ULTRASCALE

INSTRUCTION MANUAL

THUNDERBIRD
ULTRASCALE SERIES III

INDEX

ULTRASCALE INSTRUCTIONS

INTERNAL BATTERY

The Ultrascale operates from an internal Ni-MH battery. The battery is flat when new. To fully charge the battery when it is completely flat, it must be charged for approximately 18 hours using the charger provided. A fully charged battery will allow approximately 15 hours of use.

The internal battery will self discharge over time, so charge the unit overnight before use.

WARNING:- Leaving the charger connected to the indicator when the charger is switched off will discharge the internal battery. Disconnect the charger when charging is finished.

An external dc socket and lead is provided so that it can be run off a 12V car battery if the internal battery goes flat. No old data will be lost if the battery goes flat, but you may lose the data on the animal that is being entered at the time.

The Ultrascale has a second internal battery that is used to retain data. This is a non rechargeable lithium battery that has a life of 5-8 years. If this battery goes flat, all data will be lost, so it is best if the data in the ulrascale is saved to a PC from time to time.

INSTALLATION

Locate a weighing site that is well drained. For best weighing results, ensure the weigh bars and weighing platform are on a level hard surface (ie concrete), and free from contact of any obstruction. Do not use wooden platforms. Make sure the platform doesn't rock, pack with spacers if needed. If the installation has any flexing or twisting in the platform, inaccurate weights may occur. These inaccuracies can be quite significant. The weight should be evenly distributed over the top of the weigh bars.

When bolting the bars down, also eliminate any twisting of the platform. Avoid bolting everything down tight. If in a fixed situation, it is best practice to bolt the rear bars to the concrete, then bolt the platform or crush to the bars, then leave the front bars unbolted with only guide pins into the concrete. This will minimise any flexing that could occur.

When weighing animals, be sure that their weight is totally on the weighing surface, and not touching fixed gates, rails, etc.

CARE AND MAINTENANCE

DO NOT WELD TO THE WEIGH BARS OR ANY STRUCTURE THAT THEY ARE ATTACHED TO. The voltage and current from the welder can instantly destroy the sensitive strain gauges used to measure the weight.

Make sure that the weigh bars are isolated from the battery supply. That is, don't use the weigh bars on a tractor trailer or ute and power the indicator from that vehicle's battery. Damage to the indicator can result from this action.

Care of cables is important to avoid erratic readings or breakdown. Plugs should be covered when not in use to avoid corrosion of contacts and prevent moisture penetrating the cables. The

weigh bars are sealed, and can be hosed out with low pressure water to keep clean.

Do not allow the bars to remain wet or allow a build up of manure inside the bars for long periods of time. This will shorten the life of the weigh bars and can cause premature failure.

Store indicator in a dry area away from moisture when not in use. Although it has a gasket seal for rain ingress, repeated cycling of warm and cool from day to night in a damp area can cause build up of moisture inside the indicator.
To avoid damage—Do not transport weigh bars under weighing surfaces.

MULTIFUNCTION KEYPAD

The Thunderbird Ultrascale is a highly advanced weighing and recording system that offers many functions to assist the operator in important decisions in the field.

ALPHA-NUMERIC KEYS - The Ultrascale can display and record numbers as well as characters. To enter a number, just press the number required. To enter a character, press the number with the desired character above it, then press the ALPHA key until the character is displayed.

MENU - The menu key is the entry point that opens up a range of different functions. When pressed, the Ultrascale displays 4 sub-menus:-

   1- EDIT -   Pressing '1' allows you to edit an animal's details, such as mob, weight, etc.

   2- PRINT - Pressing '2' gives you choices for printing to computer, printer, saving or restoring.

   3- SETUP -   Pressing '3' offers you 4 functions, 1/ Enter Mob Number; 2/ Enter Date;
                3/allows you to select a Weigh Bar Capacity; 4/ Livestock Mode.

   4- DELETE- Pressing '4' allows you to to delete an animal or an entire mob.

ESCAPE - The escape button allows you to abort a particular function, taking you back to the start of a weighing process. **NOTE**:- **If you have not pressed the enter button at the option infromation step, the ID and the weight will not be stored to memory for that animal.**

STATS - This button allows you to display statistics. The choices are:-

   1 - MOB NO STATS - They are displayed as follows- Number of weighings (animals), Total mob weight, Average weight, Minimum weight, Maximum weight.

