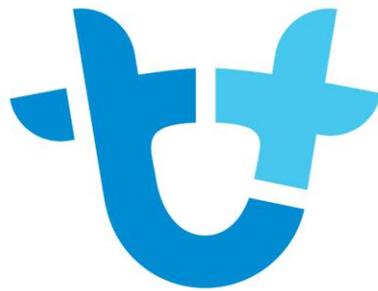


AuctionsPlus Pty Limited

CATTLE ASSESSMENT MANUAL

Effective October 2015



AuctionsPlus

Buy and Sell stock nationally

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PART A: ASSESSMENT TECHNIQUES

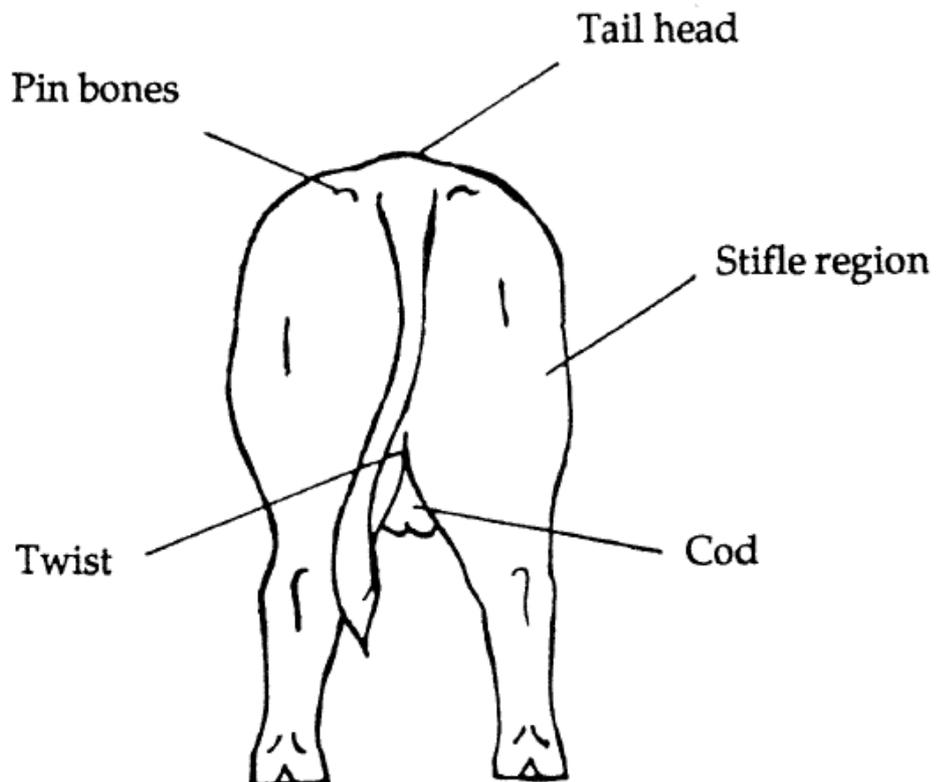
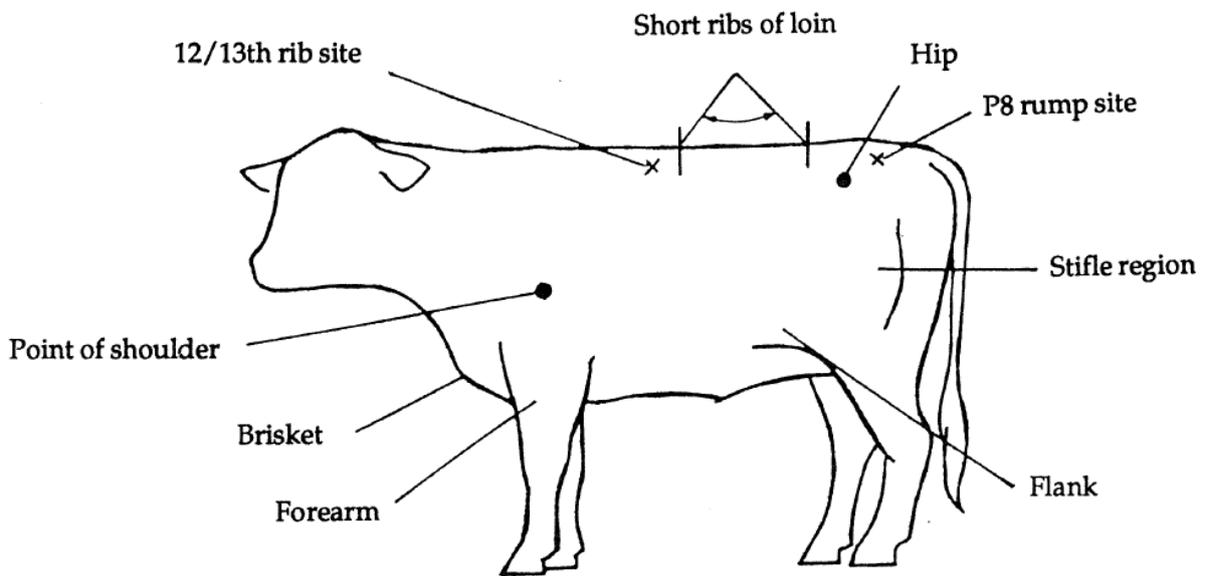
A1 – Assessment Options

Two assessment options are available on AuctionsPlus:

- **INDIVIDUAL**, where the mob (or sample) are weighed on farm and manually assessed for fat, muscle, dentition etc. This is the most accurate method, giving a high degree of credibility with buyers.
- **GROUP** assessments, where the mob may not necessarily be weighed (though a sample may be), and are visually assessed for fat, muscle etc.

The choice of assessing technique is up to the owner and assessor, and of course depends on prevailing conditions.

A2 – Reference Points used in assessing

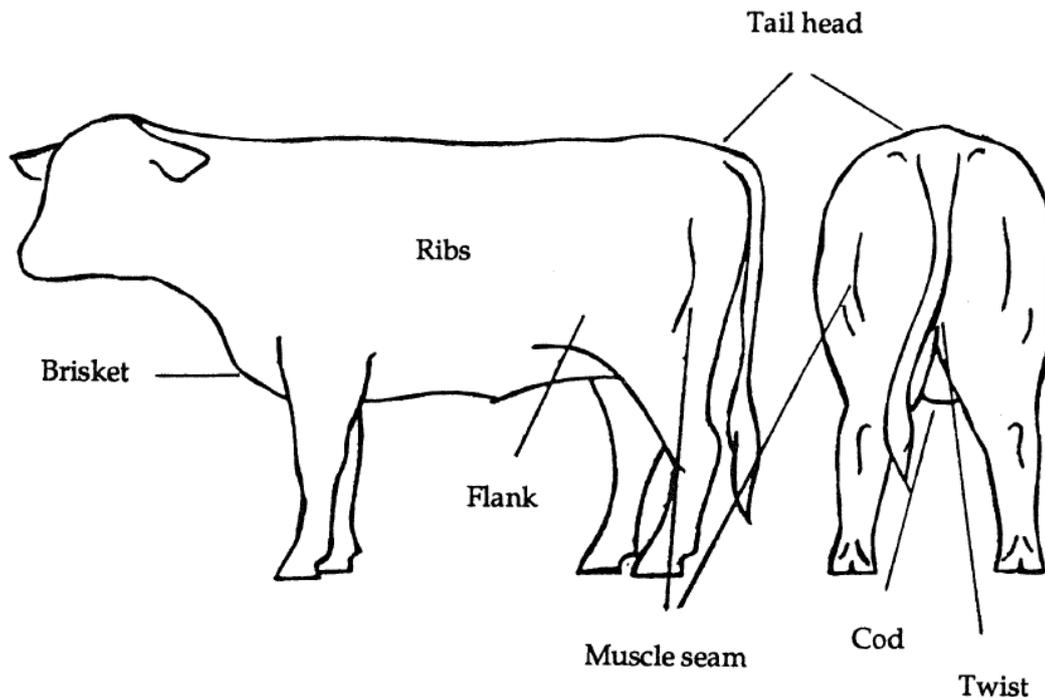


A3 – Assessing fat thickness

The two main factors associated with cattle appearance and shape are muscle and fat. To assess either, look in the area where the other factor has the least influence; that is, to assess fat, look in those areas which are least influenced by muscle, such as the brisket, flank and cod, and over the obvious bony areas (ribs, hips and tailhead).

Visual techniques

Observe these sites



As cattle fatten:

- **ribs** become less visible;
- **tailhead** softens, with rounds of fat increasing beside the tail;
- **muscle seams** of hindquarters become covered with fat and are less evident when cattle walk;
- **brisket, flank, cod** and **twist** all fill out, giving cattle a square appearance compared to the roundness of leaner, heavily muscled cattle.

