. They are related to the ability of the animal to gain weight, develop optimal muscling and cutability characteristics.

A process called frame scoring evaluates body type and muscle on a consistent basis from animal to animal. The body type and muscling at 6 to 8 months is often a very good indicator of the body type the animal will have as a yearling or adult.

Frame score is based on a scale of 1 through 9. The smallest type of cattle will get a low frame score and the largest type will receive a high score. A score of 8 or 9 does not necessarily mean that the animal is the best but indicates that it is the largest type of cattle.



## The Breeding Animal Checklist

Feet and Legs	<ul style="list-style-type: none"> <li>• Legs straight, square and placed wide apart</li> <li>• No swellings, cracks, or lesions in the legs or hooves</li> <li>• Correct set to the rear legs</li> </ul>
General Appearance	<ul style="list-style-type: none"> <li>• Appears healthy and alert</li> <li>• Blended, smooth body</li> <li>• Widest in the stifle</li> <li>• Bull thick and massive</li> <li>• Female refined with udder development</li> <li>• Evidence of lots of muscle; little waste in the neck and brisket</li> </ul>
Breed Character	<ul style="list-style-type: none"> <li>• Exhibits characteristics according to breed standards</li> </ul>
Fertility	<ul style="list-style-type: none"> <li>• Bull - massive with a high headset, crest development, super muscling, large straight scrotum, compact sheath</li> </ul>
Reproductive Capacity	<ul style="list-style-type: none"> <li>• Female - refined and smooth, pins slightly below hooks, width between pins, shows capacity and depth, udder development</li> </ul>
Condition	<ul style="list-style-type: none"> <li>• Less finish than a steer</li> <li>• Evidence of superior muscling</li> </ul>
Structure	<ul style="list-style-type: none"> <li>• Long over the top</li> <li>• Long straight legs</li> <li>• Lots of capacity and depth, large, wide hind</li> <li>• Moves straight and with ease</li> </ul>

## About Beef Breeds

In the beef cattle industry, there are many different breeds. In Alberta alone, there are over 20 breeds. There are important differences between these breeds which you must take into account when judging cattle.

Some breeds have been bred with the emphasis on carcass and growth characteristics while some have been bred for their hardiness and maternal qualities. They all look different in size, shape and colour. It is important to learn about the popular breeds and be able to take their individual features into consideration when judging. You can learn more about the breeds by looking at cattle magazines, breed books, promotional material printed by the breed associations and by attending cattle events.

Familiarity with the breeds is the key to solving the dilemma of comparing different breeds to each other. Know the characteristics of the different breeds.

## A Few Final Hints

Now you know what to look for in the market steer and the breeding animal. The problem is actually picking out these things in the show ring, the field or the judging class. As a 4-H member you are taught how to groom and fit your animals to show them to their best advantage. You are trying to highlight the superior characteristics of your animal, and downplay the other characteristics.

Now the tables are turned and you must look beyond the wrapping and see the real animal underneath. It takes a lot of practice to do this successfully, but it sure can be fun to try!

Good luck judging beef cattle. What you learned for the show ring will help you when you go to the auction mart to buy a heifer, the neighbor's pasture to pick next years' calf, or the feedlot to pick the steers which are ready for market.

Judging will never be an exact science, but with a lot of practice and a little luck, you can become much more successful at selecting the most desirable animals!

## The Judging Class

When evaluating the beef judging class, develop your own system and follow it each time you judge. Your first impression is the most important. Stand 8 to 10 meters from the class and view from a distance. Compare the animals.

When the animals walk, watch for:

- style, freedom of movement
- correct set to feet and legs
- strength of topline
- tightness of frame
- those areas where you look for muscle development
- firmness and amount of finish

When you view from the side, compare:

- size, balance
- length of body
- strength of top
- length of rump - from hooks to pins
- levelness of rump
- trimness of brisket and middle
- muscle development in forearm, round, over back and loin
- substance of bone
- depth of rib
- set to feet and legs
- length of neck
- finish over ribs and forequarters

When you view from the rear, compare:

- thickness over the back, loin and rump
- spring of fore and rear ribs
- trimness of middle
- muscling along the top and in the rear quarter
- freedom from excess finish in the twist, round and pins
- thickness through the stifle
- the set of rear feet and legs



When you view from the front, compare:

- breed type and sex character about the head and neck
- substance of bone
- set of front feet and legs
- muscling through the forearm
- depth and width of chest
- trimness in the throat and brisket
- smoothness through the shoulders

When you have an opportunity to handle the animals, check for:

- firmness
- uniformity, smoothness and amount of finish
- length of rump
- muscling in the shoulder, forearm, rear quarters
- thickness and quality of hide

## Terminology For Reasons

The following terms are acceptable in your reasons. There are many more terms, but these will give you an idea of some of the terms you should be using in your reasons.

Remember to put emphasis on the different areas depending on whether you are judging market or breeding animals.

General Terms	<ul style="list-style-type: none"> <li>• A more lengthy heifer</li> <li>• Carrying more uniform thickness from front to rear</li> <li>• More desirable meaty type</li> <li>• Female showing more balance and symmetry</li> <li>• Longer, trimmer, more correctly finished steer</li> </ul>
Head, Style and Breed Character Terms	<ul style="list-style-type: none"> <li>• More feminine through the head, neck and shoulders</li> <li>• Shows more desirable breed character through head, ears and neck</li> <li>• Cleaner bone and more refined in the legs</li> <li>• Shows more desirable balance and eye appeal</li> <li>• More stylish and alert</li> </ul>

Fore Quarter Terms	<ul style="list-style-type: none"> <li>• Fuller in the heart with a more desirable spring of rib</li> <li>• More smoothly blended through the neck and shoulder</li> <li>• Shows more muscle expression in the forearm</li> </ul>
Back and Loin Terms	<ul style="list-style-type: none"> <li>• Straighter and stronger over the topline</li> <li>• Thicker, meatier, more heavily muscled loin</li> <li>• More correctly finished over the top and loin</li> </ul>
Hind Quarter Terms	<ul style="list-style-type: none"> <li>• Wider, meatier steer</li> <li>• Extremely thick and muscular through the center part of the round</li> <li>• Freer from excess flesh in the twist</li> <li>• Cleaner and trimmer in the flank</li> <li>• Longer, deeper, more dimensional quarter</li> <li>• Showing greater evidence of muscling through the stifle region</li> </ul>
Legs and Bone Terms	<ul style="list-style-type: none"> <li>• Straighter, stronger legged, standing on more substance of bone</li> <li>• Moves straighter and truer on the walk</li> <li>• Stands more squarely on all four legs</li> <li>• Longer bodied, longer hipped</li> <li>• Larger framed steer</li> </ul>
Finish and Carcass Terms	<ul style="list-style-type: none"> <li>• More uniform in his finish</li> <li>• More uniform fat cover</li> <li>• Cleaner over the loin edge</li> <li>• Showing a more desirable degree of finish</li> <li>• Harder, firmer and more correct in the finish over the ribs</li> </ul>

## Sample Reasons

### Hereford Market Steers

"I placed this class of Hereford Market Steers 1 2 3 4 for the following reasons.

I started this class with 1, placing him over 2 because 1 is larger, stretchier, more heavily muscled and stands more squarely on more substance of bone than 2. 1 shows more muscle development in the forearm region, and is longer ribbed, longer rumped and thicker through the stifle. 1 has a more desirable amount of finish than 2. I grant that 2 is cleaner through the throat, neck and brisket than 1.

In my middle pair, I placed 2 over 3 in a very close placing because 2 shows more size, scale and length through the body than 3. 2 is trimmer and cleaner along the underline, and is cleaner in the throat than 3. 2 shows more muscle expression through the forearm than 3, and is cleaner and firmer through the flank. I admit that 3 shows more thickness through the top of the rear quarter than 2.

In my bottom pair, I placed 3 over 4 because 3 is thicker, meatier, and more heavily muscled than 4. 3 is more correctly finished and trimmer and cleaner through the brisket than 4. 3 shows a deeper, thicker, more heavily muscled rear quarter than 4. I grant that 4 is taller and more lengthy than 3, but felt that 4 was too wasteful in the brisket and twist regions to place any higher in the class.

These are my reasons for placing this class of Hereford Market Steers 1 2 3 4 as I see them here today."

# Judging Dairy Cattle

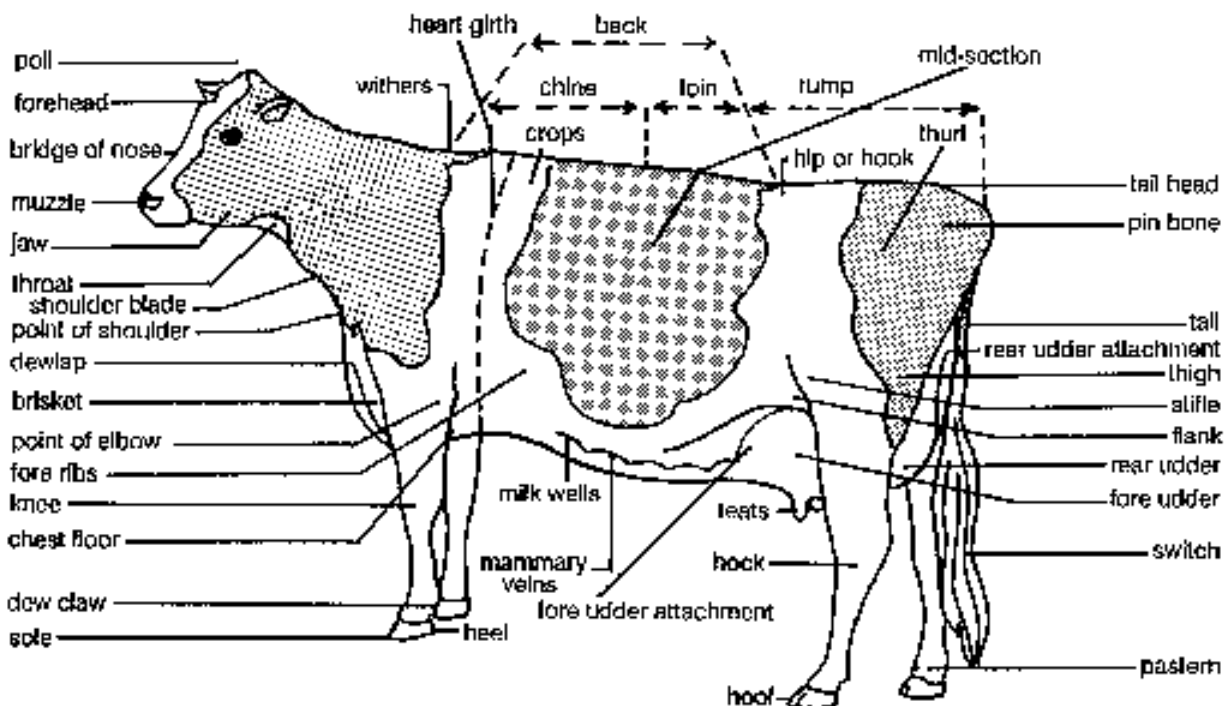
The primary function of the dairy cow is the economical production of milk. It has been proven that quality type or form is directly related to function. In other words, a dairy cow with good quality type has the potential to efficiently and economically produce milk.

This unit will assist you in being able to assess the conformation of a dairy cow by helping you to:

1. Learn the desirable points of conformation in a quality dairy cow and heifer.
2. Show you how to determine if a particular animal possesses these desirable points.

The first step is to learn the parts of the dairy animal.

## Parts of the Dairy Cow



## Judging the Dairy Cow

Once you know the parts of the body, the next step to becoming a successful dairy judge is to learn what the ideal animal looks like. In this section, we will work through the parts of a dairy cow and learn the desirable and undesirable characteristics.

When you judge, do not assign numerical scores. Use the card for relative emphasis only. When cows are classified by the official breed classifiers, classifications and absolute scores are assigned.

## Canadian Holstein Cow Score Card

	Perfect Score
1. Mammary System .....	40
2. Dairy Strength .....	25
3. Feet and Legs.....	25
4. Rump.....	10
Total .....	100

## Canadian Jersey Cow Score Card

	Perfect Score
1. Capacity.....	17
2. Rump.....	10
3. Feet and Legs.....	14
4. Mammary System.....	16
5. Dairy Character .....	17
6. Fore Udder.....	10
7. Rear Udder.....	16
Total .....	100

As you can see, the score cards for each of the different breeds differs slightly. The individual characteristics looked for by each of the breeds is the same, they just place different emphasis on the component parts. Because Holsteins are the predominant breed in Canada, the following information will be based on the Holstein Score Card.

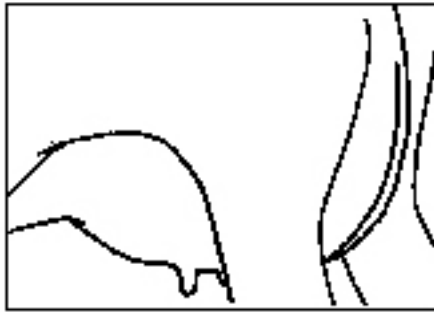
### Mammary System

“A strongly attached, well balanced, level udder of fine texture indicating heavy production and a long period of usefulness.”

The mammary system accounts for 40% of the relative merit, making it the single most important part of the dairy cow. This should be no surprise as the most important economic function of the dairy cow is milk production.

The mammary system includes all of the parts of the body of the dairy cow which have a role to play in the production of milk. Each individual part has its own function and its own specific desirable qualities.

The udder should be symmetrical and well balanced with evenness of all four quarters. It should be securely attached to the body and be capacious, but not necessarily large. This will give the udder a “milky” appearance.



**Excellent Udder**



**Tilted Udder**

### Udder

- symmetrical of moderate length, width and depth
- slight quartering on sides

The udder should be of intermediate depth. The udder should never hang below the hocks of cow of any age.



**Extremely deep udder,  
hangs below hocks**

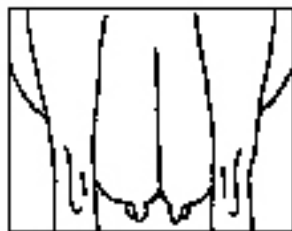


**Udder floor level with  
hocks**



**Extremely shallow  
udder**

The Median Suspensory Ligament is the strong supportive ligament which runs lengthwise through the center of the udder. It should be strong but not overly tight, giving a definite cleavage or crease between the halves of the udder. If this ligament is not strong enough, the floor of the udder will bottom out, causing the udder to weaken and the teats to point outward.



**Extremely strong median suspensory ligament.**



**Intermediate strength median suspensory ligament.**



**Extremely weak median suspensory ligament.**

Udder texture should always be soft, pliable and elastic. After milking, the udder should be well collapsed.

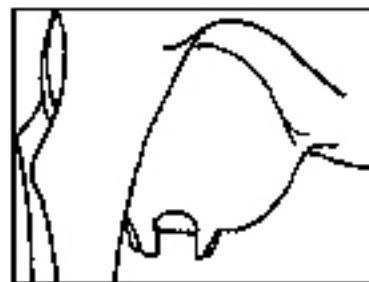
The Fore Udder is composed of the front parts of the udder. Most important here is the moderately long, firm and smooth attachment of the fore udder to the body wall. A longer fore udder attachment provides for a more capacious udder. With a well attached fore udder and a strong median suspensory ligament, the quarters will be evenly balanced. A strong fore udder attachment corresponds to a longer lasting dairy cow.



**Desirable fore udder**



**Short fore udder**

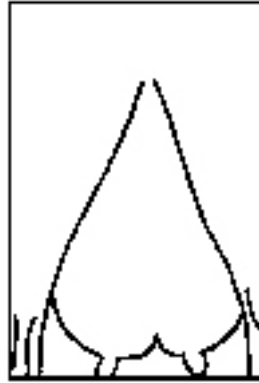


**Bulgy, loose fore udder attachment**

The Rear Udder is composed of the hind parts of the udder. Most important here is the high, wide and firm attachment of the rear udder. It should be balanced in proportion to the fore udder attachment. The rear udder should have a slightly rounded appearance and be uniform in width from the top of the attachment to the floor of the udder with even balance of the quarters.



**Desirable rear udder with high, wide rear attachment**

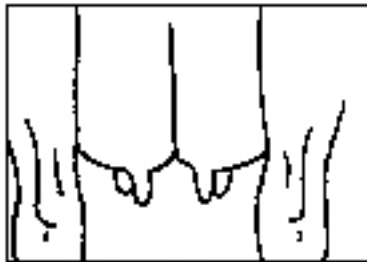


**Low, narrow rear udder attachment**



**Rear udder tucked inward limiting rear udder capacity**

There should be four fully functional Teats of uniform size and medium length and diameter. The teats should be cylindrical and plumb and should hang perpendicular to the floor of the udder. From a side view, the teats are placed in the center of each quarter. From a rear view, the teats are slightly closer to the inside than the outside of each quarter.



**Ideal udder with 4 evenly placed teats**



**Teats too long**

The Mammary Veins should be long, tortuous (winding) and branching. Prominent udder veining, although it is attractive, is not associated with higher milking ability.



## Dairy Strength

Dairy Strength makes up 25% of the Holstein score card.

“Evidence of milking ability, angularity, and general openness, without weakness; freedom from coarseness, giving due regard to stage of lactation. With attractive individuality indicating vigour, strength, stretch, size and stature with harmonious blending and proportional balance of parts; head indicating femininity with adequate strength, mid-section relatively large providing ample capacity.”

### Holstein Cow

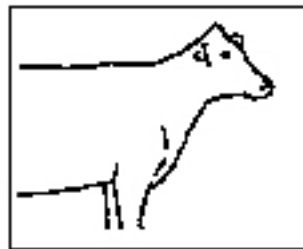
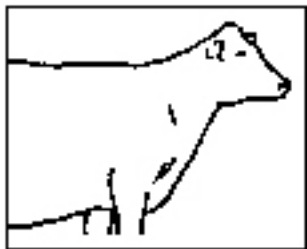
Height - 1.5 meters or 58 inches

Weight - 680 kg or 1500 pounds

### Jersey Cow

Height - 1.3 meters or 52 inches

Weight - 450 kg or 1000 pounds

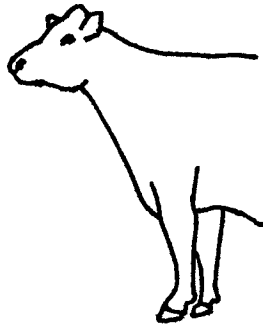


**Desirable dairy character  
(side and top view)**

**Undesirable dairy character  
(side and top view)**

## Head

- clean cut and feminine
- eyes large and bright
- ears carried alertly resulting in a head with character appropriate for the breed
- broad muzzle with large, open nostrils
- jaws meet properly without overlap
- strong lower jaw
- broad forehead



Ideal dairy head - with smooth blending of head, neck and shoulders

## Neck

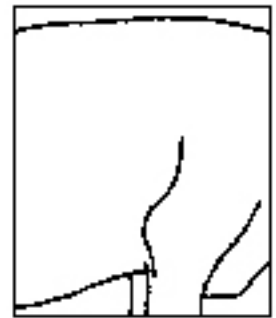
- long, lean and clean
- blending smoothly into the shoulder
- clean about the throat, dewlap and brisket



**Ideal dairy neck and shoulders**



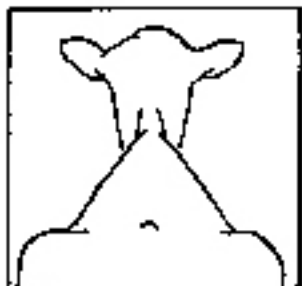
**Coarse shoulders, throaty**



**Winged shoulders**

## Withers

- well defined, prominent and wedge shaped
- dorsal process of vertebrae rise sharply above shoulder blades



**Desirable withers  
well defined**



**Undesirable withers  
overconditioned**

## Ribs

- wide apart
- rib bones are wide, flat and long

## Flanks

- deep and refined

## Thighs

- incurving to flat from side view
- from the rear view, wide apart, providing ample room for the udder and its rear attachment

## Udder

- soft and pliable in texture
- free from excess tissue or edema (hardness or swelling in the udder)

## Bone

- flat, strong and clean cut

## Be Aware That:

Stage of lactation affects the appearance of the dairy character of the cow. A cow which has freshened two months prior will show more dairy character than a similar cow which has been milking for nine months. As the cow progresses in her lactation, she will carry more condition. Take this into consideration when you are judging dairy cattle.

Cows which are too dairy may be frail. There is a point where a cow lacks the strength to produce. A cow with good dairy character will also be strong.

### Shoulder Blades

- set smoothly against the chest wall and withers
- form neat junction with the body

### Chest

- wide floor, resulting in ample width between the legs
- well filled
- desirable width and power through chest
- narrow and pinched through the chest

### Heart Girth

- large and deep
- full at the elbows with well sprung fore ribs
- fore ribs blend smoothly into the shoulders

### Crops

- well filled

### Back

- strong and straight
- vertebrae are well defined

### Loin

- broad and slightly arched
- vertebrae are well defined
- attachment to hip bones is high and wide

## Mid-section

- long ribs highly and widely sprung
- depth and width of ribs tending to increase towards the rear



**Desirable Body Capacity**  
- deep through the heart  
- back strong and straight  
- broad, strong loin  
- ribs high and wide



**Undesirable Body Capacity**  
- shallow through the heart  
- back fleshed  
- weak over the loin  
- narrow ribbed

## Note

- Look at body capacity as being three dimensional. Always consider the length, depth and width of the dairy animal.

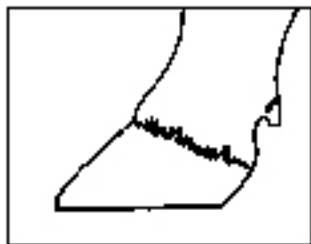
## Feet and Legs

"Clean and strong boned, with shape and movement of feet and legs resulting in proper carriage of the animal."

Feet and legs make up 25% of the score on the Holstein Score Card. When evaluating feet and legs, check for the following:

### Feet

- short and well rounded, with deep heel
- toes slightly spaced



**Short, strong pasternus. Good depth of heel, proper angle.**



**Long, weak pasternus. Shallow heel. Low angle.**

## Legs

- pasterns strong, of medium length and flexible
- forelegs straight and wide apart with feet squarely placed
- hind legs nearly perpendicular from hock to pastern from side view
- straight and wide apart from the rear view
- hocks cleanly molded
- bone flat, strong and flinty, with tendons well defined



**Ideal Rear Legs**



**Sickle Hocked**



**Post Legged**



**Cow Hocked**

## Rump

“Long, wide and clean cut, blending desirably with the loin.”

Rump accounts for 10% of the Holstein score card. The characteristics which should be evaluated when examining the rump are:

### Hip or Hooks

- wide, but not prominent
- slightly higher than the pins

### Pins

- wide apart and free from patchiness
- slightly lower set than hip or hooks

### Thurls

- high and wide apart
- give consideration to the stage of lactation
- closer to a line drawn vertically from the hook is more desirable

### Tailhead

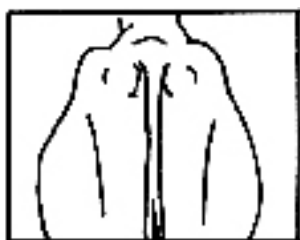
- refined
- carrying out level with the backline
- set slightly higher than the pins

### Tail

- long and slender

### Pelvic Angle

- moderately sloped with pins set slightly lower than the hooks



**Extremely Narrow Rump**



**Intermediate Width of Rump**



**Extreme Width of Rump**



**Pins set higher than hooks  
- undesirable**



**Nearly level Pelvic Angle  
- pins slightly lower than  
hooks**



**Severe slope  
- pins set extremely below  
hooks**

## Evaluating Cow Faults or Faults

There are faults which should be identified and discriminated against when judging dairy cattle. Some are more serious than others. The following list separates the faults into slight, moderate and serious discriminations. Be aware of the seriousness of these faults when judging dairy cattle.

### Slight Discrimination

- High tailhead
- Mammary system reverse tilt
- Low loin
- Open toed

### Moderate Discrimination

- Recessed tailhead
- Advanced tailhead
- Wry tail
- Mammary system tilt
- Bulgy fore udder
- Heavy fore udder
- Short fore udder
- Front teats not plumb
- Lacks udder shape
- Rear udder unbalanced
- Rear teats not plumb
- Rear udder short
- Rear teats too far back
- Close ribbed
- Undesirable head
- Weak crops
- Weak back
- Lacks balance
- Not well sprung
- Narrow heart
- Frail
- Weak pasterns



- Coarse hocks
- Lacks bone
- Toes out in front

### Serious Discrimination

- Thurls too far back
- Webbed teat
- Stance/mobility
- Advanced anus
- Wry face
- Blind quarter
- Crampy
- Parrot jaw
- Protruding lower jaw
- Freemartin heifers

It is your responsibility as a judge to be able to identify these faults.

## Judging the Dairy Heifer

A dairy heifer is a young dairy female, usually under the age of two years, which has not yet calved.

When judging dairy heifers, look for structurally correct, clean-cut, open-ribbed, stylish animals with adequate size for their age.

The same points are desired in the dairy heifer as in the dairy cow. The emphasis you should place on each of these areas is:

	Relative Emphasis
Feet and Legs .....	35
Dairy Strength.....	50
Rump .....	15
Total .....	100

When judging dairy heifers you should check to make sure that they have four regularly sized teats.

Heifers will generally not show the angularity which is desired in the cow. Older heifers will carry more flesh which will be evident over the rump and at the withers. This fleshiness is tolerated in springing heifers.

An ideal dairy heifer will have these characteristics:

- correctly set rear and fore legs
- tall, upstanding and stylish
- adequate strength and capacity
- straight and smooth over the topline
- level and wide in the rump
- smoothly blended and proportionate body parts
- sharp and clean over shoulders and withers

## Judging Dry Cows

Dry cows are those dairy cows which are not currently milking.

When judging any class of dairy cows, you must give consideration to the stage of lactation. Dry cows will normally be carrying extra flesh. They will not show the sharpness and dairyness desired in the milking cow.

The dry udder should be well collapsed, soft and pliable. As the cow nears calving, the udder will begin to fill and lose its softness. Dry or in milk, the udder should always be uniform and strongly and smoothly attached, both front and rear.

## Terminology for Judging Dairy Cattle

<p>The Mammary System</p>	<ul style="list-style-type: none"> <li>• Stronger attached udder, both fore and rear</li> <li>• More level in the udder floor</li> <li>• Carries her udder higher above her hocks</li> <li>• Udder held tighter to the body wall</li> <li>• More evenly balanced udder</li> <li>• Showed more desirable quality and texture of udder</li> <li>• Teats more uniform in size and shape</li> <li>• More correct placement of the teats</li> <li>• More desirable veining in the udder</li> <li>• Carries her udder higher above the hocks</li> <li>• Has a stronger median suspensory ligament</li> <li>• Stronger center support in the udder</li> <li>• A deeper crease in her udder</li> <li>• More clearly defined halving in the udder</li> <li>• More halving when viewed from the rear</li> <li>• Stronger center attachment</li> <li>• More fullness at the top (bottom) of the rear udder</li> <li>• More height and strength of rear udder attachment</li> <li>• More symmetry and balance of rear udder</li> <li>• Higher, wider, stronger rear udder attachment</li> <li>• Longer, smoother, firmer fore udder attachment</li> <li>• Stronger fore udder attachment</li> <li>• A longer, more tightly attached fore udder</li> <li>• Less bulginess of fore udder</li> <li>• Tighter in the fore udder attachment</li> <li>• More firmly attached fore udder</li> <li>• Fore udder that blends more smoothly into the body wall</li> <li>• Snugger in the fore udder attachment</li> <li>• Longer fore udder attachment</li> </ul>
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<p>The Mammary System (continued)</p>	<ul style="list-style-type: none"> <li>• Teats more desirable in size, shape and placement</li> <li>• More nearly correct teat size</li> <li>• Teats hanging more nearly plumb</li> <li>• Teats placed more correctly beneath more quarter</li> <li>• More nearly correct front teat placement</li> <li>• Teats placed more squarely beneath the quarters</li> <li>• More correct teat placement as viewed from the side (rear)</li> <li>• More apparent quality in the udder</li> <li>• More prominent veining</li> <li>• Larger, more capacious udder</li> <li>• More symmetry of udder</li> <li>• More bloom and capacity of udder</li> </ul>
<p>Dairy Strength</p>	<ul style="list-style-type: none"> <li>• More angularity and clean-cutness</li> <li>• More openness of rib</li> <li>• More dairyness throughout</li> <li>• Cleaner down the top-line</li> <li>• Flatter (leaner or thinner) in the thighs</li> <li>• More curving in the thighs</li> <li>• More refined over the withers</li> <li>• Sharper over the withers</li> <li>• Cleaner and flatter down through the rump and the thighs</li> <li>• Longer and leaner neck</li> <li>• Blends more smoothly from neck to shoulders</li> <li>• Cleaner about the brisket and dewlap</li> <li>• Deeper and more refined in the flank</li> <li>• More feminine head</li> <li>• Wider muzzle and stronger jaw</li> </ul>

<p>Dairy Strength (continued)</p>	<ul style="list-style-type: none"> <li>• More alert and brighter eye</li> <li>• Cleaner through the head and neck</li> <li>• More substance and angularity</li> <li>• Stronger over the loin</li> <li>• Taller at the point of the withers</li> <li>• More depth and openness in the rib</li> <li>• Deeper through the heart</li> <li>• Fuller through the crops and fore rib</li> <li>• Showed more spring of rib</li> <li>• More capacious through the middle and mid-section</li> <li>• Wider through the chest floor</li> <li>• Fuller in the shoulder</li> <li>• Shows more stretch and scale</li> <li>• Deeper in the rear(fore) rib</li> <li>• More size, scale and substance</li> <li>• Longer from end to end</li> <li>• More harmonious blending of parts</li> <li>• More symmetry and balance</li> <li>• Feet and legs</li> <li>• Deeper in the heel</li> <li>• Stands on a stronger, straighter set of legs</li> <li>• Stands more squarely on her legs</li> <li>• Flatter and cleaner bone in the rear leg</li> <li>• More correct set to the leg</li> <li>• Stronger on her pasterns</li> <li>• Tracks more correctly</li> <li>• Deeper in the heel</li> <li>• More mobility</li> </ul>
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Rump	<ul style="list-style-type: none"><li>• Higher and wider over the thurls</li><li>• Wider and more level rump</li><li>• Wider and more level from hooks to pins</li><li>• Smoother over the tailhead</li><li>• Tailhead sets neater between the pins</li><li>• Longer and leveler from hips (hooks) to pins</li><li>• Wider in the pins</li><li>• Tailhead that sets more neatly between the pins</li><li>• Neater in the tail setting</li><li>• More correctly set tail head</li></ul>
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## Sample Reasons

### Three Year Old Holstein Cows

1 placed this class of three-year old Holstein cows 1 2 3 4. This class easily divided itself into 2 pairs – a top and bottom pair.

The top pair has definite advantages in strength, balance and body capacity. Looking more closely, 1 has a slight advantage over 2 in dairyness, is cleaner cut about the head and slightly longer in her neck. 1 also excels over 2 in the mammary system. 1 is higher and wider in the rear udder attachment and has a definite advantage in front teat placement.

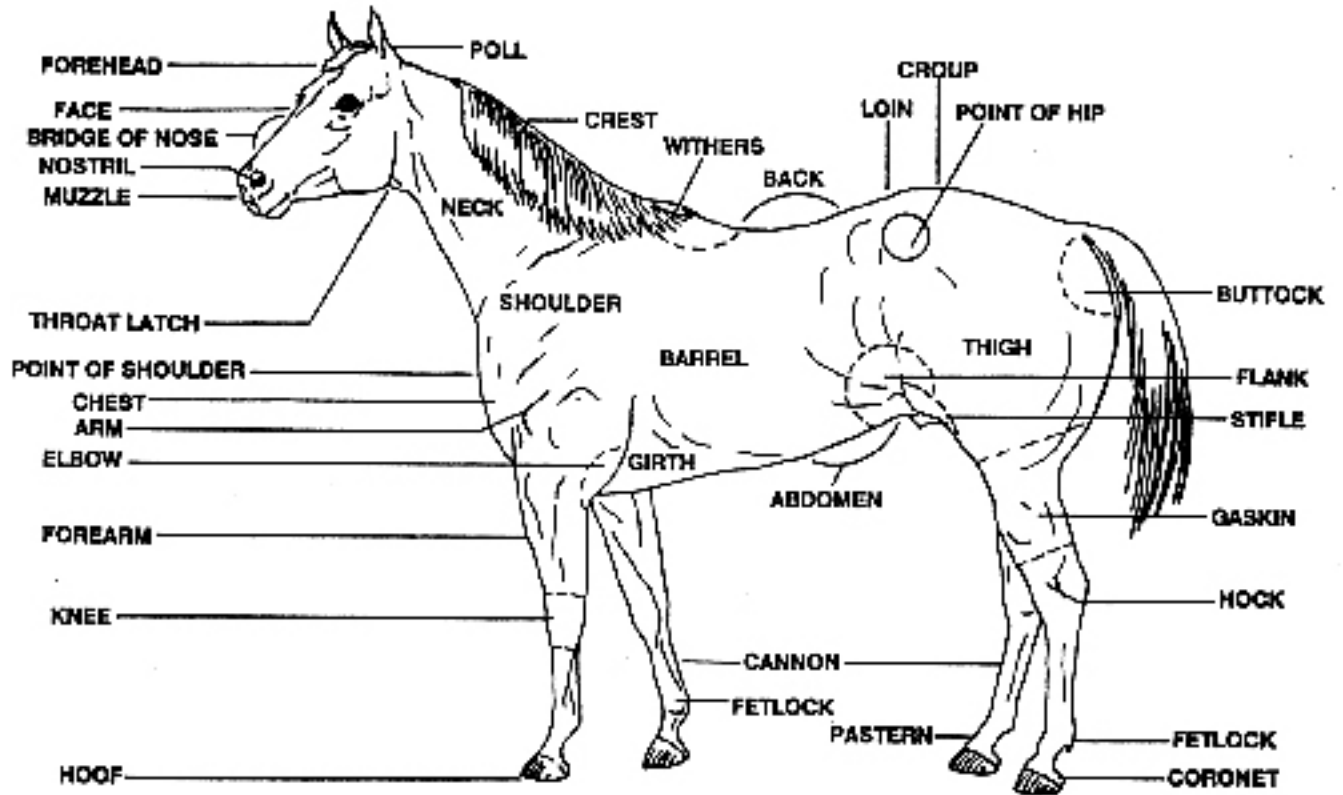
Placing 2 over 3 was an easy placing. 2 has advantages in balance, body capacity and strength front end. 2 is wider in the chest floor, fuller in her crops and fore rib and stands straighter on her front feet than 3. I admit that 3 shows more balance of rear udder, left to right.