   2 - DRAFTING STATS - Pressing '2' will open another menu asking for:- 1/ Low Range Statistics; 2/ Mid Range Statistics; 3/ High Range Statistics; 4/ Total Of All Ranges. The Ultrascale will display- Number of weighings (animals), Total weight for the range, Average weight for the range.

Statistics for other mobs can be displayed by changing the mob number and date through the MENU button. You can display different statistics as you require.

PLEASE NOTE:- It is important to realise that the drafting statistics are totally independent of the general statistics. The general statistics are linked to a mob, the drafting statistics are not.

ARROW KEYS - The arrow keya allow you to move back and forth along the main display so that you can edit or skip through numbers. To change a number, use the arrow keys to move the cursor under the offending number, then type in the correction.

LIVESTOCK - There are 3 weighing modes available in the Ultrascale. The livestock mode has been designed to eliminate the variations in displayed weight by the animal moving about. There are 2 types of livestock mode- locking and free. To select, press MENU, then '3' for Setup, then '4' for mo de. *Locking* will lock the displayed weight once the animals weight is determined. The display won't change until the animals w eight varies by more than 3%. *Free* enables a software filter that stabilises the displayed weight. The display however is allowed to change.

GENERAL - This is the second of the weighing modes. It is used for static weights and produce, and is suitable for augering produce into a bin, etc. Note:- The Ultrascale has weight tracking built into it to compensate for any signal drift from the weigh bars. If the weight is being added in small amounts (less than 200g) very slowly, it may not register any increase in weight, even though it may accumulate considerably.

FLEECE - The third of the weighing modes. This mode allows you to weigh up to 25kg in 100g increments. The maximum weight (including any tared off table, etc.) is 100kg. **Fleece mode is only available with 500kg and 2000kg weigh bar systems**.

DRAFT - The Ultrascale can draft by weight, displaying L (low), M (mid), or H (high). Pressing this button opens another menu:-

1 - RESET SETTINGS -	Pressing 1 will erase previous drafting statistics, and will prompt for new weight limits to be entered. Enter the upper
per	
	desired draft weight then press ENTER. Then enter the
lower	
	desired draft weight then press ENTER. If only 2 way drafting is required, enter the same weight for the upper
and	
	lower weight.
2 - CONT DRAFTING -	Pressing 2 will allow you to add new weighings to the existing drafting statistics, while maintaining the existing weight limits for drafting.

The Ultrascale will only calculate drafting statistics if the weight limits have been entered, and it is drafting mode. It will not add to the drafting statistics while it is in any other weighing mode (ie. livestock, general or fleece).

The ultrascale can optionally be used for auto drafting, whereby gates can be activated at the desired weight targets. Contact your retailer or the manufacturer for more details.

OFF - The ultrascale has separate on and off buttons, the ON is located at the base of the indicator. Zero battery current is used when the Ultrascale is off by this process. The OFF button turns the Ultrascale off.

TARE -Pressing the tare button causes the Ultrascale to accurately determine any existing weight on the bars, and make this weight equal zero on the display. This becomes the reference weight. Any weight added afterwards will only have its weight displayed. TARE should be pressed at reasonably regular intervals if the animals empty out on the weighing platform for example. This will cancel out any unwanted weight.

SELECT ELECT. ID - The Ultrascale can be directly connected to a half duplex electronic reader and can store the animals electronic identification. Pressing this key opens another menu:-

     1 - NORMAL MODE - ID   Pressing 1 takes the Ultrascale out of electronic mode. Animal identification must be entered via the keypad in normal mode.

     2 - ELECTRONIC ID MODE -   Pressing 2 selects this mode. An electronic ID scanner may be attached to the printer socket, and this is used to enter the animals's ID. Select the reader used on the next menu that appears.

ENTER - Pressing enter informs the Ultrascale that you want to save or accept the information displayed. The Ultrascale then goes on to the next task. Enter must be pressed 3 times during the weighing of each animal for the ultrascale to accept and save each animal's record. Follow the on screen prompts. If it is not pressed for the third stage, no data will be saved for that animal.

