

# Understanding MSA requirements and feedback

*Informed decisions to improve eating quality and compliance*

**Jarrood Lees, Meat Standards Australia**

1. MSA requirements
2. Measuring performance
3. MSA Feedback





# About MLA

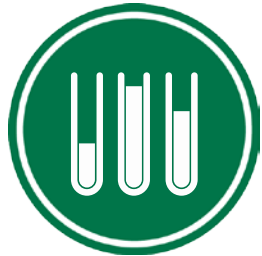
Working in collaboration with the Australian Government and the wider red meat industry, MLA invests in initiatives that contribute to **producer profitability, sustainability and global competitiveness.**





# MLA's remit

- Research, Development and Adoption
- Marketing



# 1. MSA Requirements



# 1. MSA Requirements – Rib fat and fat distribution

*MSA Requirement = minimum of 3mm rib fat and adequate fat distribution*



**Protection during chilling**



# 1. MSA Requirements – Ultimate pH

*MSA Requirement = pHu less than 5.71*

High pH



Low pH

**High pH = unpredictable eating quality, cooking inconsistencies and reduced shelf life**



# 1. MSA Requirements – Meat colour

*Recent MSA research outcomes;*

- a. *Confirm meat colour has no impact on eating quality, where pH is an acceptable level.*
- b. *Meat colour no longer an **MSA** minimum requirement*
- c. *pH less than 5.71 **will** remain as a MSA minimum requirement*

**Meat colour is no longer an MSA minimum requirement  
but may remain a company specification**

# 1. MSA Requirements

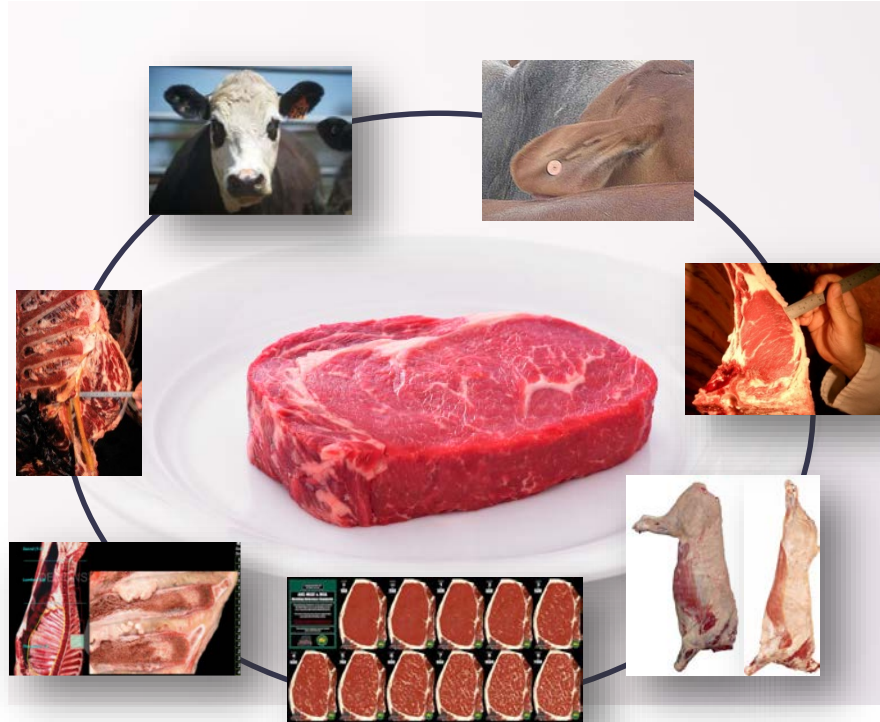
## What you need to meet MSA



## 2. Measuring performance



## 2. Measuring performance – factors affecting eating quality



More information  
[here](#)