In placing 3 over 4, I credit 3 with more substance and angularity throughout. 3 is straighter on top, fuller in the crops and smoother at the point of shoulder than 4. 3 has a big advantage in the mammary system. She is higher and wider in the rear udder, has a more level udder floor and is more correct in teat shape and placement.

These are my reasons for placing this class of three-year old Holsteins 1 2 3 4.

# Judging Horses

## Parts of the Horse





## Colours

Horses come in many colours. Some of the colours of horses and their corresponding descriptions are as follows:

Colour	Description
Bay	<ul style="list-style-type: none"> <li>• Body colour ranges from tan, through red, to reddish-brown.</li> <li>• All points are black, including muzzle.</li> <li>• Lower legs are usually black.</li> </ul>
Black	<ul style="list-style-type: none"> <li>• Body colour is true black without any light areas.</li> <li>• Mane and tail are black.</li> </ul>
Brown	<ul style="list-style-type: none"> <li>• Body colour is brown or black with light areas at the muzzle, eyes, flank and inside the upper legs.</li> <li>• Mane and tail are black.</li> <li>• Usually black on lower legs.</li> </ul>
Chestnut	<ul style="list-style-type: none"> <li>• Body colour is dark red or reddish-brown.</li> <li>• Mane and tail are usually the same colour as the body, but may be flaxen.</li> </ul>
Sorrel	<ul style="list-style-type: none"> <li>• Body colour is reddish or copper-red.</li> <li>• Mane and tail are usually the same colour as the body, but may be flaxen.</li> <li>• Sorrel and Chestnut are often intermixed.</li> </ul>
White	<ul style="list-style-type: none"> <li>• A true white horse is born white and remains white throughout its life.</li> <li>• A white horse has snow white hair, pink skin and normally has brown eyes.</li> </ul>
Dun	<ul style="list-style-type: none"> <li>• Body colour is yellowish, brownish-red or gold.</li> <li>• Mane and tail may be black, brown, red, yellow, white, or mixed.</li> <li>• Has dorsal stripe down the spine, and/or zebra stripes on the legs, and/or transverse stripes over the withers.</li> </ul>
Buckskin	<ul style="list-style-type: none"> <li>• A form of dun with body colour yellowish or gold.</li> <li>• Mane and tail are black or mixed.</li> <li>• Other markings can be the same as the dun but most have black on the lower legs and ear tips.</li> </ul>
Palomino	<ul style="list-style-type: none"> <li>• Body colour is a golden yellow.</li> <li>• Mane and tail are white.</li> </ul>
Grey	<ul style="list-style-type: none"> <li>• Mixture of white and black hairs.</li> <li>• Usually born solid coloured or almost solid coloured and becomes lighter with age.</li> </ul>
Roan	<ul style="list-style-type: none"> <li>• Any coat colour except black mixed with white hairs.</li> <li>• Present at birth and does not change as the horse ages.</li> </ul>

## Balance

### Definitions

#### Balance

- All of the parts of the body are in correct proportion to each other, resulting in a pleasing appearance.

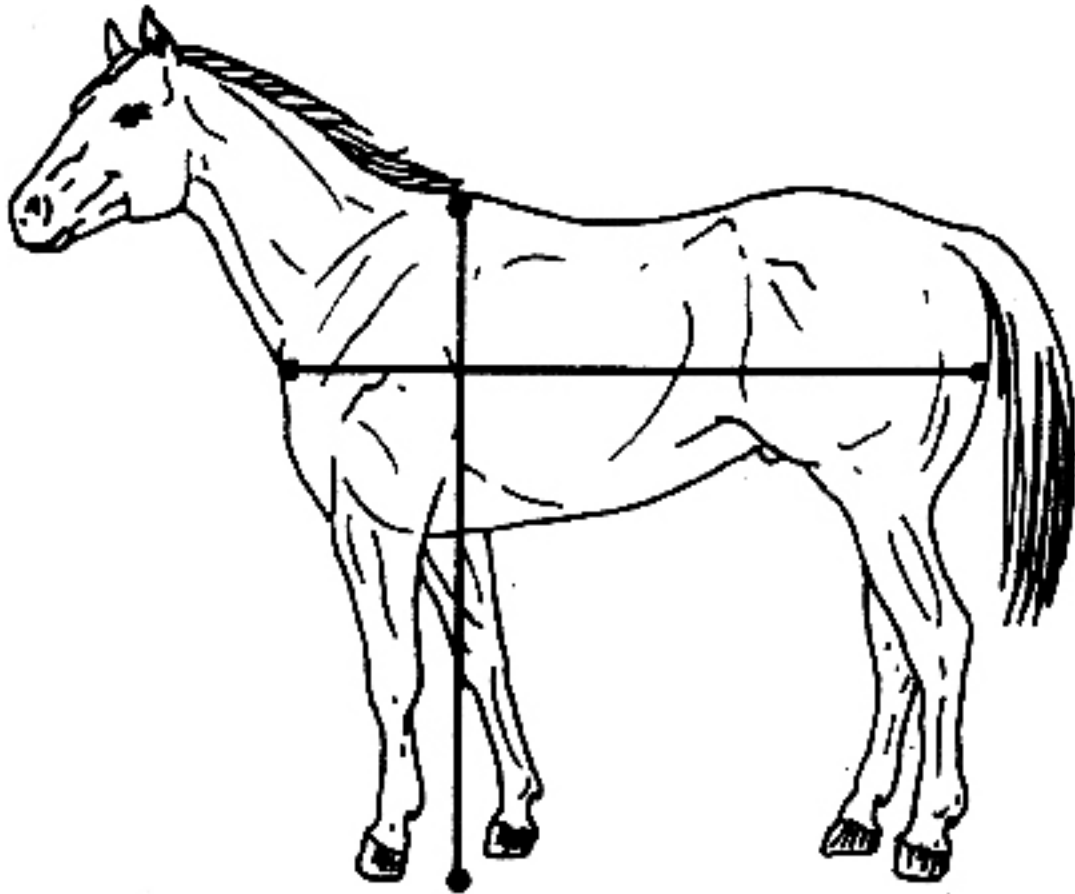
#### Symmetry

- When viewing the horse from the front and rear, divide the horse in half down the spinal column.
- Each half should be a "mirror image" of the other.

### Methods of Determining Balance

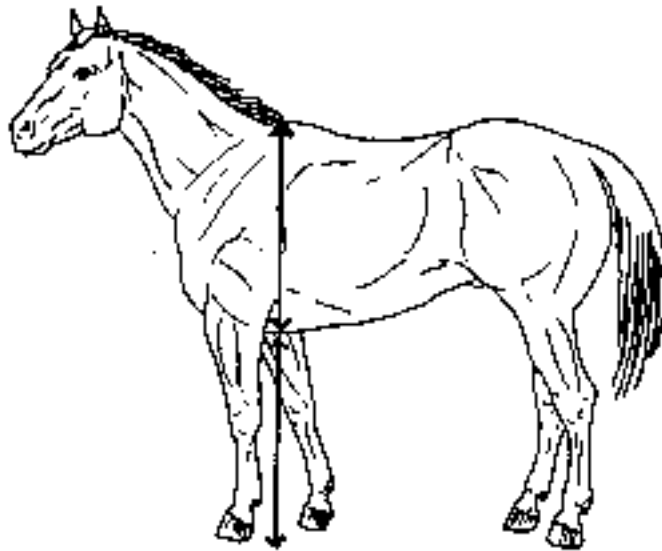
#### 1. Length = Height

The length of the horse from the point of shoulder to the point of buttock should be equal to the height of the horse from the top of the withers to the ground.



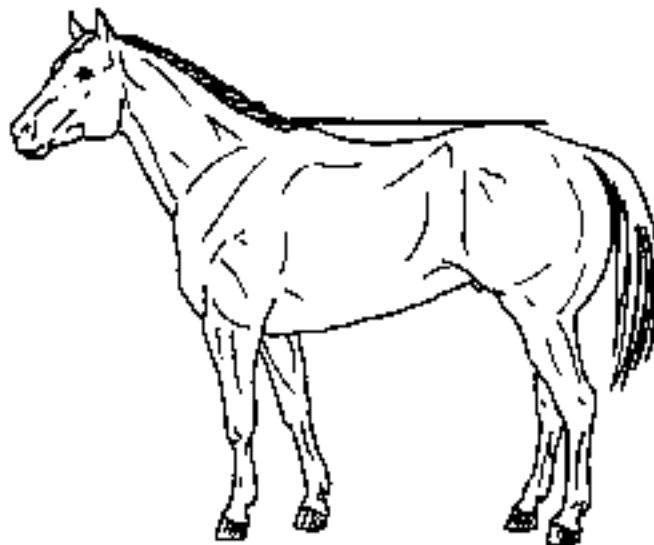
## 2. Length of Foreleg = Depth of Heartgirth

The length of the foreleg from the ground to the elbow should be equal to the depth of the heartgirth from the elbow to the top of the withers.



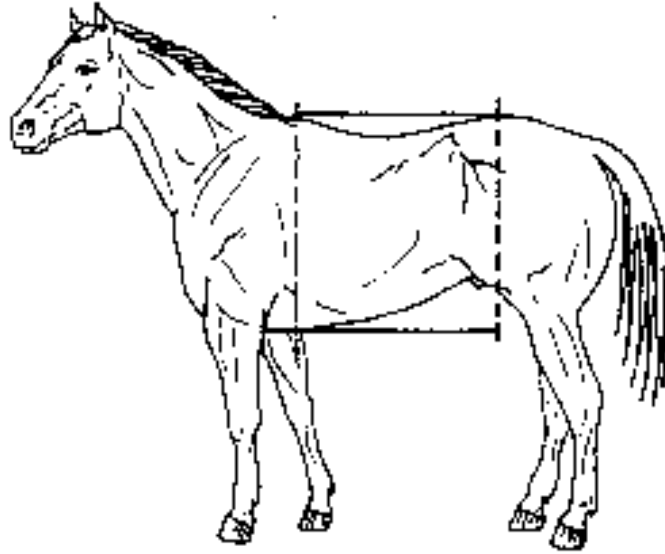
## 3. Levelness of Topline

The point of the croup should be at the same height as the top of the withers.



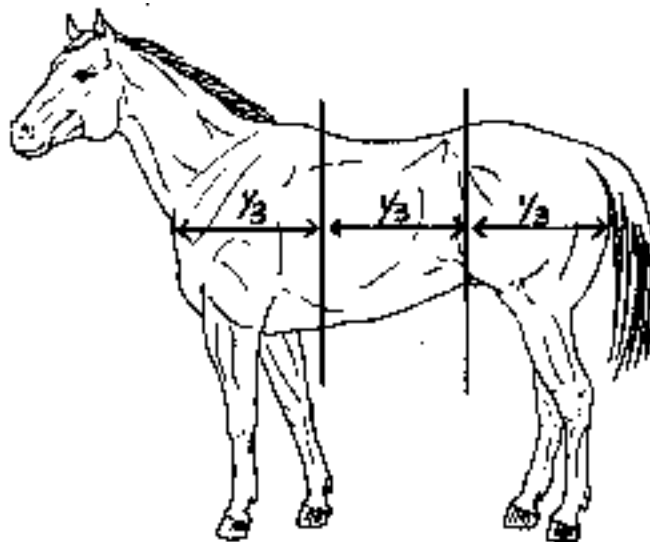
#### 4. Top to Bottom Line Ratio

The well balanced horse has a shorter top line (from the point of the withers to the point of the hip) in comparison to a longer bottom line (from the point of the elbow to the stifle).



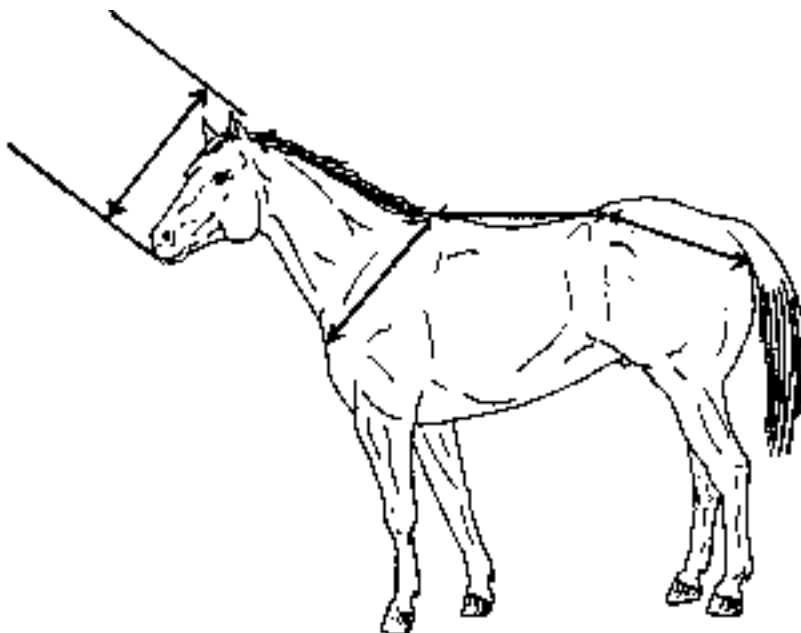
#### 5. Divide the Horse in Thirds

Divide the horse into thirds by dropping lines down from the top of the withers and the point of the hip. The length of each of these three segments should be the same.



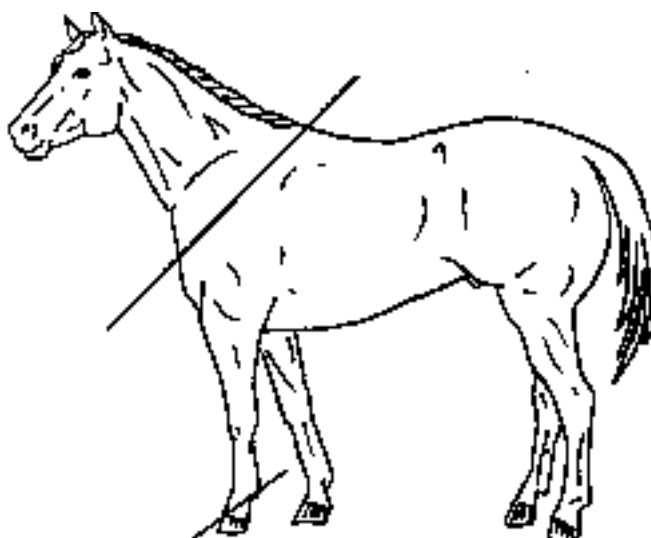
## 6. Equal Lengths

In the well balanced horse, the head, neck, shoulder, topline and hip lengths should be approximately equal.



## 7. Parallel

In the well-balanced horse, the slope of the pastern and the slope from the point of shoulder to withers should be parallel. They should both have a slope of approximately 45°.



## Muscling

### What is muscling?

Muscle is the tissue which contracts and relaxes to cause your horse to move. Muscling refers to how well you can see the length, definition and volume of muscling in your horse.

### Length

- Long, smooth muscles are more desirable than short, bunched muscles. Long muscles give the horse a longer stride and more endurance. Bunched muscles tire more quickly and give your horse less endurance.

### Definition

- You can easily see the outline or definition of each muscle beneath the skin of your horse.

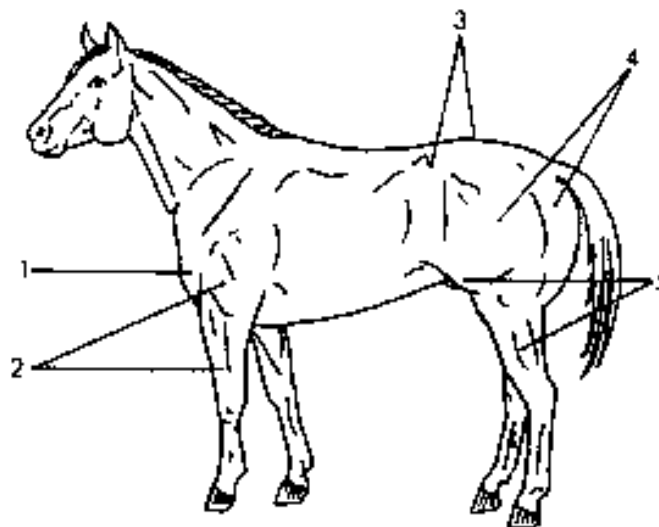
### Volume

- This is the amount of muscle. The greater the volume or amount of muscle, the greater the strength of the horse.

### Where do you look for muscling?

Evaluate the amount of muscling and determine if it is desirable. To find the amount of muscling on your horse, look in these areas:

1. Chest
2. Shoulder, arm and forearm
3. Loin and croup
4. Buttock and thigh
5. Stifle and gaskin



## How does muscling differ from one horse to the next?

All horses fit into one of the five following body types. Each of these types has specific characteristics which separate it from the next body type.

Draft Type	<ul style="list-style-type: none"> <li>• Clydesdale, Shire, Belgian, Percheron, etc.</li> <li>• Heavily muscled, large framed, large boned.</li> <li>• Used primarily for plowing, pulling, driving and other hard work.</li> </ul>
Stock Type	<ul style="list-style-type: none"> <li>• Quarter horse, Paint, Appaloosa, etc.</li> <li>• Well-muscled, deep bodied.</li> <li>• Center of gravity is close to the ground.</li> <li>• Used primarily for short distance racing, roping, reining, cutting, pleasure and gymkhana events.</li> </ul>
Saddle (Gaited) Type	<ul style="list-style-type: none"> <li>• Arabian, Morgan, Saddlebred, etc.</li> <li>• Longer muscled, longer neck and body.</li> <li>• More refinement, higher set arching neck, higher tail carriage, often more animated movement.</li> <li>• Used primarily for pleasure, park and driving.</li> </ul>
Hunter Type	<ul style="list-style-type: none"> <li>• Thoroughbred, Warmbloods, etc.</li> <li>• Larger, longer bodies, deeper hearted, longer muscled.</li> <li>• Used primarily for long distance racing, jumping, cross-country, 3-day eventing, dressage and pleasure.</li> </ul>
Pony Type	<ul style="list-style-type: none"> <li>• Welsh, Shetland Pony, etc.</li> <li>• Usually 14.2 hands or less, usually resemble stock type or saddle type breeds, generally shorter neck and body.</li> <li>• Used primarily for children's mounts and driving.</li> </ul>

## Quality and Refinement

Refinement is a general lack of coarseness.

The factors closely associated with quality and refinement are:

- a. a refinement of body parts - the horse should be smooth and clean-cut, not coarse
- b. tendons and joints should be well-defined, not fleshy
- c. short, shiny hair coat
- d. tight, thin skin
- e. hard, smooth, durable hooves
- f. obvious sex character

## Sex Character

### Stallions

- should look masculine.
- when compared to geldings and mares, stallions should show:
  - heavier, more powerful muscling
  - a larger and broader head
  - a larger muzzle and jaw
  - a thicker more muscular neck
  - more substance for larger bone.

### Mares

- should look feminine.
- compared to stallions and geldings, mares should show more refinement about the head and neck.
- compared to stallions, mares are not as heavily muscled and have less substance of bone.

### Geldings

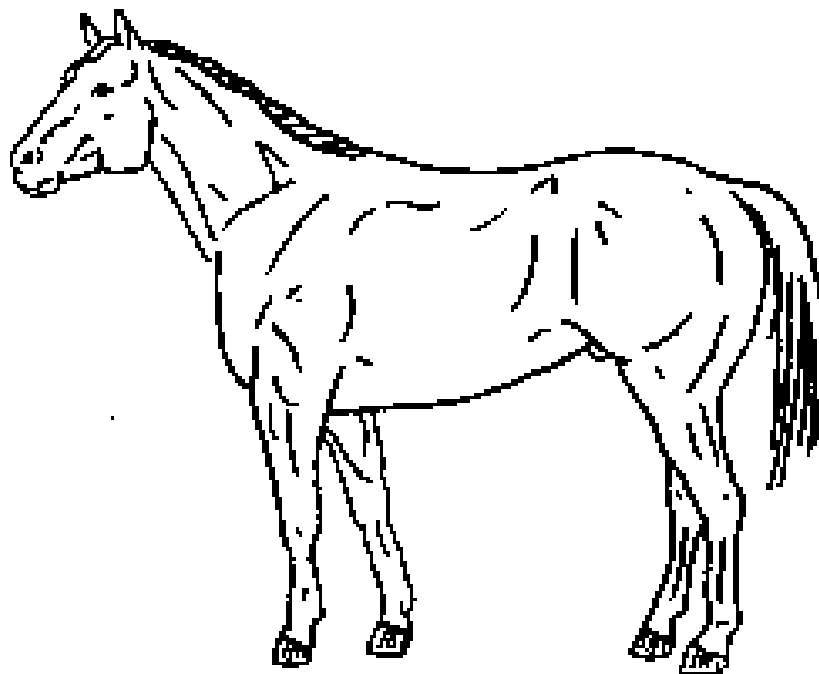
- should look more masculine than mares, but much less masculine than the stallion.
- the volume of muscling and substance of bone in a gelding will be about the same as in the mare.

Note: a lack of masculinity in the stallion or a lack of femininity in the mare may indicate a reduced ability to reproduce.



## The Ideal Horse

The ideal horse has specific characteristics. You will find the following characteristics in the conformation of the ideal horse. Work through these characteristics to learn more about what the ideal horse looks like.



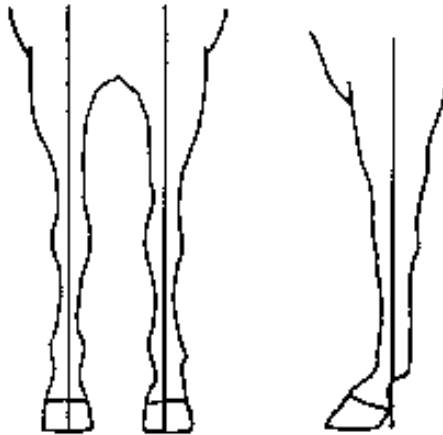
**ideal**

## The Forelimbs

The Forelimbs	
Side View	<ul style="list-style-type: none"> <li>• A line dropped perpendicular to the ground, or a plumb line, should pass through the center of the knee, cannon and fetlock, and touch the back of the heel.</li> </ul>
Front View	<ul style="list-style-type: none"> <li>• A plumb line dropped from the point of the shoulder should pass through the center of the forearm, knee, cannon, fetlock, pastern and hoof.</li> <li>• The knees and toes should point straight forward.</li> <li>• The feet should be as far apart on the ground as the limbs are at the point of the shoulder.</li> </ul>

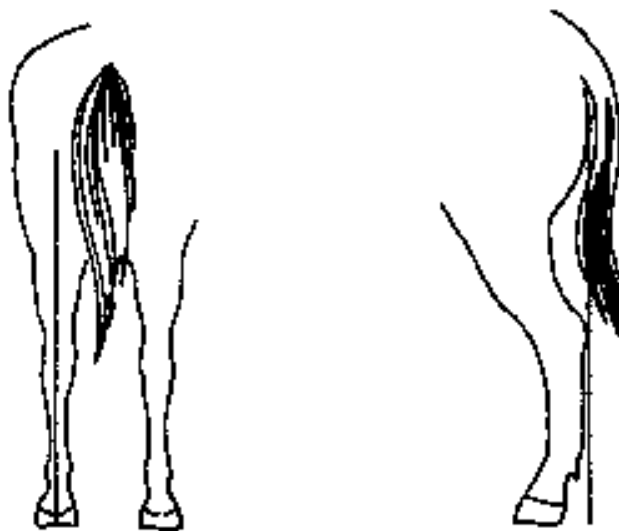
## General Structure of the Forelimbs

The Forelimbs	
Forearm	<ul style="list-style-type: none"> <li>• Long with well-defined muscling that ties in close to the knee.</li> <li>• Large at the top of the forearm and tapers as it approaches the knee.</li> <li>• Draft and stock type horses will have more volume of muscle in the forearm when compared to the hunter, saddle and pony types.</li> </ul>
Knee	<ul style="list-style-type: none"> <li>• Large, flat and clean-cut.</li> </ul>
Cannon	<ul style="list-style-type: none"> <li>• Shorter than the forearm and is wide with well-defined tendons along the back of the cannon when viewed from the side.</li> </ul>
Pastern	<ul style="list-style-type: none"> <li>• Has an ideal angle of 45 degrees.</li> </ul>
Hoof	<ul style="list-style-type: none"> <li>• Has an ideal angle of 45 degrees.</li> <li>• Should be durable and of appropriate size for the horse.</li> </ul>



## The Hindlimbs

The Hindlimbs	
Side View	<ul style="list-style-type: none"> <li>A plumb line dropped from the point of the buttock should pass along the back of the hock, cannon and fetlock, and strike the ground 7.5 to 10 cm (3-4 inches) behind the heel.</li> </ul>
Rear View	<ul style="list-style-type: none"> <li>A plumb line dropped from the point of the buttock should pass through the center of the hock, cannon, fetlock, pastern and hoof.</li> <li>The feet should be as far apart at the ground as they are at the hock.</li> </ul>



## General Structure of the Hindlimbs

The Hindlimbs	
Hock	<ul style="list-style-type: none"> <li>Is large, deep, wide, clean and well-defined.</li> </ul>
Cannon	<ul style="list-style-type: none"> <li>Is shorter than the distance from the stifle to the hock.</li> <li>Is wide with well-defined tendons along the back of the cannon when viewed from the side.</li> </ul>
Pastern	<ul style="list-style-type: none"> <li>Has an ideal angle of 45-50 degrees.</li> </ul>
Hoof	<ul style="list-style-type: none"> <li>Should be durable and of appropriate size for the horse.</li> </ul>

## Head

From the Front	
Shape	<ul style="list-style-type: none"> <li>Is triangular with wide set eyes, tapering to a reasonably sized muzzle.</li> </ul>
Eyes	<ul style="list-style-type: none"> <li>Are large and set out on the sides of the head.</li> </ul>
Nostrils	<ul style="list-style-type: none"> <li>Are large and flaring.</li> </ul>
Ears	<ul style="list-style-type: none"> <li>Are clean cut and in proportion to the size of the head.</li> </ul>
From the Side	
Shape	<ul style="list-style-type: none"> <li>Is triangular and deep from the poll to the jaw, tapering to a reasonable size muzzle.</li> <li>Bridge of nose may be straight or slightly dished.</li> <li>Throatlatch is clean and free from excess fat.</li> </ul>



Good



Poor

## Body

Neck	
Length	<ul style="list-style-type: none"> <li>Long from the poll to the withers.</li> </ul>
Shape	<ul style="list-style-type: none"> <li>Clean and trim, arching from poll to withers.</li> </ul>
Set	<ul style="list-style-type: none"> <li>High and smooth into the top of the withers and high into the chest above the point of the shoulder.</li> </ul>
Withers	
Shape	<ul style="list-style-type: none"> <li>Long, tying smoothly into the back, and high enough to hold the saddle on securely.</li> </ul>
Shoulder	
Angle	<ul style="list-style-type: none"> <li>Length and angle of shoulder are long, and sloping about 45 degrees to aid in shock absorption.</li> </ul>
Chest and Ribs (Barrel)	
Size	<ul style="list-style-type: none"> <li>The chest is deep and wide when viewed from the front.</li> <li>The ribs are well-sprung and deep.</li> <li>This conformation provides room for the maximum function of the heart and lungs.</li> </ul>



Good



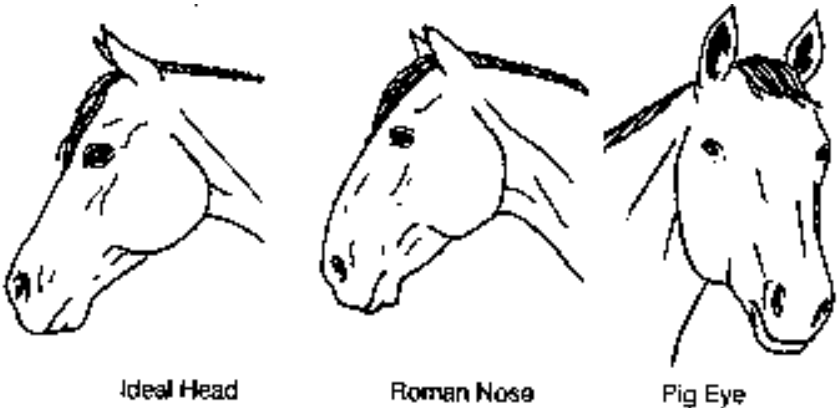
Poor

Back and Loin (Coupling)	
Size	<ul style="list-style-type: none"> <li>• Is short and wide over the top.</li> <li>• Is well-muscled.</li> <li>• The only skeletal support in the loin is provided by the spinal column. Therefore, adequate muscling is necessary for additional strength. Inadequate muscling and a long coupling often result in a sagging, weak top line, often referred to as a swayback.</li> </ul>
Hip and Croup	
Length	<ul style="list-style-type: none"> <li>• Is long and well-muscled.</li> </ul>
Shape	<ul style="list-style-type: none"> <li>• The point of the croup is directly over the point of the hip.</li> <li>• Croup should slope gently to the tail head.</li> </ul>
Hindquarters From the Side	
Size	<ul style="list-style-type: none"> <li>• The hindquarters are deep and well-muscled.</li> </ul>
Hindquarters From the Rear	
Size	<ul style="list-style-type: none"> <li>• The hindquarters are deep and well-muscled.</li> <li>• Muscle volume, length and definition depend on body type.</li> <li>• Both the inside and outside of the legs should be well-muscled.</li> <li>• The gaskin muscle should tie high into the stifle and deep into the hock.</li> </ul>
Shape	<ul style="list-style-type: none"> <li>• Is well-rounded over the croup.</li> <li>• The width at the stifle should be at least as great as the width at the point of the hip.</li> </ul>



### Deviations from Ideal (Basic Faults)

Head	
Roman Nose	<ul style="list-style-type: none"><li>• The bridge of the nose has a rounded or convex shape when viewed from the side</li><li>• Restricts the horse's frontal vision</li></ul>
Pig Eye	<ul style="list-style-type: none"><li>• Small eyes which are set too far back into the head</li><li>• Restricts vision, especially to the rear</li><li>• Horse often has a nervous or unruly disposition</li></ul>
Parrot Mouth	<ul style="list-style-type: none"><li>• Top jaw is longer than bottom jaw</li></ul>
Monkey Mouth	<ul style="list-style-type: none"><li>• Bottom jaw is longer than top jaw</li></ul>



Neck	
Ewe Neck	<ul style="list-style-type: none"> <li>• Neck appears to be “turned over”</li> <li>• Restricts flexion at the poll</li> <li>• Horse tends to throw head upward</li> <li>• Restricts vision</li> </ul>
Cresty Neck	<ul style="list-style-type: none"> <li>• Excess fat deposits on the crest of the neck</li> <li>• Increases the weight carried on the forelegs</li> </ul>



Shoulder	
Steep Shoulder	<ul style="list-style-type: none"> <li>• Shoulder angle steeper than 50 degrees</li> <li>• Decreases the length of stride</li> <li>• Increases concussion or pressure on the forelegs</li> </ul>

Chest	
Narrow Chest	<ul style="list-style-type: none"> <li>• Legs are too close together</li> <li>• Legs may interfere when horse travels</li> </ul>
Extra-Wide Chest	<ul style="list-style-type: none"> <li>• Legs set too far apart</li> <li>• Causes a labouring, waddling stride</li> </ul>



Narrow Chest



Ideal

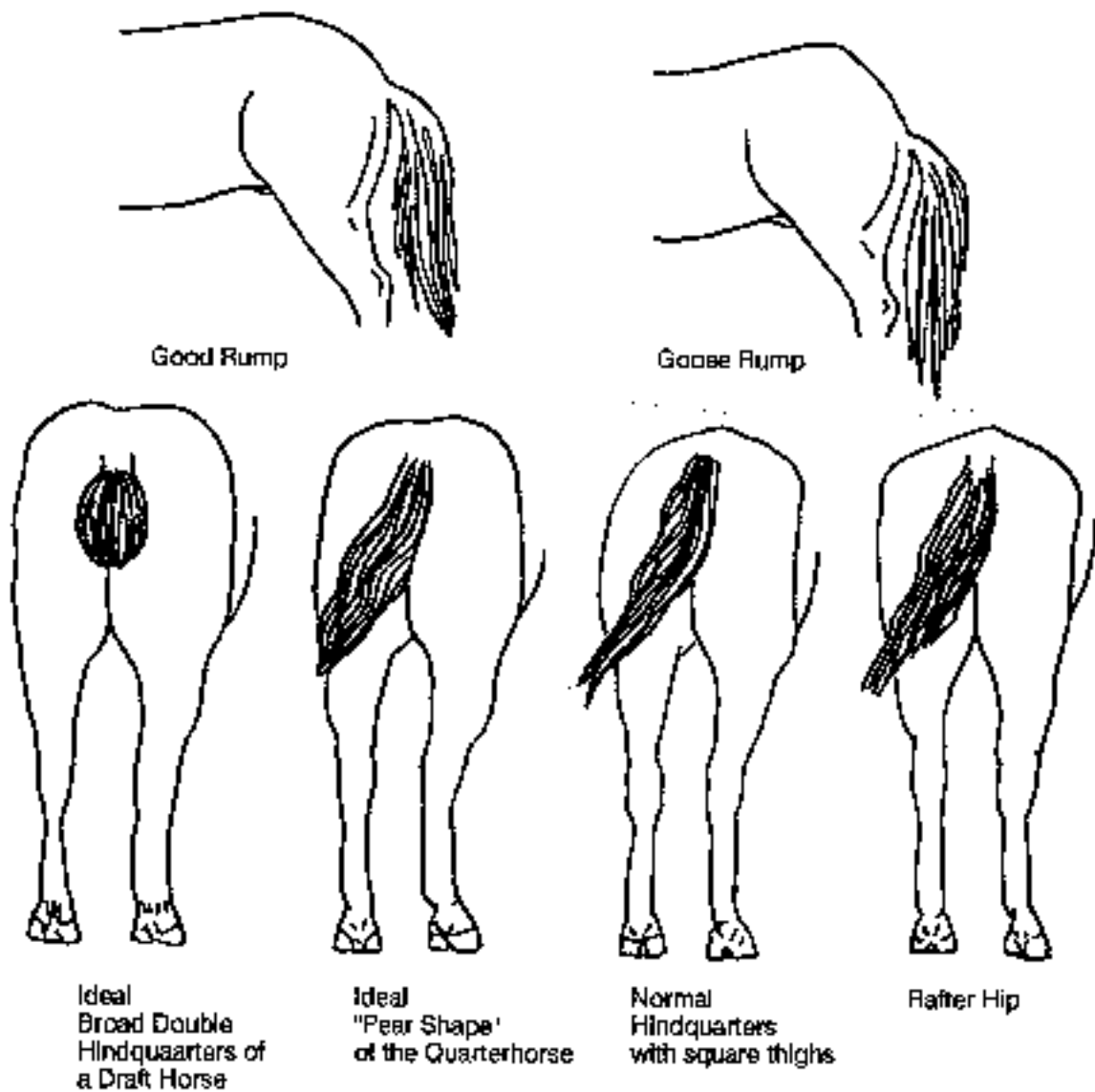


Extra-Wide Chest

Topline	
Mutton Withers	<ul style="list-style-type: none"> <li>• Low, wide withers</li> <li>• Withers are prone to injury if saddle slides forward</li> <li>• Hard to keep the saddle in place - prone to slip to one side</li> </ul>
Sway Back	<ul style="list-style-type: none"> <li>• Weak topline</li> <li>• Usually seen in older horses</li> <li>• Usually seen in horses with long backs and/or loins</li> <li>• Restricts ability to pull legs forward beneath the hindquarters</li> </ul>
Roach Back	<ul style="list-style-type: none"> <li>• Loin has a rounded (convex) appearance when viewed from the side</li> <li>• Restricts flexibility</li> </ul>



