Australian Beef and Sheep Farmers' Perceptions & Usage of Genetics-Based Breeding

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GAME CHANGERS

Contents

OBJECTIVES AND METHODOLOGY

OBJECTIVES

MLA is a key investor in a variety of services and tools designed to improve the genetic quality of Australia's red meat and wool industries. Two key investments are BreedPlan and LambPlan, usage of which can be regarded as a bellweather of MLA's performance in extending skills throughout the industry.

However there is a significant under-utilisation of these genetic technologies designed to assist livestock producers in Australia to be more productive and profitable.

Therefore MLA has invested in this market research in order to inform and guide related initiatives planned to improve uptake. This research involves:

- Qualitatively exploring and identifying barriers and drivers to the adoption of genetic tools and technologies to drive best practice adoption in Australian beef and sheep meat industries. Specifically, to:
  - Explore and identify decision-making tools producers use when making genetic selections in their herd and/or flock and how they are using them.
  - Establish what motivates producers to use genetic tools.
  - Establish the barriers to using genetic tools.
  - Explore what would encourage/make non-users adopt great usage of genetic technologies in their business.

METHODOLOGY

IN DEPTH SURVEY

Sample Structure

n= 25 interviews with farmers. Conducted via telephone. 90 minute duration.

Our farmers

From a range of locations in Australia.
With a range of genetics knowledge and usage.
Mixed sheep and cattle (6), sheep only (8), cattle only (11)

Locations

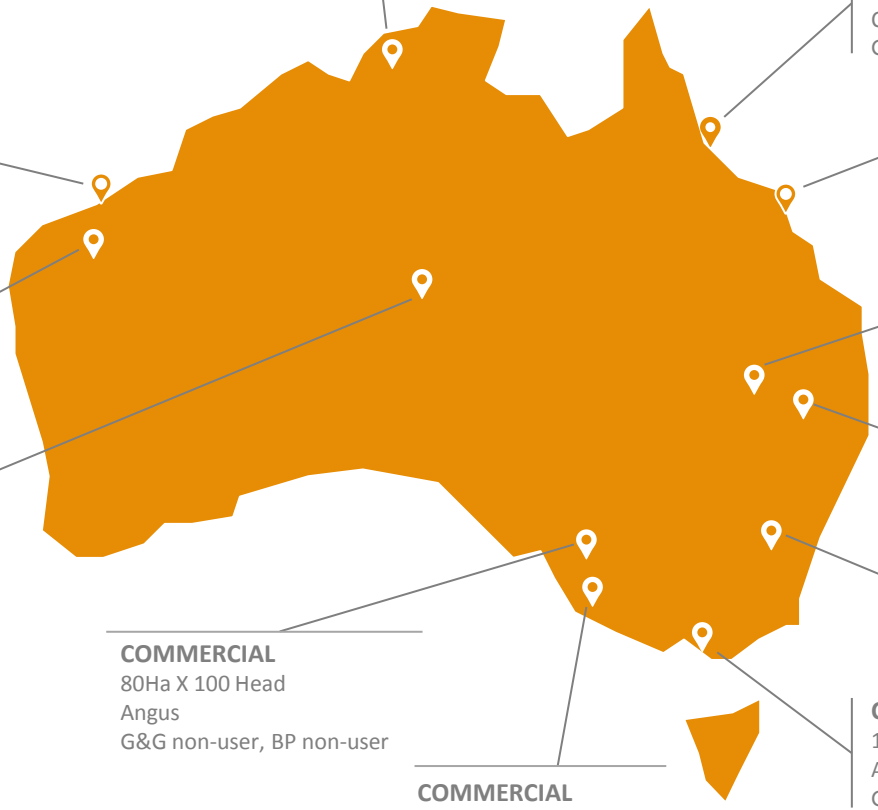
NSW (6), VIC (4), QLD (5), SA (3), WA (4), NT (2), TAS (1)

Stated use of Genetics & BREEDPlan/LAMBPlan

Use Genetics & Genomics tools **and use** BREEDPLAN/LAMBPLAN (8)
Use Genetics & Genomics tools **don't use** BREEDPLAN/LAMBPLAN (12)
Don't use genetics & Genomics tools, **don't use** BREEDPLAN/LAMBPLAN (5)

SAMPLE LOCATION

Cattle Farmers



COMMERCIAL
650Ha X 140 Head
Brahman, Senepol
G&G non-user, BP non-user

COMMERCIAL
600Ha X 260 Head
Charbray, Brahman, Droughtmaster, Limousin
G&G user, BP non-user

COMMERCIAL
650000Ha X 35000Head
Brahman, Droughtmaster
G&G non-user, BP non-user

COMMERCIAL/STUD
2500Ha X 2500 Head
Brahman, Droughtmaster, Gelbvieh
G&G user, BP non-user

COMMERCIAL
350000Ha X 3500 Head
Short Horn, Droughtmaster cross
G&G user, BP non-user

STUD
18000Ha X 2500 Head
Brahman & Angus
G&G user, BP user

COMMERCIAL
260000Ha X 5000 Head
Santa Gertrudis
G&G user, BP user

STUD
810Ha X 400 Head
Droughtmaster / Composites
G&G user, BP user

COMMERCIAL/STUD
1130Ha X 900 Head
Wagyu
G&G user, BP user

COMMERCIAL
80Ha X 100 Head
Angus
G&G non-user, BP non-user

COMMERCIAL
180Ha X 200 Head
Angus
G&G user, BP non-user

COMMERCIAL
1000Ha X 500 Head
Angus
G&G non-user, BP non-user

SAMPLE

Sheep Farm locations

SHEEP– COMMERCIAL
1800Ha X 3000 Head
Merino, White Suffolk
G&G non-user, BP non-user

SHEEP – COMMERCIAL/STUD
8000Ha X 9000 Head
Poll Merino, White Suffolk
G&G user, BP user

SHEEP – COMMERCIAL
1260Ha X 6000 SHEEP
Merino, White Suffolk
G&G user, BP/LP non-user

SHEEP - COMMERCIAL/STUD
2300Ha X 4000 Head
Merino
G&G user, BP non-user

SHEEP - COMMERCIAL
8600Ha X 6000 Head
Merino, Poll Merino Dorset Cross
G&G user, BP non-user

SHEEP – COMMERCIAL/STUD
2000Ha X 5000 Head
Merino, Merino Border Leicester Cross
G&G user, BP non-user

SAMPLE

Mixed Farmers

COMMERCIAL
2680Ha
X 100 Head Angus/Friesian Cross
X2500 Head Merino, Border Leicester
G&G user, BP/LP non-user

COMMERCIAL
1618Ha
X 500 Head Merino, White Suffolk
X 500 Head Angus, Charolais
G&G user, BP/LP non-user

COMMERCIAL (EX STUD)
380Ha
X 50 Head Merino
X 150 Head Hereford
G&G user, BP/LP non-user

COMMERCIAL
380Ha
X 570 Head Dohne Merino
X 100 Head Angus
G&G non-user, BP/LP non-user

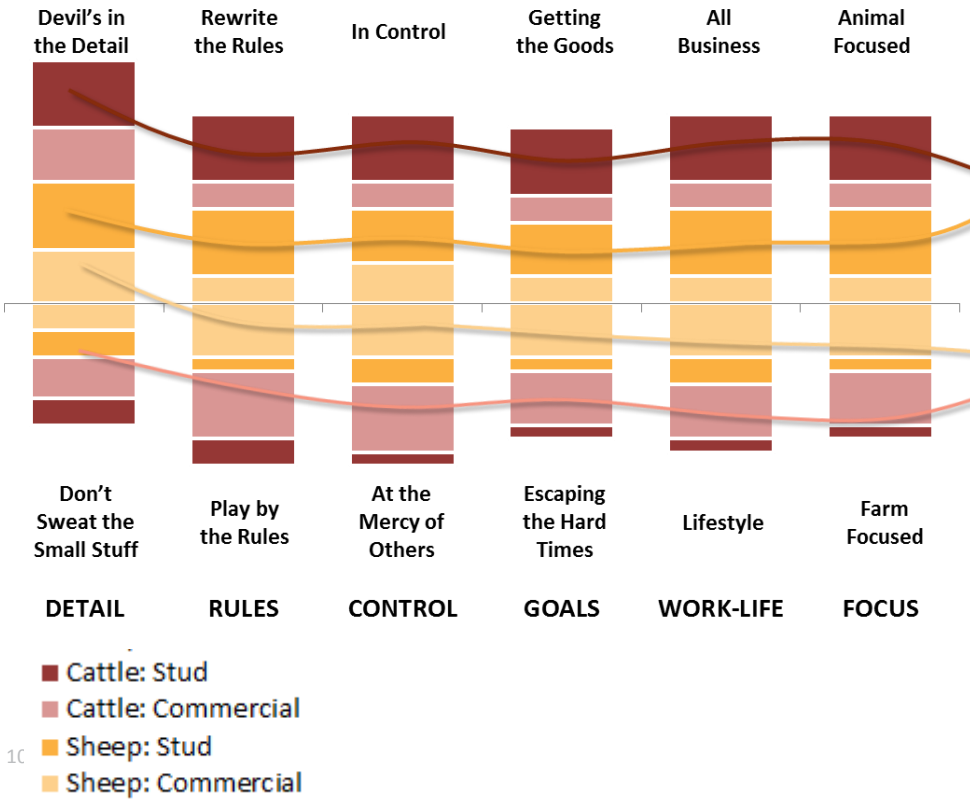
COMMERCIAL
2020Ha
X2000 Head Merino, Border Leicester,
X200 Murray Grey
G&G user, BP/LP user

GAME CHANGERS

EXECUTIVE SUMMARY & CONCLUSIONS

PSYCHOGRAPHICS

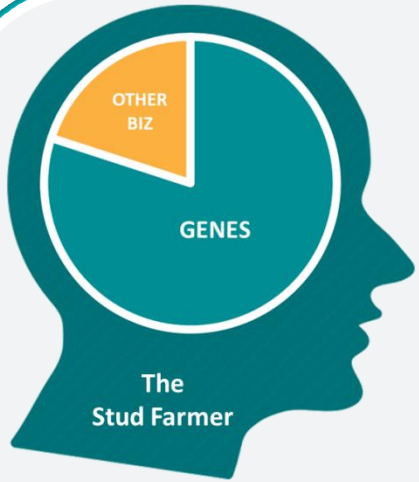
Stud and Commercial farmers have different mindsets



Stud / Seedstock farmers are detail- focussed, control-oriented, businesslike and will rewrite the rules to suit their entrepreneurial business growth targets.
Therefore ceding control, knowledge or decision-making to another party (e.g. MLA) is resisted.
Resistance increases if that other party is not seen as credible and is difficult to engage with (as MLA is seen).
The result is that relationships with MLA can be tense and MLA communications rejected.

Commercial farmers are big-picture farm-focussed conservative farmers, trying to enjoy the lifestyle despite having profits squeezed and being at the mercy of the market and the climate.
Therefore, factors that can be seen and controlled dominate their attention, and the perceived value of small incremental changes such as genetic gains is reduced.
In contrast, visually obvious traits such as foot quality, polling, colour and structure are valued, and Breeders' guidance in such issues is the most trusted source.

Commercial & Stud Farmers have different priorities



Anything that MLA promotes will have to fit in with farmers' objectives and plans. They will not change to suit MLA; MLA has to change to suit them.

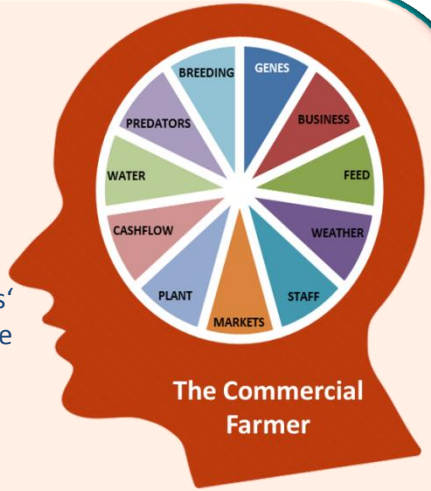
Breeders' success is strongly financially-dictated, and so they are very focussed on doing what is required to achieve their aims.

They set their own breeding goals (which often reflect personal preferences rather than explicit market demands), and as a result will often reject the attempts of others (i.e. MLA) to direct their breeding decisions too much, especially directions that conflict with their own goals.

Commercial Farmers have many more things than Breeders to consider when evaluating farm performance and profitability.

The issue of genetics has a lot of competition for Commercial farmers' attention and so MLA has to increase message cut-through in terms of both execution and compelling content.

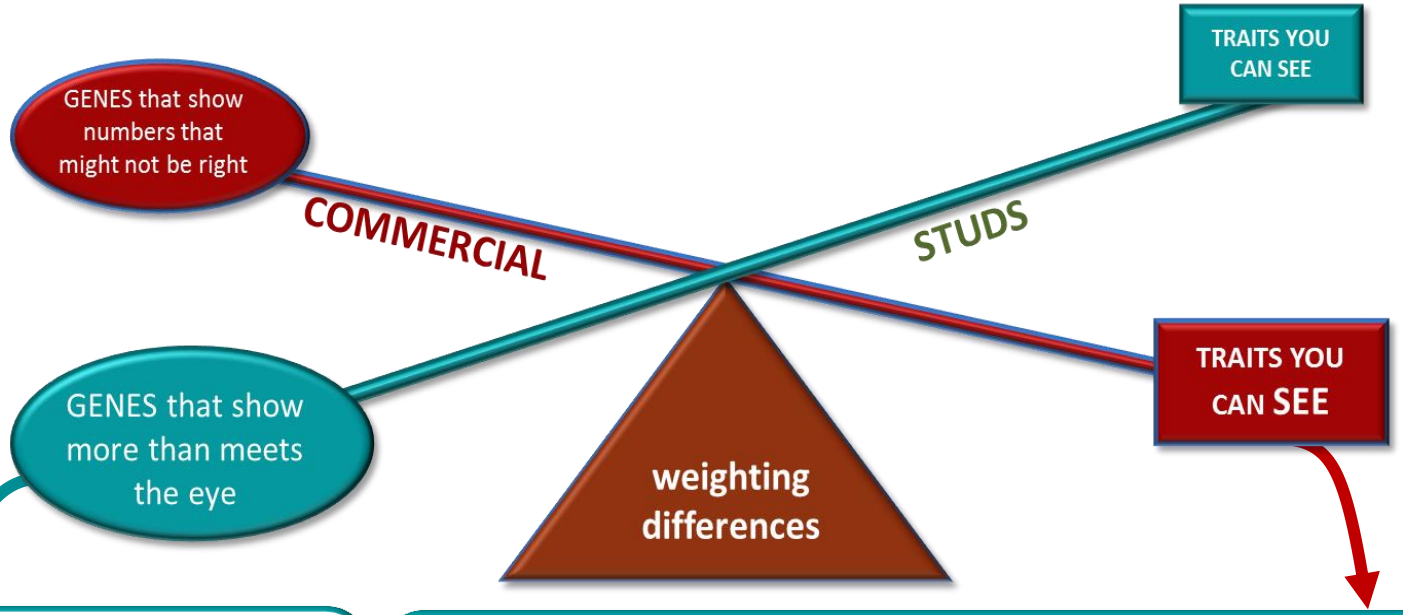
With a lot of 'noise' competing for farmers' attention, and their analytical, details-focussed nature, getting enough mindshare for breeding and genetics decisions will be challenging.