In some areas, visual assessment will be the only practical method. Greater accuracy can be developed with experience.

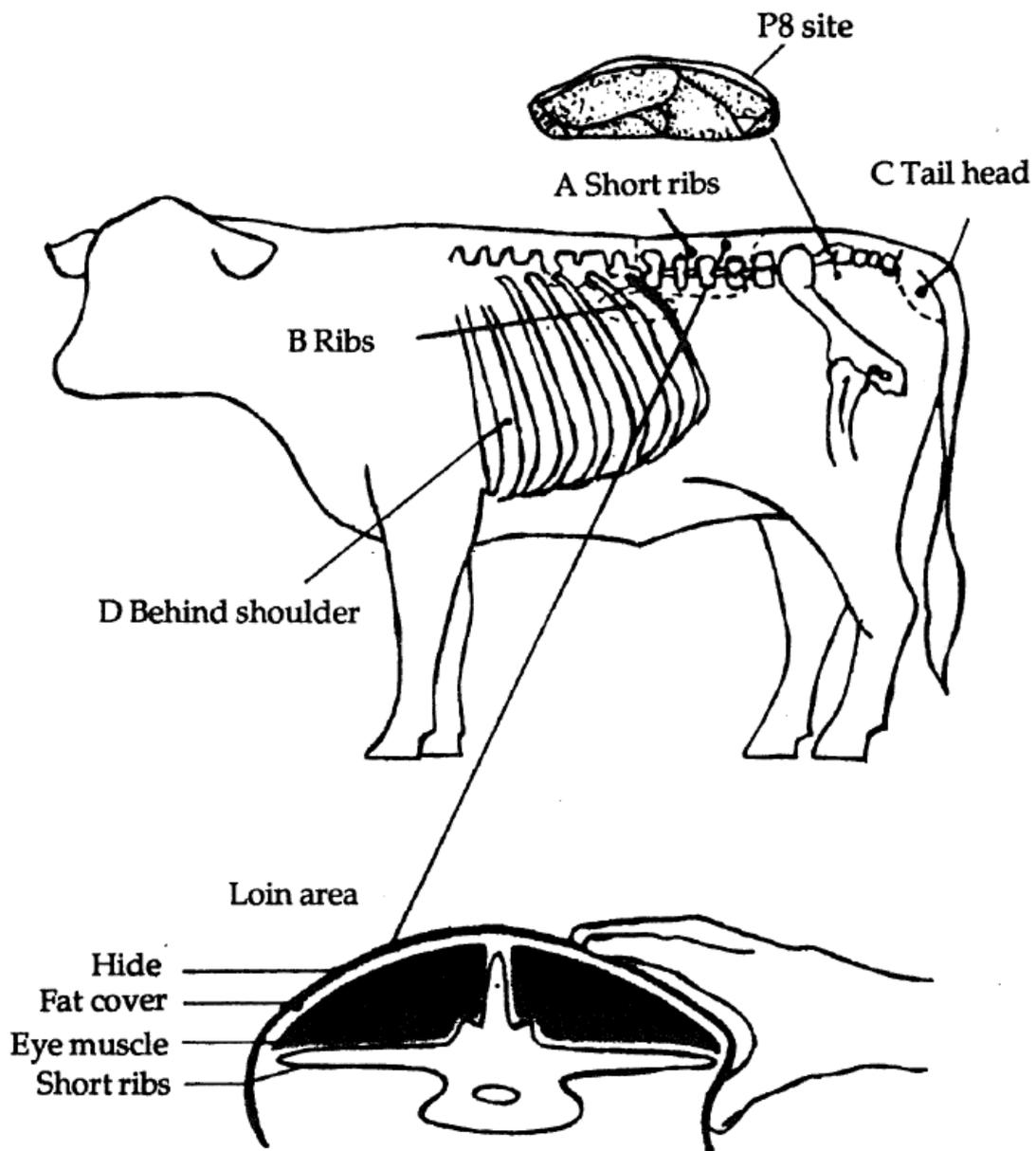
Wherever possible, some or the entire mob should be handled to increase the accuracy of fat estimation.

Manual fat assessing

When assessing fatness, observe several sites and, if possible, also feel these sites by placing your hands on the cattle. Fat assessment can then be expressed either as a fat depth in millimetres at the P8 site, or as a fat score.

Fat assessment is a learned skill, and continued practice and testing against measurement (either at abattoirs or using ultrasound) is recommended in order to maintain the accuracy of assessment skills.

Four of the main areas to handle cattle are the short ribs of the loin (A), over the long ribs (B and D) and around the tail head (C) ie feel a wide area from shoulder to tail.



For cattle up to about 15 mm (rump fat), sites A, B and C are the most useful, with particular emphasis on C.

Pinch a fold of hide next to the tail (anal fold) to feel how much fat is there.

Then use the rib sites (A and B) as a cross check. It may help to also feel the hipbone and the actual P8 site.

For older fatter cattle, the ribs and tail may be quite “buried” in fat.

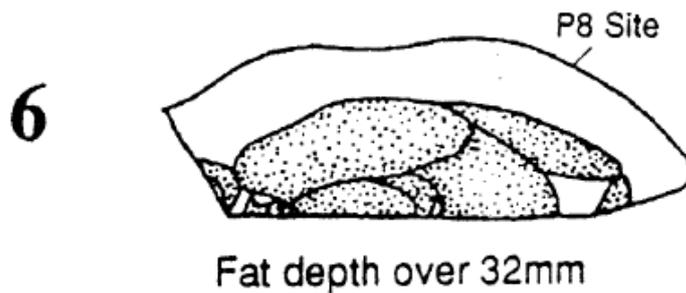
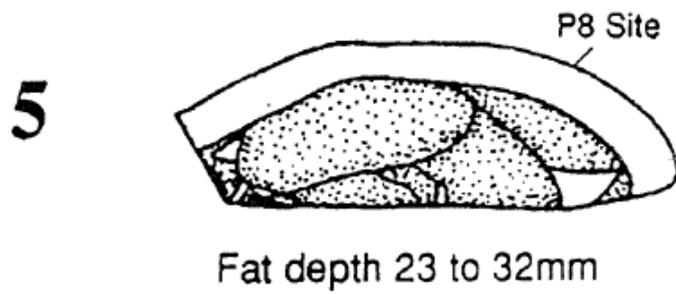
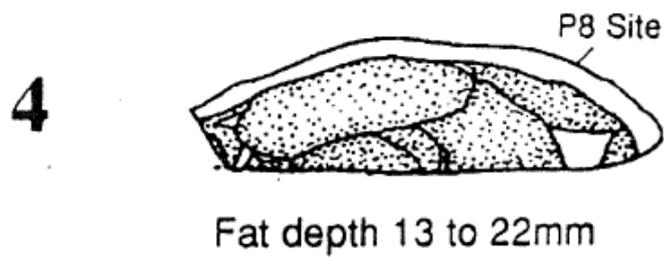
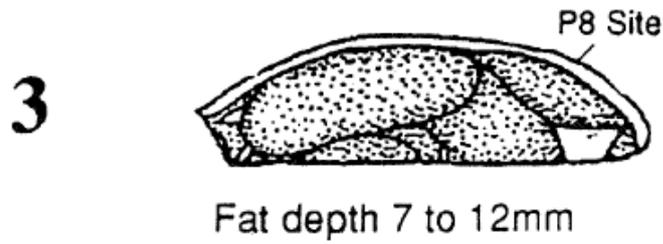
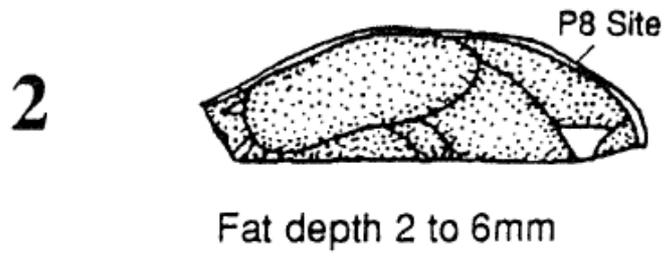
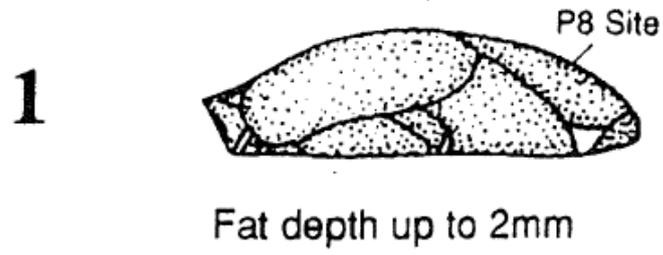
In this case, site D behind the shoulders is useful – place a hand flat on the hide to see if the ribs can be felt.