Hip and Croup	
Goose Rump	<ul style="list-style-type: none"> <li>• Hip is too steep when viewed from the side</li> <li>• Decreases the length of stride and speed</li> <li>• Increases concussion on the hind legs</li> </ul>
Rafter Hip	<ul style="list-style-type: none"> <li>• When viewed from the rear, the width at the point of the hip is greater than the width at the stifle</li> <li>• The hip is too flat over the top</li> <li>• Indicates a lack of muscular development</li> <li>• Horse may interfere during traveling due to lack of muscular support</li> </ul>



### Heartgirth and Flank

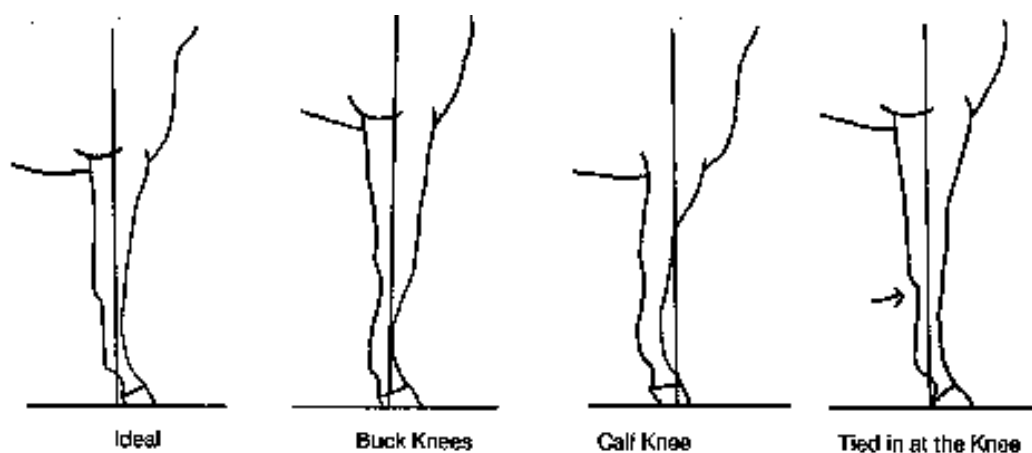
Shallow Heartgirth	<ul style="list-style-type: none"> <li>• Depth from withers to elbow is less than the length from elbow to ground</li> <li>• Restricts the capacity for heart and lungs</li> <li>• May decrease endurance of the horse</li> </ul>
Shallow Flank (Cut up in the Flank)	<ul style="list-style-type: none"> <li>• Pronounced narrowing in the flank region</li> <li>• Decreases capacity of digestive system</li> <li>• Decreases the foal carrying capacity in mares</li> </ul>

### Feet and Legs

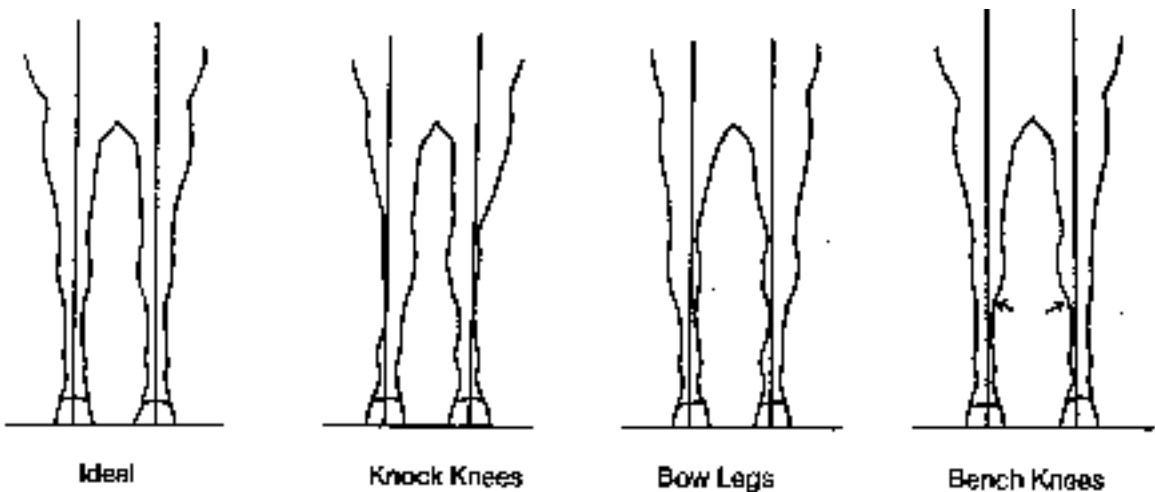
Two or more defects in the feet and legs may appear together. For example, buck knees and bench knees, base narrow and toe out, etc.

### Front Leg Defects Viewing from the Side

Buck Knees (Over at the Knee)	<ul style="list-style-type: none"> <li>• The knee is forward of a line that bisects (divides in half) the foreleg</li> <li>• This horse will be susceptible to bowed tendons</li> </ul>
Calf Knees (Back at the Knee)	<ul style="list-style-type: none"> <li>• The knee is behind a line that bisects the foreleg</li> <li>• Places excess stress on the front of the knee and strain on the tendons</li> <li>• This horse will be susceptible to chip fractures of the knee and bowed tendons</li> <li>• More serious than buck knees</li> </ul>
Tied-in at the Knee	<ul style="list-style-type: none"> <li>• The flexor tendon appears to be too close to the cannon bone just below the knee</li> <li>• This horse will be susceptible to bowed tendons</li> </ul>

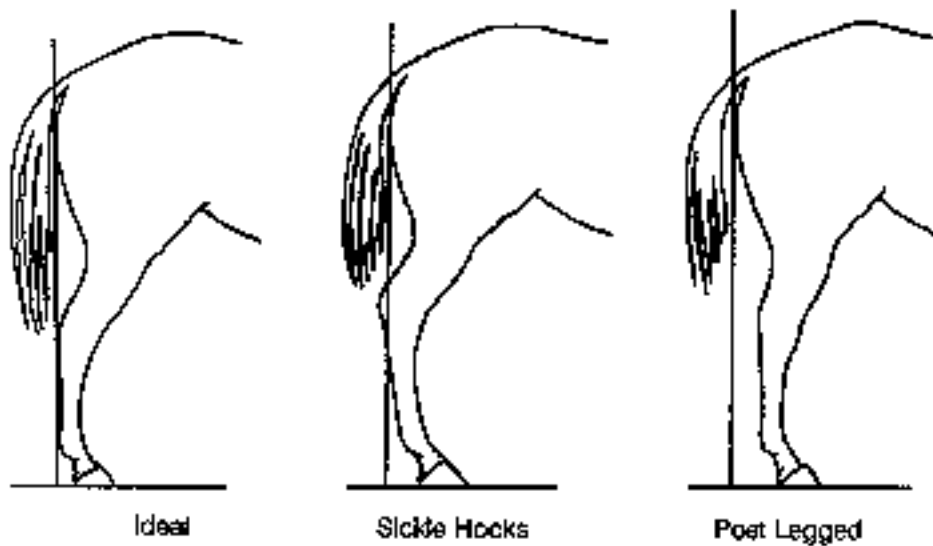


Front Leg Defects Viewing from the Front	
Knock Knees	<ul style="list-style-type: none"> <li>• The knees lie inside parallel lines bisecting the forelegs</li> <li>• Places excess stress on the outer knee and strain on the inside ligaments</li> </ul>
Bow Legs (Bandy-Legged)	<ul style="list-style-type: none"> <li>• The knees lie outside parallel lines bisecting the forelegs</li> <li>• Places excess stress on the inner knee and strain on the outside ligament</li> </ul>
Bench Knees	<ul style="list-style-type: none"> <li>• The cannon bone is offset to the outside of the knee</li> <li>• Places more stress on the inside splint bones</li> <li>• More susceptible to splints or knee chips</li> </ul>

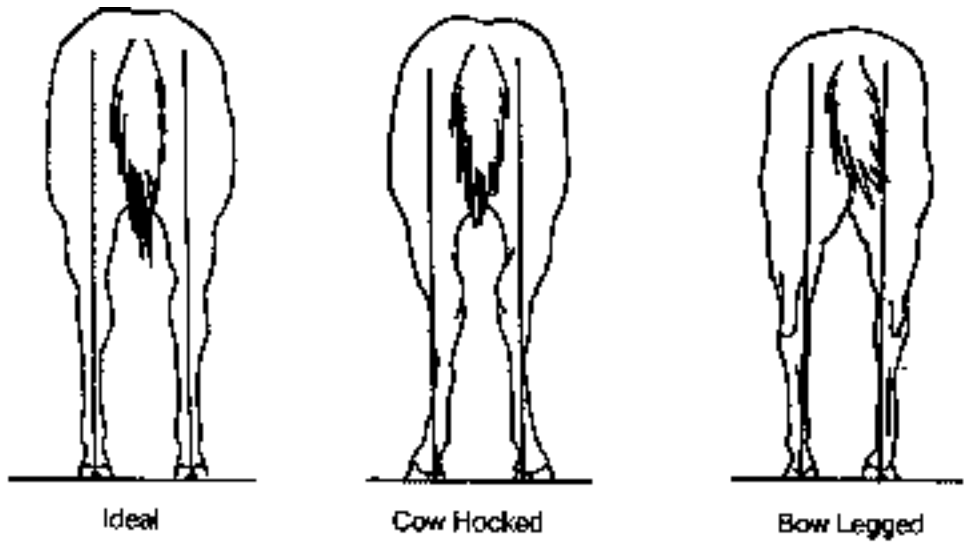


## Hind Leg Defects

Hind Leg Defects Viewing from the Side	
Sickle Hocks	<ul style="list-style-type: none"> <li>• Excessive angulation of the hock joint</li> <li>• The horse appears to be standing under from the hock down</li> <li>• Places excess strain on the planter ligament</li> <li>• Susceptible to curbs</li> </ul>
Post Legged	<ul style="list-style-type: none"> <li>• Insufficient angulation of the hock joint</li> <li>• The entire leg appears too straight</li> <li>• The hind leg is usually set ahead of a line dropped from the point of the buttock</li> <li>• The pasterns are usually also too straight</li> <li>• Places excess stress on the front of the hock joint and on the stifle joint</li> <li>• Susceptible to bog spavins, thoroughpins or bone spavins</li> </ul>



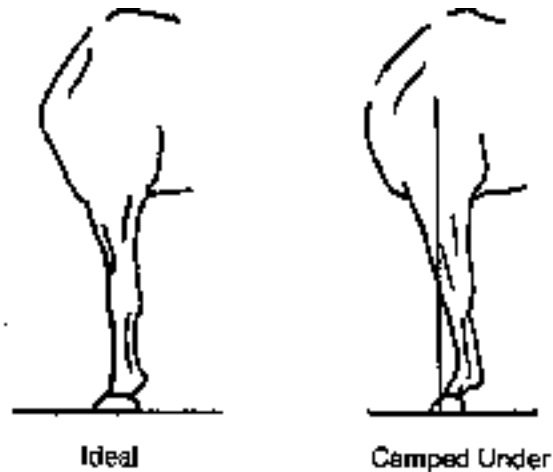
Hind Leg Defects Viewing from the Rear	
Cow Hocks	<ul style="list-style-type: none"> <li>• The hocks are too close together and point toward one another, causing the feet to be widely separated and often pointing outward</li> <li>• One of the worst hind leg defects</li> <li>• Places excess stress on the hock joint and strain on the ligaments</li> <li>• Susceptible to bone spavins, curbs or thoroughpins</li> </ul>
Bow Legged	<ul style="list-style-type: none"> <li>• The hocks lie outside parallel lines bisecting the hind legs</li> <li>• May cause interference because horse moves narrower at the ground than at the hock</li> <li>• Places excess stress on the hock joint and strain on the ligaments</li> <li>• Susceptible to bog spavins, curbs or thoroughpins</li> </ul>



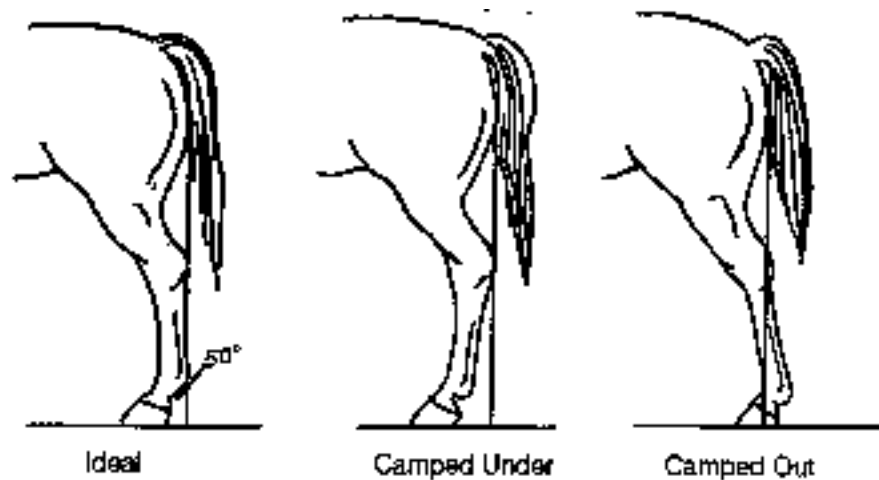
## Front and/or Hind Leg Defects

Front and/or Hind Leg Defects Viewing from the Side	
Standing Under (Camped Under)	
Front Legs	<ul style="list-style-type: none"> <li>The entire foreleg from the elbow down is too far under the body</li> <li>Places excess weight on the forelegs</li> </ul>
Rear Legs	<ul style="list-style-type: none"> <li>The entire hind leg is placed too far forward under the body</li> <li>The horse may also be sickle hocked or post legged; stress is the same as for sickle hocks or post legged, respectively</li> </ul>
Camped Out	
Front Legs	<ul style="list-style-type: none"> <li>The entire hind leg is placed too far back</li> </ul>
Rear Legs	<ul style="list-style-type: none"> <li>The horse may also have steep rear pasterns and/or be sickle hocked; stress is the same as for sickle hocks</li> </ul>

### Front Legs



### Rear Legs



Pastern and Hoof Defects	
Steep Pasterns	<ul style="list-style-type: none"> <li>• Often accompanied by a steep shoulder</li> <li>• Pastern length may be short or long</li> <li>• Increases the effect of concussion on the fetlock joint, pastern joint bone</li> <li>• Called a "club foot" if the hoof angle is also too steep</li> <li>• Predisposed to osselets, ringbone and navicular disease</li> </ul>
Weak Pasterns	<ul style="list-style-type: none"> <li>• Usually too long and sloping</li> <li>• In extreme cases, the fetlock may touch the ground when the horse travels</li> <li>• Predisposed to injury of the tendons, ligaments and the fetlock joint</li> </ul>
Broken Hoof/ Pastern Axis (Angle)	<ul style="list-style-type: none"> <li>• The angle of the pastern and the angle of the hoof are not the same</li> <li>• When the pastern is more sloped than the front wall of the hoof, it is called a "coon" foot</li> <li>• Places additional strain on the tendons and ligaments</li> </ul>



**Type 1**  
Broken foot in which the foot axis is less upright than the pastern axis.



**Type 2**  
Broken foot in which the foot axis is more upright than the pastern axis. Also called "coon foot".



**Correct Pasterns**



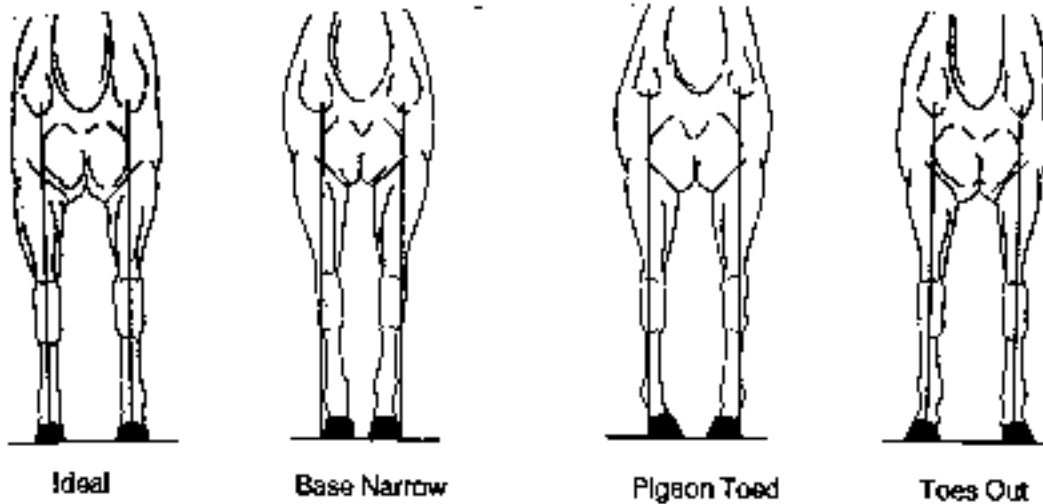
**Steep Pasterns**



**Weak Pasterns**

**Viewing from the Front/Rear**

Base Narrow	<ul style="list-style-type: none"> <li>The forelegs (hind legs) are closer together at the ground than at the top of the leg</li> </ul>
Base Wide	<ul style="list-style-type: none"> <li>The forelegs (hind legs) are farther apart at the ground than at the top of the leg</li> <li>May be accompanied by toe in or toe out (most common) conformation</li> <li>Places more weight and stress on the inside of the legs</li> <li>Predisposed to windpuffs, ringbone and sidebone</li> </ul>
Toe In (Pigeon Toed)	<ul style="list-style-type: none"> <li>The toes point toward each other</li> <li>Usually seen with base narrow conformation</li> </ul>
Toe Out (Splay Footed)	<ul style="list-style-type: none"> <li>The toes point away from each other</li> <li>May be seen with either base narrow or base wide conformation</li> <li>Usually present if the horse is cow hocked</li> </ul>

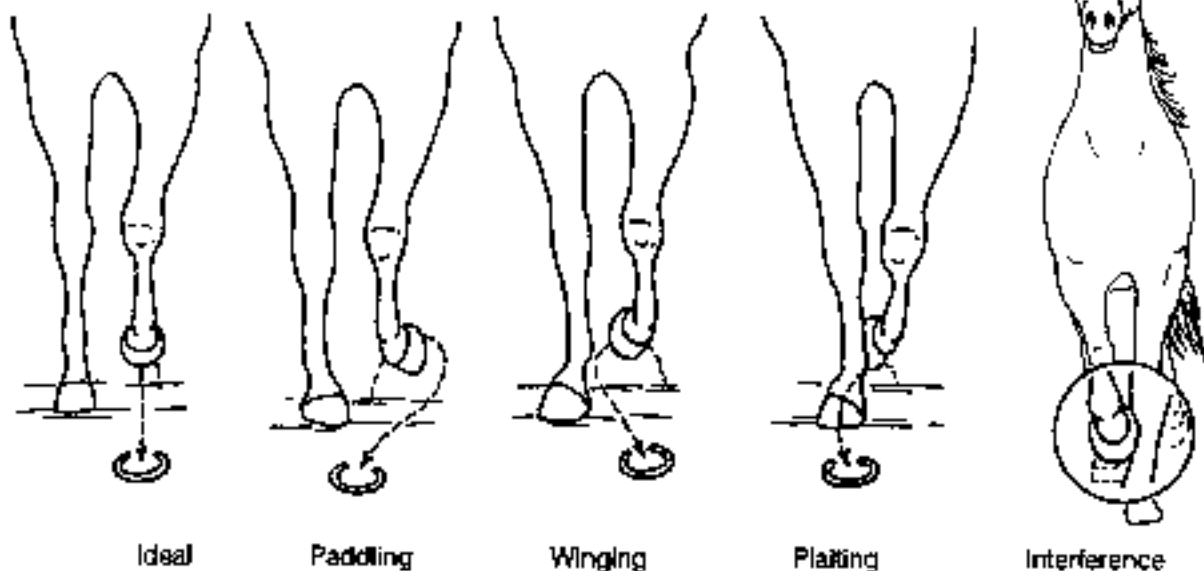
**Front**



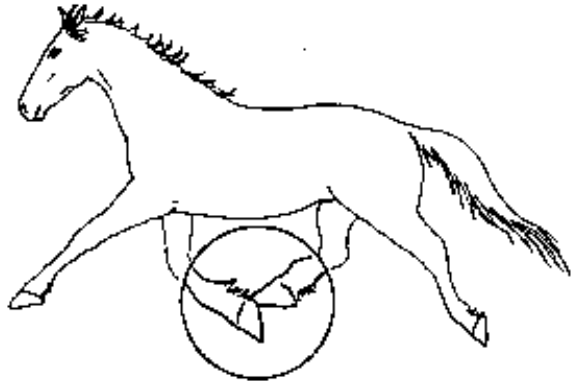
## Travel (Way of Going) – Deviations from Ideal

Viewing from the Front/Rear	
Paddling (Winging Out)	<ul style="list-style-type: none"> <li>• Throwing the feet outward while in motion</li> <li>• Usually associated with toe-in conformation</li> </ul>
Winging (Winging In, Dishing)	<ul style="list-style-type: none"> <li>• Throwing the feet inward while in motion</li> <li>• Usually associated with toe-out conformation</li> <li>• More serious than paddling since it may lead to interference when the horse moves</li> </ul>
Plaiting (Rope Walking)	<ul style="list-style-type: none"> <li>• Twisting of the striding leg around the supporting leg so that the horse appears to be walking tightrope</li> <li>• One forefoot may appear to land directly in front of the other</li> <li>• More serious than paddling since it may lead to interference and stumbling</li> </ul>
Interference	<ul style="list-style-type: none"> <li>• When one foreleg (hind leg) strikes the opposite foreleg (hind leg) while in motion</li> </ul>

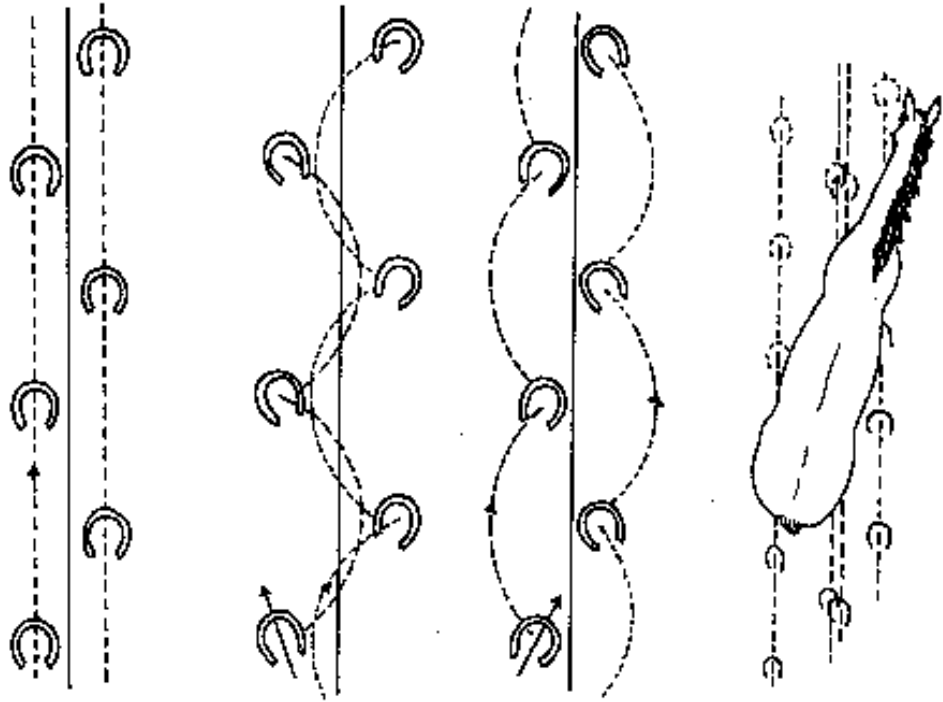
### Front



Viewing from the Side	
Overreaching	<ul style="list-style-type: none"> <li>The hind foot strikes the heel of the forefoot before the forefoot leaves the ground</li> <li>If the horse is shod, the front shoe may be pulled off by the hind foot</li> </ul>
Forging	<ul style="list-style-type: none"> <li>The toe of the hind foot strikes the sole or shoe of the forefoot while in motion</li> </ul>
Scalping	<ul style="list-style-type: none"> <li>The toe of the forefoot strikes the coronary band of the hind foot</li> </ul>



Overreaching



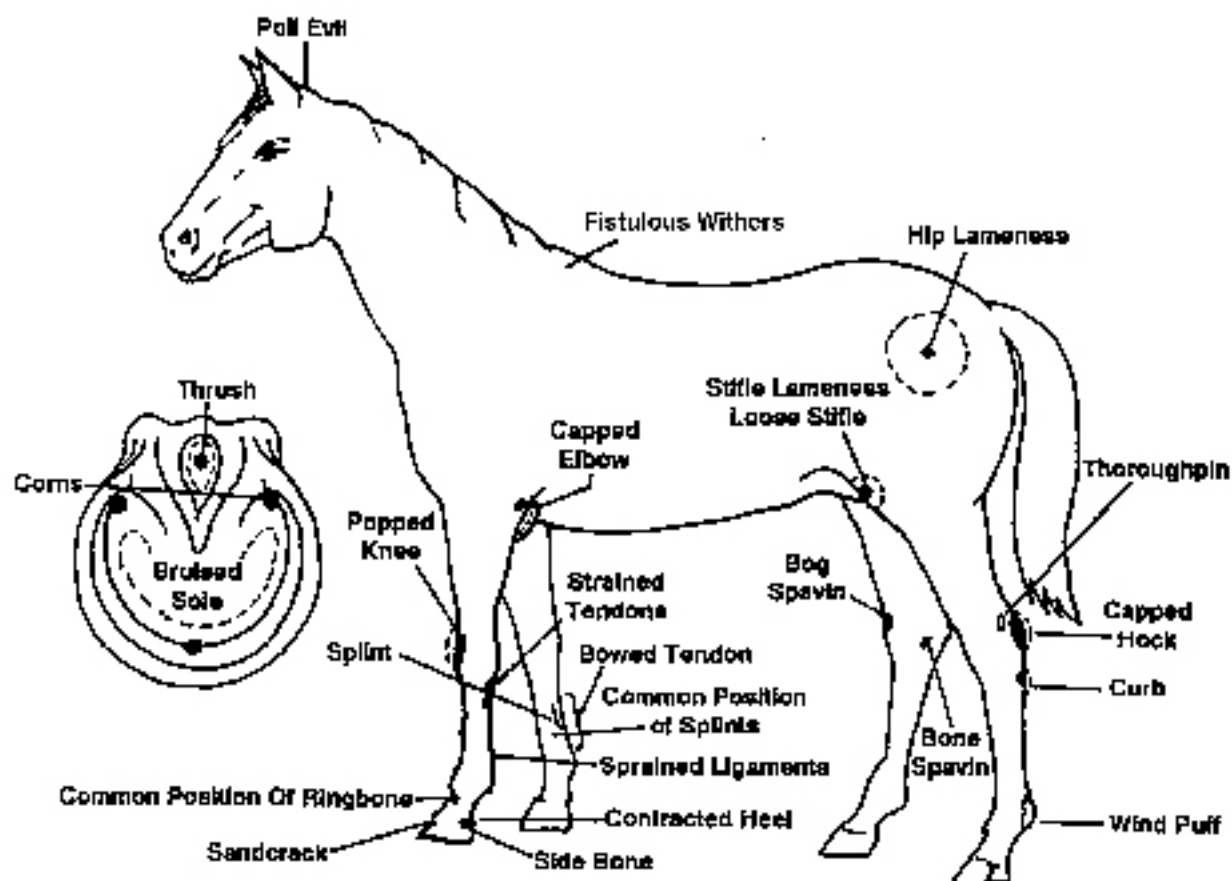
Normal

Horse that Toes Out

Horse that Toes In

Dog Style Movement

## Locations of Unsoundnesses and Blemishes



Note:

No descriptions have been provided for:

- Strained Tendons
- Sprained Ligaments
- Stifle Lameness (Loose Stifle)
- Hip Lameness
- Bruised Sole
- Corns

## Blemishes and Unsoundnesses

Definitions	
Blemish (B)	<ul style="list-style-type: none"> <li>An injury or imperfection which affects the value of the horse, but not its serviceability. For example: wire cuts, rope burns, capped hocks, etc.</li> </ul>
Unsoundness (U)	<ul style="list-style-type: none"> <li>An injury or abnormality which affects the value of the horse and its serviceability. For example: blindness, ringbone, navicular disease, etc.</li> </ul>
Common Unsoundnesses and Blemishes	
Upper Body	
Blindness (U) (Not on diagram)	<ul style="list-style-type: none"> <li>Complete lack of vision in one or both eyes</li> <li>May be caused by injury or disease</li> <li>Blind horses will not react to quick motions near the affected eye(s)</li> </ul>
Fistulous Withers (U)	<ul style="list-style-type: none"> <li>An inflammation of the withers</li> <li>Usually caused by bruising</li> </ul>
Hernia (U) (Not on diagram)	<ul style="list-style-type: none"> <li>The protrusion of any internal organ through the body wall</li> <li>Usually seen in the abdominal, umbilical or scrotal areas</li> </ul>
Monkey Mouth (U) (Not on diagram)	<ul style="list-style-type: none"> <li>A hereditary condition in which the lower jaw is longer than the upper jaw</li> </ul>
Parrot Mouth (U) (Not on diagram)	<ul style="list-style-type: none"> <li>A hereditary condition in which the lower jaw is shorter than the upper jaw</li> </ul>
Poll Evil (U)	<ul style="list-style-type: none"> <li>An inflamed area between the ears</li> <li>Usually caused by a bruise in the poll region</li> </ul>
Feet and Legs	
Bog Spavin (U, B)	<ul style="list-style-type: none"> <li>A soft filling of the natural depression on the front and inside of the hock joint</li> <li>Usually due to faulty conformation or injury</li> <li>Rarely causes lameness</li> </ul>
Bone Spavin (U) (Jack Spavin)	<ul style="list-style-type: none"> <li>A bony enlargement on the inside and front lower hock where the hock tapers into the cannon bone</li> <li>Usually due to faulty conformation or injury</li> <li>Usually causes lameness</li> </ul>

Bowed Tendon (U)	<ul style="list-style-type: none"> <li>• An enlargement of any or all of the tendons and ligaments behind the cannon</li> <li>• Caused by excess stretching of the tendon due to stress or faulty conformation</li> <li>• Occurs most commonly in the forelegs</li> </ul>
Capped Elbow (Soft Boil) (B)	<ul style="list-style-type: none"> <li>• A soft fluid-filled or firm swelling at the point of the elbow</li> </ul>
Capped Hock (U, B)	<ul style="list-style-type: none"> <li>• A firm enlargement on the point of the hock</li> <li>• Due to injury</li> <li>• Rarely causes lameness</li> </ul>
Contracted Heel (U, B)	<ul style="list-style-type: none"> <li>• The hoof is narrower than normal (contracted), especially at the heel</li> <li>• Most common in the forelegs</li> <li>• Often due to improper shoeing</li> </ul>
Curb (U, B)	<ul style="list-style-type: none"> <li>• An enlargement of the ligament found on the upper rear part of the cannon the hock (the plantar ligament)</li> <li>• Caused by injury or faulty conformation</li> <li>• May cause lameness</li> </ul>
Founder (Laminitis) (U) (Not on diagram)	<ul style="list-style-type: none"> <li>• An inflammation of the sensitive laminae of the foot</li> <li>• Characterized by horizontal “founder rings” in the hoof wall</li> <li>• Usually more severe in the front feet</li> <li>• In severe cases, the horse may stand camped out in front to relieve pressure on the front feet</li> </ul>
Popped Knee (U, B)	<ul style="list-style-type: none"> <li>• A swelling of the front of the knee</li> <li>• Usually caused by injury or concussion</li> </ul>
Ringbone (U, B)	<ul style="list-style-type: none"> <li>• Bony enlargement(s) on one or more bones and/or joints of the pastern region</li> <li>• Most common in the forelegs</li> <li>• Caused by injury or faulty conformation</li> </ul>
Sand Cracks (U, B)	<ul style="list-style-type: none"> <li>• Cracks in the hoof wall</li> <li>• They may start at the coronet and go down, or at the bottom of the hoof wall and go up</li> <li>• Usually caused by injury or interference</li> </ul>
Sidebone (U, B)	<ul style="list-style-type: none"> <li>• Bony enlargement(s) above and to the rear of the hoof</li> <li>• Most common in the forelegs</li> <li>• Usually caused by concussion due to faulty conformation</li> </ul>

Splint (U, B)	<ul style="list-style-type: none"> <li>• A calcification (bone growth) on the inside or outside of the cannon bone</li> <li>• Most commonly found inside the front cannon</li> <li>• Usually due to injury or faulty conformation</li> </ul>
Thoroughpin (U, B)	<ul style="list-style-type: none"> <li>• A puffy swelling of the hollow above the hock joint</li> <li>• Moveable by hand pressure from one side of the hock to the other</li> <li>• Usually due to injury or faulty conformation</li> <li>• Rarely affects the horse after the initial lameness has disappeared</li> </ul>
Thrush (B) (Not on diagram)	<ul style="list-style-type: none"> <li>• A disease of the frog of the hoof characterized by a black, foul-smelling discharge</li> <li>• Usually results from unsanitary conditions</li> </ul>
Windpuffs (B)	<ul style="list-style-type: none"> <li>• Puffy, fluid-filled swellings at the top of the fetlock joint</li> <li>• Most common in the hindlegs</li> <li>• Usually a result of heavy work</li> </ul>

## The Functional Aspects of Conformation

The form of the ideal horse will give the horse superior function. Let's look at each of the body parts and see how their form relates to their function.

### Head

The size of the head should be in proportion to the size of the horse.

If the head is too large:

- the center of gravity is shifted forward
- the horse tends to be a heavy mover
- vision may be restricted.