Commercial farmers are more cautious and have many more factors to consider – therefore they will 'take more convincing' that any change is worth the time, effort and cost.

BREEDING PRACTICES & GENETICS

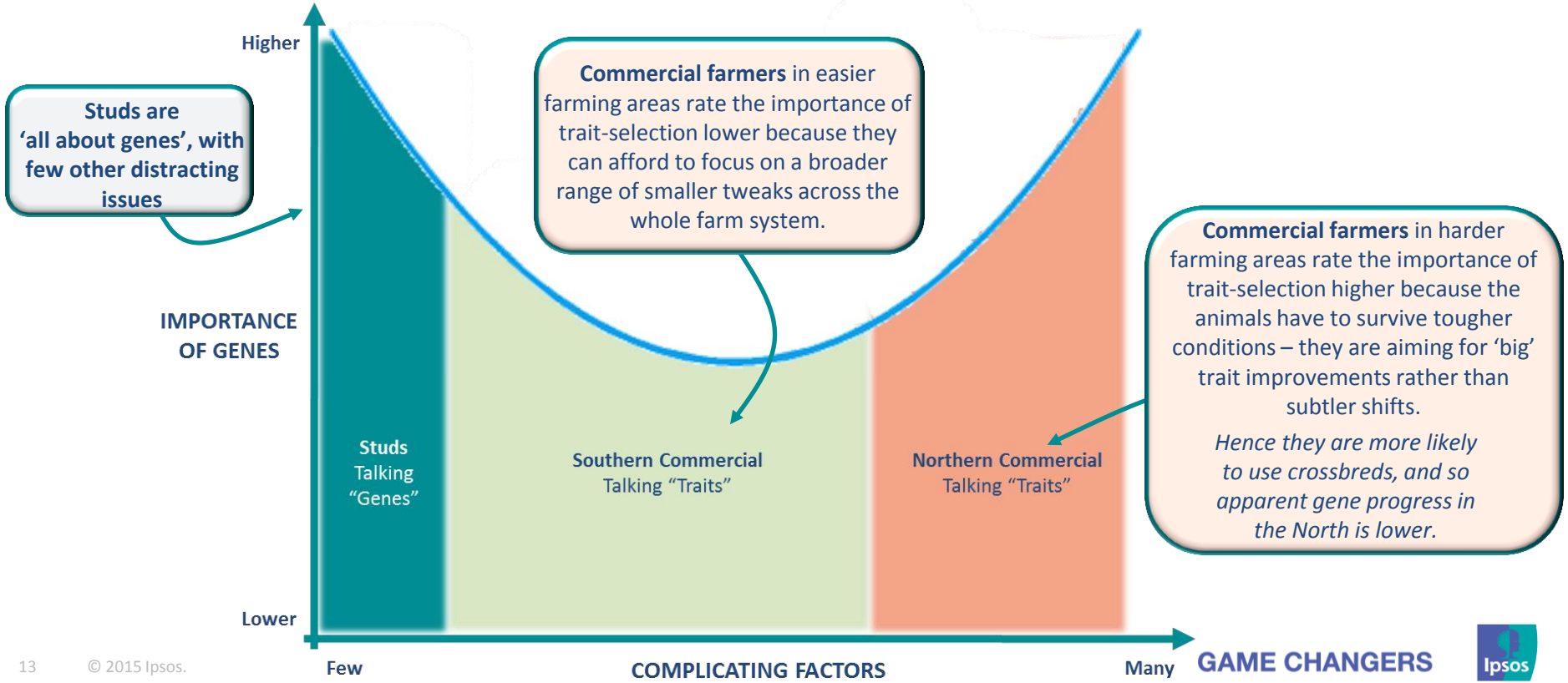
Stud and Commercial farmers approach genes differently



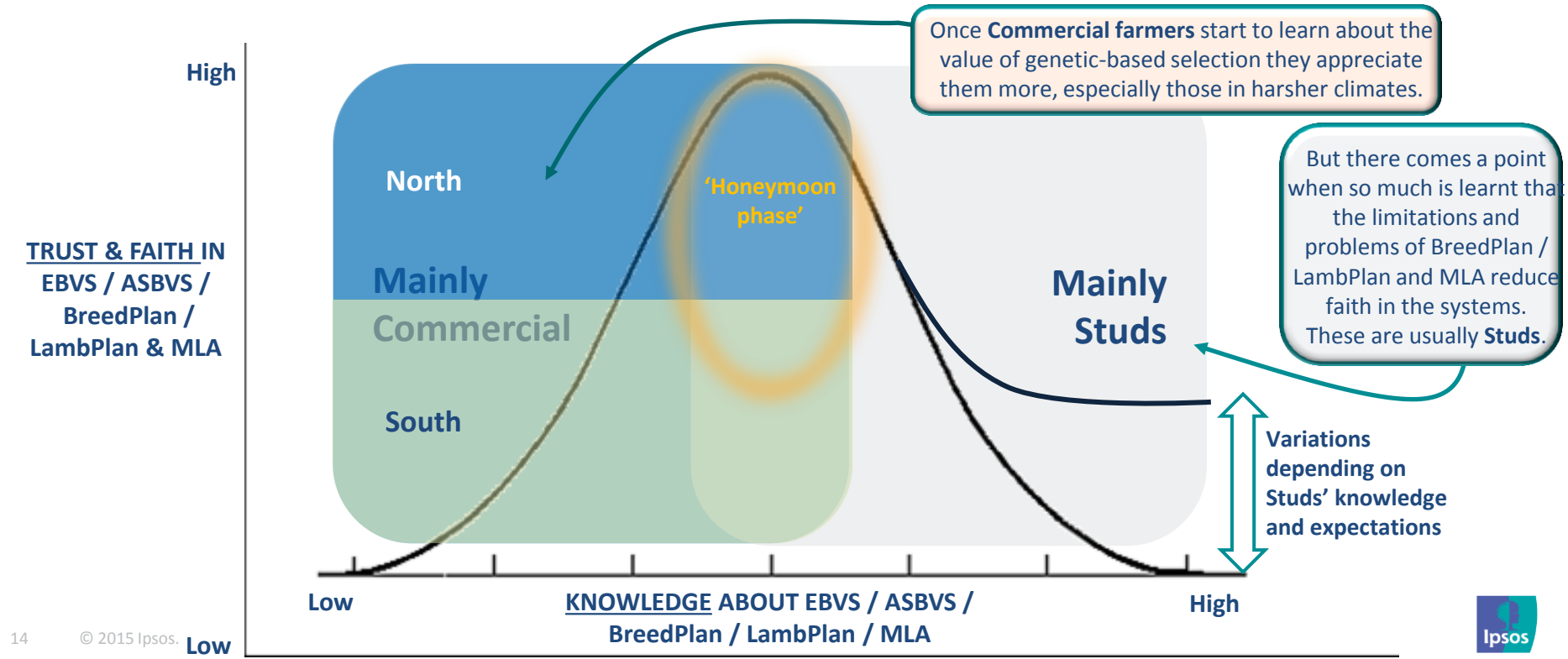
Stud / Seedstock farmers are 'into the **science**' and they talk genes and genomics comfortably. They base most decisions on genetic factors but ultimately know that the 'proof is in the pudding' – i.e. it's the final physical specimen that is the key deliverable.

For **Commercial farmers**, **visual traits** are of most importance – they talk 'traits' not 'genes'. If used, EBVs / ASBVs are used to either shortlist possible purchases or as a final check that a preferred animal has nothing 'hidden' of concern. Educating Commercials about 'what the numbers mean and how they can help farming be more profitable' is recommended (DPI have succeeded with this). Note that the promotion of genetics has to be carefully managed so that it is seen just for assessing the 'hidden' factors – and not as a replacement for visual checks or breeders' information.

The importance of Genes varies by complicating factors



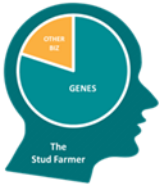
As farmers learn about genetic management, they go through a honeymoon phase and become less favourable about BreedPlan / LambPlan & MLA



BreedPlan & LambPlan – Big Picture (i)

These farmers have their own genetic-tracking and trait-management systems and those of MLA are seen as less applicable , too blunt, and suffering from a questionable quality of inputted data .
The opaque 'black-box ' nature of the back-end' exacerbates distrust.

Being challenging, critical people, any messages to them from MLA will undergo a lot of scrutiny and some cases cynical scepticism.



There is little perceived need to learn more about how genes-based breeding 'works' – what they focus on is getting new bloodlines and the stud/ram /dam/ewe combinations.

CONTROL-ORIENTED DETAILS-FOCUSED PEOPLE

QUESTIONS ABOUT 'HOW AND WHY' THE NUMBERS ARE DERIVED

IMPACTS ON PROFITS – NOT JUST THEORY BUT REAL-LIFE IMPACTS

QUESTIONABLE DATA INPUTS

A MYSTERIOUS 'BLACK BOX' THAT IS HARD TO FATHOM AND HARDER TO GET CLEAR ANSWERS ABOUT

LIMITED TRAITS & BREEDS (esp COMPOSITES)

CUMBERSOME INTERFACE; REFLECTS POORLY, INHIBITS USAGE AND TRUST

DESIRE FOR SOMETHING THAT WORKS WELL COMPOUNDS FEELINGS

FRUSTRATION AND REJECTION

Breed Societies can be a good gateway into BreedPlan / LambPlan or a political hornets nest.

The trend towards 'versatile' animals and cross-breeds reduces the usefulness of BreedPlan / LambPlan and are seen by some as indicative of MLA being behind the times.

When EBV / ASBV changes are made to fine-tune the system, the result is distrust.
Therefore such changes need considerable amounts of communication / consultation, focussing on how such changes are part of ongoing incremental improvements and fine-tuning – "making something good even better", rather than "fixing something that's broken".

BREEDPLAN & LAMBPLAN

BEEF STUD / SEED | SHEEP STUD

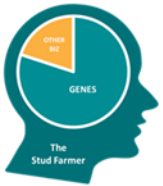
BreedPlan & LambPlan – Big Picture (ii)

The interface, processes and systems behind BreedPlan / LambPlan need to be significantly improved and made more transparent.

More evidence is needed so that the industry trusts that the data are accurate and genuine.

More work needs to be done to find ways of entering data more easily and more accurately.

QUESTIONABLE DATA INPUTS



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FRUSTRATION AND REJECTION

These farmers will not be drawn away from their in-house systems, so MLA has to be sure to promote BreedPlan / LambPlan as systems which will enhance and add to their own – not as replacements.

Because of a low-profile combined with a poor image, MLA is not a the natural go-to source for information, and should consider 'inviting' farmers to participate, rather than expecting them to 'if they knew what was good for them'.

At best, MLA can be regarded as good people who suffer from being too academic and out of touch.
At worst, MLA can be regarded as overly politicised and self-serving.
Although most know that MLA has a wide range of sometimes valued functions, BreedPlan / Lamb Plan have such a high profile and questionable value that they taint most perceptions of MLA.

BEEF COMMERCIAL | SHEEP COMMERCIAL

BreedPlan & LambPlan – Big Picture (i)

Any new farming practice that is presented to them will be heavily scrutinised, and alternative viewpoints checked, before any action occurs. Any possible change has to clearly be able to work within a wide range of possible situations.

Commercial farmers are always looking for ways to squeeze out extra margin yet do not usually consider MLA as an information source. More extension work needs to be done.

MLA should explore partnering with more rural networking / training organisations in order to expand the reach and frequency of its extension programmes.

BreedPlan / LambPlan may be seen as focussing on overly-narrowly-focussed animals (exemplified through prizewinning animals), so guidance needs to be provided on how the systems can work to promote versatility.

OPEN-MINDED, PRAGMATIC TINKERERS

EDUCATE THRU SELF, BREEDERS & EVENTS; ALWAYS LOOKING FOR OPPORTUNITIES TO IMPROVE THE ODDS

HIGHLY SUBJECT TO EXTERNAL FORCES

SOME USEFUL EXTENSION WORK, LESS SO FROM MLA

REDUCED USEFULNESS

THE NUMBERS SOME STUDS PROVIDE AT SALE – OPAQUE YET POSSIBLY USEFUL

A TREND TOWARDS COMPOSITES

LOW PROFILE 'INSURANCE CHECK'

MLA is mainly viewed positively, through its self-managed public face. However, some either do not consider MLA as an education source or think that MLA does not have the credibility or mandate to fulfil a farmer training role.

LOW MLA KNOWLEDGE

QUESTIONABLE REPUTATION AND RUMOURS

Many focus on crossbreds and/or 'versatile' animals; therefore why promoting purebreds may run counter to their priorities.

Winning over the negative farmers will be very difficult as long as their stud / seedstock suppliers continue to undermine BreedPlan & LambPlan.

Good long-term relationships with seedstock / stud suppliers obviate any recognised need for more involved genetic discussions with anyone else.

BreedPlan & LambPlan – Big Picture (ii)

Farmers do not perceive value in education about EBVs or ASBVs, however they could be subject to 'not knowing what they do not know' (even supporters do not fully understand what BreedPlan/ LambPlan can achieve). But given the right information, and proof that the numbers work, they would use the information more.

Acceptance and usage of the EBVs ASBVs will follow if these farmers can see them to be an easily-understood way of making better selection decisions.