If they cannot be felt, fat thickness is likely to exceed 30 mm.

This table relates the “feel” of cattle to expected fat cover.

Fat Thickness P8 Rump	Ausmeat Fat Score	
0-6 mm	1/2	No fat around tail head (C). Short ribs of loin (A) sharp to the touch and easily distinguished. Hipbone and ribs (B) are hard.
7-12 mm	3	Short ribs can be individually felt but feel increasingly rounded. Ribs (B) are clearly felt. Hipbone still quite hard and only light deposit of flank fat and around tail head. (C).
13-22 mm	4	Short ribs only felt with firm pressure. Moderate fat cover around tail head. Hipbone carrying some fat cover.
23-32 mm	5	Short ribs cannot be felt or need very firm pressure. Ribs (B) and hip well covered. Tail head fat as slight mounds, soft to touch.
33+ mm	6	Hard to distinguish bone structure. Tail head buried in fatty tissue. All other sites show obvious soft fat deposits. With a hand placed over the ribs behind the shoulder (D), it is difficult to detect these ribs.

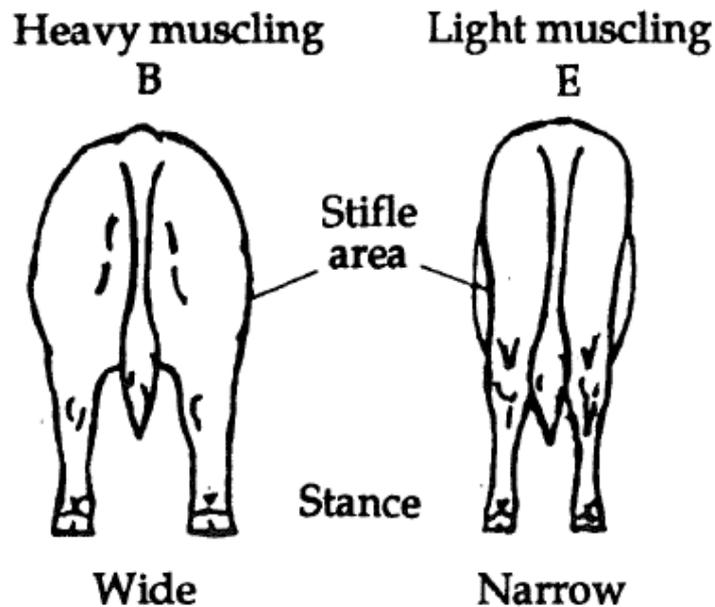
Fat Scores



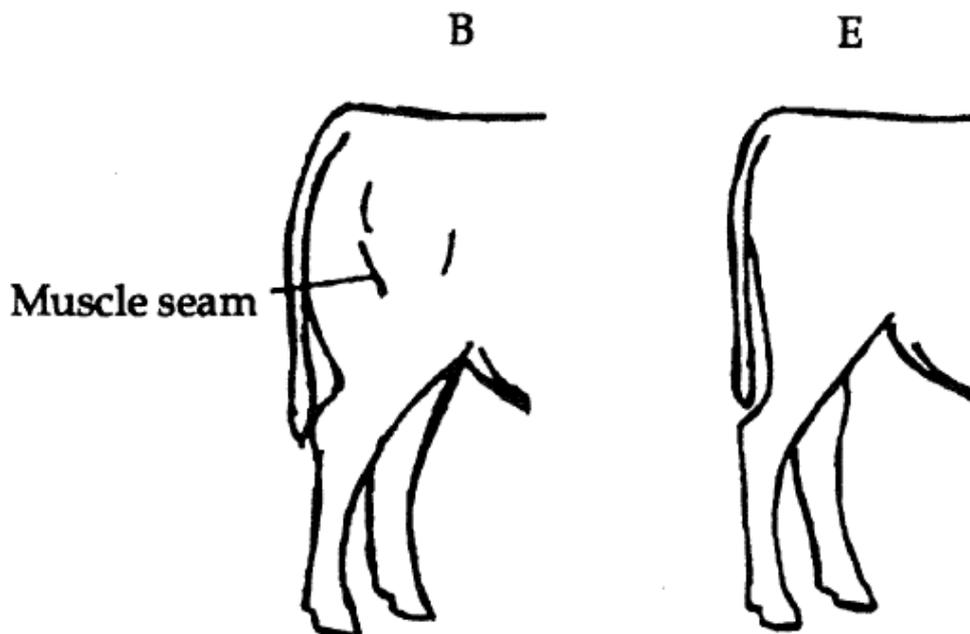
A4 – Assessing muscling

Muscling is assessed into five scores (A – E).

Remember, there are no quality implications, nor should fatness influence muscle score. It is purely an assessment of the thickness and shape of the muscles in relation to frame size.



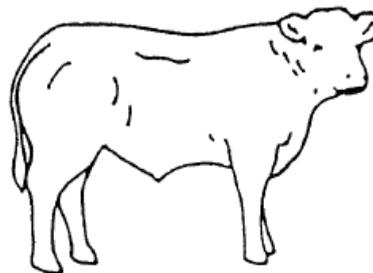
Observe cattle from behind to assess the thickness through the lower hindquarters (stifle area). Heavily muscled stock are thickest here. They also stand with their hind legs further apart than lightly muscled stock.



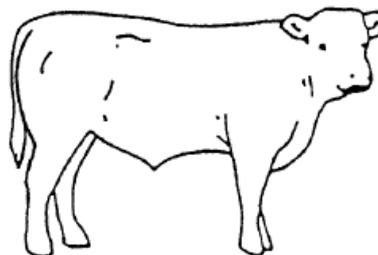
From the side, observe curvature of the muscles of the thigh. Also note as they walk that muscle seams are clearly evident in heavily muscled, leaner cattle.

Muscle Scores

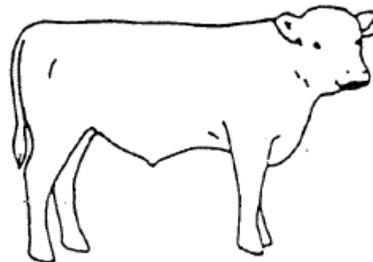
A VERY
HEAVY
MUSCLE



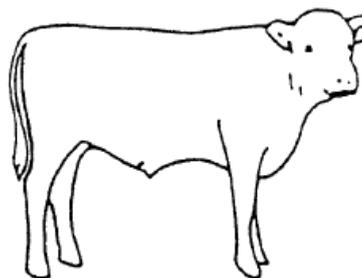
B HEAVY
MUSCLE



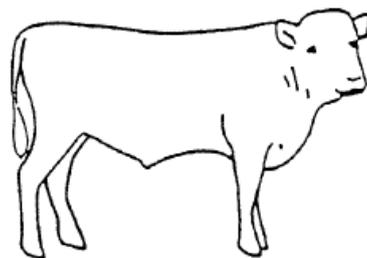
C MEDIUM
MUSCLE



D MODERATE
MUSCLE



E LIGHT
MUSCLE



Related weight/fat table

The assessor relates the fatness of the animals to the expected weight composition of the mob.

For instance, in the example used, the earlier maturing types may be smaller, and more highly finished, where as the heavier end of the mob may be the later maturing types with less fat cover, in which case the related table may look like this:

Weight Range (DR)	Score 3	Score 4	Score 5	Total
281/300	10	35	5	50
301/320	50	20	10	70
321/340	50	5	5	50
341/360	10	-	-	10
Total	120	60	20	200

In this table, fat score is directly related to the weight of the animals being assessed.

A5 – Dressing percentage

Dressing percentage plays two important roles in AuctionsPlus:

It is used to calculate carcass weight from a known or estimated liveweight

It is also used to convert liveweight bids and dressed weight bids back to an equivalent basis

***** All assessments must have a dressing percentage regardless of whether they are store or slaughter stock. *****

Dressing percentage is simply carcass weight as a percentage of liveweight.

$$\text{Dressing percentage} = \frac{\text{carcass weight}}{\text{liveweight}} \times 100$$

Carcass weight can be found by multiplying liveweight by dressing percentage.

$$\text{Carcass weight} = \text{liveweight} \times \text{dressing percentage}$$

(The term “yield” is at times used instead of dressing percentage. This can be confused with the yield of meat from a carcass. On AuctionsPlus, only use the term dressing percentage when relating to carcass weight as a percentage of liveweight).

On AuctionsPlus, liveweight is measured at assessment and carcass weight at some later date.

This period between the two measurements will alter according to the availability of cattle, transport etc.

The actual dressing percentage does not vary in the short term, so long as the number of hours off feed and water remains constant i.e. live (and dressed) weights may be rising or falling, but dressing percentage is constant.