Only traits that affect eating quality are important to  
MSA

## 2. Measuring Performance – What is the MSA Index?

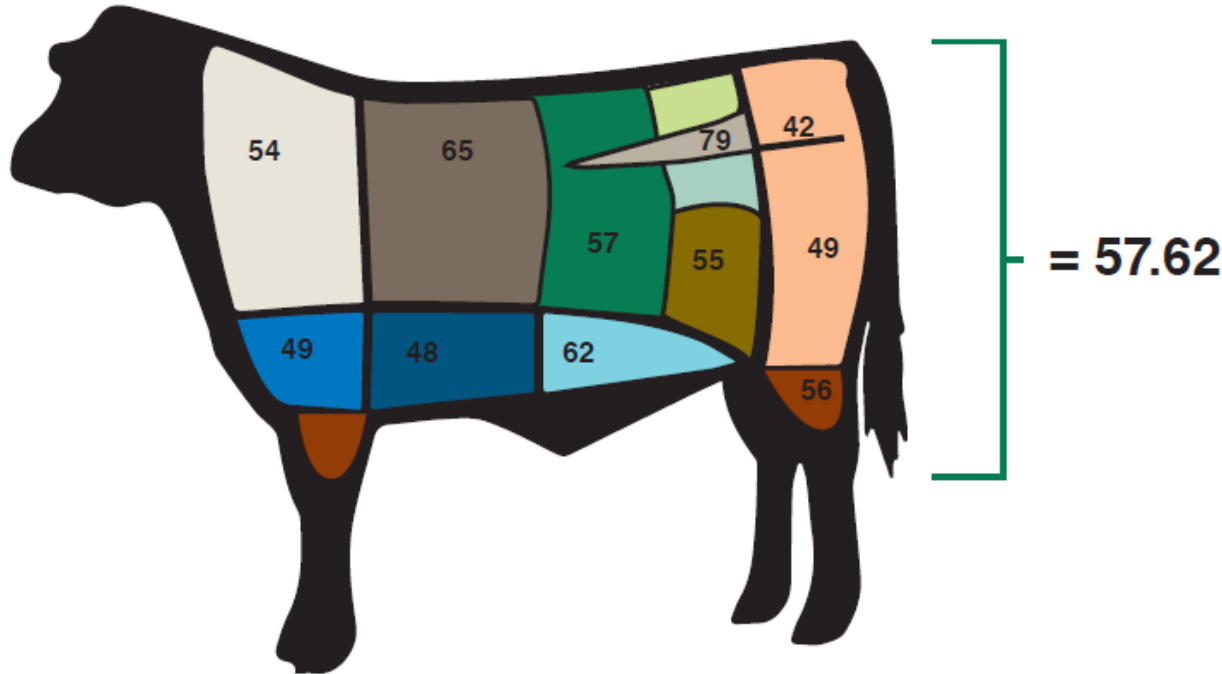


Illustration for example purposes only

MSA index calculator  
more info...



MSA Index:

CALCULATE

<b>MFV</b>	<input type="text" value="N"/>
<b>Saleyard</b>	<input type="text" value="N"/>
<b>HGP</b>	<input type="text" value="N"/>
<b>Sex</b>	<input type="text" value="M"/>
<b>HSCW</b>	<input type="text" value="300"/>
<b>TBC</b>	<input type="text" value="50"/>
<b>Hump Height</b>	<input type="text" value="150"/>
<b>Ossification</b>	<input type="text" value="150"/>
<b>MSA Marble</b>	<input type="text" value="300"/>
<b>Rib Fat</b>	<input type="text" value="6"/>

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The predicted eating quality of a carcass based on producer controlled attributes



## 2. Measuring Performance – Why the MSA Index?

# W.I.I.F.M?

- a. Useful for evaluation of on-farm genetic progress & management strategies over time*
- b. A solid benchmarking tool for suppliers of cattle*
- c. Allows you to measure your herd's eating quality performance*