If the head is too small:

- the center of gravity is shifted backward
- the horse tends to be light in front
- there is inadequate room for the teeth and other internal structures in the head.

The head should be of a triangular shape to increase the cranial or brain capacity. If the bridge of the nose is rounded, as in the roman nose, frontal vision is restricted.

The eyes should be large and wide set to increase the horse's field of vision. When the eyes are small and set back into the head, as in pig eye, vision is restricted, especially to the rear and the horse often has a nervous or unruly disposition.

The nostrils should be large and flaring to increase the airflow in and out of the lungs.

The throatlatch should be wide and clean to provide room for breathing, swallowing and circulation, and to increase the ability of the horse to flex at the poll. An excessively large jaw, such as the platter jaw will reduce the ability of the horse to flex at the poll and may restrict breathing, blood circulation and swallowing.

## Neck

Because the horse uses the head and neck as a balancing arm, adequate length is required to maintain equilibrium and balance. With increased length of muscle, the range of movement of the shoulder and the length of the stride will increase.

If the neck is too long:

- the weight on the forehead increases.

If the neck is too short:

- the length of stride and suppleness decrease, as is often associated with a thick, heavy neck.

A neck with a clean, arched shape is more flexible, especially at the poll. The shoulder rotation and the length of stride will also be increased. The ewe neck restricts flexion at the poll, restricts vision, and the horse tends to throw its head upward. A cresty necked horse carries more weight on the forelegs.

The depth and set of the neck also affect the horse's function. A trim neck set high into the shoulder decreases the weight on the forehead. A thick or low set neck increases the weight on the forehead.

## Withers

Withers of a longer length have a greater area for muscle attachment. These muscles are required for:

- raising the head and neck
- moving the head and neck from side to side
- rotation of the shoulder
- extension of the spine.

Long withers are frequently associated with well-sloped shoulders.

Low, wide withers, referred to as mutton withers, are prone to injury if the saddle slides forward. It is hard to keep the saddle in place on mutton withers since the saddle is more likely to slip to one side.

## Shoulder

The horse's front leg is attached to the body only by muscle and tendons. The front legs are a sling which holds the body.

A long shoulder or scapula increases the area of attachment and length of muscles, providing greater shoulder rotation, forearm extension and length of stride.

The slope of the shoulder is measured along the scapular spine to the top of the withers, not from point of shoulder. A well-sloped shoulder provides shock absorption and allows the foreleg to be raised higher to allow the stride to be fully completed before the foot strikes the ground. A more sloping shoulder provides freedom of movement, elasticity of gait, lightens the forehand and decreases concussion. A steep shoulder decreases the length of stride, increases concussion on the forelegs and gives the horse a rougher gait.

The muscling of the shoulder should be long and well-developed for strength and absorption of concussion. Too much muscle increases the weight on the forehand and decreases the freedom of movement.

## Arm

The size affects the function. The arm should be relatively short but well muscled. A well-sloped shoulder is usually accompanied by a fairly upright arm which allows for greater forward extension of the foreleg. An arm which is too long restricts the movement, and muscles tire quickly. An arm which is too short decreases the length of the stride.

## Chest

The chest should be wide, deep and well-muscled. This will increase the ability of the horse to move laterally. A chest that is too wide produces a laboring, waddling stride. When the chest is too narrow the horse may interfere when traveling.

## Barrel

The horse needs depth of heartgirth and spring of fore rib to provide adequate room for the maximum function of the heart and lungs. A lack of depth and spring of rib decreases the capacity of the heart and lung. A deep flank and spring of rear rib increases the digestive capacity and the foal carrying capacity in mares.

## Back and Loin

The only skeletal support in the loin is provided by the spinal column. Therefore, adequate muscling is necessary for additional strength. A swayback horse has restricted ability to pull its legs forward beneath the hindquarters. A roach back horse has restricted flexibility.



## Hip and Croup

A long hip and croup have longer muscles which increase the length of stride.

The shape of the hip and croup vary according to body type. A more level hip and croup provide a long, flowing stride, while a more sloping hip and croup allow the hind legs to drive further underneath the body for power and speed.

A rump which is too steep, or a goose rump, decreases the length of stride and speed, and increases the concussion on the hindlegs. A rafter hipped horse may interfere during traveling because of the lack of muscular support.

## Hindquarters

A well-muscled hindquarter is necessary for strength and power. The volume and length of muscling depend upon body type.

## Feet and Legs

### a. Forearm

A longer forearm allows for greater extension of the foreleg. Long muscling provides greater contraction and lift of leg. Volume of muscling provides power and support for the lower leg.

### b. Knee

The size of the knee affects the function of the horse. A large, clean, flat knee increases the area of attachment for tendons, ligaments and muscles, and increases the area of support to reduce stress on the knee.

A buck kneed horse is susceptible to bowed tendons. A calf kneed horse is susceptible to chip fractures of the knee and bowed tendons. Calf knees are more serious than buck knees because the knee does not bend backwards.

A horse which is tied-in at the knee is predisposed to bowed tendons.

Knock knees cause excess stress on the outer knee and strain on the inside ligaments of the forelegs. Bowlegs cause excess stress on the inner knee and strain on the outside ligaments to the forelegs. Bench knees cause more stress on the inside splint bones and the horse is predisposed to splints or knee chips.

### c. Gaskin

A longer gaskin allows greater extension of the hindleg. Long muscling provides greater contraction and lift of the leg. A greater volume of muscling provides power and support for the lower leg.

#### d. Hock

A large, clean, flat hock provides greater surface area for the attachment of tendons, ligaments and muscles and increases the area of support to reduce stress on the hock.

Sickled hocks place excess strain on the plantar ligament. A sickle hocked horse is predisposed to curbs.

A post legged horse has excess stress placed on the front of the hock joint and on the stifle joint. A post legged horse is predisposed to bog spavins, thoroughpins, and bone spavins or upward fixation of the patella.

A cow hocked horse has excess stress placed on the hock joint and strain on the ligaments. A cow hocked horse is predisposed to bone spavins, curbs or thoroughpins.

Bowed legs cause excess stress on the hock joint and strain on the ligaments. A bow legged horse is predisposed to bog spavins, curbs or thoroughpins.

#### e. Cannon

The length of the cannon bone affects the function of the horse. A short cannon bone is stronger than a longer cannon bone. There is less mass to extend causing the horse to have a longer stride.

#### f. Fetlock Joint

A large fetlock joint provides greater surface area for the attachment of tendons and ligaments and reduces stress to the joint.

#### g. Pastern

The length and angulation of the pasterns are important. Moderately long, sloping pasterns help to absorb concussion.

Steep pasterns increase the effect of concussion on the fetlock joint, pastern joint and navicular bone. A horse with steep pasterns is predisposed to osselets, ringbone and navicular disease.

A horse with weak pasterns is susceptible to injury of the tendons, ligaments and the fetlock joint. A broken hoof/pastern axis or angle places additional strain on the tendons and ligaments.

#### h. Hoof

Adequate hoof size is necessary so the stress and concussion are distributed over a larger area.

i. Deviations Affecting the Entire Foreleg/Hindleg

If the horse is camped under in front, there is excess weight on the forelegs. If the horse is camped under in the rear, the horse may also be sickle hocked or post legged.

If the horse is camped out in the front, there is excess stress on the front of the knee and strain the ligaments and tendons. If the horse is camped out in the rear, the horse may also have steep rear pasterns and/or be sickle hocked.

If the base of the foot is narrow, this may be accompanied by toe-in or toe-out conformation. There is more weight and stress placed on the outside of the legs and the horse is predisposed to windpuffs, ringbone and sidebone.

If the base of the foot is wide, this may be accompanied by toe-in or, more commonly, toe-out conformation. This places more weight and stress on the inside of the legs and the horse is predisposed to windpuffs, ringbone and sidebone.

If the horse toes in, or is pigeon toed, more weight and concussion is placed on the outside of the pastern and hoof. If the horse toes out, or is splay-footed, more weight and concussion is placed on the inside of the pastern and hoof.

## Sample Reasons

Good afternoon, I placed this class of Aged Quarter Horse Mares 3 2 4 1.

I placed 3 at the top of the class because she was the most balanced, most stylish mare in the class.

In the top pair, I placed 3, the sorrel, over 2. 3 was a more balanced mare that exhibited a longer, trimmer neck that set in higher to the shoulder. She had a shorter, straighter back with a longer underline that resulted in a straighter, smoother, more efficient ground covering stride. She showed more breed character about the head. She was more refined from eye to muzzle, has a shorter neater ear and had a more prominent jaw.

Moving to the middle pair, I placed 2, the bay, over 4. 2 was a heavier muscled mare. She was more V-ed up in her chest and was heavier muscled both inside and outside in her forearm and gaskin. She was a neater balanced mare, being leveler over her croup and was shorter and stronger in her back. She was also longer in her underline as compared to her topline. I grant that 4 was a taller, more upstanding mare that traveled straighter and truer.

In reference to the bottom pair, I placed 4, the black, over 1. 4 was a larger, heavier muscled mare – heavier muscled through her forearm and shoulder, stronger through her loin. 4 was wider and thicker through her stifle, quarter and gaskin. She was the straightest, most correctly moving mare in the class at the walk and trot. I admit that 4 was thick in the throatlatch and grant that 1 showed more bloom and vigour to her haircoat.

I criticize 1 and placed her at the bottom of the class because she was the smallest, lightest muscled mare. She was lighter in her forearm and gaskin and light through the hip.

For these reasons I placed this class of Aged Quarter Horse Mares 3 2 4 1.

# Judging Sheep

The aim of a profitable sheep industry is:

1. To efficiently produce the type and quality of carcass desired by the consumer.
2. To produce the quality of wool desired by the consumer.

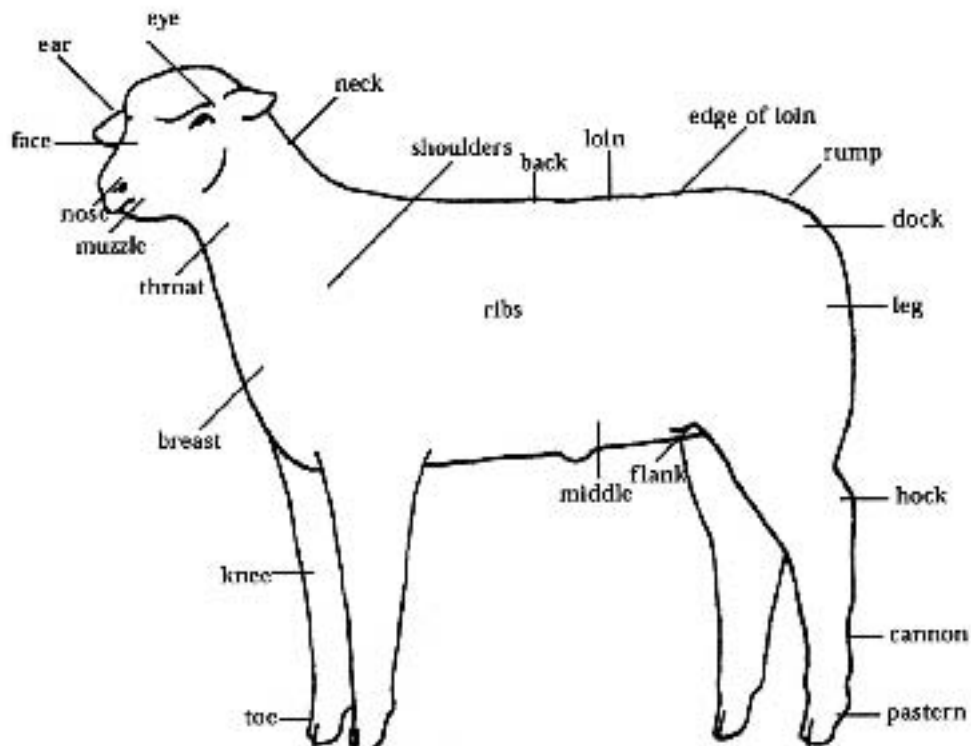
This is not easy. To accomplish this as a producer of sheep, you must be knowledgeable about the type and quality of the sheep you purchase and know how to feed and manage them so you can achieve the desired results.

The following information will make the task of selecting quality sheep easier for you. The objective of this unit is to:

1. Give you the background knowledge about the structure and the function of the sheep, so you know the important points to consider when judging sheep.
2. Show you how to determine if a particular animal possesses these important traits.

First, we need to learn about the parts of the sheep. Other than the names of the parts of the body, judging sheep and judging beef are very similar - sheep just come in a smaller package.

## Parts of the Sheep



Second, you need to know how to judge and prepare your reasons. For detailed information, consult Section 1 - Judging.

Third, you must know the specific terminology to use when judging sheep. The information provided in this unit is designed as an introduction only. There is always more to know. Talk to local sheep breeders, judges and breed associations to gather more information on judging sheep.

Now - take these three things and put them to use. Good judging!

## Judging the Market Lamb

When judging market lambs, there are two main areas you must analyze. These are:

- muscling
- finish

Once you have determined the quality of muscling and finish, analyze the general appearance and the size and frame of the lambs.

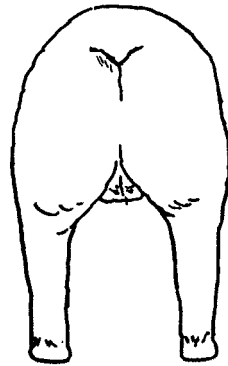
Follow the steps below when judging market lambs. Judging will become easier if you follow the same system each time you judge.

### View from a distance

You must always compare. First, look at the animals from a distance of 6 to 8 meters away. View them from three angles - rear, front and side. Compare these things as you view the sheep from a distance.

### From the rear

- Full and level over the dock. The dock must be long enough to cover the anus in ram lambs and the vulva in ewe lambs. (Refer to the Canadian Code of Practice, page 12.)
- Long from hooks to pins
- Muscle expression in the rear quarter
- Deep, wide and thick leg
- Thick across rump, loin, back
- Trim through the middle
- Rear legs that have good angle at the hocks
- Quality of fleece



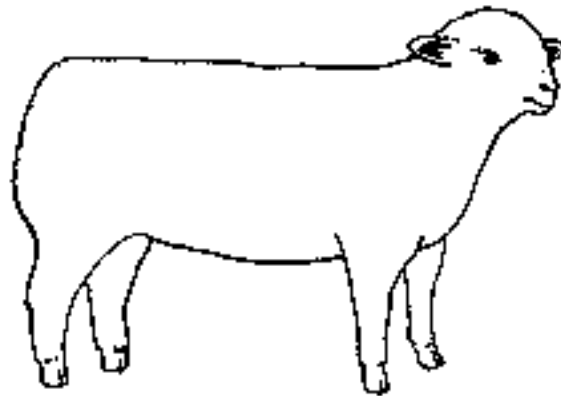
### From the front

- Muscular forearm
- Deep and wide through chest
- Refined head
- Evidence of breed character
- Straight forelegs
- Slim, clean neck
- Smooth shoulders
- Wide over the shoulders



### From the side

- Balance
- Deep and full through leg
- Size and scale
- Trim middle
- Cleanness in fore, rear flanks
- Well placed feet and legs
- Long body
- Style
- Long and strong on top
- Strong bone
- Long and level rump
- Proportion of weight in the leg, loin and rack
- Straight feet and legs



## Handling the Market Lamb

After you have viewed the lambs from a distance, you are ready to move in close and examine each lamb individually.

To accurately determine the muscling and finish on a market lamb, you must handle it. Only a very experienced judge can estimate the muscle and finish on a lamb without handling it. Even the most experienced judge will be more accurate if he or she can handle the animal.

The way the sheep stands when you handle it will affect your results. Make sure the sheep is standing squarely on all four legs. Handle the lambs gently but firmly. Always keep your fingers together as you feel the lamb, pressing firmly with fingers flat and with the ball of your hand. Handle every lamb exactly the same so you can make accurate comparisons between the lambs.

### Determining the fat cover on a market lamb

Determine the fat cover over the top (backbone):

Start at the rump and work your hand towards the front of lamb, running the flat of your hand over the back bone to determine the amount of fat covering.



Determine the fat cover over the ribs:

Move down to the sides of lamb and check the finish over the ribs.



A lamb which is too thin will have less than 0.25 cm of finish. The backbone will be very prominent and sharp. Each rib will be sharp and easy to feel. There will be a slight hollow between each rib.

A correctly finished lamb will have 0.25 to 0.65 cm of finish. The backbone and the ribs will be easily felt but not sharp. There will be no hollow feeling between the ribs.

A lamb that is too fat will have over 0.65 cm of finish. It will be very smooth over the top and you will have difficulty finding the back bone. You will be able to feel the ribs, but not distinguish one from the next.

Body condition scoring (BCS) is a basic production skill all shepherds must have to effectively assess body condition of their sheep to determine if feeding program is working, if the animals are gaining or losing weight, if the animal is ready for breeding/lambing or for market or show. For more information on body condition scoring (BCS), refer to the Western Canadian Production Manual or the Canadian Code of Practice for Sheep Production.



## Determining the muscle on your market lamb

When you are handling the lamb to determine the amount of muscle, give the most attention to the hindsaddle - that's the loin, rump and leg. This area of the lamb produces the most valuable cuts of meat. Stand behind the lambs. They should be structurally correct, wide and well muscled but not over-fat.

Indications of muscling are:

- thickness and firmness through the leg
- natural thickness over the top
- thickness in the forearm and over the stifle

### Determining the muscling of a market lamb

Check the length from the last rib to the base of the dock.



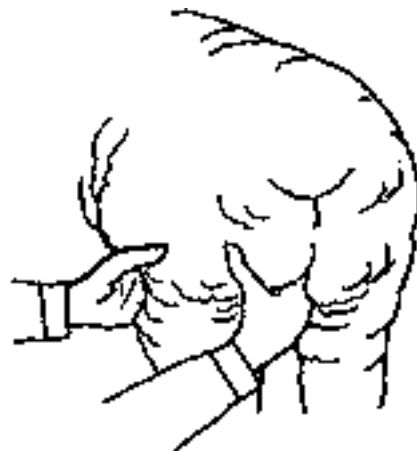
Check the length, width and depth of the loin. Look for a thick, deep, firm, well-muscled loin.



Check the length, width and depth of the rump.



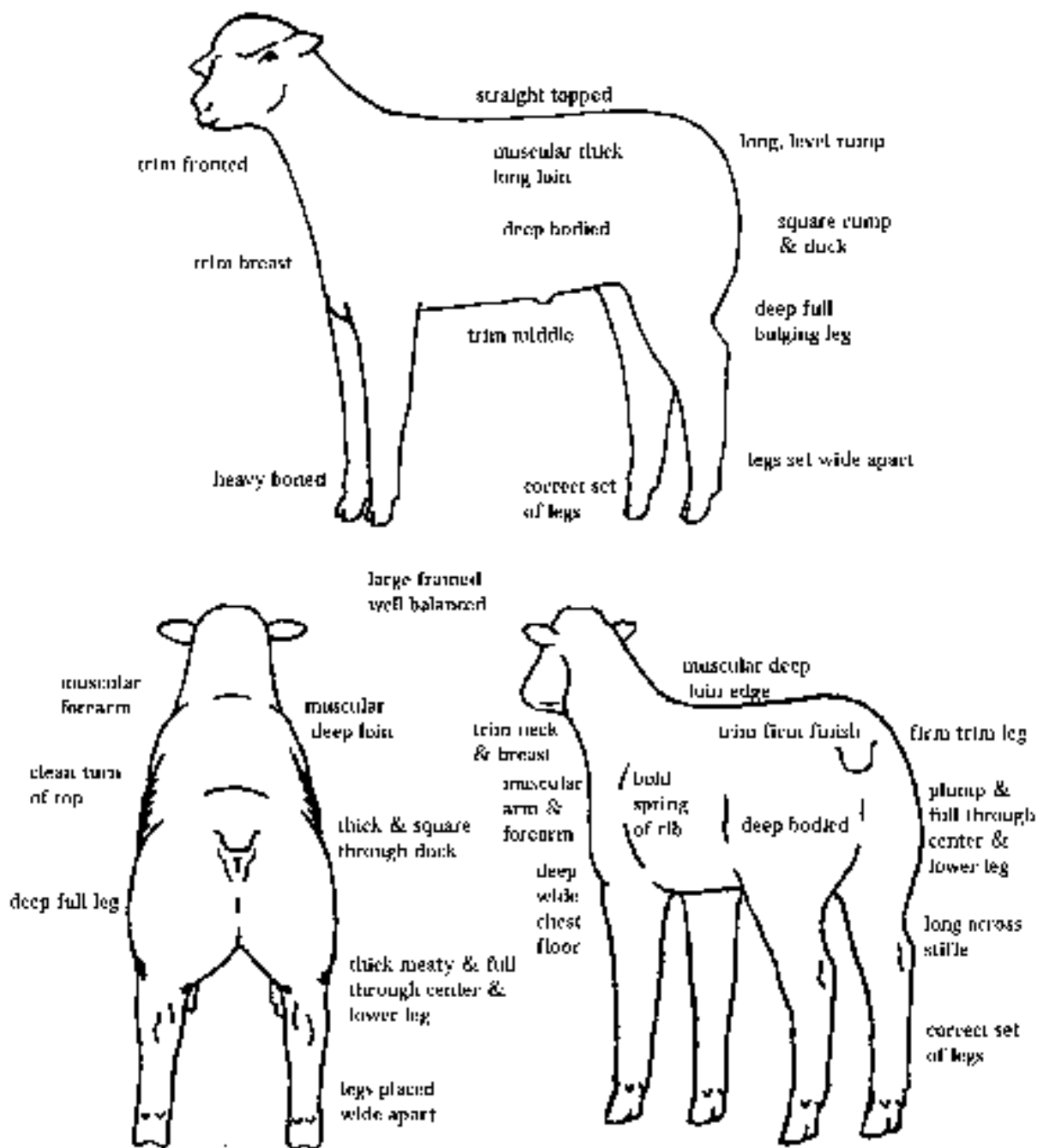
Determine the depth and volume of muscle in the leg.



## The Ideal Market Lamb

When judging market lambs, the main areas of emphasis are muscle and finish. Structural correctness is of lesser importance. Think of your market lamb as a profitable package of meat ready for market.

Consumers want to buy high quality, lean and tender meat.



## General Appearance

Your ideal market lamb will have these characteristics:

Liveweight 40 to 55 kg

Size not necessarily tall (leg bones are not a saleable cut)  
adequate frame and body capacity showing depth and spring of rib

Back long and straight  
greatest length from last rib to base of the dock

Loin long, wide, deep and muscular  
large loin eye area

Rump long, level and broad

Legs straight and well placed under corners of the body  
rear legs filled with muscle - deep, wide and thick  
muscle extends down to the hocks

## Conformation

Conformation is the general shape and structure of the lamb. The ideal lamb is wedge shaped as you look from above. Viewing from the rear, the ideal lamb will be widest through the stifle area.

## Balance

Balance is the proportion of the body parts to one another and how well they blend together. The ideal lamb is smooth and well balanced. The greatest proportion of weight is in the area of those high priced cuts.

Wholesale Cuts of a Sheep Carcass		
	High Priced	Low Priced
	1. Leg	4. Shoulder
	2. Loin	5. Breast
	3. Rack	6. Flank

## Muscle

You can best determine the amount of muscle on the live lamb by examining the:

- forearm
- leg over the stifle joint
- loin.

There are three dimensions to muscle - length, width and depth. You must consider all of these when you determine the amount of muscle on your lamb. The ideal lamb has long, wide and deep or thick muscle.

Over 60% of the value of the lamb comes from the leg and loin. The leg and loin are only 25% of the live weight. Therefore, your ideal market lamb is correctly finished and heavily muscled with good conformation, balance and quality.

## Finish

Finish is the amount of external fat the lamb is carrying. Enough fat cover to be healthy is essential, it also makes your lamb look good. Too much fat is not only discounted in the market price you get for your lamb, it has to be trimmed from consumer cuts. It costs you money to produce and costs the market money to remove it. Handle those areas where there should be no fat - the point of the shoulder and the rear flanks. Fat cover on the live lamb can be determined by looking at the:

- finish over the back bone
- fat around the dock
- finish over the rib
- fill in the flank
- fill behind the shoulder
- fat in the twist and the brisket.

Feel these areas to determine the amount of finish. A hard, bare touch indicates a lack of finish. A soft, mellow touch indicates too much finish. On the ideal market lamb, you will be able to feel the outline of the backbone and the ribs on the lamb. It takes practice and experience to differentiate between fat and muscle.

## Dressing Percentage

This is the carcass yield from a live animal. It depends on a number of factors such as genetics, age, feeding program, fleece length and cleanliness. The dressing percentage will be higher if the lamb is heavily muscled. The dressing percentage will be lower if the lamb is over fat, gutty or heavy fleeced.

## Performance Information

If it is available, look at the performance information on the lamb (birth type / birth date / weight; weaning date / weight; market or show date / weight). Young fast gaining lambs are preferable to older, slower growing lambs. You can see the difference in the length and type of fleece – a young growthy lamb has a short, tight and lustrous fleece.

Remember that the goal of the sheep producer is to efficiently and profitably produce a quality carcass. Our industry needs to compete effectively in the years to come, so we need to produce growthy, well muscled lambs to meet the demands of consumers.

## Market Lamb Terminology

One of the most confusing things about judging sheep is the terminology the judge uses when explaining how he judged the sheep. Following are some of the terms the market lamb judge uses. These terms are samples of the terms you should be using in your reasons.

Muscling	<ul style="list-style-type: none"> <li>• Longer in the rump, with more total dimension to the leg</li> <li>• Thickest, heaviest muscled lamb in the class</li> <li>• Showed more total volume of leg</li> <li>• Showed more muscle expression in the lower leg</li> <li>• Longest hindsaddled lamb in the class, with more length in the loin</li> <li>• Wider topped lamb with more thickness over the loin edge</li> <li>• Stood wider on the rear legs</li> <li>• Thicker, more squared rump</li> <li>• Showed more muscling in the forearm</li> <li>• Carried out longer and squarer to the dock</li> <li>• Fuller behind the shoulder</li> <li>• Widest through the stifle</li> <li>• Showed more evidence of muscling through the stifle region</li> </ul>
Finish	<ul style="list-style-type: none"> <li>• A firmer finished lamb</li> <li>• Firmer handling lamb</li> <li>• More uniformly covered, with a more desirable degree of finish</li> <li>• Cleaner designed, trimmer lamb</li> <li>• Lamb that is trimmer up front and cleaner through his underline</li> <li>• More correctly and uniformly finished lamb</li> </ul>

<p>General Appearance</p>	<ul style="list-style-type: none"> <li>• Larger, growthier lamb</li> <li>• Taller, more upstanding wether</li> <li>• Shows more size and scale</li> <li>• More length of hindsaddle</li> <li>• More depth of body</li> <li>• Largest framed, longest bodied, heaviest muscled lamb in the class</li> <li>• Showed more balance overall</li> <li>• Straighter in his lines and more correct on his feet and legs</li> <li>• Stronger topped lamb</li> <li>• Cleaner fronted and smoother shouldered</li> <li>• Longer bodied, cleaner fronted, and trimmer through the middle</li> </ul>
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## Sample Reasons - Market Lambs

I placed this class of market lambs 1 2 3 4.

I placed 1 at the top of the class and over 2 because 1 was a meatier, more heavily muscled, thicker lamb than 2. 1 showed more width, depth and length of loin, a squarer rump and a heavier muscled leg of lamb than 2. 1 was also deeper in the heart girth and more uniform in width and depth of body than 2. I grant that 2 was trimmer through the middle than 1.

I placed 2 over 3 because 2 was a cleaner cut, trimmer, longer bodied lamb than 3. 2 showed a more correct degree of finish over the back, loin and down the rib than 3. 2 had more length in the rump and a larger, meatier leg of lamb than 3.

I placed 3 over 4 because 3 had more thickness, muscling and quality than 4. 3 was heavier muscled over the topline, more uniform and firmer in muscling and more uniformly thick throughout than 4. 3 was also fuller behind the shoulder than 4. I grant that 4 was straighter over the topline and trimmer through the middle than 3.

I placed 4 at the bottom of the class because 4 lacked the finish, muscling and overall quality of the other lambs in the class.

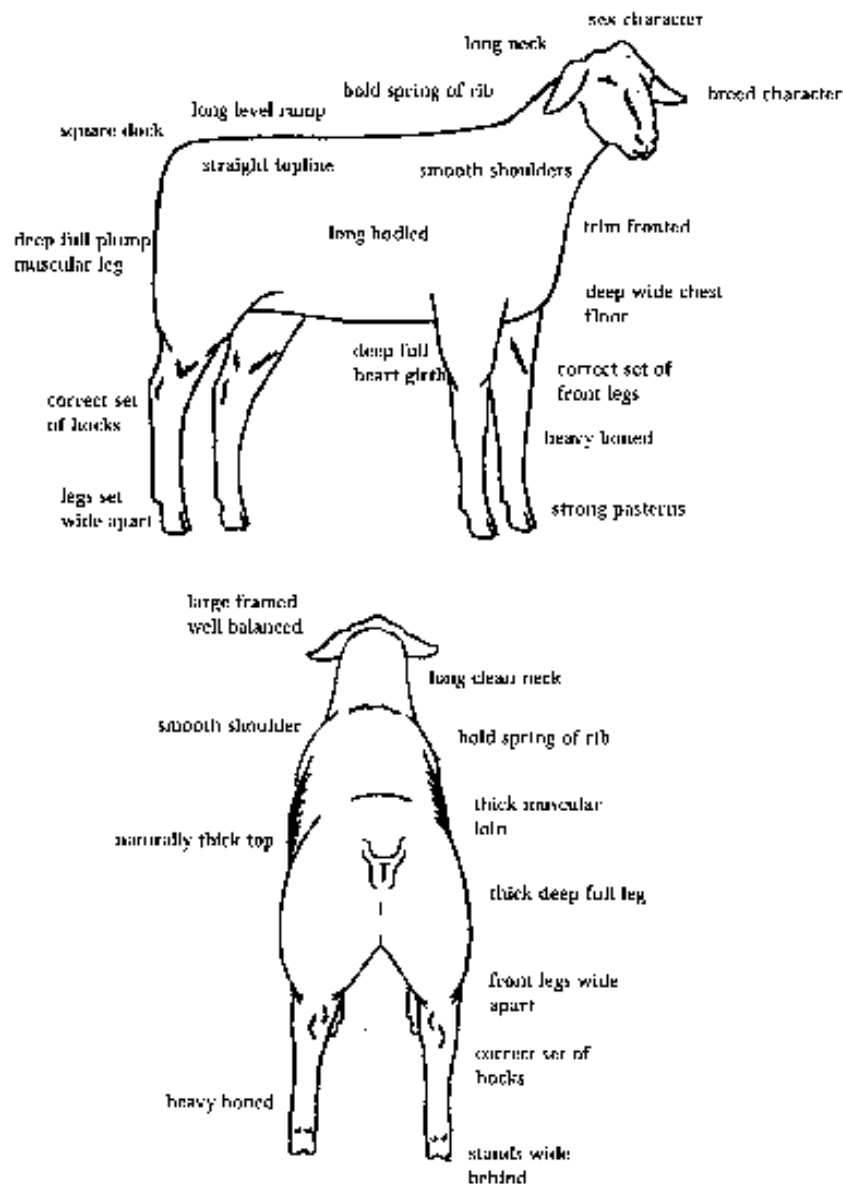
These are my reasons for placing this class of market lambs 1 2 3 4.

## Judging Breeding Sheep

It is very difficult to visually assess an animal on one day of its life and determine its value to a flock owner. Selecting animals that follow breed type and have correct physical conformation is one step in a flock selection program.

Judge breeding sheep very similarly to the market lamb. Determine the amounts of muscle and finish, but place more emphasis on the structural correctness and the breed characteristics.

There is a difference between judging wool breeds and meat breeds. There are also dairy and hair breeds of sheep which are not being considered here. In the wool breeds, 25% of the score is based on the wool. In the meat breeds, only 10% is based on the wool.



## Quality

Good quality is desirable whether you are selecting breeding or market sheep. Signs of quality in sheep are:

- clean cut well shaped head
- bone of ample size and clean joints
- minimum amount of smooth and evenly distributed finish
- bright, dense fleece
- pink skin
- symmetrically balanced body.

## Size and Capacity

Larger animals are more desirable provided they are sound and have quality, balance and smoothness. There is an economic balance between body size and feed requirements that must be considered in profitable sheep production. Size varies with the breed. Be familiar with the characteristics of the breed you are judging.

Capacity is the size of the animal in relation to its ability to take in food and reproduce. To determine this, look at the depth through the heart and the width through the chest. A ewe must have the capacity to reproduce effectively.

## Head and Neck

The neck should be trim, well set and of moderate length. The style of the head varies with the breed, but the head should always have a broad forehead, be open or free of wool down the nose and have plenty of width between the eyes and ears. The eyes should be bright, healthy and alert. The teeth should be fully functional.



### Normal Mouth

- True, even bite
- Teeth meet evenly with edge of upper pad

### Undershot Jaw

- "Parrot mouth"
- Upper jaw too long

### Overshot Jaw

- Lower jaw too long, teeth extend beyond the pad



## Shoulders

The shoulders should be joined neatly at the top with a minimum of flesh covering and blend smoothly with the neck. The chest should be wide and full to indicate capacity. The chest should be neat and trim and fit cleanly and tightly into the neck, shoulders and chest regions.

## Condition

Condition is the amount of fat cover. In breeding classes, use the term condition rather than finish. When judging breeding animals, put more emphasis on muscling than on condition as you are not judging the animals as ready for market.

## Breed and Sex Character

Sex character refers to those distinguishing features which differentiate males and females.

Rams should be masculine. They should be powerful with strong bones, and strong, bold heads and necks.

Ewes should be feminine. The bone of a ewe is smaller and more refined than that of a ram. The ewe must still be large and substantial enough to be a strong mother.

Each breed has specific breed characteristics. Again, know the specific characteristics of the breed you are judging.

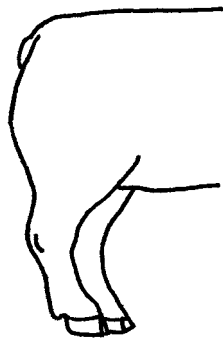
## Balance

Balance is extremely important in livestock selection. Balance refers to the parts of the body in proportion to one another and how well those parts blend together as the animal moves. A well balanced animal moves freely, has a desirable style and general appearance where all parts fit together well.

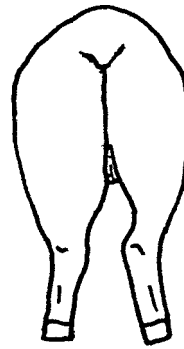
## Feet, Legs, Bone

Strong, straight legs and pasterns with adequate bone are essential for breeding sheep. Hind legs that are too straight (post legs) will contribute to lameness and difficulty in moving in breeding animals. The legs should be of ample bone, wide set and squarely placed under the animal. The pasterns should be short and strong with the toes rather close together. Pasterns that are flat or crooked in a young animal worsen as the animal ages and contribute to difficult movement. To produce well the breeding animal should move freely and easily with no evidence of unsoundness.