BASIC INSTRUCTIONS

TO START:-

     Press the ON button (located at the base of the indicator) to turn the system on.
     Select the desired weighing mode (livestock, general or fleece).
     Enter the mob number, then press enter. The Ultrascale files the animals in different mobs for weight comparison. Up to 99 mobs can be used.
     Enter the date in DD/MM/YY format, then press enter. (eg 4th March 2001 would be 040301).
     The Ultrascale is now ready to weigh.

TO WEIGH ONLY:-

If you don't want to save any weights or animal data, eg weighing lambs to get the heaviest weight for drenching or just general produce, you can just use the left screen only. This will display the weight at all times and you don't need to push any buttons.

TO WEIGH AND RECORD:-

The Ultrascale is capable of storing information for up to 3200 animals. Each animal has 2 ID's (electronic and visual), a mob number, date, weight, and optional code(s).

1)   Enter the ID (tag) number either manually or with a reader (up to 16 characters), then press
       ENTER. (Note:- you will be prompted if the ID has been weighed twice on the same day.)
       If the animal's visual ID has been recorded against it's electronic ID, the visual ID will be
       displayed.
2)   The animal's weight will then be displayed on both screens, with it's previous weight if the
       animal has a record in the Ultrascale. Press ENTER to accept after the weight stabilises.
       NOTE:- **The new weight will replace the old weight in the Ultrascale**. If you want to
       keep the old weight of each animal, you must download them to a computer before
       weighing again.
3)   Enter the Optional Information, up to 12 characters. You may want to record drenching,
       pregnancy, condition, etc. Press ENTER once you have keyed in the data. If no data is
       required just press ENTER. Use the arrow keys to move across the screen.

This information is then saved and you are ready for the next animal.

ELECTRONIC ID

The Ultrascale can be connected to an electronic reader to save manually entering animal IDs.
It can store this information and be connected to a computer for downloading at a later date.
This eliminates the need for a computer in the yards.

TO USE:-

       Install the elctronic reader as per the supplier's instructions.
       Set up the ultrascale for electronic ID (see select elect. ID in multifunctional keypad).
       The Ultrascale is now ready for use with electronic ID. Refer to basic instructions to
       weigh and record.

The Ultrascale is compatible with Allflex grey and wand readers, and TIRIS based electronic
readers. Select the appropriate type after you select electonic ID in the Ultrascale.

DOWNLOADING TO A COMPUTER

REQUIREMENTS:- To run the scale software, you must have an IBM or compatible computer
running Windows 98 or later. It also must have an RS-232 serial port. The program uses ap-
proximately 8MB of hard disk space.

INSTALLATION:- The scale software comes on a CD. If you have auto run enabled on your
computer, just insert the CD and follow the prompts on the screen. Otherwise :-
       Insert the CD
       Double click on My Computer
       Double Click on the CD
       Double click on Set Up, and the program will install.

CONNECTING WITH THE ULTRASCALE:-

To **download** data from the ultrascale, follow this procedure:

Make sure this software is running.
Check that the communications settings are correct.
Connect the ultrascale and turn it on.
Press ' Menu' on the ultrascale.
Select ' 2' for print on the ultrascale.
Select ' 1 for Mob No. on the ultrascale.
Select ' 3' for save on the ultrascale.

The data should now be transferred to the computer from the ultrascale ready for saving, print-ing or editting. You can edit the visual ID field to match your NLIS visual IDs, or to include the names of the animals if you wish (eg daisy), and when this information is uploaded again, the Ultrascale will display this common name when the electronic tag is scanned.

You may also download one mob at a time by connecting the Ultrascale as above, and selecting PRINT to COMPUTER rather than SAVE. Note, however, that you will lose other mob data if you try to restore a single mob. This feature is handy if you want results of your weighing ses-sions only.

To **upload** data to the ultrascale, follow this procedure:
Make sure this software is running.
Check that the communications settings are correct.
Load the file that you want to upload, or if existing, make sure it' s saved.
Connect the ultrascale and turn it on.
Press ' Menu' on the ultrascale.
Select ' 2' for print on the ultrascale.
Select ' 1' for Mob No. on the ultrascale.
Select ' 4' for restore on the ultrascale
Select ' 1 for yes to delete all scale data.

The data should now be transferred from the computer to the ultrascale.

Warning - When you upload or RESTORE, all existing data in the ultrascale will be lost. You should save all data to the computer first, edit or add animal records, then restore. If you receive an association file on new animals, add them to the existing data in the computer before you restore.