**Providing a standard measure of eating quality over time**

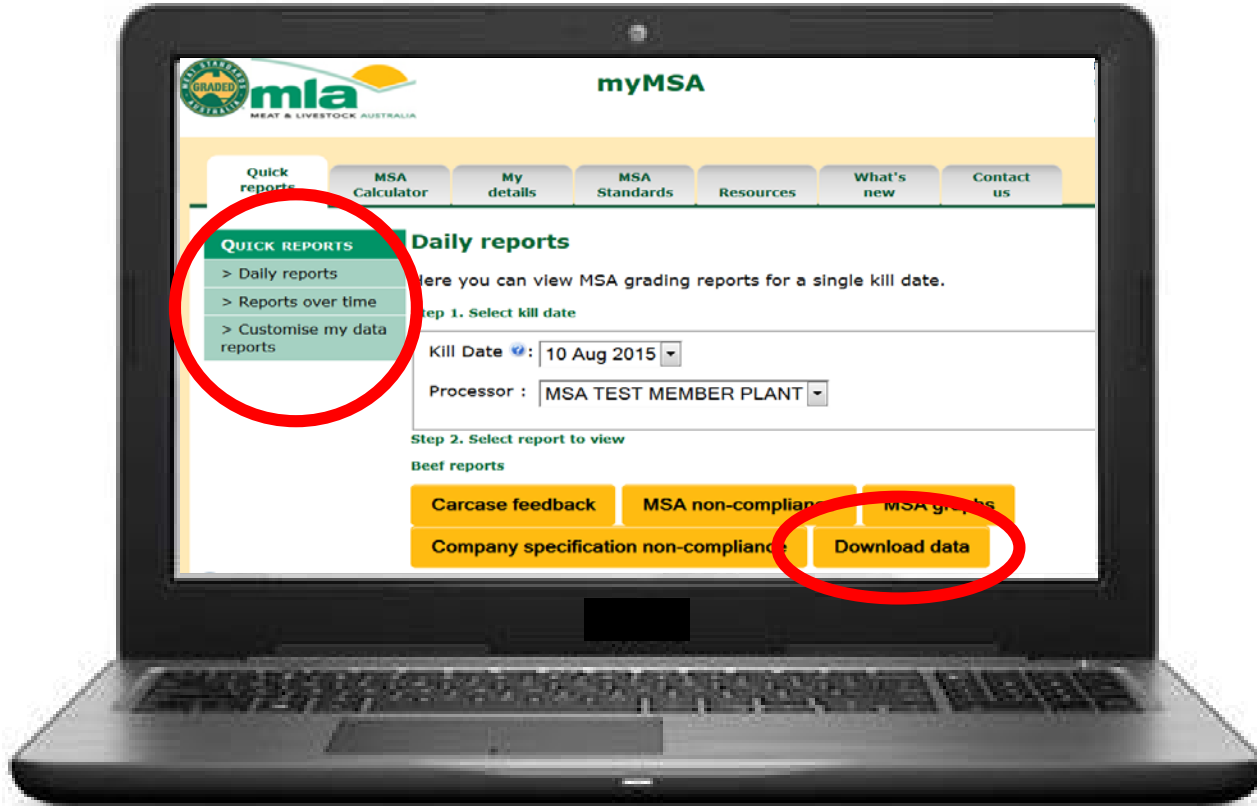
## 2. Measuring performance

**MSA index and compliance are key indicators**

# 3. MSA Feedback

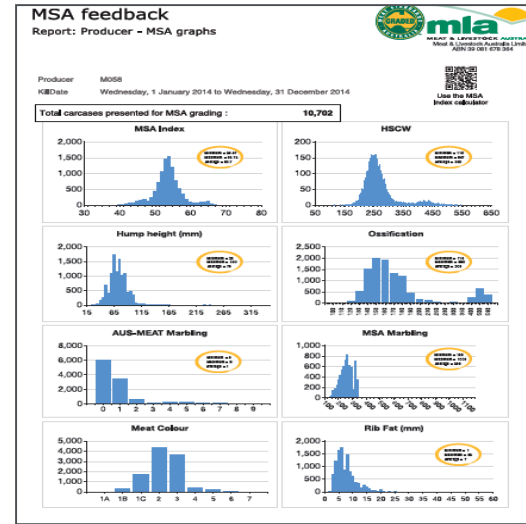
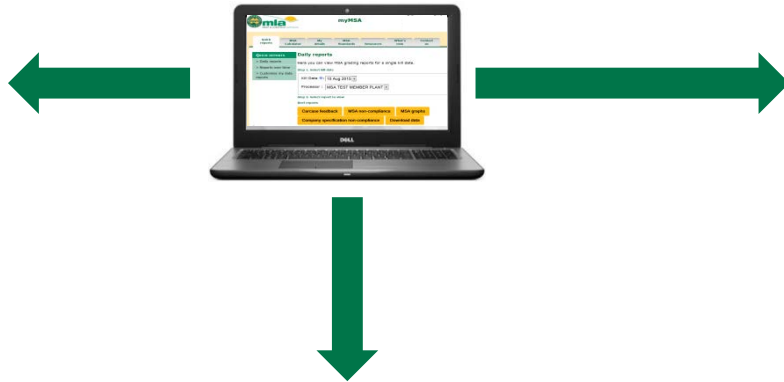
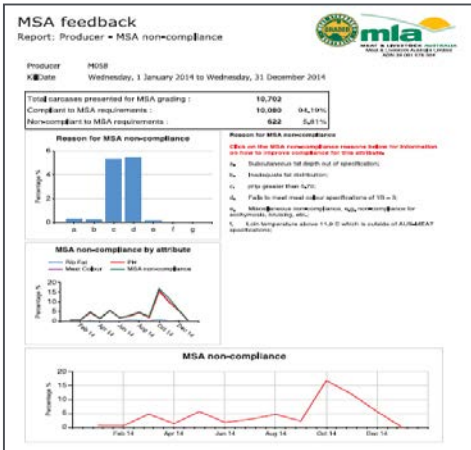


### 3. MSA Feedback – Quick Reports



Your online MSA feedback tool - [www.mymssa.com.au](http://www.mymssa.com.au)

# 3. MSA Feedback – Quick Reports



**MSA feedback**  
Report: Producer - Carcase feedback

Producer: M058  
Date: Monday, 9 March 2015  
Plant: 9999 MSA Research Plant

Total carcasses presented for MSA grading: 10  
Compliant to MSA requirements and company specifications: 8  
Compliant to MSA requirements, fails company specifications: 2  
Non-compliant to MSA requirements: 0  
MSA non-compliance rate: 0%