AuctionsPlus has standardised the estimated dressed weight to the first date nominated for delivery on the assessment.

To allow the computer to make this calculation, assessors must provide estimates of liveweight gain, loss and dressing percentage.

The dressing percentage estimate assumes that cattle would be slaughtered shortly after weighing.

Thus in the following example, cattle have been assessed individually on 01/01/2006 for sale on 05/01/2006.

The dressing percentage has been estimated to 54% and the stock are estimated to be gaining 1 kg per day. The first date nominated for delivery is 10/01/2006.

The computer will project the live and dressed weights forward to 10/01/2006.

Example 1:					
LWT	(01/01/06)	400KG	DR% 54.0	PROJ LWT	(10/01/06) 408.0KG
EST DWT	(01/01/06)	216KG	DR% 54.0	PROJ DWT	(10/01/06) 220.9KG

Liveweight delivery adjustment percentage

Whenever possible, the curfew at the delivery scales should be the same as at assessment.

If there has to be a difference, it is essential that the assessor estimate the percentage of liveweight, which will be lost or gained.

If this is not done, the comparison of live and dressed weight bids will not be accurate.

Using the figures from example 1, and assuming stock were weighed live one hour off feed/water at assessment with live weighing at delivery to be done 12 hours off feed/water, the estimate of liveweight difference due to 11 hours off feed/water is 5%.

Example 2:

LWT	(01/01/06) 400KG	EST LWT	(10/01/06)	387.6KG
PROJ DWT	(06/01/06) 216KG	PROJ DWT	(10/01/06)	220.9KG

As you can see, the carcass weight has not changed from 220.9 kg – only the projected liveweight has been affected, firstly by the gain of 1kg per day for 8 days, and secondly by the 5% allowed for the gutfill difference between one hour (at assessment) and 12 hours (at delivery) off feed/water.

Liveweight gain or loss

The estimated liveweight at delivery does not include a weight gain or loss for the day of assessment or the first date of the delivery period.

Any cattle offered on a liveweight basis, must have a liveweight gain or loss entered in the assessment.

Comparison of Liveweight and Dressed Weight Bids

All prices on AuctionsPlus are displayed on the main auction screen in \$ per head. The price a dressed weight bidder sees is calculated by dividing the \$ per head price by the projected dressed weight. A liveweight bidder on the same lot will see a price that is calculated by dividing the \$ per head price by the projected liveweight.

Thus, using the above figures (Example 2), with a current \$ per head price of \$485.98, the dressed weight bidder would see a current price of 220c (\$485.98 divided by 220.9 kg). The liveweight bidder would see a price of 125c (\$485.98 divided by 387.6 kg).

Guide to AuctionsPlus dressing percentages

The following table summarises the results obtained with 100,000 cattle. (Figures are from 100,000 cattle in the NELCM trails).

The conditions approximate those in sections of the AuctionsPlus market where an assessor weighs stock on farm prior to slaughter.

The table is based on: average dressing percentage for the whole mob; average to good feed; two to three hours off feed at weighing, hot standard carcass weight.

For situations differing from this, guidelines are suggested to adjust dressing percentage estimates. (See section A6 – Adjustments to dressing percentages).

STOCK TYPE	FAT COVER		Avg	DRESSING %	
	MM Rump	AusMeat Score		Most Common	Range
Yearlings 200kg	7-12	3	52%	50-54	46-58
Steers 200-250kg	10-17	3H/4L	53%	51-55	47-58
Steers 250-300kg	12-23	3H/4	53.5%	52-55	48-59
Steers 300kg+	18-22	4H	54%	52-55	48-57
	23-28	5	54.5%	53-56	49-58
	33-45	6L	55.5%	54-57	51-58
Cows 200-250kg	10-12	3H	49%	46-51	44-55
	13-16	4L	50%	47-52	46-56
Cows 250kg+	13-22	4	51%	49-53	46-56
	23-27	5L	52%	49-54	48-56
Bulls			52%	49-55	48-57

Experience in AuctionsPlus suggests stock will be at the top end of the range if some of the following apply:

- Good seasons and gaining;
- At the fatter end of the range;
- Heavily muscled or “high dressing” breed; and
- Off feed for longer than three hours at weighing;
- Cows if they are not pregnant.

More detail on these factors is included in the following pages.

These figures may not relate to extreme conditions in pastoral areas of Northern Australia.

IMPORTANT – Estimate dressing percentages as if cattle will be slaughtered at assessment

The AuctionsPlus computer automatically estimates dressed weights forward to time of delivery.

A6 – Adjustments to dressing percentages

Any factor which effects liveweight (eg gutfill) or carcass weight (eg bruising) will affect dressing percentage.

Gutfill

“Full” cattle, freshly mustered, naturally weigh more than when they are “empty” after a period off feed and water eg saleyard curfew.

Cattle lose liveweight quickly in the first few hours, and then the rate of loss gradually decreases.

Carcass weight is not greatly affected for at least 48 hours.

Therefore as liveweight decreases, dressing percentage increases.

Transit Loss

Cattle may lose additional liveweight and/or lose it more quickly in transit eg additional 2% with prolonged trucking.

A guide for cattle from average quality green temperate pastures locked off feed and water is as follows:

Time Off Feed & Water	Liveweight Loss %	Dressing %
1 hr	1.5	0.75 up (compared to full cattle)
2 hrs	2.5	1.25
4 hrs	4	2
12 hrs	7	3.5
16 hrs	8	4+ (eg dry overnight curfew)

Cattle removed from feed but given water are expected to lose at about half the rate in the above table – wet curfew.

Weather Conditions

Liveweight loss is more rapid in hot weather.

Feed type – lot fed cattle

Cattle on dry, fibrous pasture or dry feedlot rations lose gutfill more slowly than stock from “soft” green feed. The gutfill is also lighter.

The higher the percentage of grain in a feedlot ration and the longer the feeding period, the more pronounced this effect is.

This partly explains the higher dressing percentage of lot fed cattle – fatness also contributes.

For example, with steers of equal fatness and weighed full, a feedlot steer may dress 2-4% higher than a crop fattened steer with its heavy gutfill.

When they have both emptied out, the difference may only be in the order of 1%.

While lot fed cattle generally dress higher, this is variable and cannot be guaranteed!

Watch feeding time in relation to weighing.

Average liveweight loss of grain fed cattle from feedlot to saleyard empty is 4-5%.

Typical Auctions Plus feedlot dressing percentages

Hot standard carcass weight against full feedlot weight.

(Feedlot cattle are generally weighed full to minimise digestive upsets.)

	Avg	Common Range
Yearlings On feed 60-80 days	54%	50-57%
Heavy Steers On feed 120 days	57%	55-60%

Dressing percentage can be quite variable in lot fed cattle due to gutfill.

Check the daily feeding routine if possible.

If cattle are very full at weighing, reduce dressing percentage estimate.

Class of country

Cattle from more fertile, "heavy" country dress higher than cattle from "light" country.

This is because they will have been fatter for longer.

Cattle bred and fattened on the same country will generally dress out 1 to 2 % higher than brought-in cattle.

Breed

Bos indicus type cattle dress higher than comparable British breeds, partly because of lighter gut content. Add 1% to 2% for cattle with 50% or more Bos indicus content.

European breeds also often dress higher than British breeds due to heavier muscling.

Add 1% to 3% if sufficient European content to give heavy or very heavy muscling.

Dairy breeds dress on average 1% below British breeds.

Pregnant Cows

Quite a high proportion of cull cows are pregnant. This naturally reduces dressing percentage and the effect is greatest on light cows.

Compared to empty cows, cows three to six months pregnant will dress 2% to 5% less and those six to nine months, 5% to 10% less.

A7 – Assessing Dentition

Age in months will be estimated or provided by the owner.

This is a compulsory field and is recorded on the assessment sheet.

For certain specifications however, it is important to mouth all or a sample of the cattle.

Age by teeth can then also be provided. This can be given either as additional information or as a guarantee by the owner.

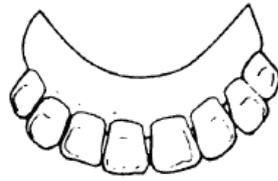
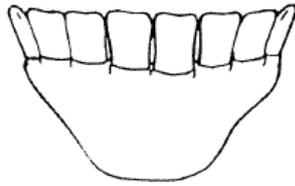
The age at which teeth erupt is unfortunately extremely variable and is thought to be affected by breed and nutrition.

This table is provided as a guide only and the diagrams on the following page assist differentiation of permanent and milk teeth.