The data is saved on the computer as tab delimited text files. This means that you don't have to use the scale software to look at the data. You can import the files into a spreadsheet or docu-ment as you require. You can also look at the file with Notepad.

OPTIONS

There are 2 extra options available with the Ultrascale. They are:-

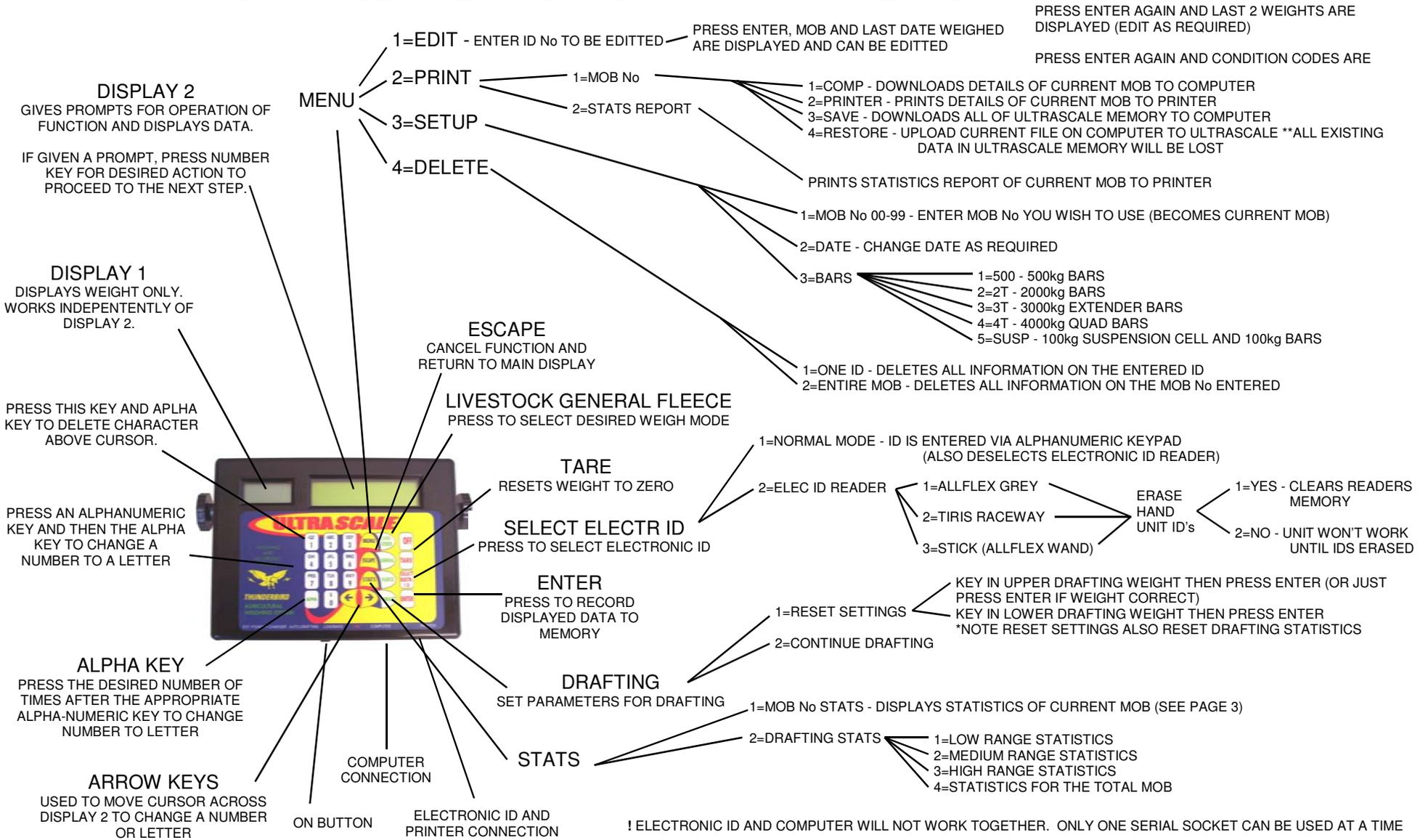1)   Extra memory - A larger memory chip can be installed in the Ultrascale to enable 12000 animal records to be stored.