**Met MSA requirements and company specifications**

Body	RFID	NLS	MPV	SV	HDP	Rinse	Hang	Sex	HSCW	TBC	Hump	OSS	MSAMB	AUSMB	MC	PC	RF	EMA	pH <sub>u</sub>	Temp	Fat/Dst	Hole/PD	Fa/Bite	MSAIndex
1	982 00014507346	GWNB0031XNB06567	N	N	N	N	AT	M	295.0	X	85	150	290	0	2	2	5	75	5.24	7.0	Y	N	N	56.16
2	982 00014501781	GWNB0031XNB07543	N	N	N	N	AT	F	290.0	X	90	160	240	0	2	2	4	74	5.60	7.4	Y	N	N	55.42
6	982 00014504213	GWNB0031XNB06562	N	N	N	N	AT	F	300.0	X	90	160	320	1	2	2	8	75	5.48	7.0	Y	N	N	57.24
7	982 00014501769	GWNB0031XNB07627	N	N	N	N	AT	M	288.0	X	110	160	300	1	3	3	5	76	5.62	6.9	Y	N	N	53.63
9	982 00014507395	GWNB0031XNB06556	N	N	N	N	AT	M	243.0	X	95	170	290	0	3	3	4	65	5.45	7.2	Y	N	N	58.03
10	982 00014504658	GWNB0031XNB06568	N	N	N	N	AT	F	298.0	X	105	160	320	1	2	3	5	77	5.59	7.1	Y	N	N	53.74
<b>Total</b>																							<b>6</b>	

**Meets MSA minimum requirements, fails company specifications**

Body	RFID	NLS	MPV	SV	HDP	Rinse	Hang	Sex	HSCW	TBC	Hump	OSS	MSAMB	AUSMB	MC	PC	RF	EMA	pH <sub>u</sub>	Temp	Fat/Dst	Hole/PD	Fa/Bite	MSAIndex
3	982 000142724817	GWNB0031XNB07253	N	N	N	N	AT	M	290.0	X	75	130	230	0	2	2	4	62	5.45	7.3	Y	N	N	57.33
5	982 000145017607	GWNB0031XNB07363	N	N	N	N	AT	M	339.0	X	105	170	450	2	2	2	11	88	5.57	7.5	Y	N	N	55.45
<b>Total</b>																							<b>2</b>	

**MSA non-compliance (not MSA minimum requirements)**

Body	RFID	NLS	MPV	SV	HDP	Rinse	Hang	Sex	HSCW	TBC	Hump	OSS	MSAMB	AUSMB	MC	PC	RF	EMA	pH <sub>u</sub>	Temp	Fat/Dst	Hole/PD	Fa/Bite	MSAIndex
4	982 000145021810	GWNB0031XNB07175	N	N	N	N	AT	F	292.0	X	100	160	240	0	5	2	3	74	5.80	7.5	Y	N	N	N/A
8	982 000145027995	GWNB0031XNB06541	N	N	N	N	AT	F	285.0	X	105	160	230	0	2	2	4	70	5.69	5.9	Y	N	N	N/A
<b>Total</b>																							<b>2</b>	
<b>Lot Total</b>																							<b>10</b>	

Your online MSA feedback tool - [www.mymmsa.com.au](http://www.mymmsa.com.au)



# 3. MSA Feedback – Quick Reports

## MSA feedback

Report: Producer - Carcass feedback



Producer M058  
 KIDate Monday, 9 March 2015  
 Plant 9999 MSA Research Plant



Use the MSA Index calculator

Total carcasses presented for MSA grading	10
Compliant to MSA requirements and company specifications	6
Compliant to MSA requirements, fails company specifications	2
Non-compliant to MSA requirements	2
MSA non-compliance rate	20%

### Met MSA requirements and company specifications

Body	RFID	NLIS	MFV	SY	HGP	Rinse	Hang	Sex	HSCW	TBC	Hump	OSS	MSAMB	AUSMB	MC	FC	RF	EMA	pHu	Temp	FatDist	HidePD	Fa	Misc	MSAIndex
1	982 000145027348	QIWB0031XBE06587	N	N	N	N	AT	M	266,0	X	85	150	250	0	3	2	5	75	5,54	7,5	Y	N	N	N	56,16
2	982 000145017814	QIWB0031XBE07563	N	N	N	N	AT	F	290,0	X	90	160	240	0	2	2	4	74	5,60	7,4	Y	N	N	N	55,42
6	982 000145043213	QIWB0031XBE06962	N	N	N	N	AT	F	300,0	X	90	160	320	1	2	2	6	75	5,48	7,0	Y	N	N	N	57,34
7	982 000145017691	QIWB0031XBE07627	N	N	N	N	AT	M	288,0	X	110	160	300	1	3	3	5	78	5,62	6,9	Y	N	N	N	53,63
9	982 000145027095	QIWB0031XBE06955	N	N	N	N	AT	M	241,2	X	95	170	290	0	3	3	4	65	5,46	7,2	Y	N	N	N	53,63
10	982 000145043588	QIWB0031XBE06588	N	N	N	N	AT	F	288,8	X	105	180	320	1	2	3	5	77	5,59	7,1	Y	N	N	N	53,74
<b>Total</b>																								<b>6</b>	