The key is to manage expectations and positioning of the systems, because too many seem to think that BreedPlan/ LambPlan are intended to be the 'only solution' for trait management, rather than just a unified foundation for individuals to build upon.

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Commercial farmers are essentially 'looking away' from MLA, so MLA has to 'gatecrash the conversation' to be noticed and to get farmers considering, understanding and using EBVs and ASBV data. The independence of MLA data will help cut-through.

LOW MLA KNOWLEDGE

QUESTIONABLE REPUTATION AND RUMOURS

The lack of knowledge and breeders' support, combined with the need to consider many other operational factors, mean that BreedPlan / LambPlan are at best a low profile 'security check when buying.

GAME CHANGERS

CONCLUSIONS AND RECOMMENDATIONS

Reviewing the Promised Insights

First, we will profile the Farmers, through understanding them and their context.

Farmers' Psychographics
- Personal & Business Objectives
- Motivations & Barriers
- Personal Farming Philosophies & Styles (segmentation psychographics)
- Practical Capabilities & Resources
- Mental Capabilities & Resources
- Wider Operating Context

Then we will discuss how Farmers relate to the Genetics & Genomics messenger (i.e. the MLA)

MLA's Relevance to Farming:
- Awareness & Familiarity
- Past Experiences / Word of Mouth
- Trust, Engagement & Respect
- Knowledge of Tools & Services
- Perceived Value / ROI of Offer
- Relevance to Farming today

Studs / Seedstock:
- Astute, financially-oriented self-managing confident entrepreneurs.
- Genes-savvy, detail-focussed and questioning.
- Animal and sales focussed.
- Capable, self-driven, challenging.

Commercial farmers:
- Pragmatic, reactive, big-picture oriented.
- Careful, conservative, thoughtful.
- Detail-focussed, working on the whole farm system not just smaller elements.
- Capable when required.
- Hungry for knowledge that is locally and operationally relevant.

Then we will explain how Farmers to relate G&G at a Conceptual Level

Genetics & Genomics
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- Knowledge of Tools & Services
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Then we will identify and explain what needs to change to drive increased usage of Genetics & Genomics

Messages
- Most Compelling Messages to use
  - Motivators to promote
  - Barriers to downplay
- Myths, fallacies to counteract
- Language / tone

Logistical Factors
- Accessibility
- Cost
- Tech' know-how
- Legacy contracts
- Labour
- etc

Channels / Delivery
- Media mix
- Delivery options (apps, websites, helpdesks etc)
- Partnerships, e.g. with Rural Professionals, Retailers, Societies.

Products / Tools
- Decision-making tools
- Calculators / guides / stepwise wizards
- Unmet needs to fulfil
- Product variations / tools / resources

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Studs / Seedstock:
- High awareness of MLA and usage of BreedPlan & LambPlan.
- Very low trust due to questionable data inputs, calculations, and black-box nature of the systems.
- Perceived value and relevance of BreedPlan, LambPlan and MLA is low due to trust issues and limited usefulness due to focus on purebreds and limited trait coverage.
- Best work of MLA is seen as market development.

Commercial farmers:
- Low awareness and knowledge of MLA and its tools.
- Those with MLA experience are generally positive, but negativity expressed by Studs taints this.
- MLA not the obvious choice for training or information.
- Those knowledgeable of BreedPlan / LambPlan are generally positive and use the information as a minor but respected additional information source when buying.

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Studs / Seedstock:
- Highly knowledgeable of genetic-based breeding, but this means that satisfaction, trust, and perceived value of BreedPlan / LambPlan is low / very low.
- Mistrust is exacerbated by these farmers' 'take-control' mentality and strong business focus.
- Hence while they are completely at ease with, and value, genetics-based breeding, this does not translate to automatic appreciation and usage of BreedPlan / LambPlan; because of these systems' problems, they become *less* likely to endorse them.

Commercial farmers:
- Trait-based breeding decisions are very important but ultimately just one part of the bigger farming operation. Nutrition and climate are seen as equally or more influential on profits.
- Most only have basic awareness and knowledge of BreedPlan / LambPlan, usage usually limited (at best) to being able to use EBV / ASBV numbers when buying breeding stock.
- Studs / seedstock suppliers are the main source of knowledge and so suppliers' denigration of BreedPlan / LambPlan undermine the trust of Commercial farmers.

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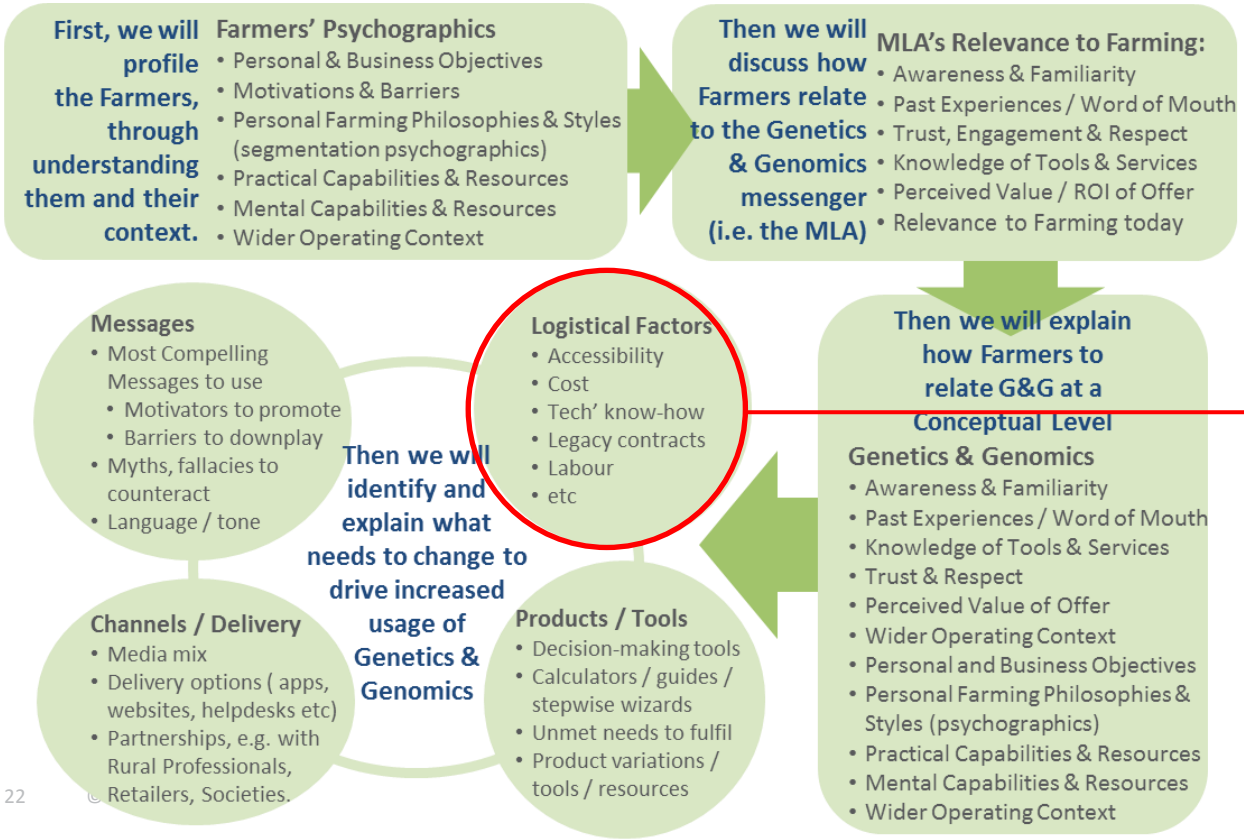

Studs / Seedstock:

- BreedPlan / LambPlan are felt to suffer from a cumbersome and dated interface and system, which conveys an impression of being dated and unprofessional.
- The complex procedural requirements are seen to potentially undermine data quality as well as hindering usage.
- The data input processes and data accuracy are also questioned, with much anecdotal evidence undermining the faith in inputted information.

Commercial farmers:

- Few have need to use BreedPlan / LambPlan but do hear from their suppliers enough to question the systems.
- The provision of multiple trait measure systems in sales catalogues, compounded by the caveats regarding accuracy, further undermine use and faith in EBV and ASBV numbers.
- Breeders' own trait-tracking systems have the greatest usage and trust.
- The increasing use of composite breeds undermines the value of BreedPlan / LambPlan.

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- Partnerships, e.g. with Rural Professionals, Retailers, Societies.

Products / Tools
- Decision-making tools
- Calculators / guides / stepwise wizards
- Unmet needs to fulfil
- Product variations / tools / resources

Studs / Seedstock:
- These farmers usually develop their own trait-tracking systems, which cover more traits than covered by BreedPlan / LambPlan.
- Add-on systems like MateSel are sometimes used, and these existence of these supplementary systems can be seen as proof of the limitations and inadequacy of the BreedPlan / LambPlan interface.
- Use of specialist business software and apps is prevalent, and the advances in these areas are making BreedPlan / LambPlan look increasing outmoded.

Commercial farmers:
- With most relying on their core group of suppliers there is little usage or nor perceived need for data-based modelling.
- Use of specialist business software and apps is prevalent, and the advances in these areas are making BreedPlan / LambPlan look increasing outmoded to those who have investigated the systems.

Reviewing the Promised Insights

First, we will profile the Farmers, through understanding them and their context.

Farmers' Psychographics
- Personal & Business Objectives
- Motivations & Barriers
- Personal Farming Philosophies & Styles (segmentation psychographics)
- Practical Capabilities & Resources
- Mental Capabilities & Resources
- Wider Operating Context

Then we will discuss how Farmers relate to the Genetics & Genomics messenger (i.e. the MLA)

MLA's Relevance to Farming:
- Awareness & Familiarity
- Past Experiences / Word of Mouth
- Trust, Engagement & Respect
- Knowledge of Tools & Services
- Perceived Value / ROI of Offer
- Relevance to Farming today

Then we will explain how Farmers to relate G&G at a Conceptual Level

Genetics & Genomics
- Awareness & Familiarity
- Past Experiences / Word of Mouth
- Knowledge of Tools & Services
- Trust & Respect
- Perceived Value of Offer
- Wider Operating Context
- Personal and Business Objectives
- Personal Farming Philosophies & Styles (psychographics)
- Practical Capabilities & Resources
- Mental Capabilities & Resources
- Wider Operating Context

Then we will identify and explain what needs to change to drive increased usage of Genetics & Genomics

Messages
- Most Compelling Messages to use
  - Motivators to promote
  - Barriers to downplay
- Myths, fallacies to counteract
- Language / tone

Logistical Factors
- Accessibility
- Cost
- Tech' know-how
- Legacy contracts
- Labour
- etc

Channels / Delivery
- Media mix
- Delivery options (apps, websites, helpdesks etc)
- Partnerships, e.g. with Rural Professionals, Retailers, Societies

Products / Tools
- Decision-making tools
- Calculators / guides / stepwise wizards
- Unmet needs to fulfil
- Product variations / tools / resources

Studs / Seedstock:
- These farmers have strong networks, often extending overseas.
- They do a lot online and will happily travel.
- Local informal breeders' groups are common.
- Breeding Societies are a blessing and a curse – they can offer a lot but can be politically-riven.

Commercial farmers:
- As with most farmers, the emphasis is on information that is locally and operationally relevant, backed up with hard data as to profitability etc – they reject overly academic or theory-based information.
- Self-directed online research is common.
- MLA extension work is not well-known, with the best education coming from organisations such as RIST, DPI, local vets or stock agents, all via in-person sessions.

CONCLUSIONS AND RECOMMENDATIONS

Reviewing the Promised Insights

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Products / Tools
- Decision-making tools
- Calculators / guides / stepwise wizards
- Unmet needs to fulfil
- Product variations / tools / resources

Studs / Seedstock:
- These farmers will reject any over-statement of the value of BreedPlan / LambPlan plus any indication that MLA 'know what's best for them'.
- The best message is that BreedPlan / LambPlan provide a proven measure of some key traits on which breeders can use as a foundation on which to build their own systems – a complement to them, not a replacement.
- However messaging will not be enough – work needs to be done to improve the product itself as well as transparency into its inner-working.
- Periodic EBV / ASBV adjustments need to be carefully presented as part of the ongoing refinement process rather than 'fixing problems' which is how they are being interpreted.

Commercial farmers:
- The best uptake of EBV / ASBV-based decision making comes from farmers who have had the numbers and how they are calculated explained to them in a simple way so that they feel empowered to make better purchase decisions.
- The numbers need simply be presented as a simple way of reducing the chances of getting unwanted traits – "improving the odds".

RECOMMENDATIONS

Recommendations

FIX THE BREEDPLAN / LAMBPLAN INTERFACE.

1

- Make it look more professional and user-friendly.
- Install wizards or stepwise processes to make it easier, faster and more accurate to use.
- Investigate back-end procedural improvements to reduce user demands.
- Develop Apps to enable in-the-field use, especially for those recording data such as calf weights.
- Investigate introducing more cross-bred options.

OPEN UP MORE DIALOGUE WITH BREEDERS.

2

- Increase the transparency of the system.
- Recognise their competence and engage as equals – MLA serves them, not the other way around!
- Don't overstate the value of BreedPlan / LambPlan – at best they are a foundation on which breeders establish their own systems.
- Invite them to contribute to any system /product reviews, as much for relationship-building as for content.

EDUCATE COMMERCIAL FARMERS.

- Demystify the BreedPlan / LambPlan numbers.
- Explain the additional security they offer without challenging the authority of their breeders.
- Demonstrate the financial benefits of using BreedPlan / LambPlan to assist decision-making.