2)   3 way auto drafting - Thunderbird has a 3 way autodraft module that is controlled by the Ultrascale. This is primarily intended for sheep, and can draft into 3 different pens based on weight. No operator is required, only someone to feed the animals into the drafter.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Turns on then off again	Low battery voltage	Recharge battery
Unstable weight when weighing animals.	Incorrect weighing mode	Select livestock mode
	Load bars are twisting	Make sure bars are mounted correctly and don't rock. Pack with spacers if needed
	Platform touching obstacles	Remove obstacle(s) touching platform or attached structure
	Poor connections in plug	Make sure plug connections are clean and not corroded
	Damaged cable	Check cable for damage, replace if necessary
Displays 'OL' when weighing	Too much weight on load bars	Reduce weight applied to maximum for bars used
	Indicator in fleece mode	Maximum weight is 25kg in fleece mode, change to general mode
Incorrect weight displayed	Platform touching obstacle	Remove obstacle(s) touching platform or attached structure
	Support surface not firm	Installation should be on a level concrete surface
	Incorrect weigh bar capacity selected	Select appropriate weigh bar capacity
	Weigh bars filled with muck	Hose out bars with low pressure water
	System needs recalibrating	Contact Thunderbird service
'EE0' displayed (too much positive offset on bars)	Too much tare weight on bars in fleece mode	Use a lighter platform (less than 75kg)
	Only one plug connected in a 2 plug weigh bar system	Connect other weigh bars
	Damaged/broken cable	Have cables replaced
	Faulty weigh bar	Contact Thunderbird service

'EE1' displayed (too much negative offset on bars)	Damaged/broken cable	Have cable replaced
	Faulty weigh bar	Contact Thunderbird service
'LO-P' displayed and turns off	Battery voltage low	Recharge battery, or if in the field use 12V cable temporarily
Can't install program on CD to computer	Computer system inadequate	Check minimum system requirements
Can't download from ultrascale	RS232 cable not connected	Check plug connections
	Program not running	Software must be running and waiting for data from ultrascale. Ultrascale controls the flow of data
	Settings incorrect	Check the serial communications setting in the computer. They should be 9600 baud, no parity and 1 stop bit.**
	Incorrect COM port	Check COM port selected. It should match the one the cable is plugged into.

ULTRSCALE III KEYPAD AND FUNCTIONS OVERVIEW

1=EDIT - ENTER ID No TO BE EDITTED — PRESS ENTER, MOB AND LAST DATE WEIGHED ARE DISPLAYED AND CAN BE EDITTED

PRESS ENTER AGAIN AND LAST 2 WEIGHTS ARE DISPLAYED (EDIT AS REQUIRED)

PRESS ENTER AGAIN AND CONDITION CODES ARE

MENU

2=PRINT
- 1=MOB No
  - 1=COMP - DOWNLOADS DETAILS OF CURRENT MOB TO COMPUTER
  - 2=PRINTER - PRINTS DETAILS OF CURRENT MOB TO PRINTER
  - 3=SAVE - DOWNLOADS ALL OF ULTRASCALE MEMORY TO COMPUTER
  - 4=RESTORE - UPLOAD CURRENT FILE ON COMPUTER TO ULTRASCALE **ALL EXISTING DATA IN ULTRASCALE MEMORY WILL BE LOST
- 2=STATS REPORT — PRINTS STATISTICS REPORT OF CURRENT MOB TO PRINTER

3=SETUP
- 1=MOB No 00-99 - ENTER MOB No YOU WISH TO USE (BECOMES CURRENT MOB)
- 2=DATE - CHANGE DATE AS REQUIRED
- 3=BARS
  - 1=500 - 500kg BARS
  - 2=2T - 2000kg BARS
  - 3=3T - 3000kg EXTENDER BARS
  - 4=4T - 4000kg QUAD BARS
  - 5=SUSP - 100kg SUSPENSION CELL AND 100kg BARS

4=DELETE
- 1=ONE ID - DELETES ALL INFORMATION ON THE ENTERED ID
- 2=ENTIRE MOB - DELETES ALL INFORMATION ON THE MOB No ENTERED

DISPLAY 2
GIVES PROMPTS FOR OPERATION OF FUNCTION AND DISPLAYS DATA.

IF GIVEN A PROMPT, PRESS NUMBER KEY FOR DESIRED ACTION TO PROCEED TO THE NEXT STEP.