### Meets MSA minimum requirements, fails company specifications

Body	RFID	NLIS	MFV	SY	HGP	Rinse	Hang	Sex	HSCW	TBC	Hump	OSS	MSAMB	AUSMB	MC	FC	RF	EMA	pHu	Temp	FatDist	HidePD	Fa	Misc	MSAIndex
3	982 000142724817	QIWB0031XBE07251	N	N	N	N	AT	M	200,0	X	75	130	230	0	2	2	4	62	5,46	7,3	Y	N	N	N	57,33
5	982 000145017607	QIWB0031XBE07363	N	N	N	N	AT	M	399,0	X	105	170	450	2	2	2	11	88	5,57	7,5	Y	N	N	N	59,45
<b>Total</b>																								<b>2</b>	

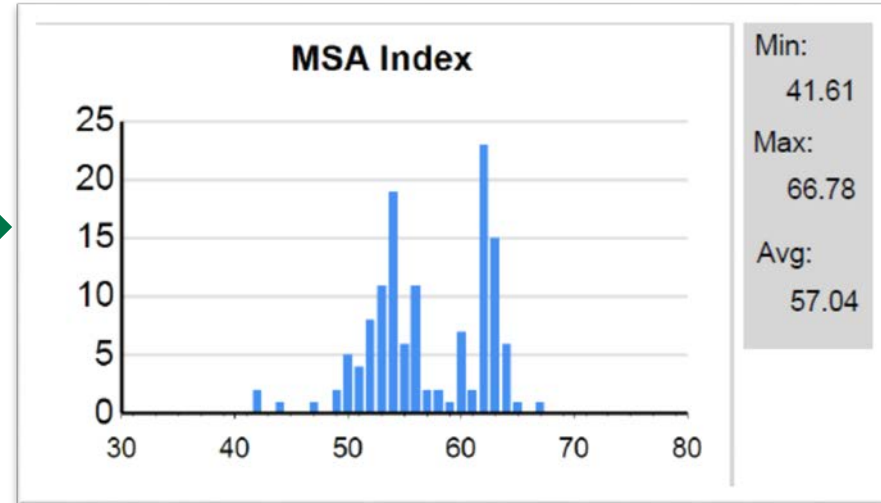
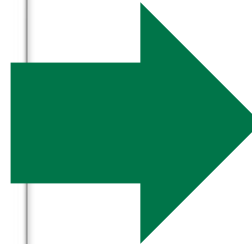
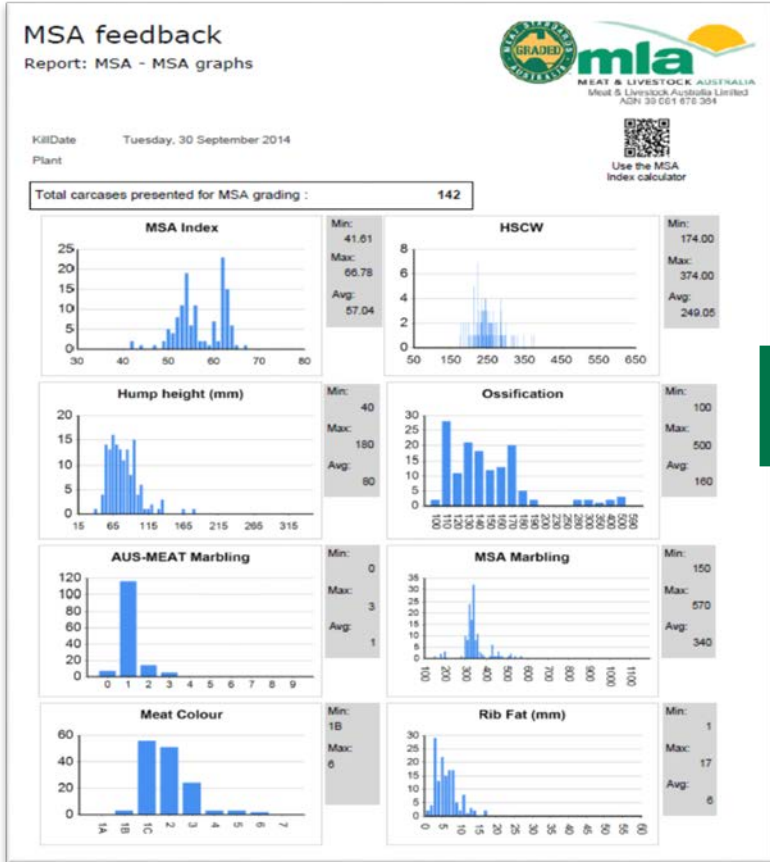
### MSA non-compliant (Fail MSA minimum requirements)