3

DETAILED FINDINGS

PSYCHOGRAPHICS

The Voice of the Farmer

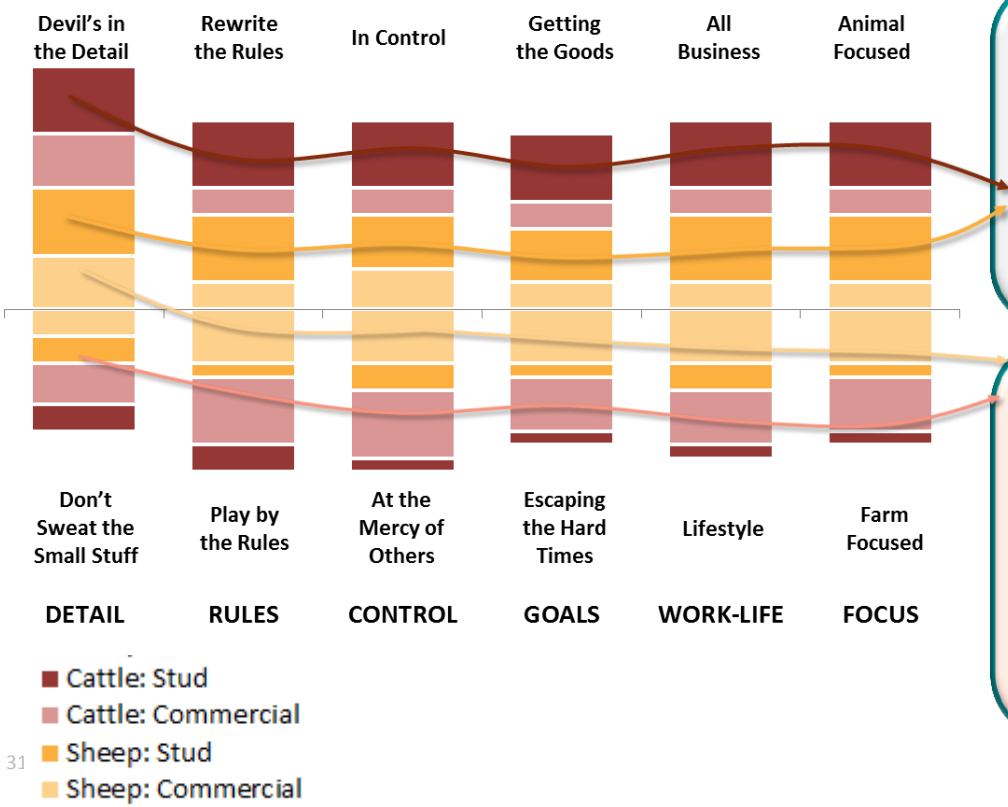
I think profitability is coming back in our direction, so I think once the younger generation see that there is reward for effort then there is actually no reason why you wouldn't take this career. I have been doing it for 40 years and I think it's a damn good job. It's not the mundane stuff, the same thing. There are different challenges, a different job every day. It can be pretty hard and certainly labour has been the bug bear of the industry, but once we have profitability back into it, there is a chance to off-load some of the work load, and my word it will be a good job.

Beef Commercial, NT

We consider ourselves to be more of a genetics company than farmers. Beef Stud, QLD

PSYCHOGRAPHICS

Stud and Commercial farmers have different mindsets



Stud / Seedstock farmers are detail- focussed, control-oriented, businesslike and will rewrite the rules to suit their entrepreneurial business growth targets.
Therefore ceding control, knowledge or decision-making to another party (e.g. MLA) is resisted.
Resistance increases if that other party is not seen as credible and is difficult to engage with (as MLA is seen).
The result is that relationships with MLA can be tense and MLA communications rejected.

Commercial farmers are big-picture farm-focussed conservative farmers, trying to enjoy the lifestyle despite having profits squeezed and being at the mercy of the market and the climate.
Therefore, factors that can be seen and controlled dominate their attention, and the perceived value of small incremental changes such as genetic gains is reduced.
In contrast, visually obvious traits such as foot quality, polling, colour and structure are valued, and Breeders' guidance in such issues is the most trusted source.

Key Insights

BEEF STUD / SEED | **SHEEP STUD**

SOME STUD FARMERS ARE VERY CONTROL-ORIENTED.

They are 'top of the chain' and have chosen stud breeding because they:

- think they can do something better;
- serve a key niche;
- are part of a successful business;
- are able to make a profit.

By their very nature they seek to question, to review, to research and to improve. Their animals are a reflection of what they feel to be the traits / styles that buyers want.

IMPLICATION:

Ceding control, knowledge or decision-making to another party is resisted and resistance increases if that other party is not seen as credible and is difficult to engage with.

The result is that relationships with MLA may be tense.

> *"That's the beauty of having a start up business in this, is that genetic improvement in Northern Australia is fairly disorganised and really doesn't exist."*

> *"When you're breeding for something new, only you know exactly what you want in your head."*

PSYCHOGRAPHICS

Key Insights

"For the amount of effort to monitor EBVs, you don't get a financial reward. You don't get any extra for your bulls for doing it."

"If I can increase my lambing percentage [via fertility] by 10%, which is possible, then that is worth a lot more money. The biggest thing to influence profitability is fertility."

BEEF COMMERCIAL | SHEEP COMMERCIAL

COMMERCIAL FARMERS ARE VERY PRAGMATIC.

Because they are more exposed to market and environmental variability, greatest effort is put into the factors that are more controllable, tangible, predictable and financially transparent.

For example: fertility, wool quality, weight gain, tic resistance, temperament, structure, versatility and survivability.

Factors that are complex, abstract and with questionable gains are therefore put aside as unnecessary nice-to-haves.

IMPLICATION:

Factors that can be seen and controlled dominate. Others that are less controllable or tangible require **evidence**, and so the source of this support (e.g. Breeders) must be highly trusted.

All rely on a visual inspection once they have identified the relevant EBVs or other in stud data and all base this on the experience they have gained through breeding and raising their animals.

Wider Operating Context – The Big Picture

BEEF STUD / SEED	SHEEP STUD	BEEF COMMERCIAL	SHEEP COMMERCIAL

Financially astute, most feel that business returns have improved as meat and wool prices have been rising lately.

- Unpredictable climate and market variations have the greatest effect from season to season, compounded by the low predictability of any extremes. Labour and land costs are also rising faster than revenues.

Pragmatic with a constant focus on tweaking and improving to make more money or achieve a different goal such as owning the land, improving feed crops and managing irrigation. Always looking to improve the genetics and by proxy the bottom line.

Their **Hands-on** approach means that they regard changes that they initiate as more influential than intangible 'numbers' controlled by faceless people elsewhere.

On-the-go **24/7**, farmers say they are at work all the time and are under time pressure to get everything done. This means that they prioritise the things they can control , postpone office work, leave some to others or not even do some things at all (esp high cost/low return activities)

Implication:

- Changes in income can vary by large amounts every year, reducing the perceived value of small incremental changes.
- Whilst they embrace technology, they do not have time to deal with complex processes and systems. They just want an answer.

> *"I'm a hands on practical farm person. I don't like to be in the office."*

PSYCHOGRAPHICS

Wider Operating Context – Big Picture

BEEF STUD / SEED	SHEEP STUD	BEEF COMMERCIAL	SHEEP COMMERCIAL

"Most farmers are now literally too time poor."

"if you increase your lambing percentage then everything else follows. So it's about how you increase that lambing percentage and there are a few areas that come under that - genetics, nutrition and then another profit driver is how you market your sheep."

"I'm more and more spending time on data management processes and with customers. And budgets and advertising and whatever else."

"We're pretty desperately looking for rain. Its 18 months since we had good rain and we're struggling."

PSYCHOGRAPHICS

Wider Operating Context - Studs

BEEF STUD / SEED	SHEEP STUD

Breeders are entrepreneurial , self-confident and control-focussed.

They target specific markets and design their animals accordingly, so qualities such as an ability to live in drought conditions or resistance to parasites, become as important as EBVs or in stud data, because this is what is important to buyers rather than EBVs on their own.

They have strongly commercial genetics / traits goals, trying to meet or create a specific need. Many also have a commercial farm giving them a good understanding of commercial farmers' priorities.

Some have embraced technology to varying degrees which supports measurement of outputs to closely control the development of flocks or herds.

They are not averse to sourcing gene stock from throughout the world that they consider superior quality.

> *"The Northern farmers are an uneducated market but because of that it's underdeveloped, so we're doing a lot of education as we grow."*

> *"We are probably the most technologically advanced flock in the world. Our goal is to use every bit of technology and have some of the most [genetically] measured sheep in Australia or the world."*

IMPLICATIONS:
Breeders' success is strongly financially-dictated, and so they are very focussed on doing what is required to achieve their aims – they set their breeding goals, and will often reject the attempts of others (i.e. MLA) to direct their breeding decisions too much, especially directions that appear ungrounded in commercial reality.

PSYCHOGRAPHICS

Wider Operating Context - Commercial

> *Trying to produce the animal that would give the most long term constant return on investment.*

> *I lamb in the autumn because their fertility is all based on melatonin, and really focus on the nutrition for the first 60 days in utero, to ensure a good placenta and secondary follicle growth*

> *Even Carl Lewis would run poorly with bad food.*

IMPLICATIONS:
The issue of genetics has a lot of competition for Commercial farmers ' attention and so MLA has to increase message cut-through in terms of both execution and compelling content.

BEEF COMMERCIAL

SHEEP COMMERCIAL

Commercial farmers measure return on investment and react quickly to changes in their market. Their breeding and sales plans are carefully assessed, and designed to deliver what sells.

Beef farmers are largely influenced by their main income source, e.g. local yards, finishing lots, live export trade and by meat industry carcase standards such as MSA or Jap Ox standards.

Ultimately they have to take the sales price offered to them when they want to sell, which puts them in a weak position. Therefore they are always looking to overcome this via the 'next trick' to ensure better and more predictable prices.

Sheep farmers are very similar to beef, except that they have more control over income flow through ability to sell both wool and meat.

This means they become focussed on more than just weight gain, structure etc with more attention being paid to management factors such as breeding and conditioning.

For some, their flock's ability to forage in tough terrain and survive in harsh climates is key.

PSYCHOGRAPHICS

Personal Farming Philosophies & Styles

BEEF STUD / SEED | **SHEEP STUD** | **BEEF COMMERCIAL** | **SHEEP COMMERCIAL**

PRUDENCE IS KEY

- The results of decisions made can take a long time to come to fruition and a long time to be reversed if the wrong decision made.
- No two farms are exactly the same, so it can difficult to find easily comparable farms to learn from, and hard to find data or case studies that are directly applicable.
- Therefore decisions are seldom made rashly or without a lot of careful thought, and problems in data are noticed more than benefits.
- Most farmers we spoke to characterised themselves as being careful, thoughtful, analytical, balanced and open-minded.

They will engage with concepts that they feel are relevant, beneficial and potentially profitable to them. This means that communications and promotions regarding BreedPlan or LambPlan may not even register with farmers, or if it does, will be scrutinised intently before any potential action.

IMPLICATIONS:
With a lot of 'noise' competing for farmers' attention, and their analytical, details-focussed nature, getting enough mindshare for breeding and genetics decisions will be challenging.

> *"Sometimes I look [at a stud] for a couple of years. I tried a new stud this year and I've been looking at it for probably 5 years."*

PSYCHOGRAPHICS

Personal Farming Philosophies & Styles

COVER AS MANY BASES AS IS PRACTICABLE

> *If it's something within your control then you just go and do it. If it's something out of your control like climate or political, then you look for alternative ways to survive.*

> *Pretty analytical I guess – there's a lot of unknowns when you're doing something new, so you have to check the details or be caught out.*

> *Well it's a security thing I suppose because in November we had one property there had seven dams and five of them were dry going into summer and so that didn't look real good. So we're all about reducing risk and spreading the odds.*

> *We're pretty desperately looking for rain. Its 18 months since we had good rain and we're struggling.*

PSYCHOGRAPHICS

Farming Philosophies – In their own words

Business Objectives

Farming Philosophies – In their own words

Farm Management Descriptions

PSYCHOGRAPHICS

Personal & Business Objectives & Motivations

BEEF STUD / SEED | **SHEEP STUD**

Stud / seedstock farmers blend a desire to make a good income with a desire to 'make a difference' within the farming sector.
They are creating their own positive future.

Goals include: meeting an unmet need, ensuring better animal welfare or promoting certain breeds or traits for certain markets, environments or customers.

One sees a financial benefit in becoming the most technologically advanced in his sector. Other financial objectives tend to be based on 'positive, growth-oriented' factors like expansion and financial security.

Breeding Society Membership reflects these motivations – if they are strong breed proponents they will usually be members of a breeding society, despite the oft-cited disagreeable politics often involved.

IMPLICATIONS:
Anything that MLA promotes will have to fit in with these farmers' objectives and plans – they will not change to suit MLA; MLA has o change to suit them.

> *We spotted an undeveloped market and moved in. We've had a tough few years and land's worth a lot of money comparative to what it used to be, and people are trying to actually figure out what sort of cattle make money running on top of it or how to run those cattle on top of it, so it's a good space but it's not an easy one.*

> *I have a mix of everything because I have always said don't put all your eggs in one basket but having said that my goat enterprise is probably making per head or more per acre than the other two.*

PSYCHOGRAPHICS

Personal & Business Objectives & Motivations

> *That's the lifestyle mainly but making money would be a bonus, which doesn't happen very often with the cattle industry here, unless you're quite a large company with 100,000 head of cattle.*

> *My main business objective is to keep supporting us in a lifestyle that we are accustomed to.*

> *I just want an easy care sheep.*

BEEF COMMERCIAL | **SHEEP COMMERCIAL**

Commercial farmers are more traditional, citing lifestyle, location and a love of animals along with financial objectives.

Their financial objectives tend to be based on 'negative, defensive' factors like 'paying off the mortgage' or 'getting large enough to be able to demand better prices', getting off leased land or simply paying off debts. They are escaping a challenging past.

Farming objectives are about producing an animal that can cope with their conditions, that has good survivability and fertility and that reaches profitable sale prices.

Objectives will be refined according to market and climactic conditions. For example animals may be sold early in the year if prices are good.

Sheep farmers are increasingly looking to breed multipurpose animals to have the option of selling either wool or carcasses.

IMPLICATIONS:
Commercial farmers are more cautious and have many more factors to consider – therefore they will 'take more convincing'.

PSYCHOGRAPHICS

Personal & Business Challenges & Barriers

BEEF STUD / SEED	SHEEP STUD

The most consistent challenge cited by breeders was changes in EBV calculations that reduced their breeding stock worth without consultation or (in their eyes) adequate explanation – shifting goalposts

Similarly, the short-term drop in EBVs experienced when overseas studs / genes were introduced, meaning that the speed in realising 'official EBV' gains from such investments was reduced.

Most seem confident that they understand the market and can predict what their customers will want. Their position at the top of the supply chain, and their contacts across the industry and with MLA enable them to plan ahead.