DISPLAY 1
DISPLAYS WEIGHT ONLY. WORKS INDEPENDENTLY OF DISPLAY 2.

ESCAPE
CANCEL FUNCTION AND RETURN TO MAIN DISPLAY

LIVESTOCK GENERAL FLEECE
PRESS TO SELECT DESIRED WEIGH MODE

PRESS THIS KEY AND APLHA KEY TO DELETE CHARACTER ABOVE CURSOR.

TARE
RESETS WEIGHT TO ZERO

SELECT ELECTR ID
PRESS TO SELECT ELECTRONIC ID

- 1=NORMAL MODE - ID IS ENTERED VIA ALPHANUMERIC KEYPAD (ALSO DESELECTS ELECTRONIC ID READER)
- 2=ELEC ID READER
  - 1=ALLFLEX GREY
  - 2=TIRIS RACEWAY
  - 3=STICK (ALLFLEX WAND)

ERASE HAND UNIT ID's
- 1=YES - CLEARS READERS MEMORY
- 2=NO - UNIT WON'T WORK UNTIL IDS ERASED

PRESS AN ALPHANUMERIC KEY AND THEN THE ALPHA KEY TO CHANGE A NUMBER TO A LETTER

ENTER
PRESS TO RECORD DISPLAYED DATA TO MEMORY

DRAFTING
SET PARAMETERS FOR DRAFTING
- 1=RESET SETTINGS
  - KEY IN UPPER DRAFTING WEIGHT THEN PRESS ENTER (OR JUST PRESS ENTER IF WEIGHT CORRECT)
  - KEY IN LOWER DRAFTING WEIGHT THEN PRESS ENTER
  - *NOTE RESET SETTINGS ALSO RESET DRAFTING STATISTICS
- 2=CONTINUE DRAFTING

ALPHA KEY
PRESS THE DESIRED NUMBER OF TIMES AFTER THE APPROPRIATE ALPHA-NUMERIC KEY TO CHANGE NUMBER TO LETTER

STATS
- 1=MOB No STATS - DISPLAYS STATISTICS OF CURRENT MOB (SEE PAGE 3)
- 2=DRAFTING STATS
  - 1=LOW RANGE STATISTICS
  - 2=MEDIUM RANGE STATISTICS
  - 3=HIGH RANGE STATISTICS
  - 4=STATISTICS FOR THE TOTAL MOB

ARROW KEYS
USED TO MOVE CURSOR ACROSS DISPLAY 2 TO CHANGE A NUMBER OR LETTER

COMPUTER CONNECTION

ON BUTTON

ELECTRONIC ID AND PRINTER CONNECTION

! ELECTRONIC ID AND COMPUTER WILL NOT WORK TOGETHER. ONLY ONE SERIAL SOCKET CAN BE USED AT A TIME

!! SOFTWARE IN COMPUTER MUST BE RUNNING BEFORE CONNECTING SCALE AND TURNING IT ON (SCALE WILL LOCK UP IF CONNECTED TO COMPUTER WITHOUT THE SOFTWARE RUNNING)

Dressing percentages for cattle

Agfact A2.7.17, first edition, November 2000

Bill McKiernan, Former Technical Specialist Beef Grazing Systems, Orange
Bob Gaden, Livestock Officer (Beef), Armidale
Brian Sundstrom, Cattle Breeding Coordinator, Armidale

Animals

Beef cattle

Animal appraisal

NSW Agriculture

Introduction

Dressing percentage is a factor used to calculate carcase weight from a known or estimated liveweight. It is also used to compare liveweight prices with dressed weight prices. The ability to determine dressing percentage allows a producer to estimate the carcase weight of a live animal, for example to compare the price that would be received on a liveweight basis with the price received on a carcase value basis.

Dressing percentage is simply carcase weight as a percentage of liveweight. Carcase weight can be estimated by multiplying liveweight by dressing percentage. The two calculations are:

Dressing percentage = (carcase weight 1 liveweight) x 100

Carcase weight = liveweight x dressing percentage

The term 'yield' is often used instead of dressing percentage. This should not be confused with the retail yield of meat from a carcase.