Body	RFID	NLIS	MFV	SY	HGP	Rinse	Hang	Sex	HSCW	TBC	Hump	OSS	MSAMB	AUSMB	MC	FC	RF	EMA	pHu	Temp	FatDist	HidePD	Fa	Misc	MSAIndex
4	982 000145021610	QIWB0031XBE07175	N	N	N	N	AT	F	292,4	X	100	160	240	0	5	2	3	74	5,60	7,5	Y	N	N	N	N/A
8	982 000145027990	QIWB0031XBE06941	N	N	N	N	AT	F	285,0	X	105	180	230	0	2	2	4	70	5,69	6,9	Y	N	N	N	N/A
<b>Total</b>																								<b>2</b>	
<b>Lot Total</b>																								<b>10</b>	

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### 3. MSA Feedback – Quick Reports



myMSA - It's more than just feedback sheets

# 3. MSA Feedback – Quick Reports

## MSA feedback

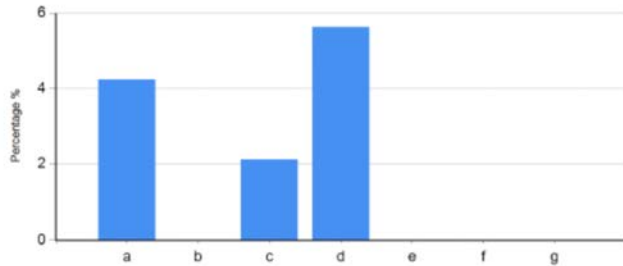
Report: MSA - MSA non-compliance



KillDate Tuesday, 30 September 2014  
Plant

Total carcasses presented for MSA grading :	142	
Compliant to MSA requirements :	130	91.55%
Non-compliant to MSA requirements :	12	8.45%

Reason for MSA non-compliance



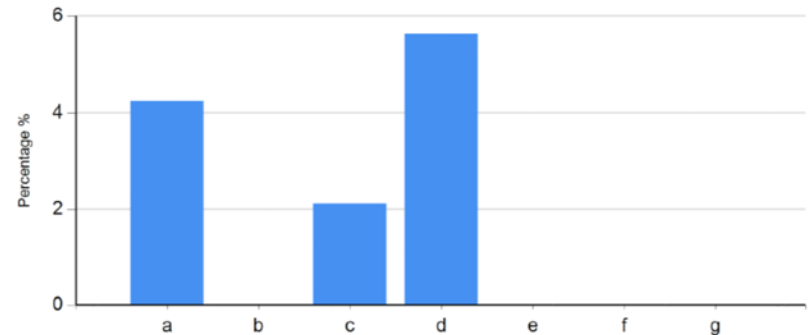
### Reason for MSA non-compliance

Click on the MSA non-compliance reasons below for information on how to improve compliance for this attribute.

- a. Subcutaneous fat depth out of specification;
- b. Inadequate fat distribution;
- c. pH<sub>u</sub> greater than 5.70;
- e. Miscellaneous non-compliance, e.g. non-compliance for ecchymosis, bruising, etc.;
- f. Loin temperature above 11.9 C which is outside of AUS-MEAT specifications;
- g. Fails to meet hide puller damage specifications of less than 10cm x 10cm damage on a single primal