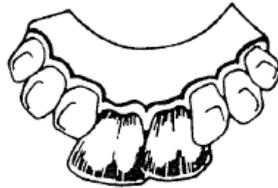
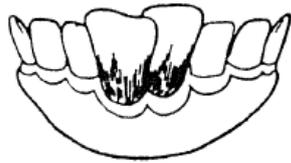
Teeth	Age
Milk or 0 permanent incisors	0-18 months
2 permanent incisors	18-30 months
4 permanent incisors	24-36 months
6 permanent incisors	30-42 months
8 permanent incisors	36 + months

A guide to the ageing of cattle by dentition

0



2



4



7



8



PART B: ASSESSOR COMMENTS – SLAUGHTER STOCK

B1 - Stock categories

Stock Category	Dentition/Comments
Calf	Any sex
Vealer	Any sex. Still on cow until delivery, no permanent incisors Use for Slaughter Stock.
Weaner	Any sex. No permanent incisors, further defined as Weaned or Unweaned. Use for Store Stock
Yearling	Any sex. No permanent incisors
Steer	Castrated male, 1 or more permanent incisors
Heifer	Female, 1 but no more than 7 permanent incisors
Steers & Heifers	Mixed sex, 1 or more permanent incisors
Cow	Female, 8 permanent incisors
Cows & Calves	Females with calves at foot
Bull	Entire Male, 1 or more permanent incisors
Manufacturing	Mixed sex manufacturing cattle
	<i>Note: Use the Stock Category appropriate for the oldest cattle in the lot</i>

Having taken or estimated weights, assessed the fatness, dressing percentage and muscle score, further comments are made by assessors to further describe the cattle.

B2 - Carcase quality grade

These terms are used to describe the expected carcase quality (not necessarily the visual appeal) of the cattle, although they would usually go together.

*****These terms only apply to slaughter cattle and should not be used for store stock.*****

Different terminology can be used for stock that also have potential as stores.

Incorporate all “quality aspects” including evenness of finish, conformation etc.

Obviously HQ1 will be reserved for really top cattle. Most mobs will be mixed, so specify the approximate break up eg 90% GAQ, 10% FAQ.

Highest Quality 1st – (HQ1)

- This term applies to really top cattle with even fat cover at optimum fat thickness for their market.
- Would have very good weight for age and terms such as “sappy” and “full bloom” would apply.
- Would also be well muscled with at least medium (C) and probably heavy muscling (B) ie well balanced in muscle pattern and “finish”.
- They would be handled well with good temperament and be expected to produce high yielding, top quality carcasses eg unlikely to experience dark cutting.

Good Average Quality - (GAQ) first grade

- As above only not as exceptional ie the majority of good quality cattle very suited to their trade.
- Perhaps slightly below HQ1 in balance of fat cover, muscling or “bloom”.
- May not have weight for age.

Fair Average Quality – (FAQ) second grade

- Cattle lacking a little in trade suitability due to insufficient or uneven fat cover or muscling.
- May be just adequate in fat and muscling, but be a mixed mob, falling in condition, lacking in “bloom” or with poor temperament.

Third Grade Manufacturing – (3MX) third grade

- Cattle with little fat cover and probably towards the lower end of the muscling range eg would suit the manufacturing or grinding meat orders for the USA.

Canner – (CNR)

- Cattle in very poor condition and light weight.
- Usually older cattle from a poor nutritional background.

B3 – Fat Distribution

Fat thickness has already been assessed in mm or scores/subdivisions. Assessors should now comment on evenness of cover. This is particularly important for light cover.

Terms:

- **even**
- **slightly uneven**
- **uneven**

If uneven, specify eg uneven around tail head.

B4 – Muscling

Note when describing muscling, that it does not include fat or have any quality implications.

It is purely an assessment of the thickness and curvature of the muscles in relation to frame size.

Terms:

- **Very heavy** (A)
- **Heavy** (B)
- **Medium** (C)
- **Moderate** (D)
- **Light** (E).

The muscle scores could be interpreted as follows:

Very Heavy	Top European breed - Mainly Bulls
Heavy	Top British breed and Tropical crosses, average European cross
Medium	Average British and Tropical breeds, poor European crosses
Moderate	Lower end of British and Tropical breeds
Light	Dairy breeds and crosses

These are the three main areas that must be commented on for all slaughter lots.

In addition, comment on such matters as breeding, temperament and facilities should be provided.

Trade suitability should only be specified where certain facts are known with certainty. Remember – a wide distribution of buyers will be involved.

With trades which are very sensitive to weight, such as the Japanese trade starting at 280kg or 300kg, qualify comments if necessary, eg “Consider good Jap ox, but note weight ranges”, or be really specific, “Lightest 10 head averaged 520kg live and are expected to be just over 280kg”.

These 280 and 300kg boundaries can mean a 10c/kg price difference, so provide buyers with as much information as possible on these lots.

PART C: ASSESSOR COMMENTS – STORE STOCK

NOTE – Do not use carcass quality grades.

All cattle assessed for AuctionsPlus will have the standard descriptions of weight, fatness etc as previously outlined.

Additional store comments can be added in respect of quality, condition, pregnancy status and frame, as well as drenching, vaccination, delicing and other treatments.

Further comment on potential muscle score, breeding, temperament, handling, rising or falling nutrition, health, feet, teeth, udders, eyes, anticipated end use etc are to be at the assessor's discretion.

C1 – Stock Categories

Stock Category	Dentition/Comments
Calf	Any sex
Vealer	Any sex. Still on cow until delivery, no permanent incisors Use for Slaughter Stock.
Weaner	Any sex. No permanent incisors, further defined as Weaned or Unweaned. Use for Store Stock
Yearling	Any sex. No permanent incisors
Steer	Castrated male, 1 or more permanent incisors
Heifer	Female, 1 but no more than 7 permanent incisors
Steers & Heifers	Mixed sex, 1 or more permanent incisors
Cow	Female, 8 permanent incisors
Cows & Calves	Females with calves at foot
Bull	Entire Male, 1 or more permanent incisors
Manufacturing	Mixed sex manufacturing cattle
<i>Note:</i>	<i>Use the Stock Category appropriate for the oldest cattle in the lot</i>

C2 – Breeding quality

These terms can apply equally well to purebred or crossbred stock and should not be affected by condition, ie they mainly relate to the quality of the breeding programme and suitability for their end use.

Indicate the approximate percentage in each category.

Excellent

- Top sires used and top standards of selection and management, ie the small percentage of really first class stock.
- A line with a large culling taken out.

Very Good

- Good quality sires used with heavy culling and selection programme – stock with a reputation for growing out/fattening/producing well.
- A line with a reasonable culling taken out.

Good

- Quality sires used, reasonable selection practices ie average stock.
- A line that has had no culling taken out.

Fair

- Average quality sires used, but otherwise little selection practiced.
- A line that needs a heavy cull taken out.

Plain

- Very poor breeding quality, eg inbreeding, structural or conformation faults expected to limit future growth and/or fattening/production ability.
- Could apply to culls or at best seconds or thirds from a line of stock.

C3 – Condition

Fatness has been estimated in mm or fat score for the slaughter stock assessment. For store stock, condition score is also given to indicate strength to travel and expected time to fatten.

Forward to Prime

- Fully cleaned up in coat.
- Large percentage of line killable.
- High development of muscle.

Forward Store

- Rising in condition/nutrition.
- Very light fat cover.
- Showing muscle potential.
- Cleaned up in coat.

Store

- Nil to very light fat cover.
- Bone structure just visible.
- Beginning to clean up in coat.
- Some filling out of muscle.

Backward Store

- Low but strong condition.
- Nil fat.
- Bone structure clearly visible.
- Dry coat.
- Sufficient strength to travel reasonable distances.

Poor

- Very low condition.
- Nil fat.
- Bone structure clearly visible.
- Dry coat.
- Sufficient strength to travel reasonable distances.

C4 – Growth

These terms are to indicate how well grown the stock are for their age.

- Below average
- Average
- Well grown
- Very well grown
- Exceptional

C5 – Pregnancy terminology

Pregnancy status options are:

- Not Station Mated
- Station Mated
- AI

Where the cattle have been Station Mated or AI,, you must state whether the cattle have been pregnancy tested, and details of pregnancy test results.

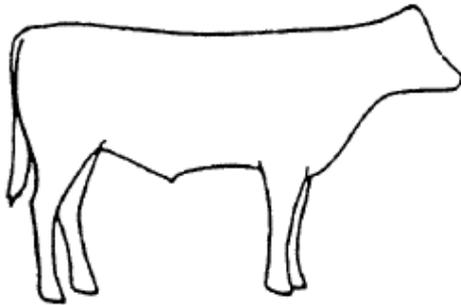
Not Station Mated females may be nominated as 100% Pregnancy Tested Not Detectable

C6 – Frame

This is to specify the likely mature size, fattening pattern, etc.