Unless specified otherwise, the dressing percentage guidelines given here are for average British breed cattle and saleyard liveweights after a 12 hour curfew, which is 15 to 18 hours from muster to weighing. They are based on the AUSMEAT standard carcase - hot weight with kidney fats and channel fats out ('hot standard carcase weight' or HSCW).

Factors affecting dressing percentage

Dressing percentage = (carcase weight / liveweight) x 100

You need to know the main factors that affect dressing percentage, especially liveweight. For example, a 400 kg steer weighed 'full', i.e. straight off feed, might produce a carcase weighing 208 kg.

Dressing % = (208⁄400) x 100 = 52%

If the same steer had been held off feed overnight, he could have lost about five per cent of his liveweight in gutfill, and weigh only 380 kg next day after the overnight curfew. His carcase weight would be unaffected, so his dressing percentage based on the 'empty' liveweight would be:

Dressing % = (208⁄380) x 100 = 54.7%.

For this reason, it is best to use the same timing whenever you weigh cattle and estimate dressing percentage - such as two hours off feed.

Be wary of claims made about very high dressing percentages, i.e. 60 per cent and over. Often they have been locked up a long time before their liveweights have been recorded.

You also need to know the type of carcase weight used - hot or cold.

If our 400 kg steer produced a 208 kg hot standard carcase weight (HSCW) his dressing percentage would be 52 per cent. If, however, the processor had deducted three per cent to bring it back to a cold carcase weight of 202 kg, the dressing percentage would be only 50.5 per cent - a significant difference.

Mostly, abattoirs use HSCW, in line with AUSMEAT standards. Beware though, as there are still some non-accredited works which pay producers on the basis of hot weight less three per cent.

There are many other factors which affect dressing percentage, including the animal factors:

sex age weight fatness muscularity pregnancy status.

Guide to dressing percentages

As a guide, use the lower figure of the range given for cattle with muscle score D, the upper figure of the range for cattle with muscle score B and the midpoint for cattle of muscle score C.

If the abattoir weighs carcases on a 'fats in' basis, increase dressing percentage figures by 2 units for fat score 5 and 6, by 1.5 units for fat scores 3 and 4, by 1 unit for fact scores 3 and 2, and no change for fat score 1. The most common deduction by meatworks for shrinkage is 3%.

Fat Score	Fat depth (mm) P8 rump site	Vealers/ yearlings	Young cattle/ steers and heifers	Heavy Steers	Cows <200kg	Cows 200 - 250kg	Cows >250kg	Bulls
1	0-2	49-50	50-53	48-52	38-40	41-44	42-45	<200kg 48-54
2	3-6	50-53	51-54	50-53	39-41	42-45	43-46	200-300kg 53-57
3	7-9 10-12	51-55 52-56	52-55 52-56	51-54 52-55	40-42 41-44	45-50 46-53	44-48 48-50	>300kg 54-58
4	13-15 16-21	53-57	54-57 55-58	53-56 54-57	43-48 46-49	47-52 49-51	49-51 50-55	
5 & 6	20+		56-59	55-58	47-50	50-56	51-56	

For saleyard dressing percentage comparisons, allow for a higher dressing percentage as stock will generally be off feed for a long period prior to weighing, e. g. **add 2% to the above figures.**

Allowing for loss of gutfill

Any factor which affects either liveweight (such as gutfill) or carcase weight (such as bruising or deduction for shrink) affects dressing percentage - the ratio of carcase weight to liveweight. Cattle will start to lose liveweight as soon as they leave the farm as they lose their gutfill in faeces and urine. As liveweight decreases, dressing percentage increases. To estimate the dressing percentage at slaughter, the producer needs to allow for this loss in liveweight until slaughter.

Cattle lose liveweight quickly in the first 12-16 hours off feed and water, then the rate of loss gradually decreases. This liveweight loss will not affect the carcase weight unless the animal is off feed for more than 48-72 hours.

The following table shows expected weight loss in cattle depastured from average quality green temperate pastures, locked off feed and water.

16 hours is a standard dry overnight saleyard curfew. If you are used to estimating dressing percentage on saleyard weight, full cattle would dress about four per cent less.

Time off water and feed	Percentage liveweight loss	Increased dressing percentage
1 hour	1.5%	0.75%
2 hours	2.5	1.25
4 hours	4	2
12 hours	7	3.5
16 hours	8	4+

Cattle removed from feed, but given water (wet curfew) are expected to lose about two-thirds of the weight loss given in the above table (about 6% after 16 hours).