IMPLICATIONS:
Even when these changes are made to fine-tune the system, the result is distrust. Therefore such changes need considerable amounts of communication / consultation.

> *"I need the MLA to open up and demystify BreedPlan from the black box – it's totally holding us back, and there's only going to be more of us composite cattle breeders needing better transparency."*

> *"We tend to source new bloodlines from the US and so when we do that the MLA system drops our EBVs because they can't factor in the overseas genetics – which means their system penalises me for doing something good."*

PSYCHOGRAPHICS

Personal & Business Challenges & Barriers

The vast majority of the general public have no idea what we do. They have a negative view of us as farmers and too many of them see us as thugs. We were affected as part of the live export ban a few years ago.

I have never had a problem in 20 odd years, but some townies moved in next door so I had to destroy the dog. Then this year I had 57 foxes in three nights. It cost me $5-10,000.

BEEF COMMERCIAL | **SHEEP COMMERCIAL**

As well as normal challenges such as the climate; business challenges that are regarded as 'unfair' or 'changing the rules' are the ones most often resented and complained about.

For example: changes to how carcasses are paid for at the works, increases in foxes due to 'lifestylers' complaining about farm dogs, difficulty in getting good staff and the increasing cost of labour and land.

The live export ban in June 2011 had an impact on a few cattle farmers. Many also have cash flow issues and have to wait to build up funds before they can make improvements.

Mistakes can take many years to recover from.

IMPLICATIONS:
Any new farming practice that is presented to them has to clearly be able to work within a wide range of possible situations. E.g . This is why many opt for 'versatile' animals. Promoting purebreds may run counter to their desires.

PSYCHOGRAPHICS

Capabilities

BEEF STUD / SEED | **SHEEP STUD**

Mental and practical capabilities are high amongst stud / seedstock farmers, who blend an outgoing, entrepreneurial outlook with a need to focus on the detail that can make or break a business.

Technical capability is not so consistent, with some older farmers delegating computer work or just 'following the steps' they'd been taught to follow.

Others have embraced new ways of using technology to manage and control their outcomes, although this relies on them having an early adopter mindset and goals which rely on cutting edge information.

Technical capability impacts on impressions of BreedPlan / LambPlan, which are seen as generally user-unfriendly and 'clunky'. It should be noted that even tech-savvy farmers felt this way about the systems.

> *"I got a scholarship years ago to do a Masters in animal breeding."*

> *"We use every tool available. We do lots of training schools and are involved in lots of training schools so the only time [we would need training] is when a new technology became available."*

IMPLICATIONS:
Being challenging, critical people, any messages to them from MLA will undergo a lot of scrutiny and in some cases cynical scepticism.

PSYCHOGRAPHICS

Capabilities

"We have got to make a profit at the end. I can't really justify spending $20,000 on a bull. $5,000 maybe, but I'd be happier with less.

For the amount of effort to produce EBVs, you are not getting the economical reward."

"I think I'm too bloody old to change what I'm doing now."

BEEF COMMERCIAL | **SHEEP COMMERCIAL**

Mental and practical capabilities are high amongst commercial farmers but applied in a different manner.

Commercial farmers are more likely to see their farm in a more holistic manner than are stud farmers (who are more in control of their marketing and sales).

This means that commercial farmers see the financial aspects of every decision they make more keenly than stud farmers, and have to think more strategically about all aspects of their business.

This means that technical capability is not as necessary, as their decision-making is as much about finance as it is about the finer details of animal management.

This also means that breeding decisions are seen as just one part of the overall operation, and not the sole focus of their skillset.

Older farmers are less inclined to adapt to new ways of doing things, comfortable with their current farming practices.

IMPLICATIONS:
Anything that MLA presents to promote increased genetics-based decision-making will be heavily scrutinised, and alternative viewpoints checked, before any action occurs.

PSYCHOGRAPHICS

Breed Society Affiliations

BEEF STUD / SEED	SHEEP STUD

If stud farmers are strong purebred proponents they will usually be members of a breeding society, despite the oft-cited disagreeable politics involved.

Registration can be out of necessity as a form of Quality Assurance for commercial buyers .

Breeding Society membership is often but not always linked with BreedPlan / LambPlan/ Matesel access.

IMPLICATIONS:
MLA needs to investigate making BreedPlan / LambPlan available to those who are not registered with a breed society.

> *I told the Angus Society that people don't get paid on marbling so you don't need a marbling EBV. They are so far behind on what actually pays and breeding checks it's not funny, they are behind. They might be up on the science but they're behind on the industry and the economics.*

> *You have to be a member to register cattle and sell bulls. I just believe that they could be doing more to push the [Brahman] breed.*
>
> *If you are selling bulls to other studs, you have to be registered.*

> *Your stock is assessed to say that you are good enough to be a stud.*
>
> *Being a registered breeder actually endorses the quality of your stud that it is deemed higher quality than a non-registered person.*

PSYCHOGRAPHICS

Breed Society Affiliations

> *We were members in the past, but not anymore. They tried to push us in a direction we were not happy with so we dropped out.*
>
> *I used to be [breed society member] but it goes hand in hand with being a stud.*

> *I don't think that there are any Merino societies that would represent us as we are not a stud.*

BEEF COMMERCIAL | **SHEEP COMMERCIAL**

Few commercial farmers are members of breed societies, either not having time, not agreeing with the politics or seeing it as more relevant to stud businesses. Some see it as a waste of money.

Those with strong breed proponents will usually be members, despite the oft-cited disagreeable politics often involved. They see it as a good way to keep up to date with information about the breed, and to help them keep on top of what the market is doing.

It is also seen as a way of keeping in contact with stud breeders.

Breeding Society membership is often but not always linked with BreedPlan / LambPlan access.

IMPLICATIONS:
Breed societies are not an avenue for reaching commercial farmers.

PSYCHOGRAPHICS

Breed Society Politics

I think every breed society struggles with politics. Our own breed had some major issues with it. We have had a couple of breeders that decided to go away and form their own breed society and call it something different but they still run the same sort of cattle and the same pedigrees and everything else.

They just didn't like the way the people were running our breed society so it really turns out now for the same sort of cattle we have three or four different breed societies because someone is not happy with the way the other person is running it or the cost structure so they will go and start it themselves and do something different.

PSYCHOGRAPHICS

Other society affiliations

BEEF STUD / SEED | **SHEEP STUD** | **BEEF COMMERCIAL** | **SHEEP COMMERCIAL**

Though not members of breed societies, many farmers are members of a diverse range of societies; AgForce, Pasture and Graziers Association, AWI, [Sheep] Cooperative Research Centre, Land Care, Meat and Livestock Australia, North Australia Beef Research Council, Northern Territory Cattleman's Association, Superfine Wool Growers Association, Sheep Genetics, relevant to their own conditions and for information sharing purposes. Circuit Sales were also cited as a popular way to learn.

> *I belong to a local breeders group, it's informal but we get more value out of talking to each other than the breeding society can offer.*

> *We can go down to the DPI and have a look when they sell their bulls down off the research farm.*

> *RIST is Rural Industry Skilled Training, more lands, better wool, healthy ewes, less time new management. It teaches you to assess what food is available in your paddock.*

IMPLICATIONS:
MLA should explore partnering with more rural networking / training organisations in order to expand the reach and frequency of its extension programmes.

PSYCHOGRAPHICS

Competition Showing

BEEF STUD / SEED | **SHEEP STUD** | **BEEF COMMERCIAL** | **SHEEP COMMERCIAL**

Few show their animals.

Stud / seedstock farmers felt that show-winners needed to have such different traits to animals that had to thrive 'in real life' that it wasn't worthwhile trying to show, nor breed with shows in mind. Those who do, see it as a marketing opportunity as well as a chance to benchmark their flock against the competition and share information.

IMPLICATIONS:
Focussing on show entrants, or using show prizes as an incentive / proof of value, will not be an effective approach for promoting genetics to a wide target market.

> *You might get a sash but at the end of the day when you sell your animals for meat you still get the same as the guy next door.*

> *Always been too bloody busy to pamper an animal.*

> *It's your shop window so to speak and just a really good benchmark for you to compare against other studs.*

> *You can pamper an animal to win a competition but that's no indication how it'll perform in real life.*

The Voice of the Farmer

From an income point of view I have got to increase gross income, or net income if you like, so I have goals there, I set a goal a couple of years ago to definitely get over $200,000 a year for my farm and then I set the goal again a bit higher and made it $250,000 and now this year I am probably going to make $320,000. So I have set myself goals where I wanted to generate more and I have achieved more each year. I don't know if I can keep doing that but it's always a target that I have, that's one thing I do.

Mixed Commercial, VIC

BREEDING PRACTICES AND GENETICS

The Voice of the Farmer

The ASBVs are a good start, but then you've really got to class your sheep as well as you pick your rams. So the confirmation of the sheep, the body structure, so a wedge type shape, that is going to grow more meat, it has to have good feet because the whole structure of sheep stands on that and then also too we don't discount the wool, the length of the wool, you know the staple and the quality of the wool.

Commercial Sheep Farmer, VIC

BREEDING PRACTICES & GENETICS

Key Insights

BEEF STUD / SEED | **SHEEP STUD**

STUD FARMERS FOCUS ON A WIDER AND MORE VARIED RANGE OF GENETIC FACTORS THAN THOSE COVERED BY BREEDPLAN OR LAMBPLAN.

Stud farmers recognise that they are essentially "selling genetics" and so they are highly focussed on every aspect of their animals' genetics.

Their success depends on the quality of their genetics and their ability to micro-manage.

Most develop their own in-house genetic management and tracking system.

IMPLICATION:

There is very low attraction felt towards genetic management systems which do not fit into their systems, breeds, trait management etc, nor those with an unknown 'back-end' that they cannot see.

> *"The seed stock breeders are becoming the successful ones, they're becoming entrepreneurial they're more like R & D organisations than they are farmers."*

> *"We don't use external data like ASBVs. We were using [our own] in flock data a long time before ASBVs became the new vogue word."*

Key Insights

Feed through the mouth. If you haven't got feed, you're not going to achieve anything.

I rely on my stock agent. He can glance over [the data] and knows what he is doing.

There's an old thing in the wool industry or the stock industry, an animal's only as good as what goes down his neck.

I get advice from the fella who breeds the rams. He usually has a reasonable idea of what I'm after.

BEEF COMMERCIAL | **SHEEP COMMERCIAL**

COMMERCIAL FARMERS SEE GENETIC MANAGEMENT AS JUST ONE SMALL FACTOR AMONGST MANY OTHER BIGGER ONES.

Daily factors such as feed, climate, conditioning etc play such a large part in an animal's progress that the infrequently considered role of genetics almost takes a 'back seat'.

Genetics discussions are framed as 'trait selection', and are had mainly with trusted seedstock / stud suppliers.

Traits are selected on the basis of tangible economic gain, e.g. fertility.

IMPLICATION:

Good long-term relationships with seedstock / stud suppliers obviate any recognised need for more involved genetic discussions.

BREEDING PRACTICES & GENETICS

Breeding – Big Picture

BEEF STUD / SEED | SHEEP STUD | BEEF COMMERCIAL | SHEEP COMMERCIAL

Breeding is as much about avoiding certain traits as it is about gaining others. Trait focus is thus very personal and farm-specific.

The traits they seek often related to specific business and financial objectives, e.g. to increasing lambing rates, survival, tick resistance, sales appeal, wool quality etc.

The key measure of progress is financial – otherwise it's just garnish.

There is a clear North-South difference, as those in harsher climates are more focussed on 'beating the elements' and are thus more open to new ideas – hence a lot of cross-breeding is occurring. In contrast, those in South Australia can afford to focus on more subtle traits.

> *Merino lambing percentage might only be 60/70%. So I went into the new merinos where lambing percentage is closer to 120%. So I get 5% less for my wool and I am supposed to get about 30% more for my lambs.*

> *We believe that cattle are made to strive and thrive in the paddock and a cow is supposed to get in calf every year and do a job and rear a calf.*

IMPLICATIONS: The ability of BreedPlan/ LambPlan to support trait-specific breeding, has to be promoted.

Overall Objectives of Breeding

BEEF STUD / SEED | **SHEEP STUD**

Even if they don't recognise it as such, stud and seedstock farmers like to put their own 'stamp' on their animals, breeding to a style that they particularly like or feel best suits their market.

Examples:

- SRS Merino, with some commercial farms specifically citing Jim Watts as an example of stud breeders developing their own style.
- Murray Grey cattle, a relatively recent breed but one with many promoters due to its docility.
- Improving quality of meat to meet MSA standard which they believe is going to be a big part of the industry in the next 5 years.

> *"My bulls are a bit dark. It's hard to market bulls that are too dark. People still want light or grey cattle so I'm trying to tone down the colour a bit."*

> *"MSA in lamb is not big at the moment but we believe it will be a big part of the industry in the next 5 years and want to best position ourselves and our clients with the highest quality meat."*

IMPLICATIONS:
These farmers have their own genetic-tracking and trait-management systems and so those of MLA are seen as less applicable and too blunt.

Overall Objectives of Breeding

> *The temperament is the main thing and in the early days there was a lot of discrimination with colour of the bull whether it be grey or red or black.*

> *My objective is to breed sheep that give me options at the end of the day to put them into either market [meat or wool].*

> *Up here a lot of the breeding's been done for the weather and the grasses.*

BEEF COMMERCIAL | **SHEEP COMMERCIAL**

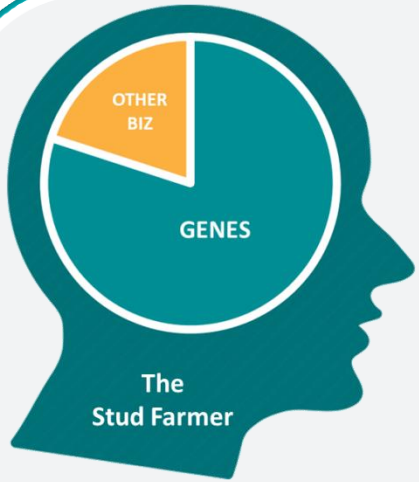
Commercial farmers' breeding decisions are largely driven by the market.

There is an increasing recognition that rather than trying to raise a narrowly-defined 'perfect animal' that it is better to produce '**versatile**' animals that can be managed to achieve different outcomes within a season, to suit different situations, climactic extremes or markets – covering all options.