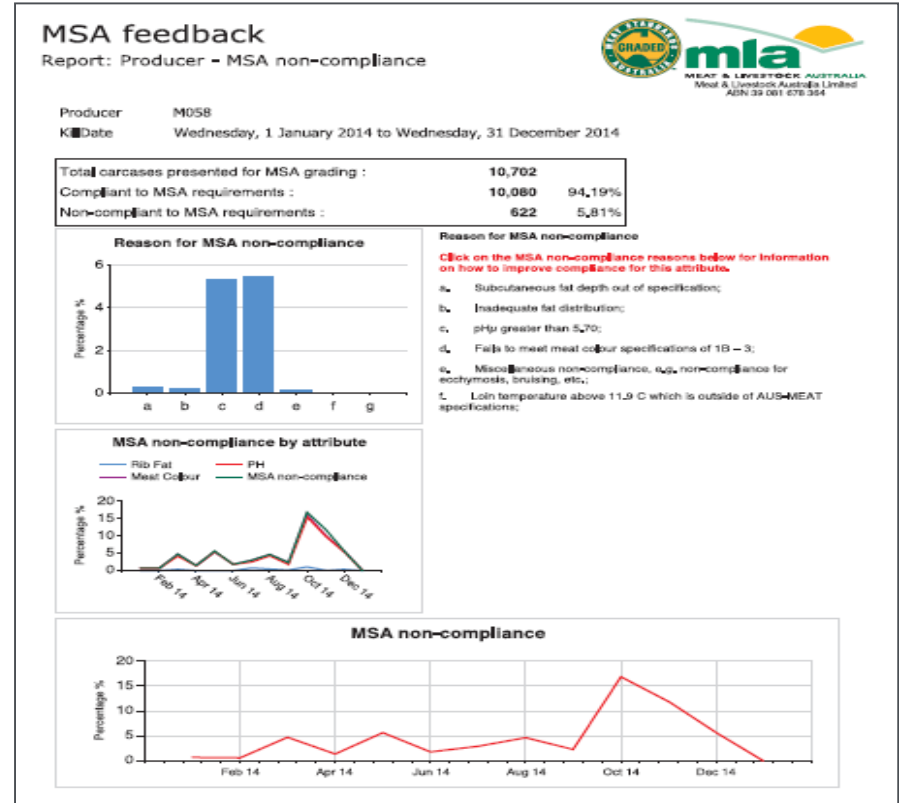
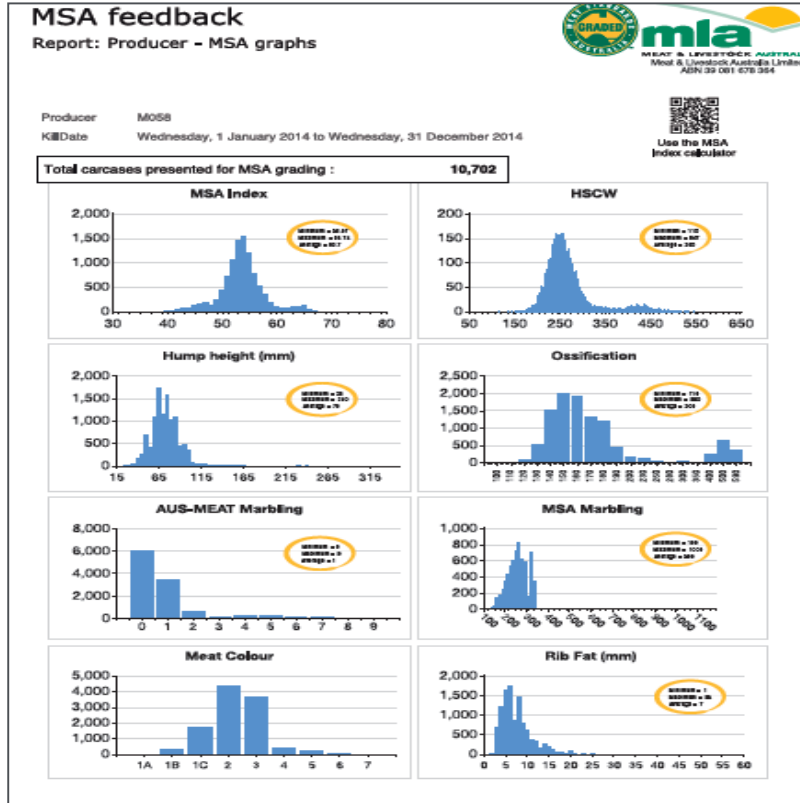
Total carcasses presented for MSA grading :	142	
Compliant to MSA requirements :	130	91.55%
Non-compliant to MSA requirements :	12	8.45%

Reason for MSA non-compliance



myMSA - It's more than just feedback sheets

# 3. MSA Feedback –Reports Over Time



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# 3. MSA Feedback – Customised Reports

QUICK REPORTS

## Customise my data reports

Note: Between 1st December 2016 and 30th June 2017, AUSMEAT meat colour will be removed as a minimum requirement of MSA. Meat colour will still be measured on every carcase. Any meat colour specifications will be determined by the processor or brandowner. During this transition time reports may show carcasses that have a meat colour greater than 3 as i) Failing MSA requirements, ii) meeting MSA requirements or iii) Meeting MSA requirements and failing company specifications. Contact [mymsa@mla.com.au](mailto:mymsa@mla.com.au) if you have any enquiries.

> Daily reports

Step 1. Select a saved or create a new report

> Producer carcase feedback

Create new report data

> Reports over time

Report name:

Steers, >300kg, MSAmb 400+, Oss<180 ▾

> Customise my data reports

Step 2. Use existing or adjust report dataset

Enter values exactly as displayed i.e using upper or lower case.