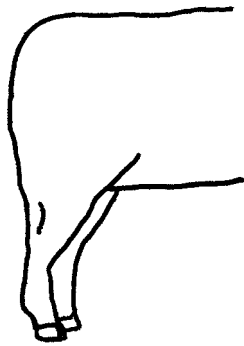
Some of the defects which cause unsoundness in the feet and legs of sheep are shown below.



Sickle hocked  
(too much set to the hocks)



Cow hocked  
(hocks too close together)



Post Legs  
(too little set to the hocks)



Weak Pastern  
(short, strong pasterns desired)

## Fleece

Inspect the fleece and mention it in your reasons if it is a factor in your placing. Remember that the finest wool quality is found at the side of the shoulder and the coarsest quality wool is found at the breech (hind leg).

Visual grading of wool is a specialized skill requiring training and experience. However, generally look at these things when evaluating the fleece: fineness, length, density,

uniformity, character, purity, soundness, foreign matter, colour and covering. Look for a long fiber, a distinct wave and density in the fleece. The fleece should be uniform in grade or fineness from shoulder to breech (hind leg). A bright fleece and pink skin indicate a healthy animal.

For more information on the wool or fleece, look at the Sheep Project Manual, Unit 17 - Wool.

## Scorecard For Breeding Sheep

	Perfect Score	
	Wool Breeds	Meat Breeds
Body Conformation .....	25	40
<ul style="list-style-type: none"> <li>• skeletal structure</li> <li>• muscling is more important than condition</li> <li>• size and scale of animal should be according to breed</li> </ul>		
Feet, Legs and Bone .....	20	20
<ul style="list-style-type: none"> <li>• strong, straight legs with heavy bone are a must in breeding sheep</li> <li>• legs set on four corners of body</li> <li>• sound feet and legs</li> </ul>		
Breed and Sex Character.....	20	20
<ul style="list-style-type: none"> <li>• rams should be masculine with strong bones</li> <li>• ewes should be more refined</li> <li>• characteristics should be according to breed</li> </ul>		
Fleece .....	25	10
<ul style="list-style-type: none"> <li>• black fiber is not desirable</li> <li>• the finest quality wool in the fleece is found at the side of the shoulder</li> <li>• length - long fiber is desirable character - look for a distinct wave density</li> <li>• fleece should be clean, shiny and uniform in grade or fineness from shoulder to breech (hind leg)</li> <li>• bright fleece and pink skin indicate a healthy animal</li> </ul>		
General Appearance.....	10	10
<ul style="list-style-type: none"> <li>• overall appearance should be pleasing</li> <li>• proportionately balanced throughout</li> </ul>		
Total .....	100	100

Source: Ontario Sheep Marketing Agency

## Breed Standards Of Excellence

To help you understand more about the differences between the breeds, this chart summarizes the characteristics of three common breeds.

	Suffolk	Dorset	Hampshire
Head	black face hornless long muzzle wrinkle free	neat, white face large nostrils broad muzzle wool covered crown	open faced wool cap hornless brown or black polled or horned
Ears	long, bell shaped black fine textured flip up on ends bright full	medium size medium length short white hair prominent bright	medium size long, thick free of wool dark in colour
Neck	moderate length well blended wrinkle free	moderate length trim, well set wrinkle free	moderate length well set wrinkle free
Chest	moderately deep well defined	moderately deep well defined	moderately deep well defined
Back	long, straight strong long, thick loin long level rump moderate capacity	long, straight strong adequate length long, thick loin long, level rump moderate capacity	long, straight strong long, level rump long, thick loin long from rib to dock strong top
Legs	black long, straight well placed	moderately long free of wool muscular rear legs	long, straight well placed free of wool muscular rear legs
Feet	short, strong toes close	short, strong toes close white hooves	short, strong toes close
Fleece	dense no black fibers uniform	dense no black fibers uniform	good length no black fibers dense uniform
Skin	fine, soft, pink	soft, pink	pink

For more information on these breeds, contact the sheep breed associations or the Canadian Sheep Breeders Association.

## Breeding Sheep Terminology

When you judge breeding sheep, give attention to size, soundness, breed character, length and muscling. Your sheep should walk freely and easily. Rams should be masculine. Ewes should be feminine and more refined.

The following terms are samples of the terms you should be using in your reasons when judging breeding sheep.

Size	<ul style="list-style-type: none"> <li>• Exhibited more size, scale and volume</li> <li>• Larger framed, growthier ewe with more size and scale</li> <li>• More width to her chest floor</li> <li>• More spring to her rib</li> <li>• More overall capacity</li> <li>• Bigger, stretchier ewe with more length to hindsaddle</li> <li>• More width and depth of heart and overall spring of rib</li> </ul>
Head	<ul style="list-style-type: none"> <li>• Showed more breed character about the head</li> <li>• More feminine headed (ewes)</li> <li>• More masculine headed (rams)</li> <li>• More open faced</li> <li>• Suffolk head - blacker about the head and ears</li> <li>• Longer, cleaner, more feminine head</li> <li>• Longer ear with a more desirable set</li> </ul>
Structure	<ul style="list-style-type: none"> <li>• Heavier boned, straighter legged, squarer standing ewe</li> <li>• More upstanding, longer legged ewe with more structural correctness</li> <li>• Larger framed, heavier boned ewe</li> <li>• Taller at the point of the shoulder</li> <li>• Greater length of hindsaddle</li> </ul>
Capacity	<ul style="list-style-type: none"> <li>• Smoother fronted, blended more smoothly in the shoulder</li> <li>• More width through the chest floor, more boldness to the rib</li> <li>• Bigger volumed ewe with more total capacity</li> <li>• Deeper, wider chested ewe with more substance and volume</li> </ul>

Muscling	<ul style="list-style-type: none"> <li>• Fuller behind the shoulder</li> <li>• Wider in the stifle region</li> <li>• Carried out longer and squarer to the dock</li> <li>• A heavier muscled ewe with more natural thickness down the top</li> <li>• More thickness over the loin and more volume of muscle to the leg</li> <li>• Stronger topped, thicker muscled ewe</li> <li>• Longer rumped and thicker through the leg</li> <li>• A ewe with more natural thickness throughout the body</li> <li>• More muscling over the top and more flare to the rump</li> </ul>
Condition	<p>When judging the breeding ewe, mention condition only if the ewe is very fat or very thin.</p> <ul style="list-style-type: none"> <li>• A fat, over conditioned ewe</li> <li>• An extremely under conditioned ewe</li> <li>• A thin, under conditioned ewe</li> </ul>
Quality, Balance, Femininity	<ul style="list-style-type: none"> <li>• Higher quality, more balanced ewe</li> <li>• More feminine head and more free of wool about the eye</li> <li>• Longer necked, cleaner fronted ewe</li> <li>• Typier ewe with more eye appeal</li> <li>• Longer, smoother necked ewe</li> <li>• More stylish ewe showing more smoothness and quality</li> <li>• Neater fronted ewe</li> <li>• Smoother shouldered ewe</li> </ul>
Fleece	<ul style="list-style-type: none"> <li>• A longer, denser fleece</li> <li>• More uniform, denser fleece free of black fibers</li> </ul>

## Sample Reasons - Hampshire Breeding Ewes

I placed this class of Hampshire breeding ewes 4 2 3 1.

I placed 4 over 2 because 4 was a stretchier ewe showing more size, scale and Hampshire breed character than 2. 4 was wider over the shoulder, back and loin, fuller in the heart and longer and leveler in the rump than 2. I grant that 2 stood straighter on her front legs and has a denser fleece than 4.

I placed 2 over 3 because 2 showed a straighter topline and more spring of rib than 3. 2 was wider fronted and wider and stronger through the loin than 3. 2 was tighter in her fleece and stood straighter on her front legs than 3. I admit that 3 was more open faced and deeper bodied than 2.

I placed 3 over 1 because 3 was longer bodied, more balanced and more open faced than 1. 3 showed more thickness over the top, and was longer, leveler and squarer in the rump than 1. I grant that 1 was stronger over the top than 3.

I placed 1 at the bottom of the class because 1 was the smallest ewe in the class, and was narrow in her rump and light in her leg.

These are my reasons for placing this class of Hampshire breeding ewes 4 2 3 1.

## Primary Purpose of Sheep Breeds

The following table lists the primary purpose of sheep breeds in North America.

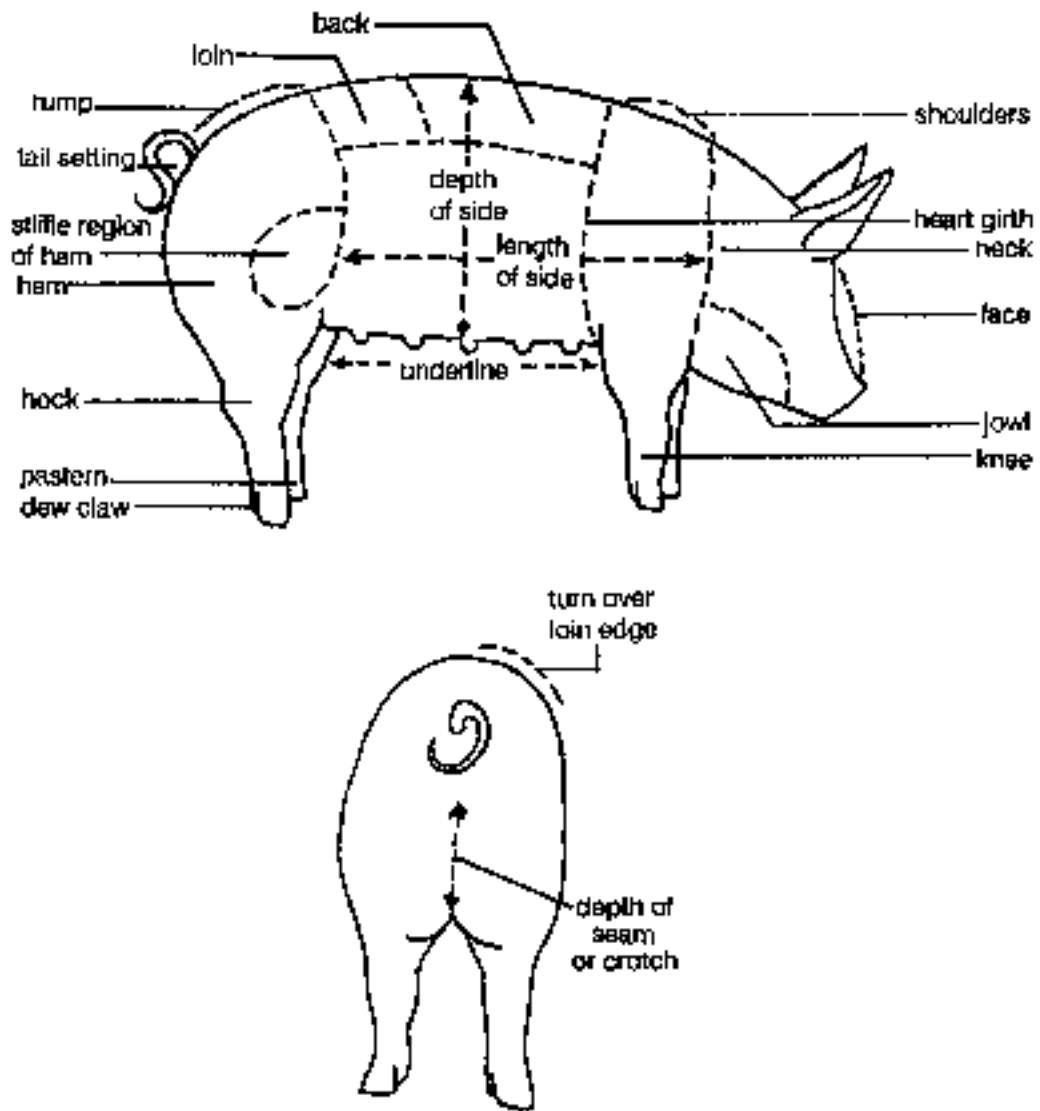
Meat	Wool	Dual Purpose	Dairy
Border Cheviot	Bluefaced Leicester	Border Leicester	East Friesian
Clun Forest	Cotswold	Columbia	
Dorpor	Delaine Merino	Coopworth	
Dorset	Icelandic	Corriedale	
Hampshire	Karakul	Finn	
Katahdin	Leicester Longwool	Lincoln	
Montadale	Rambouillet	Perendale	
North Country Cheviot	Shetland	Polypay	
Oxford	Targhee	Romney	
Romanov			
Royal White			
Shropshire			
Southdown			
St. Croix			
Suffolk			
Texel			
Tunis			
Wiltshire Horn			



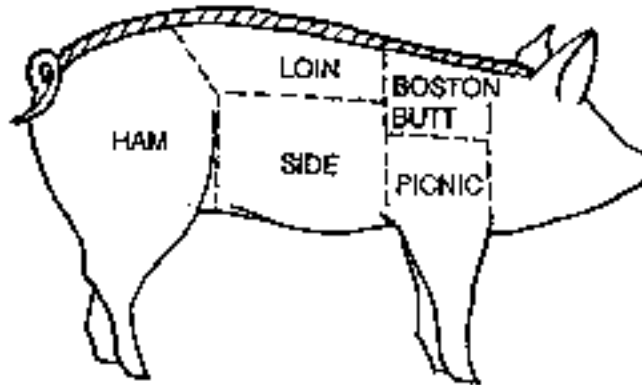
# Judging Swine

Step one to becoming a successful swine judge is to learn the parts of the body.

## Parts of the Swine



Step two is to become familiar with the wholesale cuts of pork. In the hog, the high priced wholesale cuts are the ham and the loin.



Step three is to take all the knowledge you have and put it into practice. The following pages will provide you with all of the information you need to become a successful swine judge. It's up to you from here!

## Hints For Judging Swine


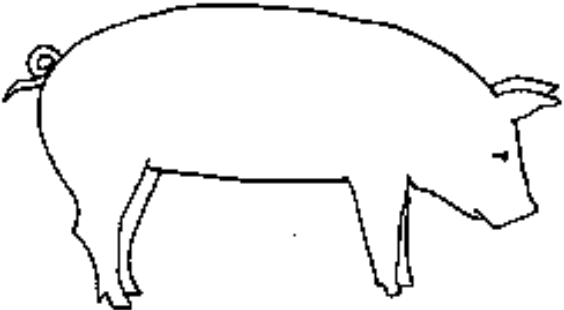
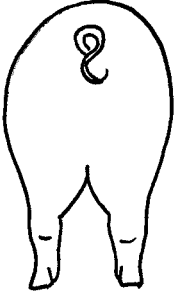
A class of swine may be more difficult to judge than other species of livestock because the four animals are often loose in a pen. Each of the animals will be identified by a number on its back. Since the animals are moving around in the pen and you are judging them as they move, you must see each of them accurately and compare them.

This task is easier if someone moves the animals around the pen while you stand back and watch them. Don't get in or look from above until you have thoroughly viewed them from a distance.

Examine each pig individually. Set your sights on one pig. Thoroughly evaluate him in comparison to your ideal pig, noting his strengths and weaknesses. Examine his topline, back, loin, ham and rump as seen from the side. Note the set of the feet and legs. Study his conformation from the rear. Move on to your next pig and repeat.

Complete the same process for each pig individually before you begin to compare them to each other.

From each of the three views, evaluate these things:

Front view	
<ul style="list-style-type: none"> <li>• Trimness of jowl and neck</li> <li>• Width and depth of chest</li> <li>• Correctness of front feet and legs</li> <li>• Degree of finish or fat cover over the top</li> <li>• Breed character</li> </ul>	
Side View	
<ul style="list-style-type: none"> <li>• Conformation and general balance</li> <li>• The degree of muscling and fat</li> <li>• Length and depth of side</li> <li>• Levelness of topline</li> <li>• Trimness of jowl</li> <li>• Trimness of underline</li> <li>• Straightness of legs</li> <li>• Strength of pasterns</li> <li>• Quality of head, hide, hair and bone</li> </ul>	
Rear View	
<ul style="list-style-type: none"> <li>• Set of the tail</li> <li>• Muscle pattern in the ham</li> <li>• Correctness of rear feet and legs</li> <li>• Strength of pasterns</li> <li>• Levelness of topline</li> </ul>	

The emphasis which you place on each of these characteristics will depend upon whether you are judging market or breeding swine.

## Judging Market Swine

### Conformation

Conformation is the general body shape and features of the pig as determined by his framework or his skeleton and muscle structure. The ideal market hog is three dimensional - he is medium tall, long and wide. Market hogs are either barrows (castrated males) or gilts (young females who have not farrowed).

### Balance

In the market hog, balance is also important. A well balanced hog will be tight middled, with a smooth blending and proportion of body parts. A poorly balanced hog will be long necked, high and narrow shouldered, heavy middled and short rumped. Never criticize a hog for being off balance because of an over abundance of ham.

### Muscle

The ideal muscle pattern in today's hog is long and smooth.

When evaluating the hog, make sure that what you are seeing is muscle and not fat. The best way to do this is by feeling the body of the hog. Muscle will be firm and bulging. Fat will be much softer, often feeling squishy or like jello.

A heavily muscled hog will have a plump, firm, deep, thick meaty ham and long rump. When viewed from the rear, the lower part of the ham should be the widest part of the hog. The ham should extend well down onto the hock. The hog should be muscular over the shoulders with a wide chest and the loin wide along the back. The muscles meet the spine at the very top of the animal. If there is a groove along the top of the animal all the way to the tail, it indicates that there is significant muscling of the loin and that the space between the muscle is not covered with an abundance of fat.

### Finish

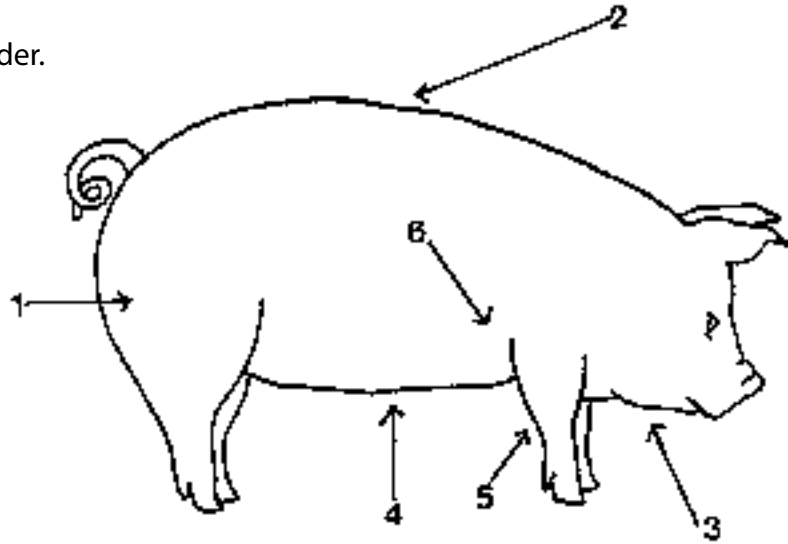
A small amount of fat or finish is desirable in market hogs. A large amount of fat is very undesirable in today's market hog.

Backfat is the best indicator of total fatness in hogs. Although we do not actually measure the backfat thickness when we judge hogs, there are some traits which we can use to estimate it.

The best indication of too much backfat is a soft, square top. Others are a heavy, wasty jowl, a soft, wasty middle, and a looseness in the lower ham and crotch region.

You can best see excess finish or body fat by looking in these areas:

1. the lower ham
2. over the topline
3. jowl
4. middle
5. elbow pocket
6. behind the shoulder.



Hogs which are extremely over finished and wasty will exhibit these characteristics:

- bulge of fat over the rib cage
- thick roll of fat over the loin
- heavy, full jowls, flanks
- tail set deep, between rolls of fat
- deep in the crotch
- rolls of fat in the elbow.

### Size and Scale

Along with adequate muscling, the market hog must have size and scale. Keep in mind that long, rangy hogs without muscling are not desirable.

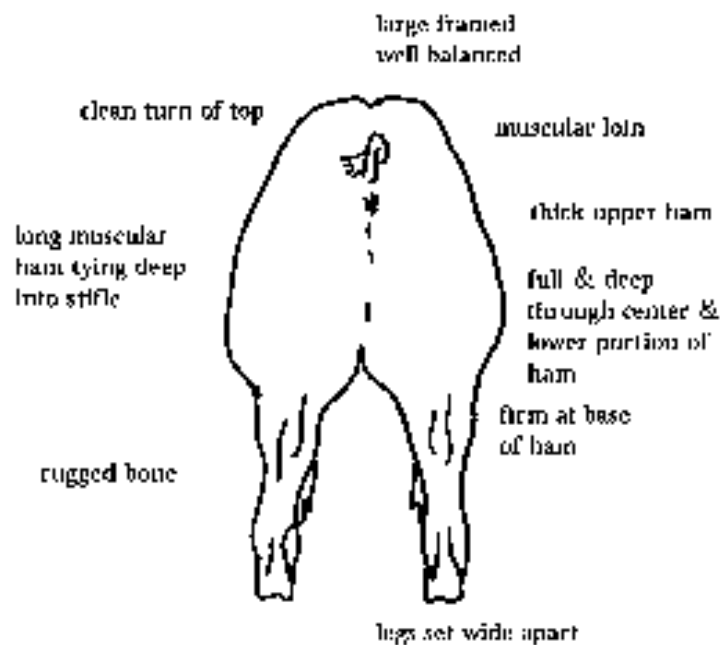
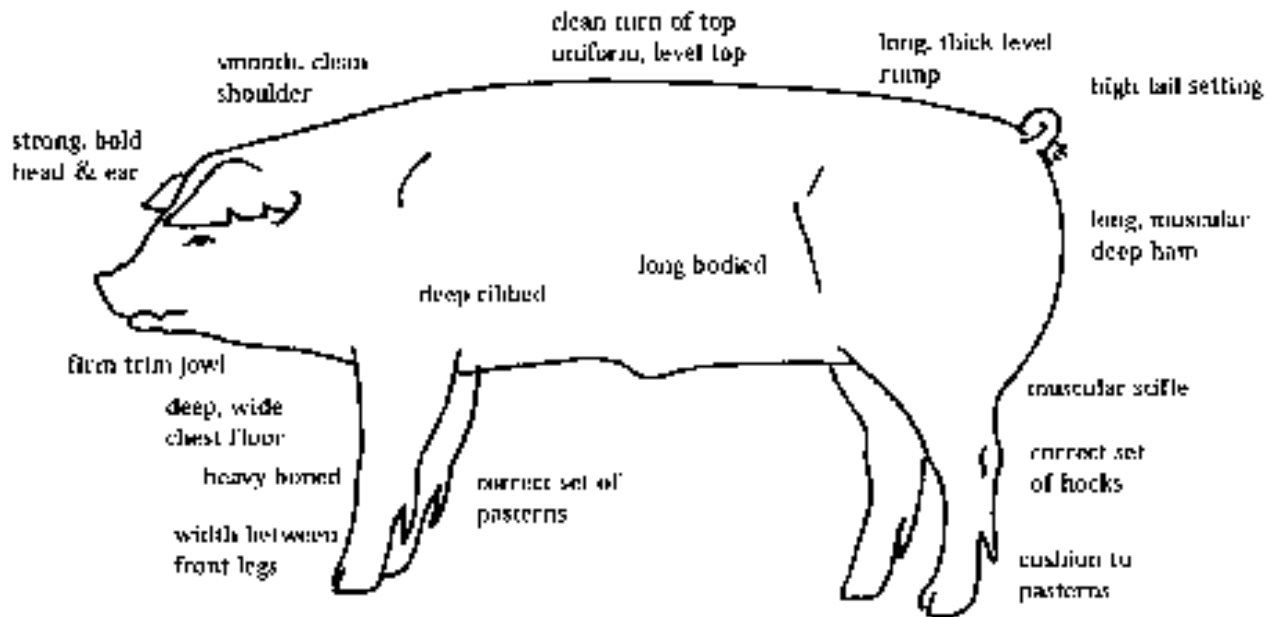
Market hogs with size and scale will have adequate length of side, capacity and adequate bone and length of leg. In contrast, pigs without enough size and scale, even if they are muscular, tend to be dumpy, short sided and short legged.

### Structure

Correct feet and legs are necessary for breeding and market stock. The legs must have adequate bone and straight, strong legs for a long productive life.

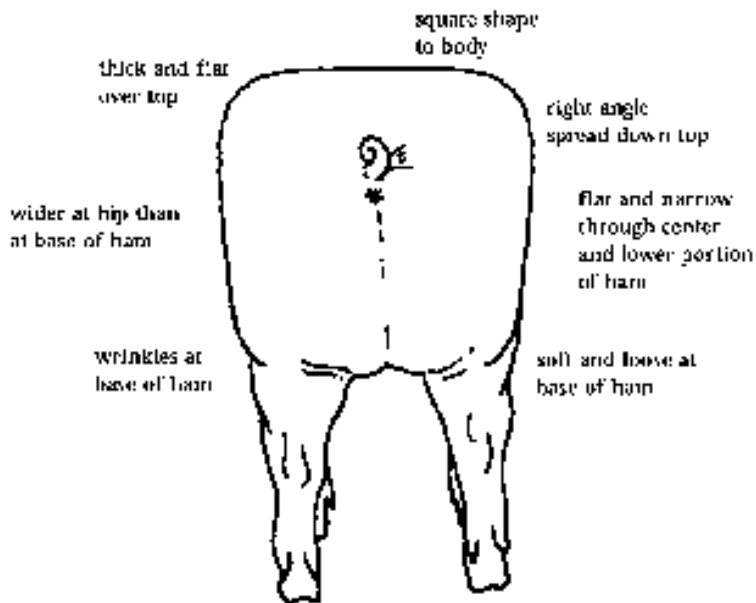
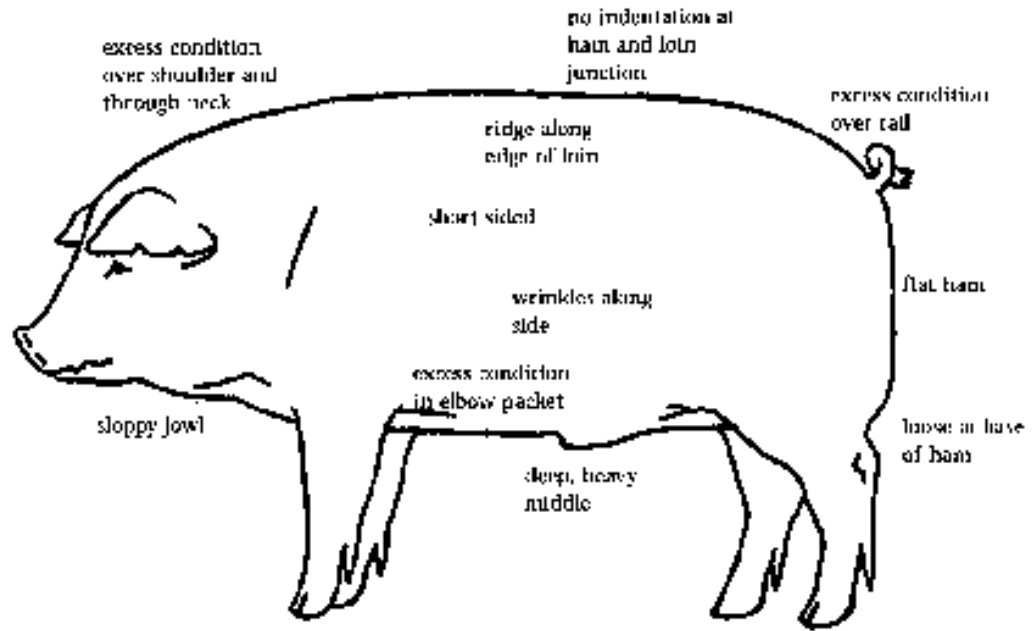
## Excellent Type Market Hog

Correctly finished, full in the ham, wide loin, trim and smooth throughout.



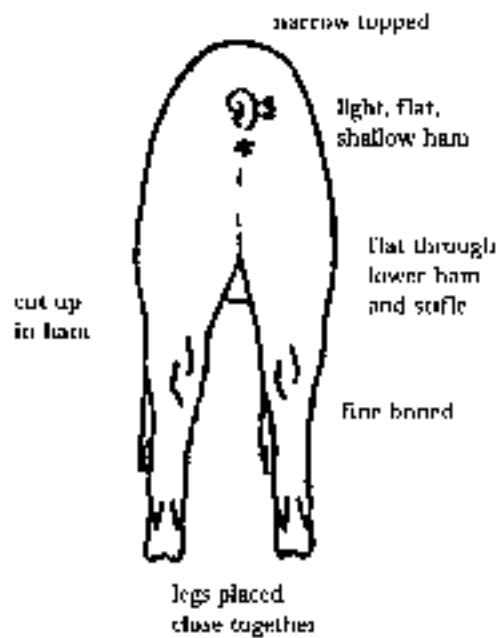
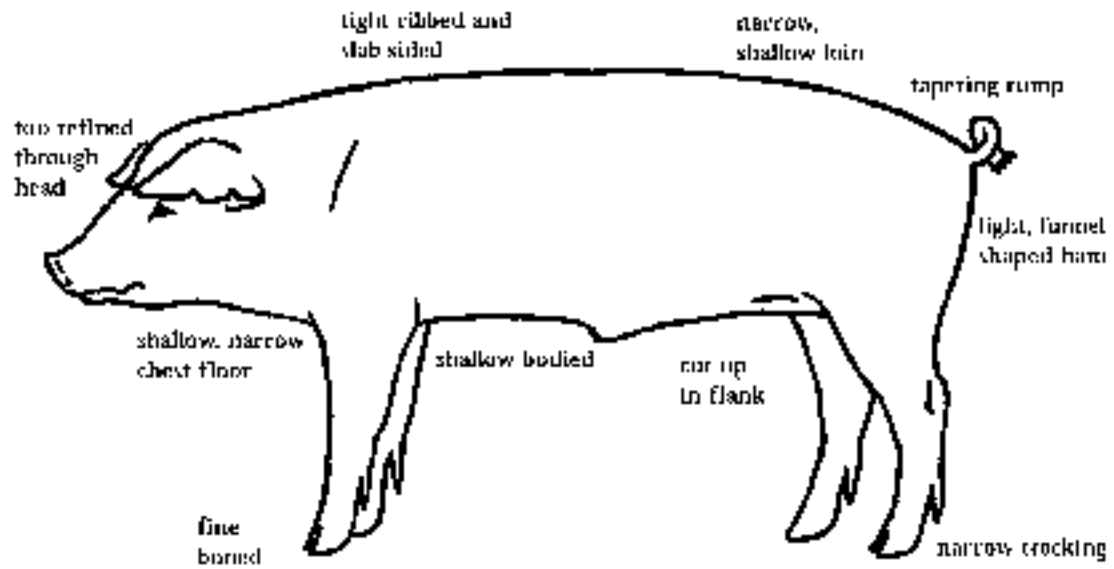
### Poor Type Market Hog

Over finished, wasty, short, thick, and wide in the body.



### Poor Type Market Hog

Under finished, narrow, shallow and cut up in the ham.





## Market Hog Scorecard

	Perfect Score
General Appearance .....	35
Weight    0 - 110 kgs at 6 to 7 months.....	5
Condition  deep, uniform covering of flesh, especially in the ham and loin.....	10
Form      long, level, smooth, reasonably deep, controlled vigorous movement.....	10
Quality    hair fine, lying close to skin; skin thin and smooth; no bunches of fat or wrinkles; legs medium length, squarely set, clean cut, straight, firm; feet medium size, toes slightly apart. ....	10
Forequarters .....	16
Head      moderate length and size, trim, forehead wide.....	2
Snout- medium in length, slight dish	
Eyes - medium size, clear and bright	
Ears - trim, medium size	
Keep in mind that there are some breed differences	
Jowl      light, trim.....	2
Neck      medium length, width and depth, trim; smoothly blended with shoulders .....	2
Shoulders  free from roughness, open, not bulging, flat on top.....	8
Breast    moderately wide, full .....	2
Body .....	33
Chest      deep, full girth .....	4
Back      long, oval, uniform in width with shoulders and rump slightly arched, no evidence of excess fat at break of rib .....	12
Sides      long, smooth, deep; ribs uniformly sprung.....	8
Belly      trim, firm, thick; flank full and well let down, not flabby; underline straight, clean and trim.....	9
Hindquarters .....	16
Hips      smooth, wide; proportionate to rest of body .....	2
Rump      long, even, straight, well rounded toward tail .....	2
Hams      full, tapering toward hock; firm, free of wrinkles.....	12
Total .....	100

Note: This score card is designed as a guideline to help you understand the relative importance of the body parts, and the locations on which you should put the most emphasis.

## Terminology For Market Swine

Use the following comparative terminology together with the specific body part you are referring to. Remember to move from general to more specific information as you compare each pair.

Conformation	larger taller longer wider stronger broader	stretchier more size more scale more stylish more capacity
Muscle	meatier more flaring thicker firmer deeper fuller	more width more muscle expression carries further heavier muscled plumper
Finish	trimmer less wasty cleaner neater	firmer freer from waste

## Sample Reasons

### Duroc Market Barrows

I placed this class of Duroc market barrows 2 3 1 4.

I placed 2 over 3 because 2 was a longer, stretchier barrow with more desirable finish. 2 was trimmer and firmer through his side and trimmer about his middle, shoulders and jowl than 3. I grant 3 has more thickness through the center of the ham than 2.

I placed 3 over 1 because 3 is heavier muscled than 1. 3 has a greater arch of back and more muscling over the back and loin than 1. Furthermore, 3 stood wider through his ham than 1 and showed more evidence of muscling in the hind quarter than 1. I realize that 1 was a smoother, higher quality barrow showing more scale than 3.

I placed 1 over 4 as 1 was a much trimmer barrow with more scale and more length and quality of leg than 4. 1 was a longer sided barrow, cleaner down his top and more

desirable turned over his loin edge than 4. 1 was trimmer throughout and will hang a longer, trimmer carcass than 4.

I grant that 4 was thicker through his lower ham than 1. However, I placed 4 last as he was over-finished and wasty through the middle and jowl, and is the fattest, wastiest barrow in the class.

These are my reasons for placing this class of Duroc market barrows 2 3 1 4.

## Judging Breeding Swine

Breeding swine should have the same general body conformation as market hogs. The same terminology can also be used. The main difference between market and breeding swine is that in breeding, you place more emphasis on structural soundness.

Selecting productive, performance oriented breeding stock is the first step in breeding quality swine. Productive breeding stock is sound in conformation, fast growing, muscular, lean and reproductively efficient. If you select swine with these characteristics, your chances of being a successful operator are increased.