This reflects the belief that animal management plays a much larger role in income than genetics.

IMPLICATIONS:
BreedPlan / LambPlan may be seen as focussing on overly-narrowly-focussed animals, so guidance needs to be provided on how the systems can work to promote versatility.

Commercial & Stud Farmers have different priorities



Anything that MLA promotes will have to fit in with farmers' objectives and plans. They will not change to suit MLA; MLA has to change to suit them.

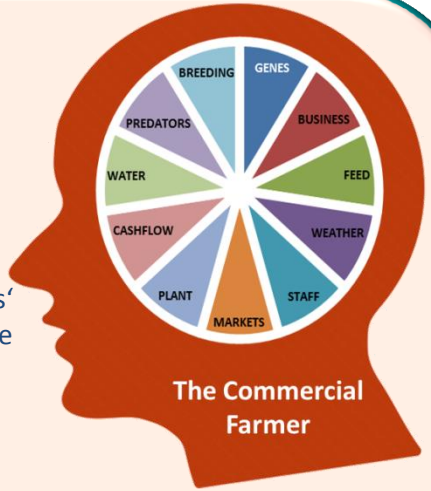
Breeders' success is strongly financially-dictated, and so they are very focussed on doing what is required to achieve their aims.

They set their own breeding goals (which often reflect personal preferences rather than explicit market demands), and as a result will often reject the attempts of others (i.e. MLA) to direct their breeding decisions too much, especially directions that conflict with their own goals.

Commercial Farmers have many more things than Breeders to consider when evaluating farm performance and profitability.

The issue of genetics has a lot of competition for Commercial farmers' attention and so MLA has to increase message cut-through in terms of both execution and compelling content.

With a lot of 'noise' competing for farmers' attention, and their analytical, details-focussed nature, getting enough mindshare for breeding and genetics decisions will be challenging.



Commercial farmers are more cautious and have many more factors to consider – therefore they will 'take more convincing' that any change is worth the time, effort and cost.

Breeding Practices / Procedures

BEEF STUD / SEED

Stud / seedstock farmers are constantly on the lookout for new blood to improve their genetics, and think nothing of sourcing these from some distance away, often overseas.

Such purchases are usually made in person, after narrowing down possible selections online and sometimes through pictures or skype.

Some have their own checklists of traits to aim for or avoid, so that trusted people 'on the ground' can assess an animal according to their own criteria.

EBV data, if available, is a minor consideration and used as a general insurance or sales tool regarding anything unseen in the bloodline either early in the selection process (to reduce a long-list of options) or later in the process (as a last-minute safety check).

IMPLICATIONS:
These farmers will not be drawn away from their in-house systems, so MLA has to be sure to promote BreedPlan / LambPlan as systems which will enhance and add to their own – not as replacements.

SHEEP STUD

"30% to 40% of our selection is still done visually. Visual gives you an assessment that an animal will survive, but use of genetics tools identifies animals which are profitable."

"I developed my own trait selection checklist that my buyers have to use. If a bull passes that, I'll check them out on Skype. After that I'll check the BreedPlan to see there aren't any nasty surprises."

"It [data] always helps with primary selections, but my last thing is visual, always visual."

Breeding Practices / Procedures

"We are trying to breed commercially focused meat – using British bred bulls that can hit a number of different markets so you are not trying to hit a niche market. You are giving your buyers the versatility to be able to do domestic mid fed, long fed, grass fed, MSA and try and have some versatile animals with some meat immaturity, carcass shape that can be turned off at any age and do that well rather than trying to hit one target market and do that really well and leave yourself open if that market falls off. Breeding versatile cattle that are commercially focused is probably our main thing."

BEEF COMMERCIAL

Bulls periodically brought in to keep the bloodlines fresh and for opportunities to improve genetics (but mainly for the first reason).

Usually bought from same breeder(s) as used before; stock agents also often very trusted.

EBV is not always top of mind – huge trust placed in the breeders or stock agents; this can override EBVs if the price is right – because high EBV animals cost accordingly not all can act upon EBVs as might be hoped.

EBVs usually just used as a simple way of weeding out unwanted options, but a high EBV animal will not be bought if it fails the visual test – although the opposite can happen if the price is right.

Farmers who had attended session that explained the uses of EBV figures were much more likely to use them more diligently.

IMPLICATIONS:
Educating Commercial farmers about 'what the numbers mean and how they can help farming be more profitable' is an important first step.

Breeding Practices / Procedures

> *My visual appraisal is always first, then I look at ASBVs. I don't like to be influenced by numbers.*

> *It might depend what your flock needs. For example, the stud that I am getting rams from now [provide] big meaty sheep. They might not be as great in the wool, so with your commercial flock, if I get the frame into the flock then maybe I need to sweeten the wool up and so I might need to go somewhere else [another stud] to get a better wool. But I might need a framey sheep with better wool.*

SHEEP COMMERCIAL

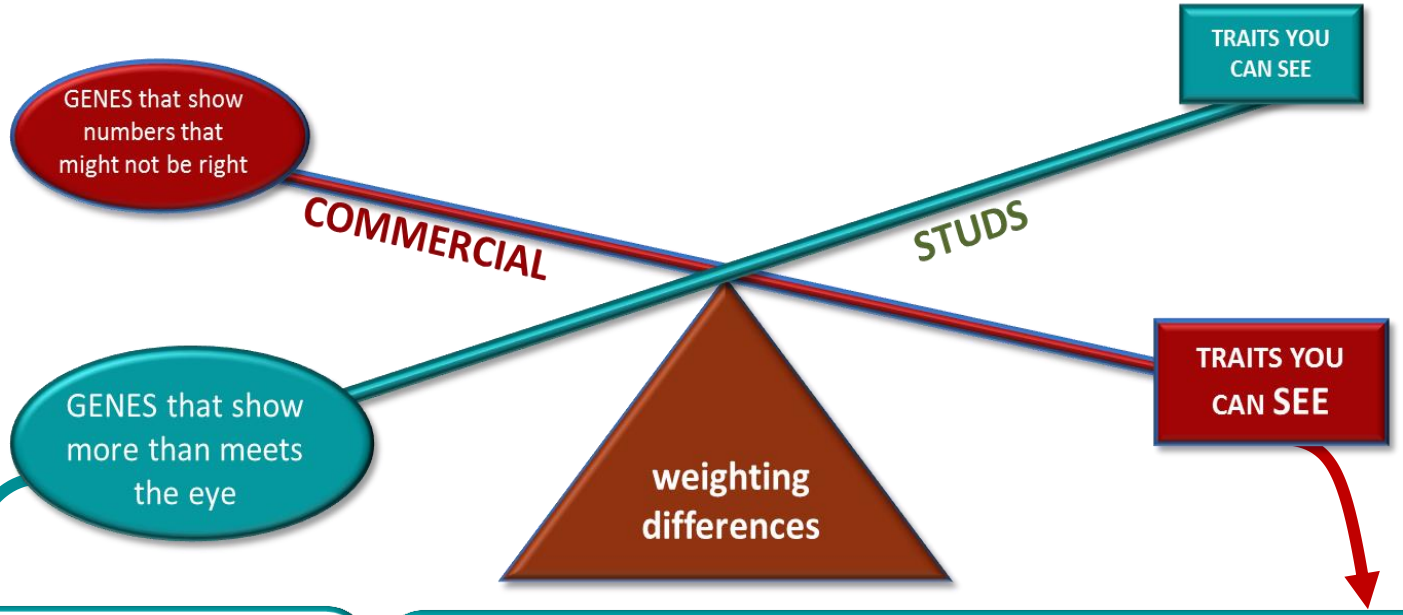
ASBV data is not always referred to, but when it is, it is done so as secondary to the farmer's own visual appraisal.

This checks the 'constitution' of the animal: feet, legs, mouth, head, shape first. ASBVs will be used as a secondary, less dominant choice factor, often to check unseen elements like fertility, eye muscle and fleece weight.

IMPLICATIONS:
The promotion of genetics has to be carefully managed so that it is seen as a useful way of assessing the 'hidden' factors – and not as a replacement for visual checks.

BREEDING PRACTICES & GENETICS

Stud and Commercial farmers approach genes differently



Stud / Seedstock farmers are 'into the **science**' and they talk genes and genomics comfortably. They base most decisions on genetic factors but ultimately know that the 'proof is in the pudding' – i.e. it's the final physical specimen that is the key deliverable.

For **Commercial** farmers, **visual traits** are of most importance – they talk 'traits' not 'genes'. If used, EBVs / ASBVs are used to either shortlist possible purchases or as a final check that a preferred animal has nothing 'hidden' of concern. Educating Commercial farmers about 'what the numbers mean and how they can help farming be more profitable' is recommended (DPI have succeeded with this). Note that the promotion of genetics has to be carefully managed so that it is seen just for assessing the 'hidden' factors – and not as a replacement for visual checks or breeders' information.

Information Used / Sources Preferred

BEEF STUD / SEED | **SHEEP STUD**

Because stud / seedstock farmers have a high degree of knowledge and a high ethos of self-directed research, the majority of their information comes from online sources, other breeders, magazines, local informal breeding groups, Breeding Societies and other breeders.

Some will engage with academic researchers or similar staff at the likes of MLA and DPI but there is a lot of frustration at the difficulties in getting transparent, relevant information from such sources.

IMPLICATIONS:
MLA is not a the natural go-to source for information, so MLA should consider 'inviting' farmers to participate, rather than expecting them to 'if they knew what was good for them'.

The onus is on MLA to hand out the olive branch.

> *"Keep up to speed with what's happening overseas, if you want to get a jump ahead of the Australian stock you have to bring in fresh genes."*

> *"A lot of work has been done with the Sheep CRC where we partnered for a bit for a start and then doing it on our own. We have used all the research scientists and everything to do with genetics that is available through the sheep industry. We have basically incorporated everyone that we can from the industry."*

Information Used / Sources Preferred

> *There is a fair bit of hearsay. You hear people talk. You know their bull's got good growth, or their bulls are good for a certain market, or someone else's bulls are highly fertile, or someone else's bulls might be a bit wild. So it just comes from listening to what people say about various studs.*

> *I look at ASBVs on the internet, but not a helluva lot. Most of the time they are explained fairly well in the stud books at the sale day.*

BEEF COMMERCIAL | **SHEEP COMMERCIAL**

Commercial farmers refer to EBVs and breed data from the internet and from stud or sale yard catalogues, and use this to formulate a short list.

The majority of commercial farmers discuss their desired traits and what they are trying to achieve with their stud / seedstock suppliers. They take the studs' advice into account, but they also make a visual assessment either before, or after they have considered the information and make the final decision.

Even when trusted relationships are developed with studs, most farmers still buy their stock 'on property', and some use stock agents to purchase on their behalf.

IMPLICATIONS:
Commercial farmers are essentially 'looking away' from MLA, so MLA has to 'gatecrash the conversation' (e.g. online advertising) to be noticed and to get farmers considering, understanding and using EBVs and ASBV data. The independence of MLA data will help cut-through.

Information Used / Sources Preferred

BEEF COMMERCIAL

> *We have a really good relationship with a couple of breeders that also breed shorthorns and we speak frequently and bounce questions off each other about genetics and breeding and that sort of stuff and we are very lucky where we are, we have a number of excellent vets that are very good for setting up animal health protocols and drenching programs and that sort of stuff, and are very good with fertility with the bulls and structural soundness. So there are lots of different people we can put our hands on to get advice from and we do that ourselves and encourage our clients to do it as well.*

BREEDING PRACTICES & GENETICS

Progress Evaluation

BEEF STUD / SEED

Stud/ seedstock farmers monitor the prices received for their animals, and the breadth and number of their clients.

They keep detailed records of all their animals, covering bloodlines and traits, to see if the traits improve year on year.

Some take part in national trials, allowing them to benchmark key traits against other flocks or herds. A few also attend shows to benchmark against other stud animals presented.

To achieve the level of detail and accuracy they want, stud / seedstock farmers tend to use their own record-keeping system.

They may use BreedPlan / LambPlan, but this data is not often heavily relied upon nor used for most decision-making. It is seen as something that is expected by buyers to help sales and may also be used to benchmark stock against national data. Some opt out of BreedPlan / LambPlan altogether, feeling that any lost sales are likely to be offset by reduced overheads and hassle.

SHEEP STUD

> *We don't follow the rules 100% like with EBVs, they are not exactly 300 or 600 day intervals, it [our own stud data] is more of a selection tool to present to clients.*

> *Early growth, carcass weight and number of lambs weaned are important, as they are the main profit drivers [in meat]. On the wool side, it is fleece weight.*
>
> *On web sites where LambPlan and Merino Select are used, we can see a ten year graph of how we have progressed against each individual trait and compare against 60 other flocks.*

IMPLICATIONS: The more that actual or possible trait improvements (i.e. more detailed than EBVs) can be shown or modelled in financial terms (e.g. online calculators), the more appealing the tools will be.

Progress Evaluation

> *The fact that we don't seem to have trouble selling our cattle. The proof is in the pudding that people are specifically asking for our cattle.*

> *We record the number of rams and ewes joined and record the number of lambs produced [as a measure of fertility].*

> *Fellows up north are solely based around export and are a long way behind looking at data. The majority look at bulls and as long as he's fertile, they don't care. To them it is just a numbers game.*

BEEF COMMERCIAL | SHEEP COMMERCIAL

As well as straightforward profit & loss, commercial farmers measure their progress in terms of the factors that have a direct financial impact, such as weight gain, fertility, wool quality and survival rates.

Other non-animal factors are also included, such as feed costs, transportation, land leases, capital works and other overheads.

Genetic gain is a 'means to an end' and referred to as trait selection rather than genetic management.

Some farmers discover by trial and error that they have introduced the wrong traits. For example, concentrating on un-poled cattle can produce offspring with lower bone density. This highlights the need for education and advice on particular breeding approaches.

IMPLICATIONS:
The more that actual or possible trait improvements (i.e. more detailed than EBVs) can be shown or modelled in financial terms (e.g. online calculators), the more appealing the tools will be.

Perceived Expertise

BEEF STUD / SEED | **SHEEP STUD**

Stud owners generally felt very knowledgeable, rating themselves 8-9 out of 10.

IMPLICATION:

There is little perceived need to learn more about how genetic-based breeding 'works' – what they focus on is getting new bloodlines and the stud/ram /dam/ewe combinations.