Lotfed versus grainfed

Cattle on dry, fibrous pasture, or dry feedlot rations, lose gutfill more slowly than stock from soft green feed. The gutfill is also less. 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 lotfed cattle. Their extra fatness also contributes.

With steers of equal fatness and weighed full, (no curfew) a feedlot steer may dress 2-4% heavier than a crop-fattened steer with its heavy gut full.

When they have both emptied out, the difference may only be in the order of 1 %. While lotfed cattle generally dress higher, this is variable and cannot be guaranteed. Watch feeding time in relation to weighing.

Average liveweight loss of grainfed cattle from feedlot to saleyard empty is 4-5% after a 12-16 hour curfew.

Transit Loss

In transit, cattle may lose additional liveweight, lose it more quickly, or both. With prolonged trucking, cattle can lose an additional two per cent of liveweight.

Weather Conditions

Liveweight loss is also more rapid in hotter weather.

Other factors affecting dressing percentage

Muscling

Heavier muscled cattle have a higher dressing percentage than lighter muscled cattle, other factors being equal. Within a breed, allow 1-1.5% increase in dressing percentage units per unit increase in muscle score.

Fatness

Fatter cattle tend to have a higher dressing percentage. Do not confuse this with saleable meat yield from the carcase, which will be lower in fatter cattle due to extra trimming.

Class of country

Cattle from more fertile ('heavy') country, have a higher dressing percentage than cattle from lighter country. This is partly because they may have been fatter for longer and partly because they have had a better opportunity to more fully develop their bone and muscle tissue. Cattle bred and fattened on fertile country will generally dress out 1-2 per cent higher than bought-in cattle which have only been on the better country for a short period.

Breed

Bos indicus type cattle dress higher than comparable British breeds, partly because of lighter gut contents. Add 1-2 per cent for cattle with 50 per cent or more Bos indicus content. European breeds also often dress higher than British breeds, due to heavier muscling. Add 1-3 per cent if European content is sufficient to give heavy or very heavy muscling (see Agfact A2.3.35, Muscle scoring beef cattle).

Dairy breeds dress on average one per cent below British beef breeds.

Carcase dressing procedure

Most direct-to-abattoir trading is now on HSCW. Some buyers may wish to use the standard domestic carcase (kidney fats and channel fats in). A carcase with fats in will on average weigh three per cent more, raising dressing percentage by about 1.5 per cent. For heavier, fatter cattle, dressing percentage can increase by 2-3 per cent with fats in.

Bruising

Bruise trim, of course, reduces carcase weight and therefore dressing percentage.

Pregnant cows

Quite a high proportion of cull cows are pregnant. This naturally reduces dressing percentage and the effect is greatest in light cows. Compared with empty cows, cows 3-6 months pregnant will dress 2-5 per cent less and those 6-9 months, 5-10 per cent less.

WARRANTY

THUNDERBIRD

AGRICULTURAL WEIGHING SYSTEMS

THUNDERBIRD WARRANT ALL WEIGHING SYSTEMS AGAINST DEFECTIVE WORK-MANSHIP AND FAULTY MATERIALS FOR 20 MONTHS ON THE INDICATORS, AND 30 MONTHS ON THE WEIGH BARS SYSTEMS, FROM THE DATE OF PURCHASE.

We undertake, at our option, to replace or repair free of charge each product, or part thereof, on condition that it is returned to our factory freight prepaid, and found on examination to be suffering from material or constructional defect. We cannot be held responsible for any repair other than those carried out by us or our authorised agent. A photocopy of this page must also be returned with the goods showing the filled in details set out below.

This warranty is void if the product is subject to improper use or handling, incorrect installation, incorrect power input voltage, damage through contact with chemicals, flooding, fire, explosion, excessive heat, lightning strikes, insect damage, damage to external wiring, or not maintained as per the instruction manual.

Country Electronics Pty Ltd
ABN 38 003 806 040

11 Industrial Avenue   PO Box 391
Mudgee NSW 2850   Mudgee NSW 2850
Phone 02 63723600
Fax 02 63722597   Email enquiries@thunderbird.au.com

FOR YOUR RECORDS

Model ....

Serial ....

Date of Purchase ....

Place of Purchase ....

Receipt No. ....