> Grading Calendar

Method	Attribute	Type	Value 1	Value 2	
Select a method ▾	Select an attribute ▾	Select a type ▾	<input type="text"/>	<input type="text"/>	+
Include	Sex	Equals	M		
Include	TotalHscw	Greater Than	300		
Include	MsaMarbling	Greater Than or Equal to	400		
Include	OssificationCold	Less Than	180		

Count number of records in report dataset

Delete this report filter

Step 3. Generate reports or download the data

- MSA non-compliance
- MSA graphs
- Company specification non-compliance
- Download data

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### 3. MSA Feedback – MSA Benchmarking



Find it [here](#)

Online benchmarking coming soon to myMSA...

## 3. MSA Feedback

**Key to making informed decisions**



# Understanding MSA requirements and feedback

1. MSA requirements

**What you need to meet MSA**

2. Measuring performance

**MSA Index and compliance are key indicators**

3. MSA feedback

**Key to making informed decisions**

**Informed decisions to improve  
eating quality and compliance**



# Question time

# What is the most common cause for MSA non-compliance?

## Reducing non-compliance to pH

1. Glycogen
2. The bucket
3. MSA requirements



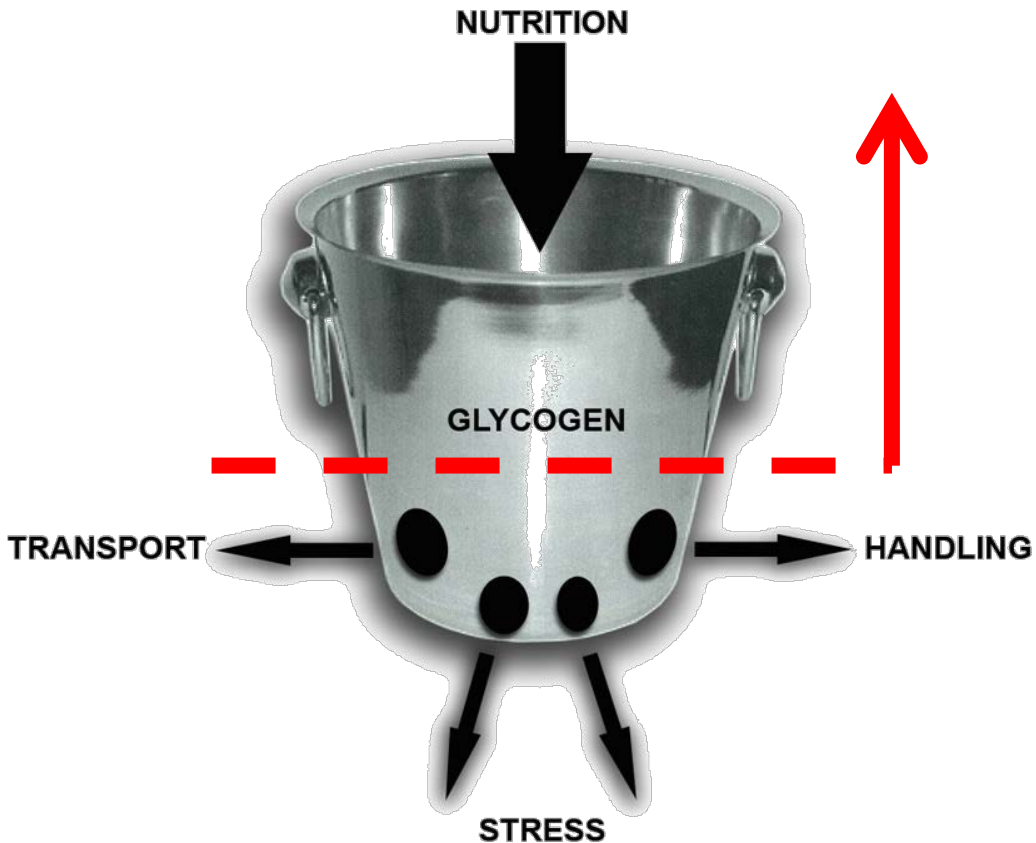
# 1. Glycogen



...It's muscle energy

## 2. The bucket

### THE GLYCOGEN BUCKET



Buffer  
Zone

Keep it full!

# 3. MSA Requirements

1. Producers have to be registered.
2. *Cattle kept on registered property for minimum of 30 days before dispatch*
3. *Cattle to be consigned to be running as one mob for minimum of 14 days before dispatch*
4. *No drafting of cattle within 14 days of dispatch*
5. *Best practice stock handling to minimise stress*
6. Send your NVD and MSA Vendor declaration with the cattle

**Best management practice**

# Most common cause for MSA non-compliance?



- |                     |                          |
|---------------------|--------------------------|
| 1. Glycogen         | Muscle energy            |
| 2. The bucket       | Keep it full             |
| 3. MSA requirements | Best management practice |

## Reducing non-compliance to pH

# Question time