In today's confinement rearing of hogs, structural soundness is necessary. Because of the demand for sound, fast growing, durable and efficient breeding stock, breeding stock suppliers must produce livestock which will adapt to the breeding pens, farrowing crates and finishing floors.

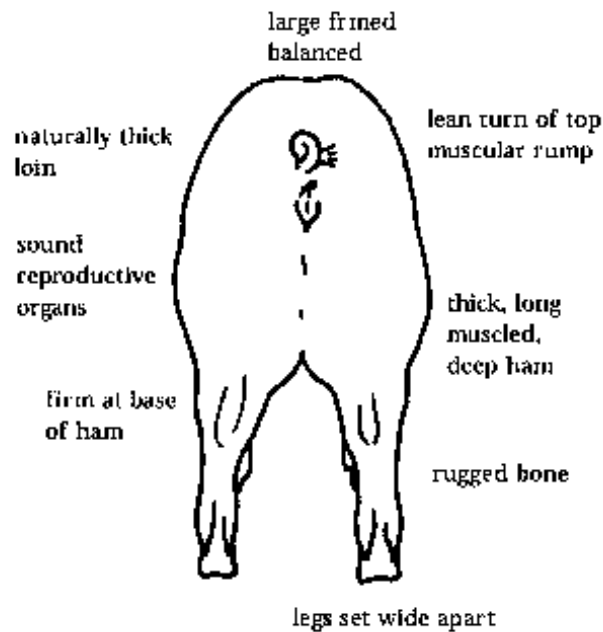
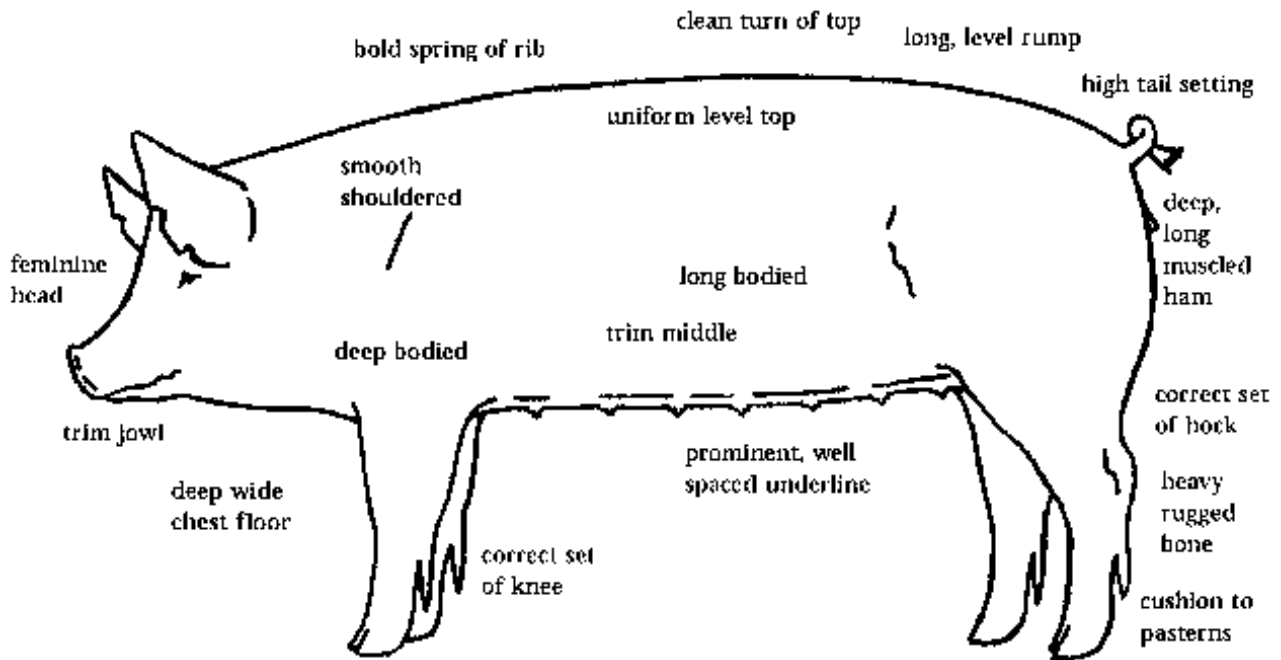
### Structural Soundness

The characteristics of structurally sound breeding stock are:

- sloping shoulder, forearm and pastern
- level rump
- high tail setting
- proper set to the hock joint
- spring or flexion in the hock
- level top
- moderate length of neck
- large, even sized toes, slightly apart
- legs placed squarely under the body.

These characteristics will allow the animal to move freely and soundly on pasture or in confinement. The sow must be able to get up and down in the farrowing crates. Boars must be able to service the sows comfortably.

# Ideal Gilt



## Feet and Legs

In breeding swine, structurally correct feet and legs are very important.

### Ideal Fore Legs

- Sloping shoulder, forearm and pastern serve as front shock absorbers
- Large, even-sized toes, slightly apart
- Straight with strong pasterns

### Ideal Hind Legs

- Spring or flexion in the hock joint provides a cushioning effect
- Move soundly and freely
- Large, even-sized toes, slightly apart
- Proper set to the hocks
- Legs squarely under the body
- Strong pasterns with good bones

The front legs should angle out of the shoulder into a long, sloping pastern. If the shoulder is too straight, there will be more pressure at the shoulder and knee joints. Because the knee offers little resistance to pressure, the front legs will buckle over.

The front legs should reach forward with a long, loose stride. Short, choppy front leg movement comes with straight shoulders, steep pasterns and strongly arched tops.

In normal rear leg placement, the hocks are slightly closer together, and the toes are turned slightly to the outside. With this placement, the joints will absorb the shock equally.

The rear legs should have long, loose strides with good cushion in both the hocks and pasterns.

Large bone size is desirable and important for durability, as long as the animal is structurally correct. The hog must move freely, with the body weight distributed equally on all eight toes.

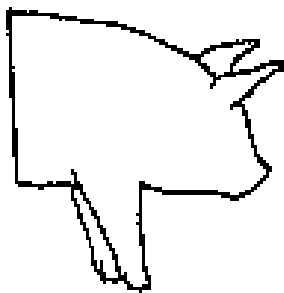
## Growth Rate

Fast growing breeding stock are a must. You cannot measure growth by visual appraisal alone. Performance must be documented to give you accurate information on the actual performance of the animal. If growth records are available, inspect them and use them in your evaluation class.

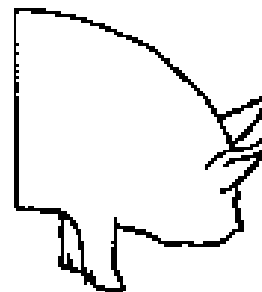
## Head, Neck, Jowl and Shoulders

### The ideal

- Jowl is firm and trim with no sign of flabbiness
- Neck is of medium length and blends smoothly into shoulder
- Shoulders free of wrinkles and muscular
- Head is trim, wide between the eyes, clean cut
- Snout is of medium length and straight
- Broad through the chest



Ideal



Poor

## Ham

The ham is one of the most expensive retail cuts on a hog. Therefore, it is critical that the ham be desirable.

### The ideal

- Outside of the ham bulges
- Good width through center of the ham
- Muscling extends far down the hock



Good



Poor

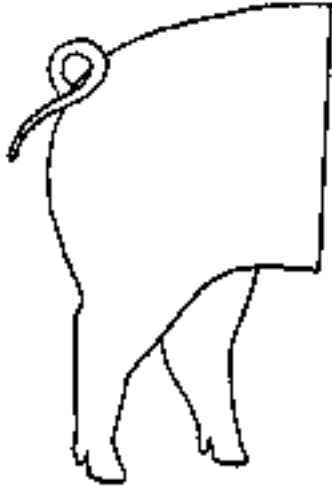


Poor

## Rump

### The ideal

- Long rump, with a gradual slope towards the tail setting
- Root of tail rests above the bulge of the ham
- Hams well muscled, long and thick



Ideal Rump



Poor Rump

## Arch

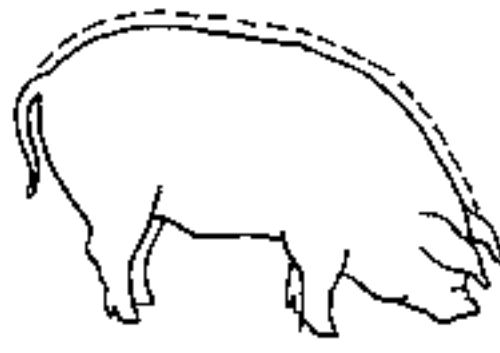
With correct feet, legs and rump structure, the arch should naturally be correct. However, this does not always happen.

### The ideal

- Strong with a gradual arch
- Hog naturally holds this arch
- Sides are long, flat and trim showing muscling at front and rear flanks

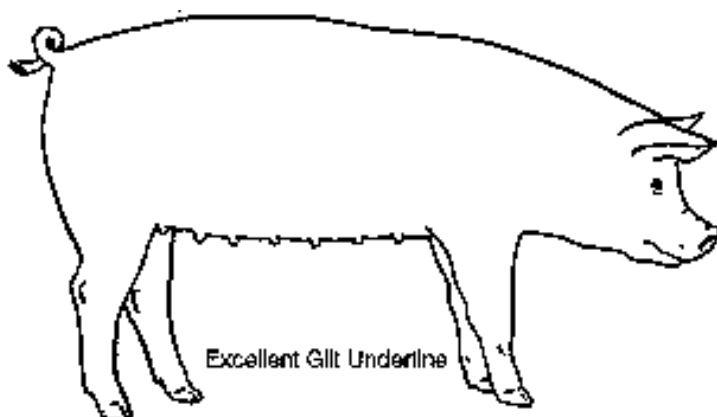


Ideal



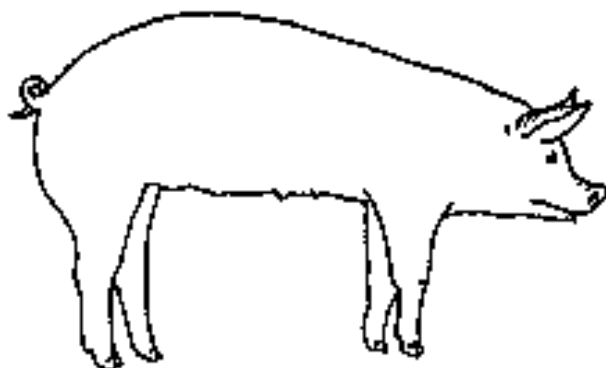
Poor Arch

## Underline



### Desirable

- Starts just behind the front legs with the first pair of nipples
- Nipples long, narrow and well-defined
- Nipples even in size and spacing
- Both gilts and boars should have at least six well-spaced prominent nipples
- At least three pairs of nipples should be ahead of the navel
- Correct underlines are important for raising large, healthy litters and increasing profits



### Poor Underline

A poor underline may have these characteristics:

- teats begin too far back from the front
- teats are inverted or not prominent
- teats are blind and/or not functional
- poor spacing between the teats.



## Capacity

### Desirable

- Body cavity should be deep and square
- Ribs well sprung
- Wide throughout the chest and cavity
- Depth should continue through the length of the animal's body in a uniform manner from forerib to rear flank
- Important for maintaining health, intake of feed and having adequate reproductive volume

## Muscle

### Desirable

- Long flat muscles preferred
- Thickness is important too
- Thick, bunchy muscles produce lean and heavily muscled carcasses, but their productivity (litter size, farrowing ease, structural soundness, mating ability) and meat quality was not so desirable
- Ideal is greatest amount of muscle mass (length, depth, thickness) possible without interfering with overall productivity

## Trimness

### Desirable

- Clean over the loin edge and shoulder blades
- Free from excessive waste in the cushion of the ham



Trim, lean topped boar.  
Evidence of muscle and skeletal  
expression.



Fat, round, wasty boar.  
Smooth, lacks expression.

## Character

### Desirable

- Breed character refers to the presence of desired features of the breed
- Head, ear, carriage and colour markings are some features to check
- Each breed has specific desirable characteristics
- Check the Canadian Centre for Swine Improvements for more information

## Sex Character

### Desirable

- Evidence of masculinity and femininity
- Check head, mammary development and external sex organs
- Behaviour also plays a factor

## Breeding Swine Scorecard

Perfect Score

General Appearance.....		20
Weight	appropriate for age and breed 5 to 6 months - 100 kg 9 months - 145 kg mature sows - 160 - 250 kg mature boars - 180 - 270 kg	
Condition	moderate finish in all classes middle trim and free from flabbiness	
Form	well balanced, long, neat and trim sides deep and trim slightly arched topline	
Head and Neck.....		5
Head	face medium length, clean cut eyes well apart and alert ears medium in size, fringed with fine hair	
Neck	neck blends smoothly into shoulder jowl smooth, neat and trim, no sign of excess flesh	
Forequarters .....		10
Shoulders	smooth, showing muscle	
Chest	broad	
Fore legs	straight, good bone, even toes, strong pasterns	
Body .....		25
Loin	long and muscular	
Back	long and muscular strong, slightly arched topline	
Sides	long, flat and trim showing muscling at front and rear flank	
Underline	sows should have a minimum of 6 pairs of sound, well-developed, evenly spaced teats at least three pairs of teats should be ahead of the naval boar should have a clean, tight sheath	

Hindquarters .....	17
Rump	long and muscular
Hams	well muscled, long and thick
Hind Legs	straight; strong pasterns with good bone
Feet and Legs .....	13
	stands on even toes and soles
	legs squarely under the body
Trimness.....	10
	minimum amount of smooth finish, uniformly distributed over body
	excess finish is undesirable
	blemishes are undesirable, i.e. tail biting, bruises, teeth marks, cuts
Total .....	100

## Terminology For Breeding Swine

The terminology to use for breeding swine is the same as the terminology for market hogs. Refer to the information in the section on market hogs (page 10).

Remember that structural correctness is more important in breeding swine. Discuss your most important points first, then move to the less important ones. Discuss general information, then refer to specific traits.

## Sample Reasons

### Duroc Breeding Gilts

I placed this class of Duroc breeding gilts 1 2 4 3.

Starting this class with the two largest volume gilts in the class, I placed 1 over 2 because 1 was larger framed, longer sided, longer rumped and cleaner and longer in the neck than 2. 1 was deeper ribbed and wider sprung than 2, and stood on more cushion at the knees and pasterns.

I grant that 2 was a leveler rumped gilt than 1.

In my middle pair, I placed 2 over 4 because 2 had more balance, being taller in front and more level over the rump than 4. 2 showed a more desirable slope of the shoulder and was freer moving on all four legs than 4.

I grant that 4 was longer and cleaner in the neck, and had a more prominent, more desirable spaced underline.

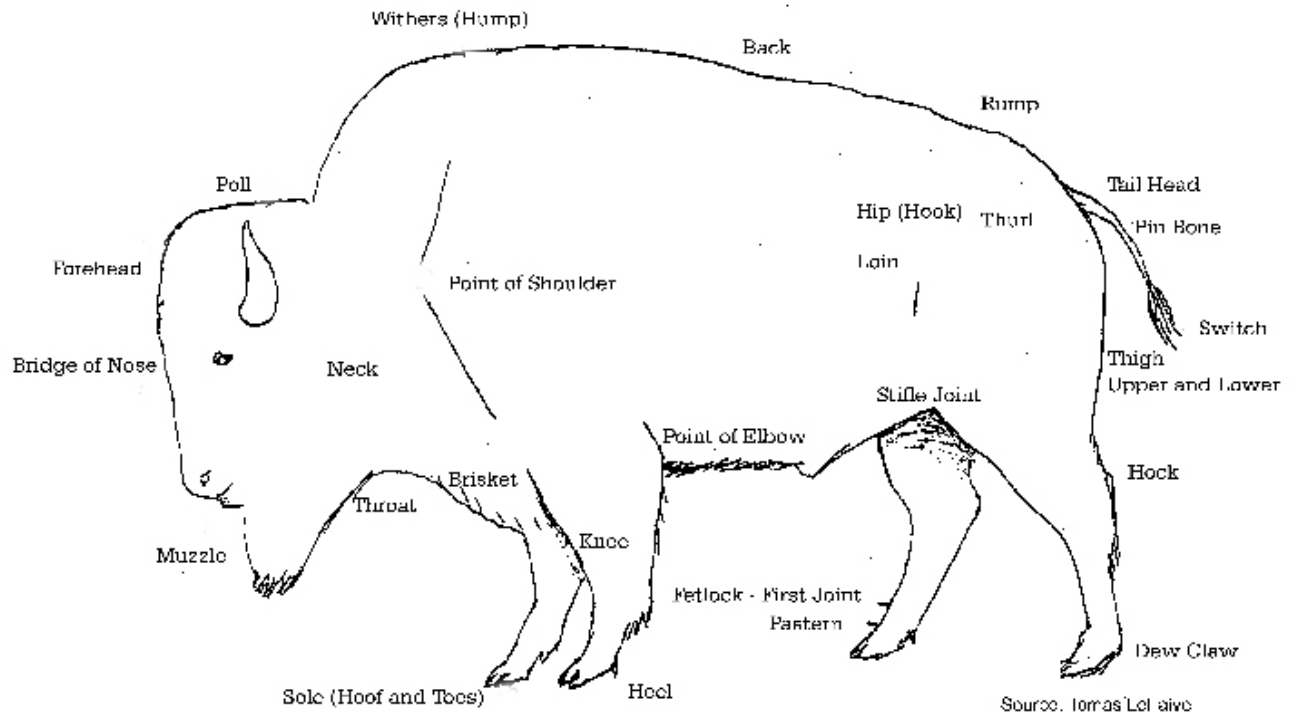
In my bottom pair, I placed 4 over 3 because 4 was longer sided and more upstanding than 3. 4 carries less fat throughout, and showed more size and scale than 3.

In an easy placing, I placed 3 at the bottom of the class as 3 was short sided, steep rumped and buck kneed. 3 lacked the structural correctness to place any higher in this class today.

For these reasons, I placed this class of Duroc breeding gilts 1 2 4 3.

# Judging Bison

## Parts of the Bison



Perfect Score

Breed and Age Characteristics ..... 25 points

- Weight
- Height
- Length – primarily length of loin as this is a meat animal
- Hump
- Head – horns if present
- Hair – varies on geographical location
- Beard
- Cape
- Chaps on forelegs
- Body outline
- Colouration - varies on geographical location

## Males

Masculine, massive, without female features, wider head, larger horns, developed hump, cape, pelage (raised hair from front shoulder on forward) and leggings, body massive, bigger boned, wide stance (to maintain better balance)

## Females

More refined, lighter shoulder and neck, refined head and bone, less pronounced hump, width between hip and hook bones (calving ease).

## Soundness..... 25 points

- Correct body and skeletal structure
- Free from any defect that would reduce useful life of animal
  - a. Feet – without defect - can be an indicator of feed
  - b. Legs – straight - but not as straight up and down as in cattle, helps give spring
  - c. Teeth – proper growth and typical arrangement
  - d. Eyes – without defect, both functional – shine in eye shows health and alertness
  - e. Sex organs intact, without injury, typical
  - f. Animal should stand and move freely without evidence of unsoundness
  - g. Bodylines and contours, without slithered rear end.

## Condition..... 25 points

Must be appropriate for their intended use and time of year, sex and age must also be considered.

- Good health – free of injury, coughing, scours, eyes, parasites,
- Amount of fat conditioning
- Amount and development of muscle

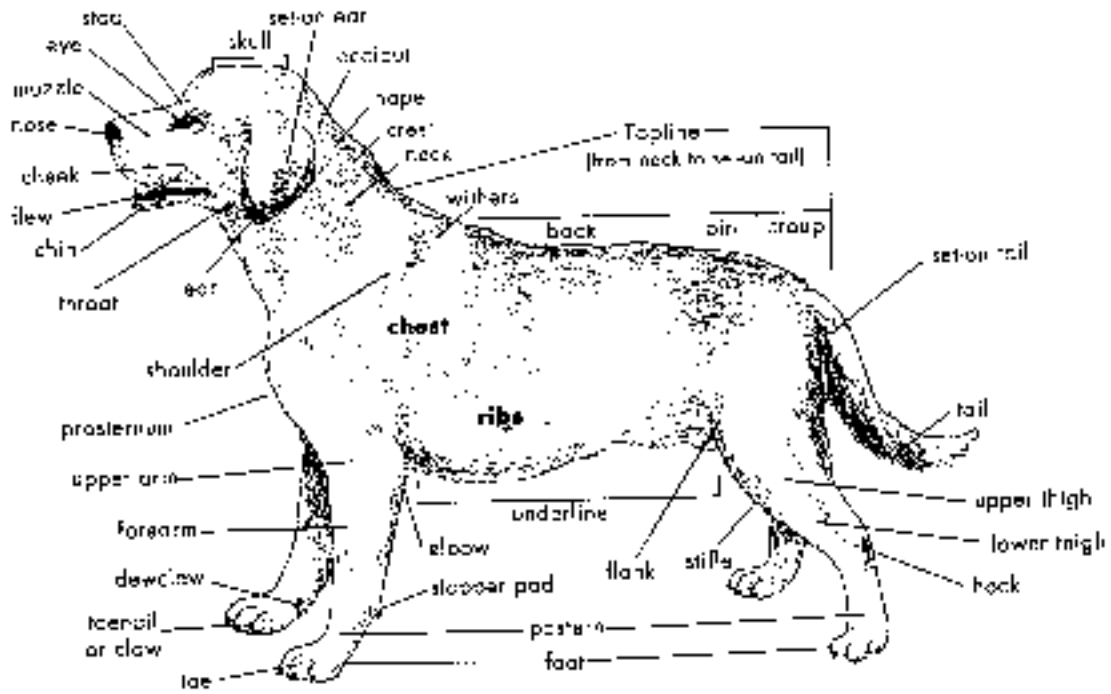
## Quality..... 25 points

- Well balanced with pleasing general appearance
- Display alertness, dominance, instinct behaviour
- Big enough for age (bones & muscle, body structure, you must be able to determine amount of body fat)
- Depth of carcass front to rear (front, rear & side view) - capacity
- Width of carcass across back and throughout full length - appropriate to age and sex
- Total length of animal
- Depth, width and fullness of round without pencil pointedness

Source: Mike Edgar - Grande Prairie, Alberta

# Judging Canine

## Parts of the Canine



Parts of a Dog



## Canine Scorecard

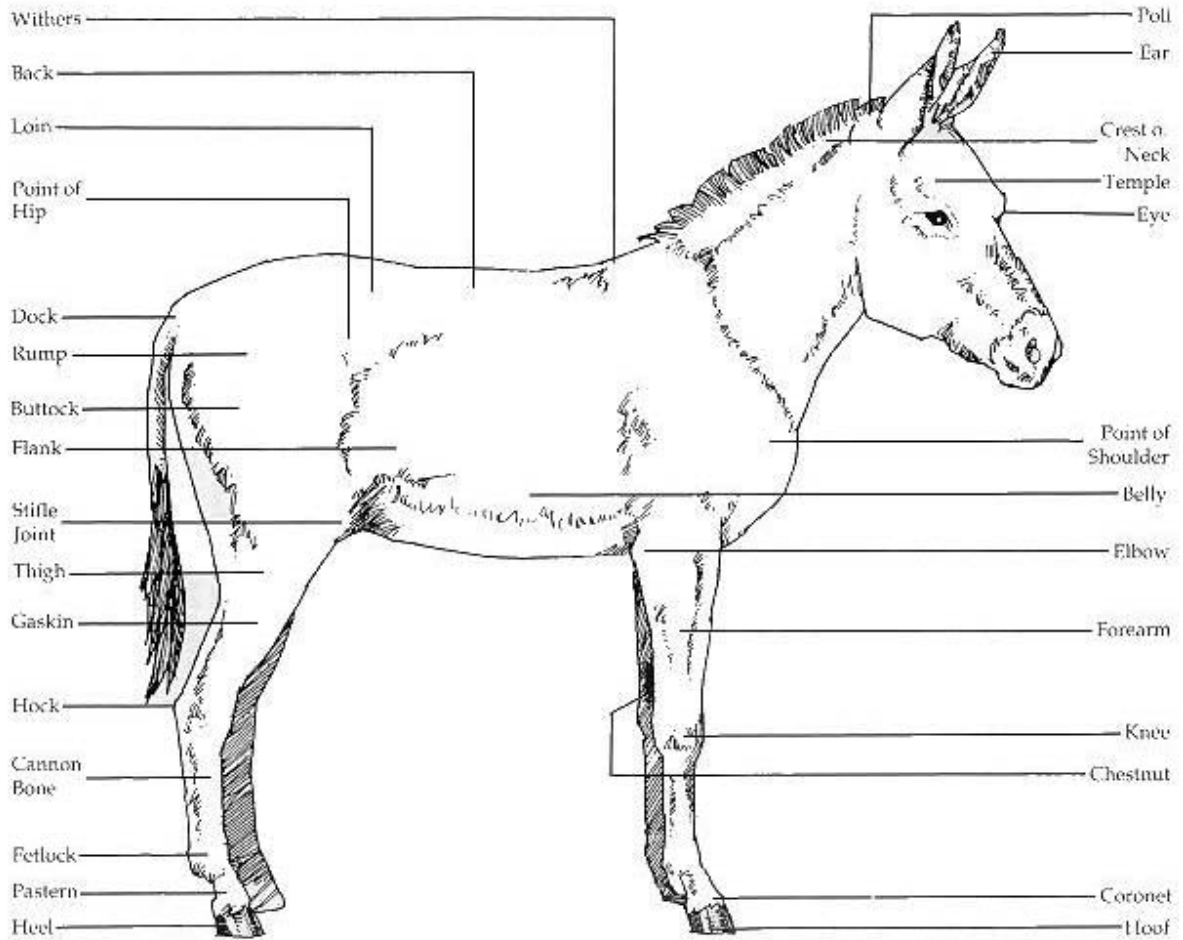
Perfect Score

Head .....	24
• Bite – should be able to tell the difference between level, scissors, overshot and undershot	
Body, feet and legs .....	24
• Neck	
• Shoulder angulation	
• Prosternum depth of chest	
• Width of chest between front legs	
• Topline	
• Group	
• Rear angulation (stifle and hock)	
• Check male for testicles	
Movement.....	22
• Well knuckled feet	
• Should recognize paddling	
• Weaving and crossing over	
• Moving too wide or too close	
• Cowhocks, crabbing and side winding.	
General Properties.....	30
• Expression - overall appearance of dog's head with special consideration given to the look in his eye (friendly, wary, etc.)	
Total .....	100

Source: Nova Scotia Agriculture & Fisheries – Nova Scotia 4-H - Spotlight on Judging

# Judging Donkey

## Parts of the Donkey



## Head

- Short rather than too long – in proportion with the rest of the animal
- Straight or slightly dished profile
- Eyes – large, mild expression, set low, wide apart and clear
- Nostrils – well shaped & open
- Teeth – good condition with no undershot or overshot jaws
- Jaws – generous, round and open
- Head deep through the jaws tapering to a small muzzle
- Ears – long, clean cut, set upright, carried firmly and alertly pointed
- Appearance – jennets: femininity, jacks: strength and masculinity

## Neck

- Well proportioned to the rest of the animal, joined to head and shoulder correctly and smoothly.
- Crest of the neck should be fairly straight, not ewe necked not fallen to the side or excessively fat.
- Neck firm, well fleshed and strong
- Mane usually short and upright, but may fall to the side as with the horse mane.

## Body

- Withers practically nonexistent, but if noticeable, so much the better.
- Shoulder slightly sloping, although more upright than the horse
- Ribs – well sprung and the girth deep
- Chest – relatively wide, not narrow
- Back – short and level or slightly dipped in the case of older animals or in foal jennets
- A long out of proportion back is undesirable
- Loin – strong broad and firmly coupled
- Quarters – long, wide and as flat as possible – well fleshed with plenty of length between point of hip and point of buttock
- Top of Croup – rounded, not extremely sloping
- Tail – well set, not low, covered with short hair and completed by a tuft of long hair

## Limbs

- Straight and true with adequate bone on proportion to the type of animal.
- Knees – flat and wide, cannon bones short
- Hocks – set low, strong, clean and correct shape

### Feet

- Even, good shape and well trimmed
- Hard, clean, smooth elastic and tough
- Feet are generally smaller & more upright than a comparable sized horse

### Movement

- Level and true, willing and active.

Reviewed by: Mrs. Sybil E. Sewell, Leslieville, Alberta

Source: The Donkey: Care and Feeding  
Alberta Agriculture, Food & Rural Development  
Agdex 467/20-1

# Judging Feline

## Parts of the Feline

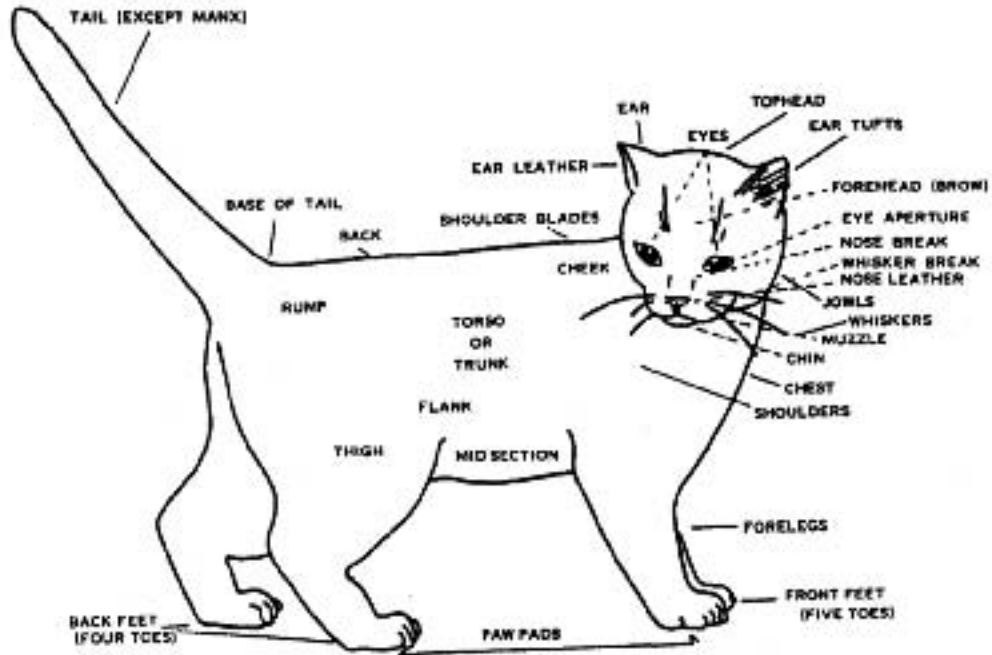


Illustration by Rosemary S. Peck, M.D.

Ideal cat reflects excellent health and sound structure

### Head

- Mature skull - doesn't show undesirable depressions or protuberances
- Eyes - clear and coordinated movement
- Breathing - effortless
- Mouth - closes properly
- Face and jaw - symmetrical & aligned

### Skeletal Frame

- Functions with symmetry and balance
- Vertebrae are aligned without fixation or deviation
- Spine - supple
- Joints - flexible
- Legs - parallel & fully support weight & movement

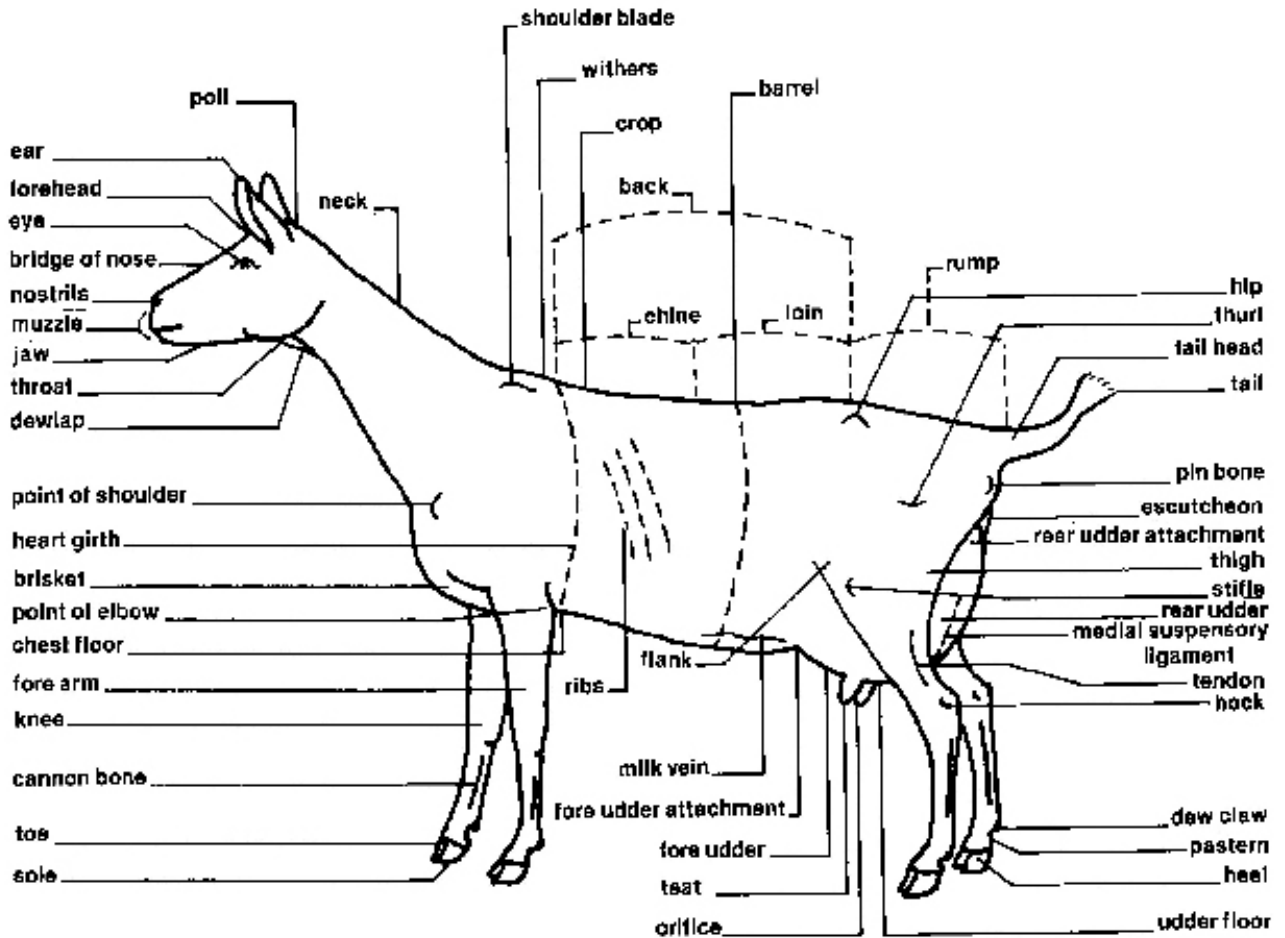
### Body Substance

- Body shape is smoothly contoured from the gentle outward curve of the chest to the softer continuous line of the abdomen.
- Muscular development of the shoulders, midsection and hindquarters reflects strength & compatibility with the body style.