> *8 or 9 I guess, if the guys at Ambury are experts and I definitely know more than them I guess that rates me highly.*

> *Probably about a 7. I'm no damn expert that's for sure but I'm no fool, so I'd say in the middle.*

> *I'm a person that my customers trust in the marketing and the genetics - they're going to be more comfortable with me explaining it to them that I know and I know all their kids names.*

Perceived Expertise

> *5 or 6 guess. There's no point getting to know anymore as I just don't need that level of expertise.*

> *Still learning, out of 10, 5 or 6. An open minded person realises they know enough to realise they don't know much.*

BEEF COMMERCIAL | SHEEP COMMERCIAL

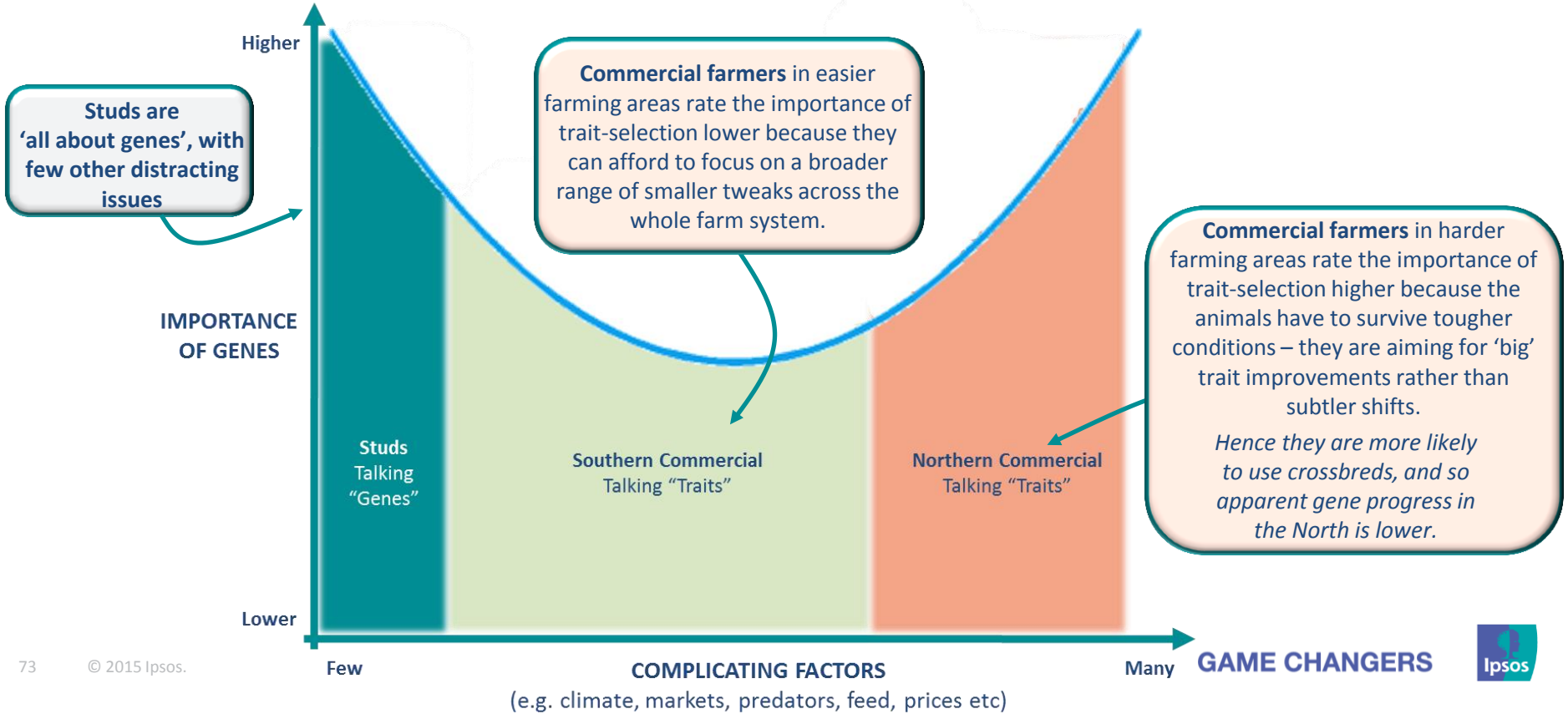
Commercial farmers tended not to rate themselves very highly, recognising that they don't know much – but nor did they feel any need to learn more, given how their stud and buyers were allocated this area of breeding decision-making.

Note that one Commercial sheep farmer did enjoy a local session run by a local stock agent, 'demystifying the numbers'.

IMPLICATIONS:

Farmers do not perceive value in education about EBVs or ASBVs, however they could be subject to 'not knowing what they do not know'.

The importance of Genes varies by complicating factors



BREEDPLAN & LAMBPLAN

The Voice of the Farmer

ASBVs help us with the speed of genetic gain, but also helps us market our genetics. We have 800 clients on our books and 95% of them do their genetic selections through ASBVs. They are a great tool for our commercial clients to back up their breeding selections without being stud savvy and make very good business decisions without being a stud consultant or a sheep consultant. As a grass roots person, they can make very good, informed decisions. The only problem is there are not enough people in the industry who aren't scientists out there educating people. The education side of ASBVs is the only weakness.

It LAMBPlan is not being conveyed properly. For some reason people have this fear of understanding it. Within our business it's not a problem because we have educated all of our clients.

Sheep Stud, VIC

BREEDPLAN & LAMBPLAN

Key Insights

BEEF STUD / SEED | SHEEP STUD | BEEF COMMERCIAL | SHEEP COMMERCIAL

THE MORE THAT FARMERS VALUE GENETICS, THE LESS THEY LIKE AND USE BREEDPLAN OR LAMBPLAN.

Regardless of the type of farmer they are, the more that they value and use genetics, the more problems they perceive to exist in BreedPlan or LambPlan. Stud farmers can be vocal about this and they influence the views of Commercial farmers (their customers) as a result.

They question the trait calculations, trait coverage, quality of inputted data and value received for effort and cost put in. There is no comparison for survivability between states unless you are rearing in exactly the same conditions leads to doubts over whether BP/LP data transposes between state. The increasing use of composite breeds also reduces usefulness, as do the usability problems.

The 'black box' nature of the data does not fit well with their controlling personalities.

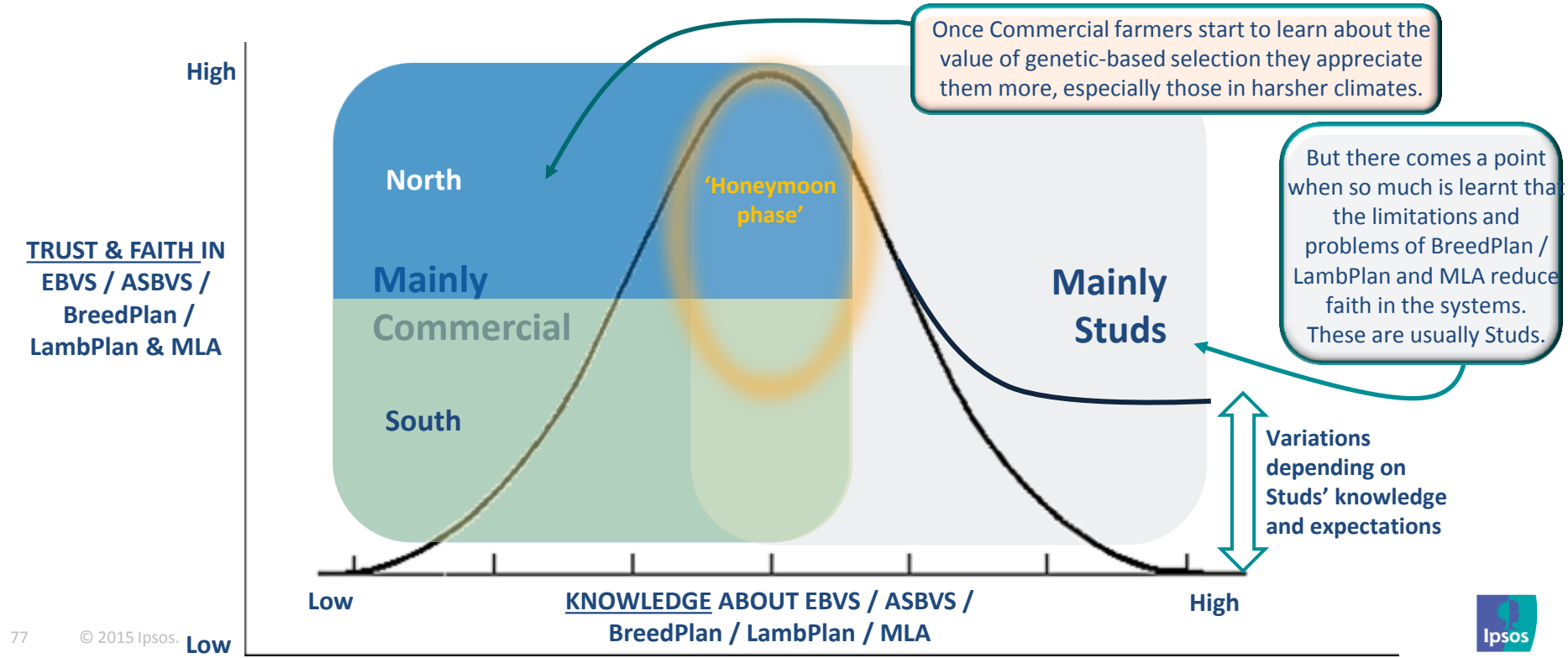
IMPLICATION:

The hypothesis that increased BreedPlan or LambPlan usage will arise from increased appreciation of genetics-based breeding is not supported with Studs / seedstock, and low / declining levels of BreedPlan or LambPlan usage do not indicate low /declining levels of genetics-based decision-making.

The key is to manage expectations and positioning of the systems, because too many seem to think that BreedPlan/ LambPlan are intended to be the 'only solution' for trait management, rather than just a unified foundation for individuals to build upon.

Commercial breeders are notably more open to using the data more, but many may have been dissuaded from the MLA system by their suppliers. Therefore Studs will also need to be 'won over' if Commercial farmers are to be targeted.

As farmers learn about genetic management, they go through a honeymoon phase and become less favourable about BreedPlan / LambPlan & MLA



BreedPlan & LambPlan – Big Picture

BEEF STUD / SEED | SHEEP STUD | BEEF COMMERCIAL | SHEEP COMMERCIAL

BreedPlan / LambPlan are seen as difficult, clunky, ugly, requiring too many steps and processes, and not intuitive. Those who are quite tech-savvy still struggle with it because they are used to much better systems in other strands of their lives. So even if they can use it, they still resent its poor usability.

Some use special programmes from breeding societies to access the data in more user-friendly ways (e.g. Matesel).

Being a part of the system (i.e. recording all the details) is also seen to be a chore, and hence liable for unintended inaccuracies and poor record-keeping.

The opaque nature of the calculations and limited range of traits and breeds covered (especially cross-breeds) further limit the perceived integrity, attractiveness and value of the systems.

IMPLICATIONS:
The interface, processes and systems behind BreedPlan / LambPlan need to be significantly improved, and transparency of the numbers and underlying calculations alone improved.

> *"I did accounting and economics and economics, so I know numbers are only a guide but it's better than nothing."*

BreedPlan & LambPlan – Big Picture

BEEF STUD / SEED	SHEEP STUD	BEEF COMMERCIAL	SHEEP COMMERCIAL

"The principle behind BreedPlan is excellent but there are so many problems with the real world application, not to mention the clunky system and the black box nature of it, and it's just a quagmire."

"So much variation can be entered into it.

A lot of people are going back to visual. They're going back and re-visiting their selection criteria tools and going back to visual."

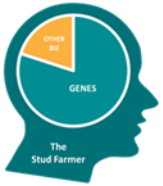
"I have heard of EBVs but it all goes over my head."

"Well I suppose you are tracking what your stud is telling you. They have the figures in their lambing percentages and things like that. So I suppose you want to buy off honest people."

BreedPlan & LambPlan – Big Picture (i)

These farmers have their own genetic-tracking and trait-management systems and those of MLA are seen as less applicable , too blunt, and suffering from a questionable quality of inputted data .
The opaque 'black-box ' nature of the back-end' exacerbates distrust.

Being challenging, critical people, any messages to them from MLA will undergo a lot of scrutiny and some cases cynical scepticism.



CONTROL-ORIENTED DETAILS-FOCUSED PEOPLE

QUESTIONS ABOUT 'HOW AND WHY' THE NUMBERS ARE DERIVED

QUESTIONABLE DATA INPUTS

A MYSTERIOUS 'BLACK BOX' THAT IS HARD TO FATHOM AND HARDER TO GET CLEAR ANSWERS ABOUT

CUMBERSOME INTERFACE; REFLECTS POORLY, INHIBITS USAGE AND TRUST

DESIRE FOR SOMETHING THAT WORKS WELL COMPOUNDS FEELINGS

FRUSTRATION AND REJECTION

IMPACTS ON PROFITS – NOT JUST THEORY BUT REAL-LIFE IMPACTS

LIMITED TRAITS & BREEDS (esp COMPOSITES)

Breed Societies can be a good gateway into BreedPlan / LambPlan or a political hornets nest.

There is little perceived need to learn more about how genes-based breeding 'works' – what they focus on is getting new bloodlines and the stud/ram /dam/ewe combinations.

The trend towards 'versatile' animals and cross-breeds reduces the usefulness of BreedPlan / LambPlan and are seen by some as indicative of MLA being behind the times.

When EBV / ASBV changes are made to fine-tune the system, the result is distrust.
Therefore such changes need considerable amounts of communication / consultation, focussing on how such changes are part of ongoing incremental improvements and fine-tuning – "making something good even better", rather than "fixing something that's broken".

BreedPlan & LambPlan – Big Picture (ii)

The interface, processes and systems behind BreedPlan / LambPlan need to be significantly improved and made more transparent.

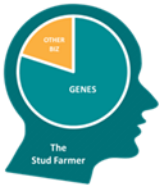
More evidence is needed so that the industry trusts that the data are accurate and genuine.

More work needs to be done to find ways of entering data more easily and more accurately.