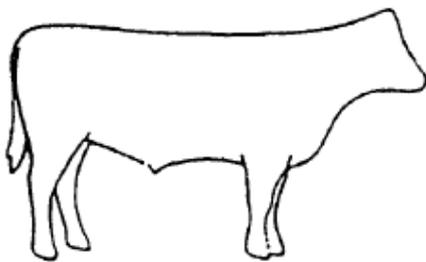
The four terms very large, large, medium and small are to be used. Frame description is optional but encouraged.

The following diagrams and descriptions are offered as a guide.

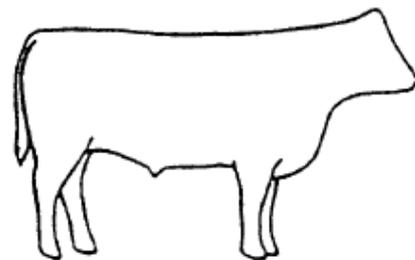


VERY LARGE FRAME

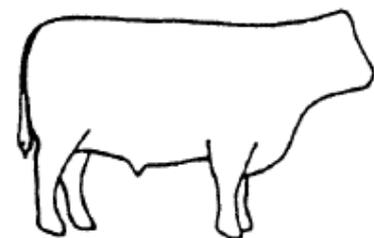
Very tall and long bodied. Tendency to very late maturity and difficult to “finish” on some feed types.



LARGE FRAME



MEDIUM FRAME



SMALL FRAME

Short legs and body, early maturing and tendency to overfatness unless killed at light weights.

PART D: GROUP ASSESSMENT

D1 – Group Assessment

Individual assessment of cattle gives the description of the lot a very high degree of credibility (with individual weighing and manual estimation of fat, muscling etc)

There is an element of handling stock closely, however, which may not be possible or desirable in a pastoral situation.

Group assessment provides the easier approach to handling the larger numbers being run in pastoral areas, and at the same time provides the credibility of a visual assessment of the stock, backed up where possible by historical data taken from previous slaughter results.

Weighing a sample of the mob may also be possible and adds further credibility.

These assessments may be done in the paddock, around a watering point, along a fence line or within a trap yard.

Group assessments have also been done from the back of a four-wheel drive or on horseback.

One of the benefits of the group assessment is that a producer who has, for example, 600 steers in a paddock, may know that within four to six weeks, there will be 150 to 200 ready to market.

He may know that over the last three seasons, the first draft of steers from that paddock have averaged 310kg dressed weight, with a range from 260 to 350kg and have been 60% fat score 3 (7-12 mm), 30% fat score 4 (13-22 mm) and 10% fat score 5 (23-32mm).

This information is taken directly from the kill sheets for the last three seasons, and depending on the current season, will provide a very close guide to the expected performance of the cattle in the paddock at the time.

The 600 steers may then be inspected to confirm whether they will perform somewhere within the weight and fat areas of the last three seasons, and the assessment then put on paper for the AuctionsPlus sale.

After the stock are successfully sold, the assessment then becomes the basis for drafting off, for example, 200 steers that have been sold on AuctionsPlus.

This would be done immediately prior to trucking and may involve the weighing of the stock.

This way, the closeness of the individual assessment lends higher credibility, but the stock have only been mustered and handled once.

If scales are not available, then the cattle can be drafted visually in the yard, which will still provide a closer and more accurate result than was possible in the paddock.

PART F: RESERVE PRICE CALCULATION

F1 - Common Problems with Reserve Price Calculation

Using full paddock weight and saleyard price

In many areas people have in mind a saleyard price in cents per kilogram liveweight as a reserve – say 100 cents per kilogram.

If this is used on the full paddock weights taken by the AuctionsPlus assessor, say 400kg, a false expectation of \$400 could be arrived at.

Cattle will of course weigh less by time of weighing in a saleyard and there are transport and selling costs to consider.

F2 - Reserve Price Calculator 1

Saleyard price converted to farm gate dressed weight price

eg YOUR FIGURES

SALEYARD PRICE (c/kg live) _____ c/kg lwt (a)

To calculate net saleyard value first estimate what cattle would weigh at saleyard. Liveweight at assessment (say 2 hours off feed).

_____ kg

Plus weight gain between assessment and delivery

_____ kg
(eg 5kg on good feed for a week)

Less estimated weight loss during a saleyard curfew

_____ kg
(eg approx 4-8% of full lwt)

Saleyard equivalent liveweight

_____ kg (b)

Gross saleyard value %/head (a) x (b)

\$_____ / head (c)

Less freight to saleyard

\$_____

Less saleyard fees

\$_____
(eg yard dues, weighing fees etc)

Less agent's commission in saleyards

\$_____

Net saleyard per head value

\$_____

Plus AuctionsPlus fees

\$_____

Plus agent's commission on AuctionsPlus

\$_____

AuctionsPlus equivalent \$/head price

\$_____ (d)

AUCTIONSPLUS RESERVE PRICE
(c/kg dressed) is (d) divided by projected
hot weight at delivery (say 224kg)

= _____ c/kg HSCW

NOTE – This dressed weight price may appear low when compared with a “weight at works” price because AuctionsPlus dressed weight prices are generally “farm gate” – no transport.

F3 - Reserve Price Calculator 2

Converting AuctionsPlus dressed weight price to saleyard price equivalent

	eg YOUR FIGURES	
AUCTIONSPLUS SALE PRICE	_____ c/kg HSCW	(a)
Gross AuctionsPlus value = (a) x projected HSCW at delivery (say 224kg)	_____ / head	(b)
Less AuctionsPlus fees	\$ _____	
Less agent's commission on AuctionsPlus	\$ _____	
Net AuctionsPlus \$/head	\$ _____	
Plus freight to saleyard (eg 100 to 200km - \$2/km for a double deck of cattle)	\$ _____	
Plus saleyard fees (eg saleyard & weighing fees approx \$2 per head)	\$ _____	
Plus agent's commission in saleyards	\$ _____	
Gross saleyard equivalent value \$/head	\$ _____	(c)
<hr/>		
To convert this to c/kg liveweight, first estimate what cattle would weigh at saleyard.		
This equals liveweight at assessment	_____ kg	
Plus weight gain between assessment and delivery	_____ kg	
Less estimated weight loss during a saleyard curfew	_____ kg	
Saleyard equivalent liveweight	_____	(d)
<hr/>		
SALEYARD EQUIVALENT (c) divided by (d)	_____	
	= _____ c/kg lwt	

F4 - Reserve Price Calculator 3

Comparing AuctionsPlus prices with weight at works

eg YOUR FIGURES

WEIGHT AT WORKS PRICE

_____ c/kg HSCW

Allow for the following:

FREIGHT

AuctionsPlus prices are on farm, so deduct the cost of trucking to the works. Calculate this in c/kg HSCW.
eg 550kg steers dressing at 300kg cost 4c/kg to cart
100 km on a single deck

DEDUCT

SELLING COSTS

Compare AuctionsPlus selling costs with weight at works and express in c/kg HSCW.

eg AuctionsPlus costs (agent, assessing, AuctionsPlus listing fee) about \$15 per head.

Paddock sale cost – agent \$12

So AuctionsPlus cost \$3 or 1c/kg extra

ADD

(If the AuctionsPlus selling costs is less, then deduct this amount)

AUCTIONSPLUS RESERVE=

PART G: SCORING ASSESSMENTS

Assessments are scored out of 100 as follows:

Weight estimation	36
Fat estimation	40
Muscle scoring	12
Dentition	8
General comments	<u>4</u>
	100

G1 - Weights

Points are allocated for accuracy of predicting the spread of weights as well as the average weight.

Example points for spread of weights				
Weight Range	Actual %	Est %	Error	Cumulative Error
160-180	10	5	-5	-5
180-200	54	60	+6	+1
200-220	27	18	-9	-8
220-240	9	17	+8	0
Total	100	100	0	14
(This total without considering + or – signs)				

This total error is then divided by a calibration factor of 3 to even out scores.
ie $14/3 = 4.7\%$

Then deducted from 100
ie $100 - 4.7 = 95.3\%$

Points for average weight

Example:

Estimated average	240kg
Actual average	250kg
Error 10kg in 250kg=	10/250 or 4%

Total Points for weight:

Error in spread of weights	4.7%
Error in average weight	<u>4.0%</u>
	8.7%
Deduct from 100 =	91.3%

Assessment would receive 91.3% of the possible 36 points allocated for weight estimation ie 32.8 points.

The actual way by which assessments are marked for weight has been described.