Source: The Cat Fanciers Association website  
[www.cfainc.org](http://www.cfainc.org)

# Judging Goats

## Parts of the Goat



## Dairy Goat Scorecard

	Perfect Score	
	Doe	Buck
General Appearance.....	35	54
Attractive individuality indicating femininity, vigour, strength and stretch with a harmonious blending and correlation of parts, impressive style and attractive carriage; graceful and powerful walk.		
	Doe	Buck
• Style (includes shoulders) .....	5	8
• Breed Character and Head .....	5	8
• Topline .....	5	8
• Rump .....	8	10
• Feet and Legs.....	12	20
Body Capacity .....	15	23
Relatively large in proportion to the size of the animal, providing ample digestive capacity, strength and vigour; width throughout, starting at head.		
<ul style="list-style-type: none"> <li>• wide, deep barrel and heart girth</li> <li>• wide in head, full in crops</li> <li>• wide through back and loin</li> <li>• wide chest floor between front legs</li> <li>• full at elbow</li> </ul>		
Dairy Character .....	15	23
Animation, angularity, general openness and freedom from excess tissue, giving due regard to stage of lactation for does.		
<ul style="list-style-type: none"> <li>• long, lean neck blending into shoulders</li> <li>• well-defined withers</li> <li>• flat, long, well-sprung ribs</li> <li>• fine-textured, loose, supple skin; fine hair</li> <li>• lean and angular lines</li> </ul>		



	Perfect Score	
	Doe	Buck
Mammary System (Does only).....	35	0

A capacious, strongly attached, well-balanced udder of good quality, indicating heavy production and a long period of usefulness.

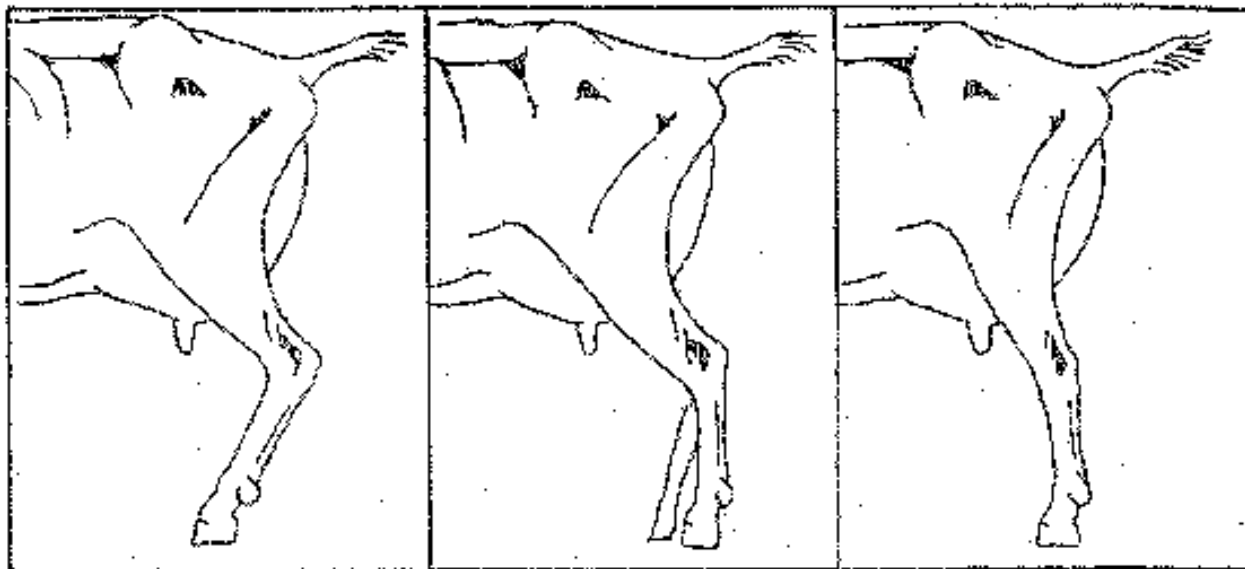
- Medial suspensory ligament, shape, texture ..... 15
- Fore Udder ..... 8
- Rear Udder ..... 8
- Teats ..... 4

### Judge's Eye

The ideal slope of rump should resemble the middle diagram. The goat on the left has an extremely steep slope of rump, while the goat on the right has a level rump; both undesirable characteristics.



The set of the rear legs should resemble the middle diagram. The goat on the left has extremely sickled legs, while the goat on the right has extremely posty rear legs; both undesirable sets of legs.



Scorecard courtesy of the Canadian Goat Society. Diagrams copyright 2000 Angela Beltane for the CGS.

Source: 4-H Ontario Judging Tool Kit

## Market Kid Scorecard

Perfect Score

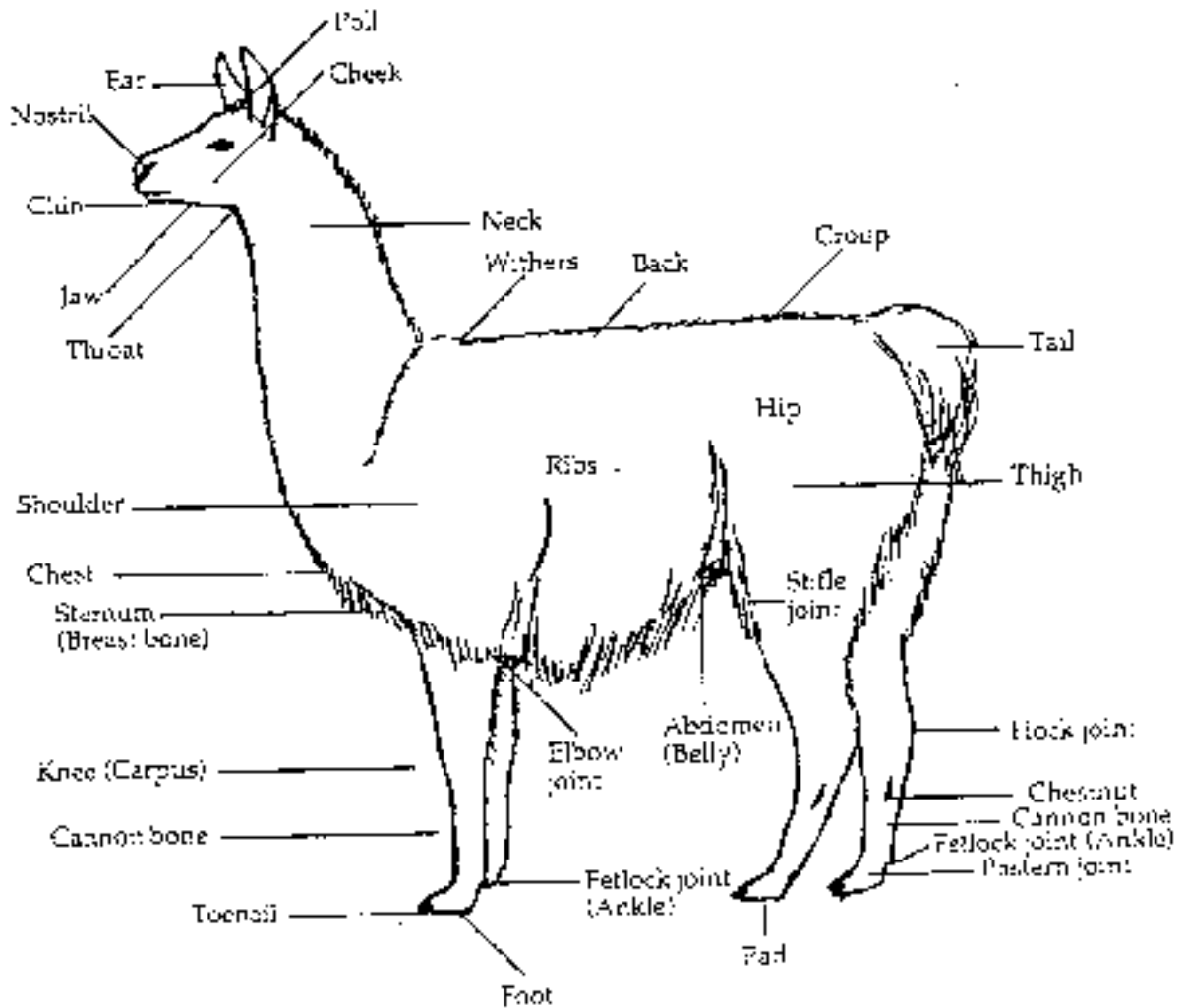
General Appearance.....	30
Quality and Condition.....	15
• well muscled, with smooth firm flesh	
• clean, strong bone	
• smooth, glossy hair and loose, supple skin	
Size and Development.....	15
• size appropriate to age; high growth preferred	
Fore Quarters .....	25
Shoulders .....	10
• well muscled with smooth, firm flesh	
• withers barely defined	
Brisket.....	7
• broad, deep and muscular	
Forelegs .....	8
• heavily muscled, round, clean bone	
• strong, straight legs with strong, flexible pasterns	
Hind Quarters.....	25
Rump .....	10
• long and broad with smooth, firm flesh	
Twist and Thighs.....	10
• low, wide, well fleshed twist	
• deep, wide, firm and muscular thighs	
Hind legs .....	5
• clean and strong bone	

Body.....	15
Capacity.....	2
• ample room for digestive system	
Heart girth.....	2
• large girth with wide chest floor	
• fullness at point of elbow	
Barrel.....	4
• deep and broad; well supported	
Loin.....	7
• broad and strong with full, deep flanks	
Head and Neck.....	5
Head.....	2
• clear, bright eyes; large, open nostrils	
Neck.....	3
• medium length, strong and thick	
• blending smoothly into shoulder and brisket	
Total.....	100

Source: 4-H Ontario Judging Tool Kit

# Judging Llama

## Parts of the Llama



### **General Appearance**

- Overall balance and style
- Muscling
- Condition
- Tail head setting
- Size, scale (average height is 40-45" at shoulder)
- Breed and sex character
- Well sprung rib

### **Head and Neck**

- Clear, bright eyes
- Teeth meet properly
- Ears shaped according to breed
- Medium to long length neck

### **Feet and Legs**

- Proper set to leg
- Sturdy thick bone
- Clean thighs and legs
- Strong, flexible pasterns
- Straight bones and front legs
- Legs nearly straight when viewed from rear

### **Wool**

- Good quality fibre
- Colour and type according to breed

### **Movement**

- Smooth gait
- Correct movement in front and rear legs
- No excessive head or tail movement
- Feet move in a straight line
- Correct length of stride
- Straight topline

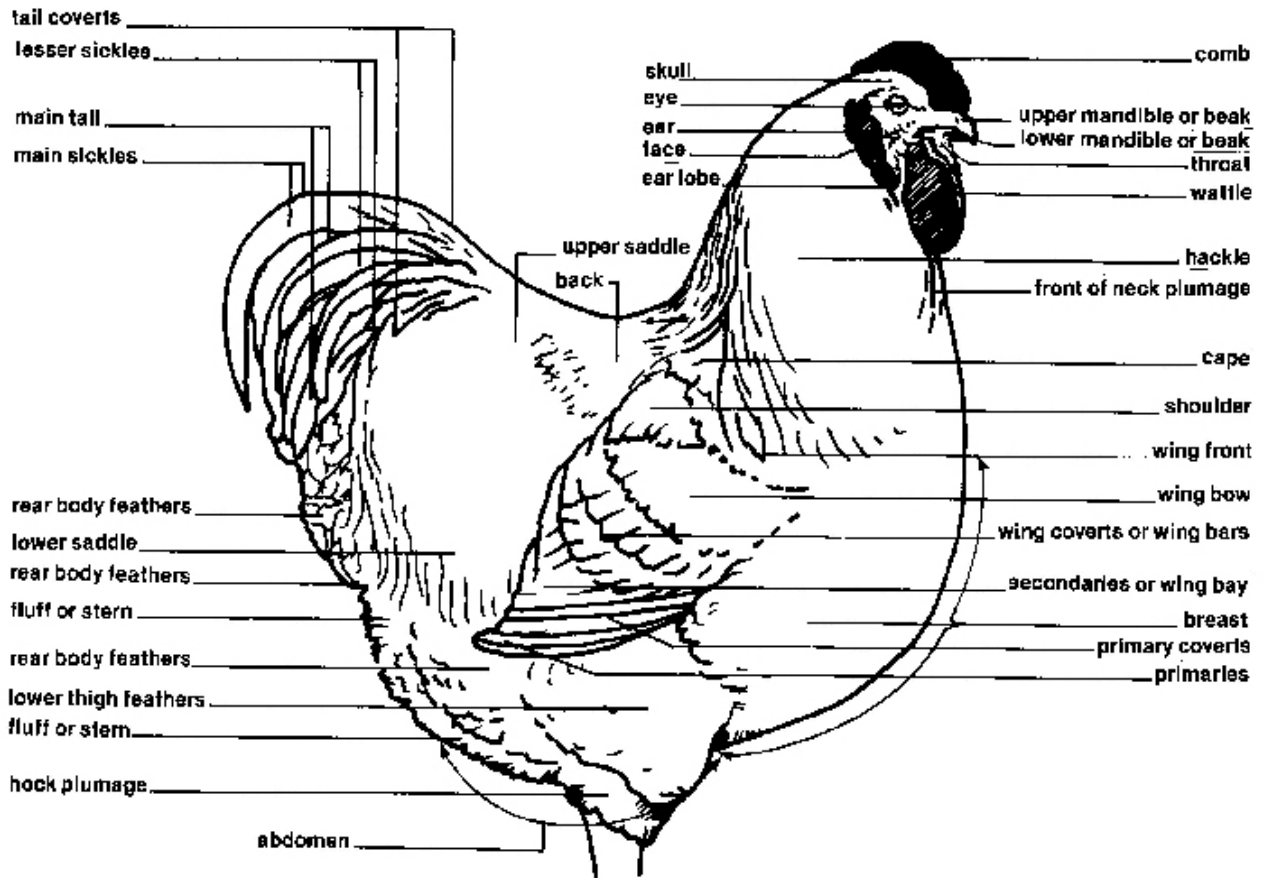
### **Disposition**

- A hereditary trait
- Important in training llamas
- Especially important for pack llamas

Source: 4-H Ontario Judging Tool Kit

# Judging Poultry

## Parts of Poultry



## Live Poultry Scorecard

Perfect Score

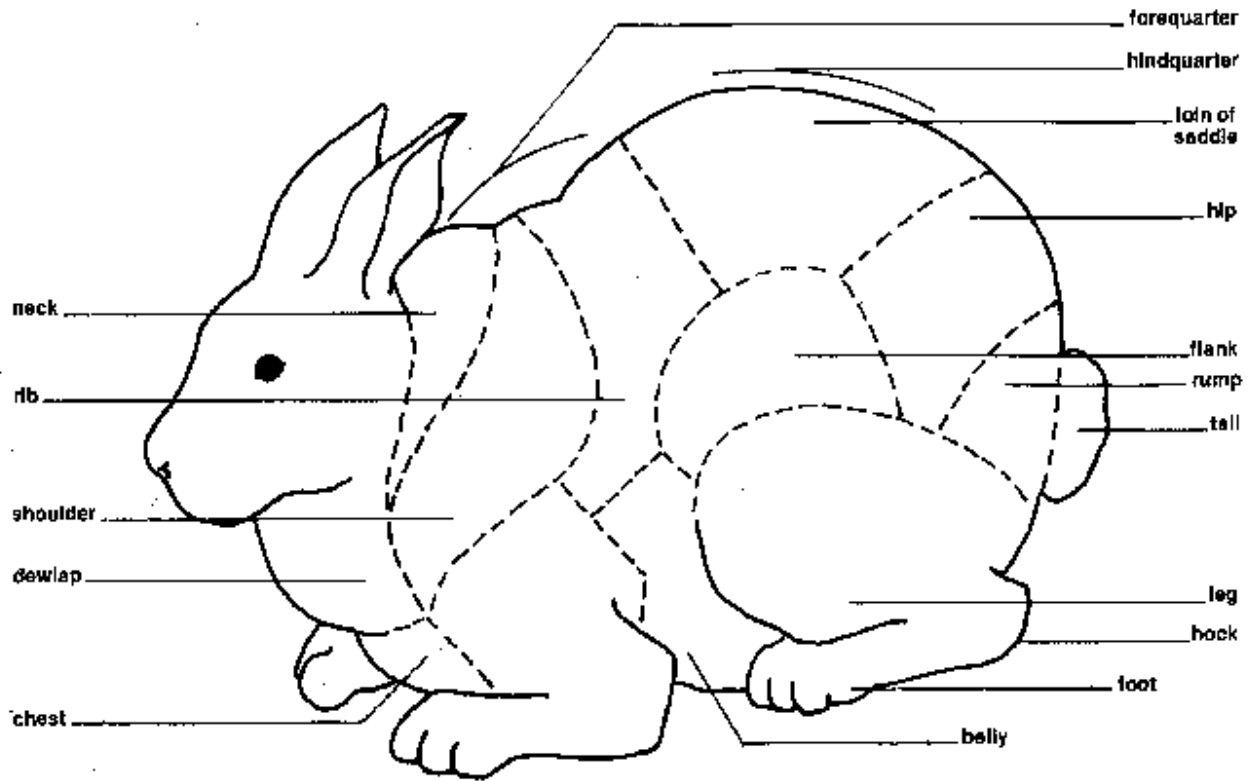
Breed Type .....	40
<ul style="list-style-type: none"><li>• size and weight appropriate to breed (meat birds will be heavier)</li><li>• ideal shape and type for breed</li></ul>	
Body .....	30
<ul style="list-style-type: none"><li>• broad back from shoulders to hips</li><li>• large abdomen for digestive function</li><li>• large heart girth indicates good heart and lung function</li><li>• large breast area indicates meatiness</li><li>• check egg layer for eggs</li></ul>	
Condition.....	10
<ul style="list-style-type: none"><li>• bright red comb, clear eyes</li><li>• strong head</li><li>• no evidence of disease</li><li>• no bleaching of colour at beak or shanks</li></ul>	
Legs And Toes .....	10
<ul style="list-style-type: none"><li>• free from scales</li><li>• no deformities</li></ul>	
Colour .....	10
<ul style="list-style-type: none"><li>• correct colour for breed</li><li>• no brass colouring on white fowl</li><li>• no grey specks on white fowl</li></ul>	
Total .....	100

Source: 4-H Ontario Judging Tool Kit



# Judging Rabbits

## Parts of the Rabbit



## Breeding Rabbit Scorecard

When judging rabbits, it is very important to run the hand over the animal to feel the bone structure, muscling and finish.

Breeding classes are judged for their breed characteristics – those traits that will be passed on to their offspring.

	Perfect Score
Body Capacity .....	35
• strong, broad chest	
• wide, deep loin; smooth, well filled rump	
• good depth to body	
Head, Feet, Legs .....	30
• broad head, round muzzle	
• straight ears, carried according to breed	
• bright, clear eyes; nose free from mucus	
• small, strong feet with full pads of hair	
• no signs of blindness	
General Condition and Appearance .....	20
• no broken toes or nails; no ear mites	
• no broken or missing teeth	
• correct fur for breed	
• strong, straight front and rear legs	
• straight, well furred tail	
Condition.....	15
• hard, solid flesh	
• difficult to pick up by shoulder skin	
• fur in good condition	
Total .....	100

## Market Rabbit Scorecard

In a market class, the main concern is whether the animal is ready for market. As with breeding stock, rabbits are judged by running the hand over the animal to determine bone structure and muscle. Does should have medium to long bodies. Bucks should be shorter in length and blockier.

	Perfect Score
Hindquarters .....	45
<ul style="list-style-type: none"> <li>• hard, solid flesh</li> <li>• wide, deep loin</li> <li>• smooth, well filled and well fleshed rump</li> </ul>	
Body Capacity .....	25
<ul style="list-style-type: none"> <li>• broad chest; deep body</li> <li>• rib and hip bones close together</li> <li>• well fleshed rib cage and rump</li> </ul>	
Head, Feet, Legs .....	20
<ul style="list-style-type: none"> <li>• broad head, round muzzle</li> <li>• straight ears, carried according to breed</li> <li>• bright, clear eyes; nose free of mucus</li> <li>• small, strong feet with full pads of hair</li> <li>• no signs of blindness</li> </ul>	
Teeth, Nails, Tail .....	10
<ul style="list-style-type: none"> <li>• no broken teeth or toenails</li> <li>• tail should be straight up from rump</li> </ul>	
Total .....	100

Source: 4-H Ontario Judging Tool Kit

# Judging Meat Cuts

	Perfect Score
Fat and Marbling .....	20
<ul style="list-style-type: none"> <li>• some fat is required for flavour (about 1 cm)</li> <li>• fat should be white and firm</li> <li>• some marbling should be seen</li> <li>• too much marbling means too much fat</li> <li>• marbling evenly distributed</li> </ul>	
Colour .....	20
<ul style="list-style-type: none"> <li>• muscle tissue should be:               <ul style="list-style-type: none"> <li>• bright red for beef</li> <li>• light greyish pink to pink for pork</li> <li>• light to dark pink for lamb</li> </ul> </li> </ul>	
Meat Yield .....	20
<ul style="list-style-type: none"> <li>• high proportion of lean meat to bone and fat</li> <li>• consider cost per serving if given</li> <li>• consider end use of product</li> </ul>	
Texture .....	20
<ul style="list-style-type: none"> <li>• surface of cut smooth and velvety</li> <li>• minimum amount of connective tissue and large muscle fibres and bundles</li> <li>• fine texture indicates tenderness</li> </ul>	
Firmness .....	20
<ul style="list-style-type: none"> <li>• lean meat firm to touch</li> <li>• fat firm to touch</li> </ul>	
Total .....	100
Source: 4-H Ontario Judging Tool Kit	

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# Judging Crop Samples

We grow crops for several purposes:

- as seed for next year's crop
- as feed for livestock
- to process as food

The suitability of crops for each type of usage depends upon several factors. By judging crop samples, you can learn to identify major differences in crop type and to recognize high quality products.

When judging seed samples, keep in mind what the seed is used for: to produce a vigorous, even stand of plants which will give a high yield of good quality crop. If seed is to grow properly, it must be uniform, fully mature and free of damage from weather, insects, diseases or machinery.

## Maturity

- Mature kernels are plump and of normal colour.
- Green or shriveled seed shows that the crop was not mature when harvested.
- Moisture content should allow for safe storage.

## Machinery damage

- Shows up as cracked or broken kernels.
- Over-drying will turn grain from yellow to dark brown.

## Weather damage

- Reduces the length of time needed for the germination of the seed.
- Sprouted kernels and bleached seed indicates damage.

## Insect damage

- Can be identified by holes in the seed and by the presence of flour-like material in the sample.

## Disease

- Signs include mouldy seeds, discoloured seeds and the presence of sooty looking spores (black spots) on the seed.

## Impurities

- Reduce the amount of good seed in the sample and cause difficulties in seeding.
- Includes: seeds from other crops, straw, chaff, mud, weeds or other foreign materials.

Source: 4-H Ontario Judging Tool Kit

# Judging Hay and Haylage

	Perfect Score	
	Hay	Haylage
Maturity .....	40	30
<ul style="list-style-type: none"> <li>• hay should be cut when legumes are in first flower and grasses are in boot stage (heads just emerging)</li> <li>• late cut hay is low in field value</li> <li>• early cut hay will produce low yields but be tasty</li> </ul>		
Colour, Odour And Disease .....	20	35
<ul style="list-style-type: none"> <li>• should retain a green colour</li> <li>• hay should have a fresh smell</li> <li>• haylage should have a sharp, sweet smell</li> <li>• musty, burnt or rotten smells indicate poor quality hay or haylage</li> <li>• discolouration is undesirable</li> </ul>		
Leaf To Stem Ratio .....	20	0
<ul style="list-style-type: none"> <li>• much of the feed value is in the leaves</li> <li>• good quality hay will retain most of its leaves</li> </ul>		
Moisture and Condition .....	0	15
<ul style="list-style-type: none"> <li>• moisture content should be 55-65%</li> <li>• you should not be able to squeeze out water</li> <li>• very wet samples may rot in silo</li> <li>• should be free from mould or slime</li> <li>• if too dry, haylage will lose nutrients and taste</li> </ul>		
Legume-grass Balance.....	15	10
<ul style="list-style-type: none"> <li>• legumes are higher in protein than grasses of similar maturity</li> <li>• for hay: over 75% legumes is excellent</li> <li>• for haylage: over 50% legumes is best</li> </ul>		
Purity .....	5	10
<ul style="list-style-type: none"> <li>• foreign materials such as weeds or straw indicate a low feed value</li> </ul>		
Total .....	100	100

Source: 4-H Ontario Judging Tool Kit

# Judging Silage

## Stage of Maturity

- Cereal silage – harvested at or before mid-dough stage at 60-65% moisture
- Field peas – harvested between flat pod and full pod and wilted to 55 – 65% moisture
- Legumes – harvested at pre-bloom stage – 40 –50% leaves, less than 5% foreign material at 60% moisture
- Legume/grass mix – legumes harvested at early bloom with 35-45% leaves, more than 50% leaves in grasses, less than 5-10% foreign material at 60% moisture

## Grain content

- Grain content determines nutritional value
- As much grain as possible is desirable
- Grain formation reduces moisture content of plant

## Colour

- Bright, light green yellow or green brown depending upon material ensiled
- Discolouration indicates loss of feed value from heating or rotting
- Dark brown or black colour indicates heating

## Odour/Smell

- Lactic acid (sour milk) odour
- Strong butyric acid (rancid butter or fat, putrid) smell indicates sign of severe spoilage
- Tobacco smell - indicates high temperatures during fermentation
- Acetic smell – vinegar smell, result of poor fermentation
- Propionic smell – sharp, sting the nose, smell is a result of poor fermentation

## Texture

- Firm with softer material not easily rubbed from fibre

## Impurities

- Weeds lower the feeding value of silage.

Source: Silage Manual – Alberta Agriculture, Food & Rural Development – Agdex 120/52-2

# Judging Baked Goods

Baked goods are displayed in competition to illustrate the high quality of the workmanship. They should set the standard of excellence for the product.

Here are some points to remember when judging baked goods:

Since baked goods are made to be eaten, tasting is an important part of judging food.

- The flavour should be characteristic of the food and not overpowered by any one ingredient.
- Aroma, or how the food smells, ties in with flavour in the judging scorecard.
- In the event that tasting is not permitted when judging baked goods, the judge must rely heavily on aroma and texture.

Texture is the way a product feels or looks.

- It can be judged on qualities such as toughness, elasticity, flakiness, gumminess, stringiness, crispness and slicing quality.
- The texture will vary with the type of food, so pay attention to the type of class.

Judges should be certain that the food has been completely cooked or baked.

- Baked goods containing whole grains will have a smaller volume and coarser texture.
- Foods cooked in a microwave oven will not have the characteristic brown colour of items baked in a conventional oven.



## Baked Goods Scorecard

Perfect Score

Flavour and Aroma .....40

- appropriately sweet, salty, spicy, tart or bland, depending on product
- appetizing mix of flavours; no one flavour is too strong
- appropriate aroma for the baked good
- free from inappropriate odours

General Appearance.....30

- pleasing, appetizing appearance
- appealing colour
- proper size and shape

Internal Appearance.....30

- appropriate texture for item
- even colour, appropriate to item
- free from streaks
- appetizing texture

Total ..... 100

## Advanced Judging Ideas

For more experienced or senior members, there are other categories to be considered when judging baked goods:

### Nutrition

- Does the product provide adequate nutrition?
- Are ingredients high in fat?
- Is sugar and salt kept to a minimum?
- Are whole grain ingredients used?
- Has Canada's Food Guide been considered when preparing the food?

### Calorie Breakdown

- What is the calorie content of each sample?
- Is the product nutrient-dense? (With a high number of nutrients in proportion to the calorie content.)

### Cost

- Does the product provide good food value for the money spent?
- Consider cost per serving.

## Yeast Bread and Rolls Scorecard

Perfect Score

Flavour and Aroma .....	40
<ul style="list-style-type: none"> <li>• sweet and nutty tasting</li> <li>• aroma should be sweet, not yeasty</li> </ul>	
General Appearance.....	30
<ul style="list-style-type: none"> <li>• size and shape: well proportioned</li> <li>• even, golden brown colour, top and bottom</li> <li>• tender yet crisp crust</li> <li>• crust about 3 mm thick</li> <li>• rounded crust, free from cracks or bulges</li> </ul>	
Internal Appearance.....	30
<ul style="list-style-type: none"> <li>• texture: soft, smooth, silky, springy crumb</li> <li>• small, evenly distributed cells</li> <li>• colour characteristic of type of bread/roll</li> <li>• uniform; no dark streaks</li> </ul>	
Total .....	100

### Tips For Judging Bread and Rolls

- White breads should be golden coloured on the outside and creamy white on the inside.
- Whole grain breads should have a brown crust, a good distribution of grain and a moist, elastic crumb.
- Sweet breads should have a golden brown exterior with a yellowish grain. The taste should be sweeter than regular bread.
- Rolls should be evenly shaped with rounded tops. They should have a brown or golden-brown crust. The texture is finer than bread, and more elastic.

# Judging Clothing

Perfect Score

Workmanship (from the outside) .....	50
<ul style="list-style-type: none"> <li>• clean, well pressed</li> <li>• garment is cut on grain of fabric</li> <li>• pattern runs in same direction on each piece</li> <li>• all patterns are matched</li> <li>• trims or fasteners are sewn on neatly and securely</li> <li>• topstitching is straight, even and of correct length</li> <li>• buttonholes, belts, pockets, collars or cuffs are well made</li> <li>• zipper lies flat, is covered and is neatly stitched</li> <li>• gathers, if any, are evenly distributed</li> <li>• set-in sleeves are smooth, with no puckers</li> <li>• garment hangs well, with no puckers or pulls</li> <li>• hem area is smooth with no puckers or stitches showing</li> </ul>	
Workmanship (from the inside) .....	30
<ul style="list-style-type: none"> <li>• interfacing and lining are of suitable type and weight</li> <li>• lining and interfacing are attached correctly</li> <li>• stitching is of even length and tension</li> <li>• seam finish suits fabric and is neat</li> <li>• dart stitching tapers gradually</li> <li>• seams are trimmed and graded to reduce bulk</li> <li>• facings are flat, smooth and do not roll to outside</li> <li>• curved seams lie flat without puckering</li> <li>• hem is of even width; secure and well attached</li> </ul>	
Design, Colour and Materials.....	20
<ul style="list-style-type: none"> <li>• choice of design, colour and materials shows creativity and individuality</li> <li>• up to date style, suitable for intended use</li> <li>• fabric, trims and notions are suited to intended use</li> </ul>	
Total .....	100

## Advanced Judging Ideas

Senior members could take other factors into consideration, such as:

### Cost of Construction:

- cost of fabric, notions
- time involved
- wearability of garment

### Washing Instructions/Care:

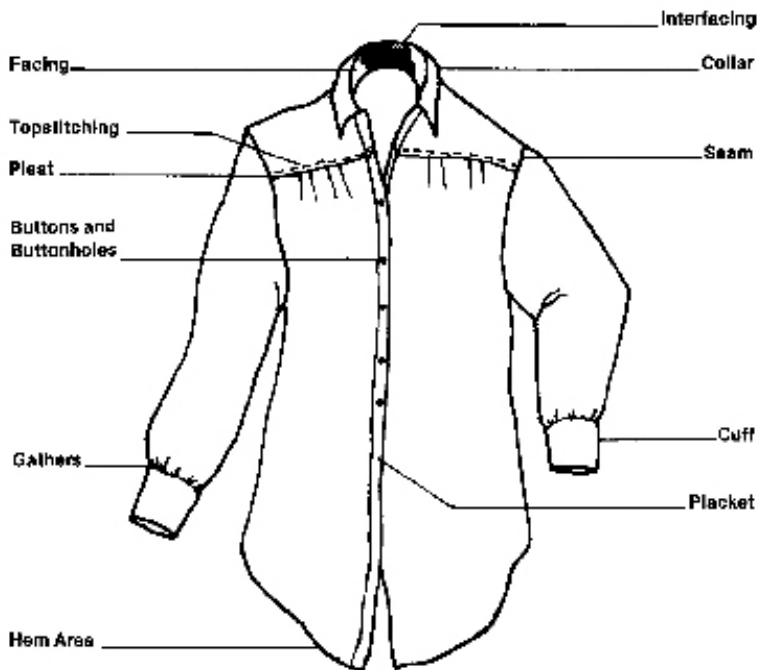
- easy to care for and easy to wear
- dry cleaning is costly
- hand washing and ironing can be time consuming

## Judging Clothing

Sewing techniques have continued to improve. This means that clothes can be sewn more quickly, with less work involved on the inside. The emphasis has changed from a beautiful inside to a beautiful outside and a functional inside. This does not mean that the inside should be sloppy or unfinished.

Some points to remember when judging clothing:

- be sure that the pattern suits the fabric and the intended wearer
- decorative trim and notions should also suit the fabric and pattern
- the style should be up to date and relatively easy to care for
- the workmanship should also be of a high standard



# Judging Crafts

	Perfect Score
Function.....	30
• Article appears to serve its intended use .....	10
• Type and quality of materials suited to purpose .....	10
• Article finished and ready for use .....	10
Design .....	30
• Appealing design. Shape, colour, materials, textures and applied decoration in unity with function.....	15
• Type and amount of design is in relationship to the size of the article, type of material and end use .....	10
• Shows individuality and creativity in the use of design, materials and colour.....	5
Craftsmanship.....	40
• Appropriate choice of materials and techniques for the type and end use of the article .....	10
• Construction uniform and accurate. No obvious errors in technique .....	15
• Suitable finishing techniques. Mounted or framed, if appropriate.....	10
• Effectively presented. Clean and neat .....	5
Total .....	100

Source: "Judging Standards for Foods, Sewing and Handicrafts",  
Alberta Agriculture, Food and Rural Development, Revised 1984

# Judging Activities

Following are a number of activities that you may want to use when you are working with your club to familiarize them with judging.

The first three activities can be used to reinforce the basic steps in judging.

The rest of the activities can be used to assist with teaching other principles of judging.

## Picture the Ideal

### Objective

To teach the importance of:

- identifying characteristics to look for
- prioritizing these characteristics when judging any class of items or animals.