The following table may, however, be a useful guide as to the standards expected:

Difference between actual and assessed average weight		
	Cows	Other Cattle
Very Good	Within 5%	3%
Good	Within 8%	5%
Pass	Within 10%	7%

G4 - Dentition

Example points for dentition				
Dentition	Actual %	Est %	Error	Cumulative Error
0 tooth	-	-		
0/2 tooth	80	50	-30	-30
3-7 tooth	20	50	+30	0
8 tooth				
Total	100	100	0	30

(This total without considering + or – signs)

A calibration factor of 1 has been selected for dentition, so total error of 30% holds.

Deduct from 100% =70%
Assessment therefore scores 70% of possible 8 points =5.6

G5 - Points for general comments

Four points are allocated for correctness in describing such factors as quality, evenness of fat distribution, market suitability etc.

Final Score		
To complete the scoring of the example assessment:		
	Possible	Score
Weight	36	32.8
Fat	40	37.7
Muscle	12	10.4
Dentition	8	5.6
Comments	4	3.2
	100	89.7

This score of 89.7% would be considered “good”.

PART H: CATTLE HANDLING – EFFECT ON BRUISING AND MEAT QUALITY

This is an important subject on which there is a wide variety of opinion and practice.

This chapter is included as introductory reading and to stimulate thought on this important topic.

Marketing involves moving cattle from familiar surroundings and exposing them to a variety of stresses including different stockmen, strange noises and smells, transportation and time off feed and water.

Many animals are unaccustomed to confinement and for most this will be their first exposure.

Stress and injuries from handling and transport can result in losses in both carcass weight and meat quality and sometimes death and crippling of stock.

Carcass losses can include:

- a reduction in carcass weight by tissue breakdown, dehydration, bruising and condemnation of parts of the carcass; and
- reduced meat quality in the form of tougher, darker meat and poorer keeping quality.

The time off feed and water, the way stock are handled and the design and maintenance of facilities will influence the extent of losses.

A single incident is unlikely to lower carcass quality but this added to several others will increase the risk of dark cutting meat and bruising.

The following general rules apply:

- Cattle which are stressed bruise more from the same “knock” than will fresh cattle;
- It takes several hours of stress to produce dark cutting meat in well nourished cattle;
- Stock most at risk include those in poor health, pregnant and poor condition;
- Climatic conditions predisposing stock to stress include extremes in temperature, wind and rain.

H1 – Losses in carcass weight

Most of the liveweight changes we observe only indicate variations in gut content (feed and water).

These begin immediately stock are removed from feed.

Carcass weight losses commence later and are due to dehydration of muscle and fat tissues when water is withheld, followed by breakdown of muscle and fat tissue when feed is withheld.

Stock then have to draw on their body tissue to supply their water and energy needs.

The rate of carcass weight loss is greater if both feed and water are withheld.

Losses due to carcass dehydration can begin after 12 hours off water and actual tissue breakdown commences after stock have been without feed for about 24 hours.

Leaner stock with access to water lose carcass weight at a faster rate than fatter ones. Young cattle are especially prone, being leaner and less likely to drink or eat in a strange situation.

Dehydration affects carcass weight more often and to a greater degree than tissue breakdown.

Dehydration effects can be overcome by giving stock access to water between arrival and slaughter.

Stock need a minimum of three hours on water to settle down after transport and replenish moisture losses.

Continual access to water until slaughter will prevent lighter carcasses due to dehydration.

Feeding hay should reduce losses in carcass weight when cattle are held for several days before slaughter. Hay also assists by increasing water intake.

Management of stock on farm influences the extent of losses.

The time between mustering and transportation and whether or not cattle have access to feed and water during this time is important.

Provide fresh water and withhold feed for a few hours immediately prior to transporting.

This enables stock to empty out a little so that problems with “fouling” and slippery floors can be minimised, but the time from last feed to slaughter will still be kept as short as possible.

Never transport tired, thirsty and hungry stock.

Stock mustered and assembled over several days should be rested and provided with hay and water before transport.

Transit time affects weight loss more than the distance travelled.

Transportation causes an additional loss in gutfill and sometimes increases carcass weight loss due to increased dehydration.

Again, this can be overcome by watering on arrival.

Combining the previous two points – the total time between mustering and slaughter is therefore important. It should be kept as short as possible.

Saleyard cattle generally take longer to reach the abattoir and to be slaughtered than animals consigned direct from properties.

H2 – Bruising

Bruising Losses

When an animal is injured, blood vessels are ruptured and the escaping blood creates the bruise.

Bruised tissue is trimmed reducing carcase weight. Usually bruised carcasses are downgraded as well.

Total loss to the cattle industry is estimated to be in the order of \$50 million per year.

Horns cause almost half the bruising in horned cattle.

Tipping does not reduce bruising.

Mixing horned and hornless stock increases bruising in the hornless cattle.

Horned cattle should be dehorned as calves at marking or weaning. Breeding polled cattle is an alternative.

Stock that have been subjected to stress over a prolonged period are more likely to bruise more than those exposed to a brief period of stress.

Fresh stock subjected to “normal handling incidents” in property yards rarely bruise from these activities.

Stress encountered before arrival at the abattoir may predispose stock to bruising.

Tired and thirsty cattle are more difficult to handle and tend to injure themselves more frequently.

There is a greater variation in susceptibility to bruising between individuals than between breeds.

Cows require more careful handling as they bruise more frequently than steers. Bulls bruise least of all.

Fasting cattle before transporting doesn't reduce bruising but livestock transporters have found that stock settle down and travel better.

Driver skill and road conditions are as important as stock crate and vehicle design factors.

It is desirable to construct stock crates and rail wagons with minimal bruising hazards – smooth sides, non-slip floor, wide gateways, satisfactory internal partitions and no protruding spikes, bolts, gate latches or other objects.

Overcrowding increases the risk of fatigue, bruising, crippling and deaths.

Loose loading is also unwise because cattle lack the support of their pen mates to combat the sways and surges of travelling.

Stock become restless when trucks are stationary, so the number of stops and duration should be kept to a minimum.

Unloading and reloading of stock has the potential to increase bruising.

The amount will depend on the competence of stockmen, the design and construction of the various yards and the associated transport factors.

Best ways to reduce bruising

- Encourage producers to market hornless cattle and avoid mixing horned and hornless stock.
- Take extra care with cows.
- Minimise the amount of handling and time from farm to slaughter.
- Ensure that all handling and transport facilities are well-designed and kept in good repair.
- Ensure that all handlers are aware of how best to handle stock and the cost of bruising.

H3 - Meat quality (dark cutting)

Stock that have been stressed pre-slaughter can produce carcasses unacceptably dark in colour that are tougher to eat and have a short shelf life. Usually a combination of factors are involved.

High incidences of dark cutting can occur among all classes of cattle, regardless of age, sex, breed or diet.

Dark cutting is similar for cows and steers and between breeds. Bulls are most affected.

Lean cattle and cattle in poor condition are more prone to dark cutting than healthy well-fed cattle.

Stock used to being handled tend to have less problems eg feedlot cattle.

Adverse weather, particularly unseasonable changes, can increase dark cutting.

Young and hungry animals are least able to withstand extremes in weather.

Transportation induces fatigue, particularly among young, weak or pregnant cattle.

Stock require sufficient rest after transport to minimise the incidence of dark cutting.

Resting at abattoirs allows cattle to recover from travel weariness and adapt to their new environment.

When unfamiliar groups are mixed before slaughter they do not settle down and the incidence of dark cutting is increased.

This is particularly so for bulls. Redrafting aggravates the situation.

If practical, sorting stock one week before slaughter allows them to establish a social order and to settle down before going to slaughter.

The incidence of dark cutting meat increases as the time between farm and slaughter is increased.

Well-fed, healthy animals can withstand stress better than hungry ones.

A higher proportion of saleyard stock have dark cutting meat than direct consignment of stock.

The extra handling and noise, the general saleyard activity and the mixing of strange animals in buyers' pens cause stress to cattle.

Stress close to slaughter is particularly harmful because the animals do not have time to recover before slaughter.

Best ways to reduce dark cutting

- Minimise the time from farm to slaughter
- Careful handling of stock
- Allow adequate rest before slaughter
- Minimise pre-slaughter stress
- Avoid exposure to extremes in weather
- Use well designed handling and transport facilities

H4 – Stockmanship and cattle behaviour

The natural behaviour of cattle should always dictate the method of handling.

Successful stock handlers know what to expect because they understand animal behaviour and can predict responses.

Cattle tend to move as a group and follow the leader in a wedge-shaped group, or to move along fences in a drawn out string.

Isolated animals quickly become disturbed.

Cattle will balk at or refuse to cross strong shadow stripes.

This can inhibit progress through gateways or along races.

Cattle also react to sudden noises and tend to be wary of unfamiliar smells.

Cattle tend to circle to maintain a critical or flight distance from the handler.

The flight distance depends on the previous handling experiences of animals and their temperaments. Cattle are more easily managed as this flight distance decreases.

To move cattle efficiently, the handler should generally be on the boundary of the animals' flight zone.

Good stock handlers know when to penetrate this zone and when to retreat, so that cattle move quietly.

When he penetrates the flight zone, the stock handler causes the cattle to move away from him.

They may stop moving away when he retreats from the flight zone.

Many stock handlers stand too close to cattle as they are moved through a yard.

If stock attempt to turn back on the handler, he should retreat and increase the distance between himself and the animal.

Cattle turn back because they see no avenue of escape in front of them.

If the handler yells and excites the cattle, this expands the flight zone.

Consequently the handler, without even moving, can place himself deep inside the flight zone.

To get cattle to move in a predictable direction, the handler must position himself in relation to the beast's shoulder.

Moving towards the rear of the animal will cause it to move forwards and moving toward the front will cause it to turn back.

If the handler stands at the shoulder, the animal moves neither forwards or backwards.

Working cattle from a position 45 degrees to 60 degrees behind the animal's shoulder is most effective.

When standing in front of the beast, moving to one side will cause it to turn the other way.

The use of flappers, drafting canes or poly pipe extends the handler's profile and is usually more effective than actually resorting to hitting as all can cause bruising.

Cattle are easier to handle once they have settle down after mustering and have had time to become familiar with the yards. About 30 minutes is usually sufficient.

Cattle are usually more willing to move into familiar yards or laneways and towards known escape points.

Overcrowding is poor handling, because even co-operative cattle are unable to move.

Careful, quiet handling is most important in reducing overreactions by man and animal.

H5 – Yard facilities and maintenance

Yard designs that incorporate cattle behaviour principles will minimise problems when working cattle in unfamiliar surroundings.

This is particularly important with tired or nervous stock in situations like saleyards and abattoirs.

Circular yards, curved laneways and races with solid or semi-solid fences and long, tapering entrances, exploit the vision, circling and follow-the-leader behaviour of cattle. Avoid dead ends or corners and block out lighting contrasts or distractions.

Sliding gates, smooth fittings and rails and non-slip floors minimise the chances of injury and of baulking and disruption to a smooth flow through the yard.

The bruise hazard zone for cattle is 70 to 130 cm above the ground and any sharp object that protrudes from this zone should be removed or padded. Pressing up against or bumping into the smooth, flat side of a race or lane does not bruise animals!

H6 – Preparing cattle for market

Marketing begins at weaning.

Teaching weaners to respond to good handling and to become accustomed to yards and stockmen means that they are easier and quieter to handle while travelling, at the saleyard and at the abattoir.

Stock that have been trained as weaners and handled regularly are more likely to have little bruising and dark cutting.

These animals know how to respond in yards and will settle down and drink and eat when the opportunity arises.

Dehorn at marking or weaning time.

Keep yards, races and loading ramps in good repair. Check and eliminate all protruding objects.

Allow sufficient time between mustering and trucking for stock to be drafted and settled down prior to trucking.

Where practical, drafting one week before trucking will allow them to establish a new social order and settle down again. This is particularly so if strange groups are to be mixed.

Provide fresh water for stock at all possible times and withhold feed for a few hours immediately prior to trucking.

If stock are yarded overnight, mustered before sunrise, or assembled over several days, provide hay and water in the yards.

It is preferable to allow stock on lush feed to empty out and fill up on hay. This reduces problems like stock going down during transportation due to slippery floors.

Feed drought affected, weak stock and pregnant stock on hay for a few days before long trips.

Draft stock into similar categories. Separate cows from calves, weak stock from strong stock, prime stock from stores and horns from hornless.

Protect stock from extreme weather conditions. Provide shade and water in hot weather and windbreaks and hay during cold weather.

Plan truck requirements well in advance to minimise problems with loading capacity.

Loading rates are determined according to liveweight, size and shape, horn status, weather conditions and distance to be travelled.

Animals need to be loaded tightly enough to give each other support.

Horned cattle require more room, so need to be loaded lightly.

Poor stock and pregnant stock tire easily so require more room to get back up if they go down.

Bos indicus breeds, being taller and narrower, can be loaded slightly heavier and tend to travel better than Bos Taurus breeds.

Stock that have been reared under good conditions are “softer” and tire easily so require more room.

H7 – Load densities for cattle transport

Loading rates must be ascertained for each pen. The following table provides a guide to minimum and maximum numbers of cattle.

Minimum and maximum numbers of cattle of various liveweights for three and four metre pens and double deck road transports.

Liveweight	3m Pen (7.2m ²)		4m Pen (9.6m ²)		Per Deck (12.2m)	
	Minimum +	Maximum *	Minimum	Maximum	Bottom #	Top
250	7	10	10	14	38	36
300	7	9	10	12	34	32
350	6	8	9	11	30	28
400	5	7	7	9	28	26
450	5	6	7	9	26	23
500	4	6	6	8	24	21
550	4	5	6	7	22	19
600	3	5	4	6	20	17
650	3	4	4	5	18	15

Key

+ Cattle transported at densities lower than above may be more prone to injury during emergency situations during travel.

* Loading densities greater than the maximum recommended may not permit cast animals to be brought to their feet without unloading.

Bottom deck loading rate also applies to single deck trailers.

And finally – load stock quietly without excessive use of goads or dogs.

PART I: PARAMETERS FOR ELEVATION AND RELEGATION OF AUCTIONSPLUS ASSESSORS

I1 - A3

Complete six (6) field assessments of more than one stock category. These assessments are to be done in parallel with an accredited assessor. These assessments will be entered under the accredited assessor's name and the appropriate details entered on the Assessment page of the form to indicate that a parallel assessment was completed.

Paperwork is to be lodged with AuctionsPlus and each assessment will be reviewed by AuctionsPlus staff.

An online exam must be completed prior to accreditation.

To maintain A3 status a minimum of six (6) assessments must be completed in each twelve (12) month period following accreditation at that level.

I2 - A3 to A2

To be promoted from an A3 assessor to A2 status you are required to complete six (6) consecutive assessments of more than one stock category each to mark 80% or above.

To maintain A2 status a minimum of fifteen (15) assessments must be completed in each twelve (12) month period following accreditation at that level.

I3 - A2 to A1

To be promoted from A2 to A1 status, six (6) consecutive assessments of more than one stock category to mark 90% or above.

To maintain A1 status a minimum of twenty (20) assessments must be completed in each twelve (12) month period following accreditation at that level.

(Note: as of January 2016 there will be additional requirements for maintaining accreditation levels.)

Assessors may be demoted, suspended or terminated at AuctionsPlus discretion in the event of a misdescription claim.

I4 - Maintaining Assessor Level

Accredited assessors cannot complete parallel assessments to maintain their accreditation. Only assessments lodged and offered on the AuctionsPlus system in the assessor's own name will count towards maintaining their accreditation.

APPENDIX 1

Standard AusMeat Weight Ranges

Class	Weight kg	Class	Weight kg
4	Below 40	24	220-240
7	40-70	26	240-260
9	70-90	28	260-280
11	90-110	30	280-300
13	110-130	32	300-320
15	130-150	34	320-340
16 *	150-160	36	340-360
18	160-180	38	360-380
20	180-200	40	380-400
22	200-220	42	Over 400

* Note: Weight class (16) 10kg only

Liveweight Weight Ranges

(Double AusMeat weight ranges)

Class	Weight kg	Class	Weight kg
4	Below 80	24	440-480
7	80-140	26	480-520
9	140-180	28	520-560
11	180-220	30	560-600
13	220-260	32	600-640
15	260-300	34	640-680
16 *	300-320	36	680-720
18	320-360	38	720-760
20	360-400	40	760-800
22	400-440	42	Over 800

* Note: Weight class (16) 20kg only

APPENDIX 2

Abbreviations for cattle breeds

Hereford	HFD	Poll Hereford	P/HFD
Angus	ANG	Murray Grey	M/G
Shorthorn	SH	Devon	DEV
South Devon	SDEV	Red Poll	RPOLL
Belted Galloway	B/GAL	Galloway	GALL
Friesian	FRIES	Jersey	JRSY
Santa Gertrudis	S/G	Brahman	BRAH
Droughtmaster	DMSTR	Brangus	BRANG
Charbray	CHBRY	Braford	BRAFD
Belmont Red	BELR	Africander	AFR
Simmental	SIMM	Charolais	CHAR
Limousin	LIM	Beefmaker	BFMKR
Simford	SIMFD	Blonde D'Aquitane	BDAQ
Maine Anjou	MANJ	Chianina	CHIA
Salers	SAL	Romagnola	ROM