### Method

1. Divide the group into groups of two or three.
2. Give each group a card with an item marked on it.

The items on the cards may include the following:

truck	ice cream cone	lunch	hat
juice	cowboy boots	watch	chair
coat	compact disc	burger	dessert
cereal	facial tissue		

3. Have each group develop a list of 10 characteristics of their ideal item.
4. Have members put their items in order of importance, numbering them 1 for the most important and 10 for the least important.
5. If time permits have the groups share their lists with each other.
6. Discuss the following with the members:
  - Before you judge any class, you must know exactly what you will be looking for, and which of these are the most important.
  - This will make your job of judging much easier because you will know exactly what you are going to look for before you ever get into the class.
  - Many species have a scorecard which assigns values to each of the parts of the body. They are telling you which characteristics are the most and least important. Check the section on judging each species or item for scorecards.

## Prepare to Compare

### Objective

To teach members the importance of comparing the animals or items in the class rather than just describing them.

### Method

1. Explain to the members that a good set of reasons is not descriptive, but comparative. There are three pairs in the class, a top, a middle, and a bottom. Your task is to discuss the advantages one of the pair has over the other of the pair. To do this you must compare. Comparative terms include phrases with more, and words ending in "er" (eg. longer, stronger).
2. Divide the members into pairs or threes. Give each team a pair of items. These items can be common household items such as bowls, dishes, hole punches, stuffed animals, clothing or fruit. As long as there are points to compare on them. Challenge the team to come up with ten comparative terms which indicate the advantages one item has over the other.
3. Once each team has a list of ten terms, have them pass their list and items to the right. Challenge that team to come up with five more comparative terms to add to the first team's list. Remind the members that the terms must be comparative and accurate.
4. Remind members that for every pair in the class, they must do this type of comparison. Remind them of the importance of stating **POSITIVELY** the advantages that one has over the other. Negative comments and criticisms are discouraged.



## Build a Picture

### Objective

To teach judges the importance of creating a picture of that class in their mind, and being able to use that picture when preparing and presenting reasons.

### Method

1. Put four similar items together on a tray, (glasses or mugs work well) or in the centre of the table. Cover the items.
2. Reveal the items to the group of members for approximately 30 seconds.
3. Cover the items up again.
4. Have members write down distinguishing characteristics of each item, then ask them questions about the items.
5. Your questions might include:
  - Which item was:
    - a. largest?
    - b. smallest?
    - c. brown?
    - d. most worn?

When giving oral reasons on a class of animals, judges will often ask the member questions after they have finished giving their reasons.

6. Encourage members to always have a picture of the class in their minds. If they practice this now, when they have to give a set of oral reasons in the future, it will be much easier for them. The only way to present oral reasons without using notes is to keep that picture of the class in your mind. The easiest way to do this is to keep one distinguishing feature about each item or animal in your mind.

## Be Positive

### Objective

To show members ways to give comments on a class of animals in a positive manner.

### Method

1. Explain to members that when judges give comments on a class they need to be comparative and positive. By positive we mean that they compare the strengths one animal has over another, rather than the weaknesses of an animal. If you are the animal placed in the lower spot, it is much easier to hear how one animal has some more desirable characteristics than yours does, rather than how bad your animal looks.
2. Distribute the worksheet with the weaknesses on to members and ask them to work in pairs to come up with ways to say the same thing in a more positive manner. You may have to work with some of the members to explain the terms.
3. Once they have finished the sheet share the answers with the group.
4. Remind members that when they are giving their reasons on a class, they should be talking about strengths, not weaknesses.

## Negatives to Positives

Turn the following negative statements to positive statements.

Example: Post legged (Cattle) becomes "More desirable set to rear legs"

1. Thick necked (Dairy) \_\_\_\_\_
2. Slab sided \_\_\_\_\_
3. Light quartered (Dairy) \_\_\_\_\_
4. Paddles (Light Horse) \_\_\_\_\_
5. Narrow chest (Light Horse) \_\_\_\_\_
6. Sickie hocked \_\_\_\_\_
7. Wastey \_\_\_\_\_
8. Straight shoulder \_\_\_\_\_
9. Short and dumpy \_\_\_\_\_
10. Weak loined \_\_\_\_\_
11. Short strided \_\_\_\_\_
12. High pins \_\_\_\_\_
13. Meaty udder (dairy) \_\_\_\_\_
14. No crease in udder (dairy) \_\_\_\_\_
15. Pencil gutted \_\_\_\_\_
16. Steep in the croup (heavy horse) \_\_\_\_\_

## Negatives to Positives

Here are some possible ways to make the negatives into positives

Example: Post legged (Cattle) becomes "More desirable set to rear legs"

- |                                      |   |
|--------------------------------------|---|
| 1. Thick necked (Dairy)              | Cleaner through the head and neck                                       |
| 2. Slab sided                        | Greater spring of rib, deeper ribbed                                    |
| 3. Light quartered (Dairy)           | Udder shows more balance left to right<br>(front to rear)               |
| 4. Paddles (Light Horse)             | Travels more correctly  |
| 5. Narrow chest (Light Horse)        | Wider in the chest  |
| 6. Sickie hocked                     | More correct set to the rear legs                                       |
| 7. Wastey                            | Cleaner fronted, cleaner throughout                                     |
| 8. Straight shoulder                 | More desirable angle to the shoulder                                    |
| 9. Short and dumpy                   | Taller, exhibiting more stretch   |
| 10. Weak loined                      | Stronger over the top   |
| 11. Short strided                    | Freer moving  |
| 12. High pins                        | More desirable slope, hooks to pins                                     |
| 13. Meaty udder (dairy)              | More desirable quality to the udder<br>Udder has more desirable texture |
| 14. No crease in udder (dairy)       | Stronger median suspensory ligament                                     |
| 15. Pencil gutted                    | More capacity, greater depth of rib                                     |
| 16. Steep in the croup (heavy horse) | More desirable slope to the croup                                       |

## Building Your Reasons

### Objective

To familiarize members with the correct structure of reasons and some terms used in reasons.

### Method

#### Before the Meeting

1. Print enough copies of the sheets that follow so that you have a set for every two or three members.
2. Cut sheets so that each "paragraph" is on a separate card.
3. Mix up each set of cards and clip the set together.

#### At the Meeting

4. Explain to members that no matter what type of class you judge, the structure of your reasons should always be the same - introduction, body, and conclusion - just like any story or speech you write.
5. Give each group of two or three members a set of cards with reasons written on them. Ask each group of members to place the cards in the correct order.
6. After all groups are done, discuss the order with them. During this discussion:
  - Mention the correct format again.
  - Ask members to look at the terms used, are the comparisons positive?
  - What phrases have been used?
  - Note that the class has been identified correctly and completely (not just a class of dairy cows, or pigs, or beef cows).
  - How are the individual animals referred to?

### Variations

If you are preparing your club for participation in a multi species judging competition you may want to develop your own set of reasons for a different species of animal for the members to place in order. In your debriefing of the activity draw attention to the terminology used.

<p>I placed this class of yearling Angus heifers 1 2 3 4.</p>	<p>I started this class with 1, as she was the most feminine stylish heifer in the class.</p>
<p>I placed 1 over 2 as 1 was more refined about the head and neck. She is walking on the most correct set of feet and legs being stronger in the pastern than 2. 1 also exhibits more desirable teat placement.</p>	<p>I placed 2 over 3 because 2 shows more body capacity. 2 has more spring of rib, and more width through the chest and heart. 2 also shows more natural muscling and thickness through the loin than 3.</p>

<p>I will grant that 3 has a more desirable slope from hooks to pins.</p>	<p>I placed 3 over 4 because 3 is longer over the top than 4. 3 moves freer and with greater ease. 3 is also cleaner through the head and neck than 4.</p>
<p>I placed 4 at the bottom of the class. She is the largest framed animal of the class, however she does not show the style and refinement of the other animals in the class, so I did not feel that I could place her any higher.</p>	<p>For these reasons, I placed this class of yearling Angus heifers 1 2 3 4.</p>

## Terms for Species

### Objective

To familiarize members with different terms or body parts of each of the five species of animals commonly judged by 4-H members.

### Method

#### Before the Meeting

1. Make enough copies of the following worksheet for one for every two or three members.

#### At the Meeting

2. Discuss the importance of knowing the correct terms and body parts for each of the most common species judged. The most common species judged by 4-H members are beef, dairy, horse, sheep and swine.
3. Give a copy of the worksheet that follows to group of two or three members. Instruct them to follow the instructions.
4. After the members have had time to complete the worksheet, review it with them.
5. Once again remind them that when judging it is important to use the correct terminology.

### Terms

Indicate which species of animal(s) these terms and parts are for. (DY - Dairy, SW - Swine, SP - Sheep, BF - Beef HO - Horse) NOTE - some are for more than one species.



DY BF SW SP HO	Pastern
DY	Thurl
DY BE SP SW HO	Freer moving
SW	Stifle region of ham
SP	More length to hindsaddle
BF	Twist
BF SP SW	Meatier
DY	Teats hang more nearly plumb
SW	Prominent underline
BF SP SW	Longer muscle pattern
BF SP SW	Fore flank
BF	Longer hipped
BF SP SW	Longer, deeper, more dimensional quarter
DY	Flatter, cleaner thighs
SP	More dimensional ham
BF SP SW	More natural thickness
SP	Level over the dock
SW	Neater jowl
BF SP SW	Widest through stifle
BF	Displays more angularity and sharpness throughout

## Terms

Indicate which species of animal(s) these terms and parts are for. (DY - Dairy, SW - Swine, SP - Sheep, BF - Beef) NOTE - some are for more than one species.

- \_\_\_\_\_ Pastern
- \_\_\_\_\_ Thurl
- \_\_\_\_\_ Freer moving
- \_\_\_\_\_ Stifle region of ham
- \_\_\_\_\_ More length to hindsaddle
- \_\_\_\_\_ Twist
- \_\_\_\_\_ Meatier
- \_\_\_\_\_ Teats hang more nearly plumb
- \_\_\_\_\_ Prominent underline
- \_\_\_\_\_ Longer muscle pattern
- \_\_\_\_\_ Fore flank
- \_\_\_\_\_ Longer hipped
- \_\_\_\_\_ Longer, deeper, more dimensional quarter
- \_\_\_\_\_ Flatter, cleaner thighs
- \_\_\_\_\_ More dimensional ham
- \_\_\_\_\_ More natural thickness
- \_\_\_\_\_ Level over the dock
- \_\_\_\_\_ Neater jowl
- \_\_\_\_\_ Widest through stifle
- \_\_\_\_\_ Displays more angularity and sharpness throughout

## Parts Similarities and Differences

### Objectives

To reinforce the similarities and differences between the parts of the five types of animals most commonly judged by 4-H members and to introduce the relationship between form and function.

### Method

#### Before the Meeting

1. Print enough copies of the following answer sheet and of the parts of beef, dairy, horse, sheep, and swine so that you have enough for one for every two to three members.

#### At the Meeting

2. Discuss the importance of using the correct terminology for each species you are judging. It makes you sound much more credible.
3. Hand out the papers and ask the members to work through them in groups of two or three.
4. Once the members have completed the worksheet, work together as a large group to review the answers they have on the sheets. If you have access to a flipchart, chalkboard or whiteboard, you may want to record their responses to each section.
5. Draw attention to the differences in the part labels and remind members that they should make sure that they use the correct part names for each species.
6. When judging, there is a relationship between form and function. The function of the animal dictates the form. This is reflected in the parts which are named in each species.

You can also discuss the part names that are on all of the animals. These include parts of the legs. A correct leg is pretty much the same, no matter what species you are judging, so if you know what to look for in the species you are most comfortable with you can transfer that knowledge to other species.

You will also notice that some species place more emphasis on different parts of the body. For example the dairy cow has more part names associated with the udder. The mammary system of the dairy cow is worth 40%. To successfully judge dairy cattle, you should be able to recognize the important traits to judge in udders.

# Parts of the Animal

List at least 6 parts which are the same on all species:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_

List at least 4 parts that are on all but one animal and indicate which animal it is not on

Part	Animal

List parts only found on one animal:

Sheep	Beef
Dairy	Swine
Horse	

# Planning and Running a Judging Competition

## Before the Competition

### 1. Committee

Members of the committee could include: senior members, leaders, parents and other 4-H volunteers who are interested in helping out.

### 2. Location

Choose a location that is suitable for the type of competition that the committee is hosting. Local agricultural society grounds are convenient. The grounds are often equipped with loading and handling facilities, panels for making pens, buildings, and parking.

If the competition will have sheep and swine classes, pens will be needed to hold the animals. Allow room for the horses and breeding animals to be moved around so that the contestants can see how they walk.

### 3. Classes

Determine what types of classes will be judged.

If there are a number of members coming to the competition who are from non-livestock clubs, the committee may want to include classes on some of those items, such as small engines, sewing or foods. Consider including some novelty classes such as footwear, oranges, jeans or some other item. Will there be a quiz class? Have a back up class.

Consider including a session at the start of the competition about the basics of judging and filling in a judging card if you expect a large number of beginner judges.

When members attend the Provincial Judging Competition, they judge beef, dairy, light horses, heavy horses, sheep and swine.

### 4. Oral and written reasons

The committee needs to decide if there will be all of one type, or a combination? Will some classes be judged for placings only? If there are classes that have oral reasons, it is a good idea to have more than one person listening to reasons for that class. The competition will go faster.

### 5. How long for the classes?

- Placings only class – allow 12 minutes per class.
- Oral reasons class – allow 15 minutes per class
- Written reasons class - allow 20 minutes per class.

### 6. Competition Schedule/Format

There are several different formats the committee can consider.

- Contestants judge all the classes first in rotation, then have oral reasons

presented to the reasons judges.

- Judge a certain number of classes, present oral reasons on them, judge the remainder of the classes, present oral reasons on the remainder of the oral classes.
- All classes, oral reasons or id stations are judged in rotation. You may choose to have a rotation that includes oral reason stations immediately after each oral reason class.

Timing of the competition schedule will depend on the committee's decision to have placings, written reasons or oral reasons classes and format of the day.

#### 7. Divisions

Determine how the members are going to be divided up. Will the divisions be:

- Junior/senior
- Novice, junior, senior, open
- Junior, intermediate, senior

It's up to the committee to make the decision. You may want to make your age groups match the next level of competition if there is one.

#### 8. Prizes/Awards

Will there be prizes or awards? If so, for what? Juniors and seniors, top in each class, top placings, top reasons?

#### 9. Lunch & Refreshments

Did the committee decide to offer lunch? It is a good idea to have at least juice, coffee and a light snack available.

#### 10. Pre-registration

Will the contestants need to pre-register? Or can they register on the day of the competition?

#### 11. How to record scores

Consider the number of scores to record and the number of competitors.

- If the competition has the standard 5 classes (10 scores to record – placings and reasons combined), there needs to be a minimum of 75 competitors to be beneficial to use the computerized scoring.
- If there are between 16 and 20 placing and reasons classes combined, use the computerized scoring system with more than 50 competitors.
- Less than the desirable number of competitors given the number of scores to record, it will be efficient to manually score the competition or use a computer spread sheet to record scores.

## 12. Groups & Numbers

Does the committee want to split the contestants into as many groups as there are classes, or judge two or three classes, then move on to the next group of two or three classes? If groups are smaller, then the animals are more easily seen. If two or three classes are running at once, rather than five or six, the resource people and the livestock can go home more quickly. Try to split up the members who know each other - it lessens the temptation to discuss classes while judging.

At registration, assign each contestant a number. If you are using the computer scoring system, assign numbers as the system requires. If you are manually recording the scores or you are using a computer spreadsheet, recording scores is easier if each contestant is assigned a number to use on their cards, rather than their name. Record the names and numbers in numerical order and recording class scores goes much quicker. You may want to assign a specific group of numbers to each age group. For example 1-50 juniors, 51-100 intermediates, 101-150 seniors.

## 13. Judges

When contacting the "official" judges you should discuss the following with them and follow up with a letter:

- Date and location of competition.
- What time – it is advisable to ask them to arrive a bit early. Also, let them know what time you will expect them to be finished.
- How much time they have to talk about what to look for when judging a class.
- What type of a class will they be judging? (For example: market animal, heifers, etc.)
- What else is going on during the day?
- Are they expected to mark and/or listen to reasons?
- Honorarium and expenses.

Meet with all judges on the day of the competition for orientation – classes being judged, reasons, housekeeping details, last minute changes, etc.

## 14. Animals

When contacting people to bring livestock or items to judge, discuss the following with them and follow up with a letter:

- Date and location of the competition.
- What time – it is advisable to ask them to arrive early. Also, let them know what time they will be finished.
- If possible, ask them to bring a class with an easy winner and an easy bottom. If this is not possible, two pairs, a top and bottom pair. This makes the classes easier to judge, particularly for beginner judges.
- Does the committee need to supply handlers for the animals? (Often



parents of contestants will be willing to assist with this.)

- Honorarium and expenses.
- Do they need any special facilities for their class? Do they need pens for the animals, table, etc.

#### 15. Volunteers required

Could be senior members or parents.

##### Marketing & Publicity

- Advertise the competition to other clubs, districts, etc.

##### Registration Desk

- Register participants and assign competition number.
- Handout judging cards and other information related to the competition.

##### MC and timekeeper

- Introduce the official judge(s).
- Announce when time begins and keep track of time. Announce 10 minutes, 5 minutes, 2 minutes, 1 minute and time.
- Tell contestants when to move to the next station, and which way to move along.

##### Marshal

- 1 per class
- Direct travel of livestock. Act as ring-man.
- In cattle classes, the animals should walk around the ring at least four times, then they can be lined up head to tail, and after a period of time they can be moved to stand side by side. When moving the animals from the head to tail position, to the side by side position, you may want them to circle the ring in the opposite direction a couple of times.
- In horse classes, the animals will be walked and trotted individually before they are stood up. Dividing the group into two, and have each group stand at either end of the arena where the horses will be moving seems to work well. Stand the horses head to tail for a while, and then move them to stand side by side. If the group is large and you have the space, split the group into four and have them stand at the four corners of a square or rectangle and ask the horses to walk on the ends and trot or jog on the sides of the rectangle.
- In sheep and swine classes, the marshal should assist members to get a good view of the animals, and also to handle them if necessary. As well, they control the access to the animals if you allow members into the pens for a closer view of the animals.

- Collect the judging cards when the contestants are finished filling them in, and give to the cards to the card runner.

#### Reason Takers

- If the official judges are not listening to reasons, this job involves listening and scoring the oral reasons based on the judge's official placings and comments.

#### Card Markers

- 1 or 2 per class.
- This job involves finding the score for placings on the Hormel and recording it on the card. (If not using the computerized cards.)
- If the official judge is not marking the cards, this job entails marking the written reasons based on the judge's official placings & comments.

#### Card Runners

- 1 – 3 people, depending on size of competition.
- Pick up the cards from the marshals at each class and deliver the cards to the markers or recorders.
- Ensure that all cards are collected for that round.

#### Group Leader/Supervisor

- 1 person/group.
- Ensure that the contestants move from class to class.
- Discourage contestants from discussing the class while judging or judging the classes together, and to encourage the contestants to judge independently.

#### Computer Operator (Computerized Scoring)

- 1 – 2 people
- This job involves scanning/recording the scores from the cards into the computer program.

#### Recorder (Manual Scoring)

- 1 – 3 people
- Record scores from placing and reasons cards.
- Tabulate the overall scores.

#### Social Activities

- Plan social activities after the competition.

## 15. Supplies to have at the contest

### General Supplies

- Judging cards – one per contestant per class plus extra (written/oral)
- Pens/pencils
- Recording sheets – to be used for smaller competitions or for backup in case of computer failure
- Calculator or adding machine

### Computerized Scoring

- Computer
- Printer
- Printer supplies
- Paper
- Scanning wands

### Manual Scoring

- Hormel – one per class plus a spare
- Masking tape – to tape the Hormel's in place once they are set
- Felt Marker – to write on the masking tape which class the Hormel is set for

## During the Competition

### 1. Orientation Meeting

- Meet with judges and volunteers to review the format of the day, housekeeping details, advise of any last minute changes and answer any questions.
- Have one person on your committee assigned to collect the official placings and cuts from the judges once they have placed their classes.

Note: Ensure that there is at least one person at the competition who understands how cuts (or splits) work and can explain it to any judges who are unsure, and can operate a Hormel if you are using one.

### 2. Registration

- Record information for each contestant.
- Hand out judging cards for all classes (the committee may also choose to hand out the cards at the beginning of each class).

### 3. Breaking Ties

- If there is a tie in a class, the tie is broken based on the reason score for that class. If there still is a tie, then the person with the highest total reason score should be declared the winner.

- In aggregate placings, ties are broken by adding up the reasons scores and the higher reason score is declared the winner.
- If there is still a tie, the recorder should randomly choose one class and the winner of that class will be declared the winner. You may want to do this before the competition starts.

## After the Competition

1. Announce winners and distribute prizes/awards if any.
2. Submit results (if required).
3. Submit article & photo(s) to local newspaper.
4. Thank you letters to judges, individuals who supplied animals or articles to judge and volunteers.
5. Evaluation meeting and record recommendations for the next committee.

## Items that would be useful in the planning binder

1. Contact information
2. List of official judges
3. Financial summary (expenses, invoices, etc.)
4. List of responsibilities
5. Rotation system for judging
6. Blank judging cards
7. Minutes from any organizational meetings
8. Schedules
9. Scorecards to be posted, list of classes judged
10. Preferred reasons format
11. Final evaluations and feedback, comments or suggestions

# Judging Competition Class Planning Sheet

Date:				Location:		
Class	Judge	Who will contact	Livestock or items	Who will contact	Marshall	Who will contact

Class	Mark Cards	Who will contact	Reason takers	Who will contact	Group supervisor	Who will contact

# Judging Competition Planning Sheet

Date:		Location	
Task	Who to contact	Person Responsible for task	By when
Location:			
Seminar:			
Set up: pens, tables, etc.			
Order supplies from the 4-H Office			
Arrange for other supplies			
Food & beverages			
Advertising – invitations to other clubs, regions, etc.			
Thank you			
Prizes:			

# Scoresheets for Competition

Scoresheets are printed on legal size paper and are available on the CD Rom.

# Scoring Placings

Placings can be scored in a number of ways. These include hand scoring using a Hormel slide, or figuring out the score manually. There are also some computer programs that can be used to calculate placing scores. The first step in understanding how to determine a placing score is to be able to understand cuts.

## Understanding Cuts

Cuts (or splits) are used to demonstrate the difficulty level in a class and to determine the score of your placing of that class. In a class of 4 animals, hay samples, or apples, a cut is assigned between each pair in the official placing.

### Examples

Class Placing            4 2 1 3

Cuts                                    3-1-4

Placing 4 over 2 is a fairly easy placing. 2 over 1 is difficult. 1 over 3 is again, fairly easy.

Class Placing            4 2 1 3

Cuts                                    7-3-1

Placing 4 at the top is very easy. Placing 2 over 1 is fairly easy and placing 1 over 3 is close or difficult.

When you assign cuts to a class, there are several rules to keep in mind:

1. Your cuts may have any value from 1 to 8.
2. The sum of the 3 cuts should be greater than 6 but must be no greater than 15.
3. If the sum of your 3 cuts is 15, your middle cut must be no greater than 5.
4. If the sum of your 3 cuts is 14, your middle cut must be no greater than 8.

These rules exist only to make your scoring out of 50 work!

Remember:

- Higher cuts mean easier placings.
- Lower cuts mean more difficult placings.



## More about Cuts

Your official judge will determine the cuts (or splits) on the class he placed. A change in the value of the cut will change your placings score.

Let's take a closer look at the impact of different cuts:

### Example

1. Suppose the cuts are 1-2-1. The range of marks available to the contestants will be from 36 to 50 out of a possible 50.
2. Suppose the cuts on the same class are 3-6-3. The range of marks available to the contestants will be from 8 to 50 out of a possible 50.

Placing	Example 1 Cuts 1-2-1	Example 2 Cuts 3-6-3
4 2 3 1	50	50
4 3 2 1	48	44
2 4 1 3	48	44
3 2 4 1	44	32
1 3 2 4	36	8

The series of cuts in examples 1 and 2 both indicate a class that has a close top pair and a close bottom pair. The member with placings totally backwards from the official placings would receive a placings score of 36 in example 1 and a score of 8 in example 2.

2. With the split of 3-6-3, more emphasis is placed on the ability of the individual to properly place the class.
3. Suppose the cuts are 2-1-2. The range of marks available to the contestants will be from 34 to 50 out of a possible 50 points.
4. Suppose the cuts on the same class are 6-3-6. The range of marks available to the contestants will be from 2 to 50 out of a possible 50 points.

Placing	Example 3 Cuts 2-1-2	Example 4 Cuts 6-3-6
3 1 4 2	50	50
3 4 1 2	49	47
1 3 2 4	46	38
4 1 3 2	44	32
2 4 1 3	34	2

The series of cuts in examples 3 and 4 both indicate a class with an easy top placing and an easy bottom placing with a closer pair in the middle. Again, note the differences in the ranges of marks available.

Encourage your judges to put representative splits on the classes. We need to train our members to improve their judging skills and decrease the element of luck in their judging. No matter how the member placed the class, he still has the opportunity to improve his overall mark for the class by presenting a good set of reasons for his placings.

### Using Cuts to Score Placings

Once you know the official placings and the corresponding cuts, you can score your placings.

The following example shows how to determine your score manually.

Official Placings	4 2 1 3
Cuts	3-1-4
Your Placings	1 4 3 2

Now let's compare your placings to the official placings. There are six possible pairs. Ask questions for each pair as you see them in the official placings. Answer the questions from your placings. Each time the answer is "No", you lose points.

Here goes:

Q1. Did you place 4 over 2?

A. Yes, so you don't lose any points.

Q2. Did you place 4 over 1?

A. No, so you lose 3 + 1 points. (The cuts between 4 and 1 in the official placing.)

Q3. Did you place 4 over 3?

A. Yes, so you don't lose any points.

Q4. Did you place 2 over 1?

A. No, so you lose 1 point.

Q5. Did you place 2 over 3?

A. No, so you lose 1 + 4 points.

Q6. Did you place 1 over 3?

A. Yes, so you don't lose any points.

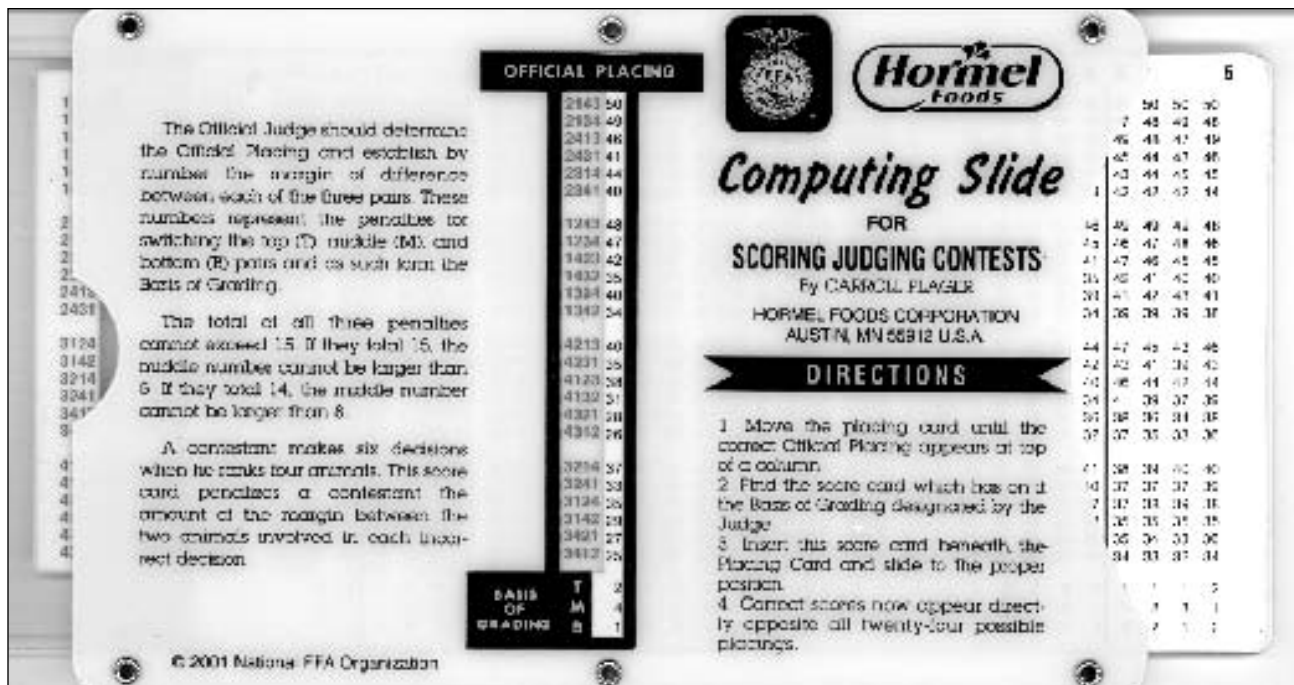


Using the plastic sheets with the red numbers, find the sheet where 2 1 4 3 is the first series of numbers in one of the columns. (Hint – the columns are grouped 1 and 2 first on one sheet and 3 and 4 on the other).

1234	1243	1324	1342	1423	1432	2134	2143	2314	2341	2413	2431
1243	1234	1342	1324	1432	1423	2143	2134	2341	2314	2431	2413
1324	1423	1294	1432	1243	1342	2314	2413	2134	2431	2143	2341
1342	1432	1243	1423	1234	1324	2341	2431	2143	2413	2134	2314
1423	1324	1432	1234	1342	1243	2413	2314	2431	2134	2341	2143
1432	1342	1423	1243	1324	1234	2431	2341	2413	2143	2314	2134
2134	2143	3124	3142	4123	4132	1234	1243	3214	3241	4213	4231
2143	2134	3142	3124	4132	4123	1243	1234	3241	3214	4231	4213
2314	2413	3214	3412	4213	4312	1324	1423	3124	3421	4123	4321
2341	2431	3241	3421	4231	4321	1342	1432	3142	3412	4132	4312
2413	2314	3412	3214	4312	4213	1423	1324	3421	3124	4321	4123
2431	2341	3421	3241	4321	4231	1432	1342	3412	3142	4312	4132
3134	4132	2134	4132	2143	3142	3214	4213	1234	4231	1243	3241
3142	4132	2143	4123	2134	3124	3241	4231	1243	4213	1234	3214
3214	4213	2314	4312	2413	3412	3124	4123	1324	4321	1423	3421
3241	4231	2341	4321	2431	3421	3142	4132	1342	4312	1432	3412
3412	4312	2413	4213	2314	3214	3421	4321	1423	4123	1324	3124
3421	4321	2431	4231	2341	3241	3412	4312	1432	4132	1342	3142
4123	3124	4132	2134	3142	2143	4213	3214	4231	1234	3241	1243
4132	3142	4123	2143	3124	2134	4231	3241	4213	1243	3214	1234
4213	3214	4312	2314	3412	2413	4123	3124	4321	1324	3421	1423
4231	3241	4321	2341	3421	2431	4132	3142	4312	1342	3412	1432
4312	3412	4213	2413	3214	2314	4321	3421	4123	1423	3124	1324
4321	3421	4231	2431	3241	2341	4312	3412	4132	1432	3142	1342

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Put the red number sheet over the cardboard with the correct cut on it and slide them back into the sleeve. Line the correct cuts in the space provided. Line up the column with the correct placing on it in the space provided and the scores should show up to the right of the placings.



Now try a few. What is the score for the following placings?

3 4 1 2 \_\_\_\_\_

2 3 4 1 \_\_\_\_\_

4 2 1 3 \_\_\_\_\_

3 2 1 4 \_\_\_\_\_

Answers: 25, 40, 40, 37

### Examples

Here are some more examples. Try figuring the score manually or by using the Hormel Computing Slide.

1. Official placings                    2 4 1 3  
 The cuts are                            1-5-3

What is your score if you placed the class:

a)     2 4 3 1 \_\_\_\_\_

b)     4 2 1 3 \_\_\_\_\_

c)     2 1 4 3 \_\_\_\_\_

d)     3 2 4 1 \_\_\_\_\_

e) 3 1 2 4 \_\_\_\_\_

f) 3 1 4 2 \_\_\_\_\_

g) 2 4 1 3 \_\_\_\_\_

2. Official placings 1 2 3 4

The cuts are 7-2-5

What is your score if you placed the class:

a) 2 1 3 4 \_\_\_\_\_

b) 1 2 4 3 \_\_\_\_\_

c) 2 1 4 3 \_\_\_\_\_

d) 3 1 2 4 \_\_\_\_\_

e) 4 1 3 2 \_\_\_\_\_

f) 4 3 1 2 \_\_\_\_\_

g) 1 2 3 4 \_\_\_\_\_

2. a) 43	b) 45	c) 38	d) 39	e) 22	f) 13	g) 50
1. a) 47	b) 49	c) 45	d) 39	e) 19	f) 18	g) 50

Answers:

# Judging Resources on the Internet

These resources are current as of September 2005.

<http://www.ca.uky.edu/agripedia/AGMANIA/Interactive/index.htm>

Drag and drop games for parts of the horse, cow, pig, rooster as well as skeletal games for cow and horse. Multiple choice games for breeds of beef, dairy and swine.

<http://muextension.missouri.edu/xplor/agguides/ansci/g02952.htm>

Fact sheet on a general overview of judging. Includes information on taking notes and giving reasons.

<http://msucares.com/pubs/publications/p2289.htm>

Mississippi Livestock Judging Manual in PDF form.

[http://edis.ifas.ufl.edu/BODY\\_4H101](http://edis.ifas.ufl.edu/BODY_4H101)

Information about a Florida publication that is a guide for people teaching judging to youth. There is a sample of the book on the site. You would need to order the whole book to get the activities.

[http://omgsic.com/general\\_livestock.htm](http://omgsic.com/general_livestock.htm)

List of videos about judging which could be purchased from them.

<http://www.worldaccessnet.com/~normans/hormel.html> (Hormel)

You can calculate your placing score on a class if you know your placing, the official placing and the cuts, on this site.

<http://ss.jacksoncountyffa.org/links1.html>

Carcass/meat grading – interactive online. Has links to other meat judging sites that are good.

- <http://animalscience.unl.edu/meats/id/>
- <http://aggiemeat.tamu.edu/judging/meatjudging.html>
- <http://animalscience.unl.edu/meats/cde2002/>

<http://www.four-h.purdue.edu/livestock/judging.htm> - has links to 5 other sites

- <http://www.ces.purdue.edu/extmedia/4H/4H-923-W.pdf>
- <http://ansci.colostate.edu/old/new%20youth/resources.htm>
- <http://www.ca.uky.edu/agripedia/agmania/livestock/>
- <http://muextension.missouri.edu/xplor/agguides/ansci/g02952.htm>

<http://www.public.iastate.edu/~horsebarn/Extension/Judging%20resources2.htm>

A listing of various horse judging, breeds, etc resources.