QUESTIONABLE DATA INPUTS

QUESTIONS ABOUT 'HOW AND WHY' THE NUMBERS ARE DERIVED

CONTROL-ORIENTED DETAILS-FOCUSED PEOPLE



IMPACTS ON PROFITS – NOT JUST THEORY BUT REAL-LIFE IMPACTS

A MYSTERIOUS 'BLACK BOX' THAT IS HARD TO FATHOM AND HARDER TO GET CLEAR ANSWERS ABOUT

LIMITED TRAITS & BREEDS (esp COMPOSITES)

CUMBERSOME INTERFACE; REFLECTS POORLY, INHIBITS USAGE AND TRUST

DESIRE FOR SOMETHING THAT WORKS WELL COMPOUNDS FEELINGS

FRUSTRATION AND REJECTION

At best, MLA can be regarded as good people who suffer from being too academic and out of touch.
At worst, MLA can be regarded as overly politicised and self-serving.
Although most know that MLA has a wide range of sometimes valued functions, BreedPlan / Lamb Plan have such a high profile and questionable value that they taint most perceptions of MLA.

These farmers will not be drawn away from their in-house systems, so MLA has to be sure to promote BreedPlan / LambPlan as systems which will enhance and add to their own – not as replacements.

Because of a low-profile combined with a poor image, MLA is not a the natural go-to source for information, and should consider 'inviting' farmers to participate, rather than expecting them to 'if they knew what was good for them'.

BreedPlan & LambPlan – Big Picture (i)

Any new farming practice that is presented to them will be heavily scrutinised, and alternative viewpoints checked, before any action occurs. Any possible change has to clearly be able to work within a wide range of possible situations.

Commercial farmers are always looking for ways to squeeze out extra margin yet do not usually consider MLA as an information source. More extension work needs to be done.

MLA should explore partnering with more rural networking / training organisations in order to expand the reach and frequency of its extension programmes.

BreedPlan / LambPlan may be seen as focussing on overly-narrowly-focussed animals (exemplified through prizewinning animals), so guidance needs to be provided on how the systems can work to promote versatility.

OPEN-MINDED, PRAGMATIC TINKERERS

EDUCATE THRU SELF, BREEDERS & EVENTS; ALWAYS LOOKING FOR OPPORTUNITIES TO IMPROVE THE ODDS

HIGHLY SUBJECT TO EXTERNAL FORCES

SOME USEFUL EXTENSION WORK, LESS SO FROM MLA

THE NUMBERS SOME STUDS PROVIDE AT SALE – OPAQUE YET POSSIBLY USEFUL

REDUCED USEFULNESS

A TREND TOWARDS COMPOSITES

LOW PROFILE 'INSURANCE CHECK'

Many focus on crossbreds and/or 'versatile' animals; therefore why promoting purebreds may run counter to their priorities.

MLA is mainly viewed positively, through its self-managed public face. However, some either do not consider MLA as an education source or think that MLA does not have the credibility or mandate to fulfil a farmer training role.

LOW MLA KNOWLEDGE

QUESTIONABLE REPUTATION AND RUMOURS

Winning over the negative farmers will be very difficult as long as their stud / seedstock suppliers continue to undermine BreedPlan & LambPlan.

Good long-term relationships with seedstock / stud suppliers obviate any recognised need for more involved genetic discussions with anyone else.

BreedPlan & LambPlan – Big Picture (ii)

Farmers do not perceive value in education about EBVs or ASBVs, however they could be subject to 'not knowing what they do not know' (even supporters do not fully understand what BreedPlan/ LambPlan can achieve). But given the right information, and proof that the numbers work, they would use the information more.

Acceptance and usage of the EBVs ASBVs will follow if these farmers can see them to be an easily-understood way of making better selection decisions.

The key is to manage expectations and positioning of the systems, because too many seem to think that BreedPlan/ LambPlan are intended to be the 'only solution' for trait management, rather than just a unified foundation for individuals to build upon.

SOME USEFUL EXTENSION WORK, LESS SO FROM MLA

REDUCED USEFULNESS

EDUCATE THRU SELF, BREEDERS & EVENTS; ALWAYS LOOKING FOR OPPORTUNITIES TO IMPROVE THE ODDS

OPEN-MINDED, PRAGMATIC TINKERERS

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THE NUMBERS SOME STUDS PROVIDE AT SALE – OPAQUE YET POSSIBLY USEFUL

A TREND TOWARDS COMPOSITES

LOW PROFILE 'INSURANCE CHECK'

Commercial farmers are essentially 'looking away' from MLA, so MLA has to 'gatecrash the conversation' to be noticed and to get farmers considering, understanding and using EBVs and ASBV data. The independence of MLA data will help cut-through.

LOW MLA KNOWLEDGE

QUESTIONABLE REPUTATION AND RUMOURS

The lack of knowledge and breeders' support, combined with the need to consider many other operational factors, mean that BreedPlan / LambPlan are at best a low profile 'security check when buying.

GAME CHANGERS

BREEDPLAN & LAMBPLAN

Knowledge & Experience

BEEF STUD / SEED | **SHEEP STUD**

Most stud and seedstock farmers had experience with BreedPlan / LambPlan, even those no longer using the systems.

Generally the more they knew of the systems the worse their impressions of them, because they experienced more of the information and usability limitations.

IMPLICATIONS:
The user interface and systems have to be reviewed.

"Whatever they do to it is just polishing a turd."

"I don't use BreedPlan to tell the truth. It might cost me some customers but it misses so much I do a better job without it."

"It's flawed. There is a flaw in the tool. It is a comparison tool to compare stud to stud, but unless they [the animals] are grown under the same environmental conditions, it is no comparison."

"That's the problem with EBVs, it's too hard to compare against different climatic conditions and what [feed] they have been raised on."

BREEDPLAN & LAMBPLAN

Knowledge & Experience

"To be able to compare apples and apples and to enable people to select based on the industry standard."

"I use my visual appraisal first and then I look at ASBVs."

"I always look at visual traits first and pedigree second. You need to look at carcass first. I imagine what the bull would look like hanging up in the cold room with the skin off."

BEEF COMMERCIAL

Commercial farmers who could interpret the numbers generally felt that the BreedPlan / LambPlan information was useful.

It is mainly used as a tool for shortlisting potential studs, so that any unwanted traits could be screened out.

All confirmed that the decisions were ultimately based on a combination of sellers' information which sometimes included EBVs and ASBVs for 'under the hood' assessments of fertility, eye muscle and temperament and their own visual assessments which were often the primary decision tool.

IMPLICATIONS:

Stud and seedstock farmers need to be more engaged with BreedPlan and LambPlan, so that they encourage commercial farmers to trust the numbers.

SHEEP COMMERCIAL

BREEDPLAN & LAMBPLAN

Usage: Motivators & Advantages

BEEF STUD / SEED | **SHEEP STUD**

Stud / seedstock farmers use BreedPlan / LambPlan in a similar way to their clients – to cull unwanted animals from possible shopping lists, and to focus on any traits of importance that are covered.

BreedPlan / LambPlan data is also seen as aiding with sales by some, although there are those who opt out of BreedPlan / LambPlan despite the possible loss in sales (because they think their own system is superior).

IMPLICATIONS:
MLA can increase trust for the quality of BreedPlan/ LambPlan data by enlisting support from current users and by increasing the number of farmers that input data.

> *It's OK as a tool – the value is how you use it and it's no good on its own. So I's another helpful thing but not the main thing we use – we have our own trait system for that.*

> *We have educated ourselves to look at the different individual ASBVs rather that the Indices. I'm not a big fan of the Indices at the end because I think that it clouds the traits that you are looking for. We do our genetic selection using LAMBPlan and Merion Select on the traits to maximise genetic gains so I'm not a big fan of indices.*

Usage: Motivators & Advantages

"I think that you're conscious of them [ASBVs], but you don't buy on them. You go to the sale and pick out animals visually and on price and then you look at the figures."

It can be a useful way to check for throwbacks that might not be apparent in the animal you're looking at.

"I really do enjoy the system, I love it, as I said at the start there is nothing better that we have, to go to, so I don't see any reason why we shouldn't fully support what we have got at the moment."

BEEF COMMERCIAL | **SHEEP COMMERCIAL**

Commercial farmers see BreedPlan / LambPlan data as a simple tool for shortlisting possible purchases, akin to checking on car reliability figures before buying a second-hand car – a simple yet un-guaranteed way to reduce the likelihood of buying a lemon.

Hence the key motivator is to avoid unwanted traits, followed by selecting for certain traits – however the usefulness of BreedPlan / LambPlan for trait selection is limited due to the smaller-than-required range of traits covered.

IMPLICATIONS:
Acceptance and usage of the EBVs ASBVs *will* follow if these farmers can see them to be an easily-understood way of making better selection decisions.

BREEDPLAN & LAMBPLAN

Usability / Logistical Issues

THE VIEW FROM THOSE 'AGAINST'

For some users, the interfaces are seen as difficult, clunky, ugly, requiring too many steps and processes, with reconciliation problems and not intuitive.

Some of those who are quite tech-savvy still struggle with it because they are used to much better systems in other strands of their lives. So even if they can use it, they still resent its poor usability.

Being a part of the system (i.e. recording all the details) is also seen to be a chore by some, and hence liable for unintended inaccuracies and poor record-keeping.

The system is said to be too focused on purebreds, doesn't support crossbreds, and hinders development of new composites.

IMPLICATIONS:
A redesign of both visual and functional interface is required.

"Like you wouldn't believe the amount of bugs and stuff for which in other industries there's probably a $2 app that does it. And it is quite complicated, so there's all these different breeds and breed settings. This Breed Society uses this and you got to go to that and toggle between that and there's people using a lot of different ways and there's a lot of different aspects. So if I fade out an animal I've got to fade it three ways in the program, I've got to say why I want to fade it off or why it died. I've got to then tell the society why it died, and then I've got to tell BreedPlan why it died."

BREEDPLAN & LAMBPLAN

Usability / Logistical Issues

THE VIEW FROM THOSE 'FOR'

Some stud / seedstock farmers do value BreedPlan/ LambPlan highly, because they understand how to use it to benefit their business and so they have persevered with usability issues in order to realise the potential gains from the systems.

Others are supportive in that they would like it to provide more, so that they can use it to reach their breeding objectives.

IMPLICATIONS:
Even supporters do not fully understand what BreedPlan/ LambPlan can achieve. But given the right information, and proof that the numbers work, they would use it.

> *"The format is brilliant, I find it very easy to use and user friendly and not very difficult at all and I'm not that smart. I have no university degree or anything but I find it the simplest thing to understand. It is very simple."*

> *"I had a guy in who told me what buttons to press and he wrote down the whole procedure and so I just follow that."*

BREEDPLAN & LAMBPLAN

Data Quality Doubts

BEEF STUD / SEED | **SHEEP STUD**

The labour requirements of feeding data back into BreedPlan or LambPlan are seen as another problem.

There is no shortage of anecdotes about questionable record-keeping. This will reflect the poor regard that the systems are held in – because the payback is seen as poor, the benefits from the labour required are seen to be low - and thus the willingness to get the numbers correct will decrease, further creating a negative cycle.

IMPLICATIONS:
More work needs to be done to find ways of entering data, perhaps through use of mobile technology.
More evidence is needed so that the industry **trusts** that the data are accurate and genuine.

"I use my own system because BreedPlan only includes one temperament trait but I prefer to include all four."

"It's probably more value to as a marketing tool to help sales. I certainly don't make many decisions based on it."

"Just because there's lots of data on one or some sheep and not on others doesn't mean to say that those ones with data are better. All the data in the world cannot control the environment. I think that's the going to be a flaw with all the data that is collected. The environmental impact on it."

"In Northern Australia you probably count on one hand the people that actually performance record cattle properly."

BREEDPLAN & LAMBPLAN

Data Quality Doubts

I did speak to one stud person who sees a lot of problems with the science behind the ASBV's. He said it's very much an in house, old boys club sort of thinking behind it. So you have to be a bit dubious about them as well.

I heard of a breed society that ran a trial, and they used a number of different sizes and the person managing the commercial herd, the progeny testers, came down one day to tag some calves and he tagged his calf and said that is 36kgs and he said "aren't you going to weigh it?" and he goes "no I have weighed enough I know what I am doing" and they said "how many of them have you estimated like that and he said "I did that with the whole lot".

BEEF COMMERCIAL | **SHEEP COMMERCIAL**

Commercial farmers' impressions of BreedPlan and LambPlan are heavily swayed by their breeders / studs.

Those with positive views have tended to hear convincing arguments from other parties, e.g. at training workshops.

IMPLICATIONS:

Farmers need enough understanding to decipher the numbers, and plenty of evidence that the numbers are accurate. There is lack of trust because of stories about people "fudging" the data.

BREEDPLAN & LAMBPLAN

Negative Stories Abound

BEEF STUD / SEED | **SHEEP STUD**

Negative stories or perceptions of other studs deteriorating due to improper use of BP/LP have lead to a reluctance to use.

IMPLICATIONS:
The accuracy of BP/LP in terms of animal survivability is also brought into question when a number of visual elements are not accounted for.

"BreedPlan acts more as you'd run a football club than you would genetic evaluation. You've got to sort of jump through a lot of hoops and do a lot of settings and stuff whereas the actual data set that they need to do it is a lot simpler than their way about going about it."

"It can be a right nuisance to weigh the calves and we all know guys who just estimate by picking them up or worse still, just by looking."

"There has been a lot of complaints that people have lost their wool weights because they haven't been selecting it when they're using ASBVs.

I've seen amazing data for animals and they have been down on their pastures and couldn't walk, undershot jaws and lots of black in it. If you did a visual classing it would be culled in the first chop, yet the data reads like it is superior to anything else."

"I have seen studs who were doing a good job with their cattle deteriorate. They destroyed their own herds by relying wholly and solely on data collection and not looking at physical traits."

BREEDPLAN & LAMBPLAN

The Cross-Breed issue

BEEF	SHEEP

Stud / seedstock farmers use BreedPlan / LambPlan in a similar way to their clients – to cull unwanted animals from possible shopping lists, and to focus on any traits of importance that are covered.

BreedPlan / LambPlan data is also seen as aiding with sales by some, although there are those who opt out of BreedPlan / LambPlan despite the possible loss in sales.

IMPLICATION:
The limited usefulness for cross-breeding farmers undermines the usefulness of BreedPlan / LambPlan and also sends a message that 'MLA is too focussed on the increasingly narrow number of purebred breeders.

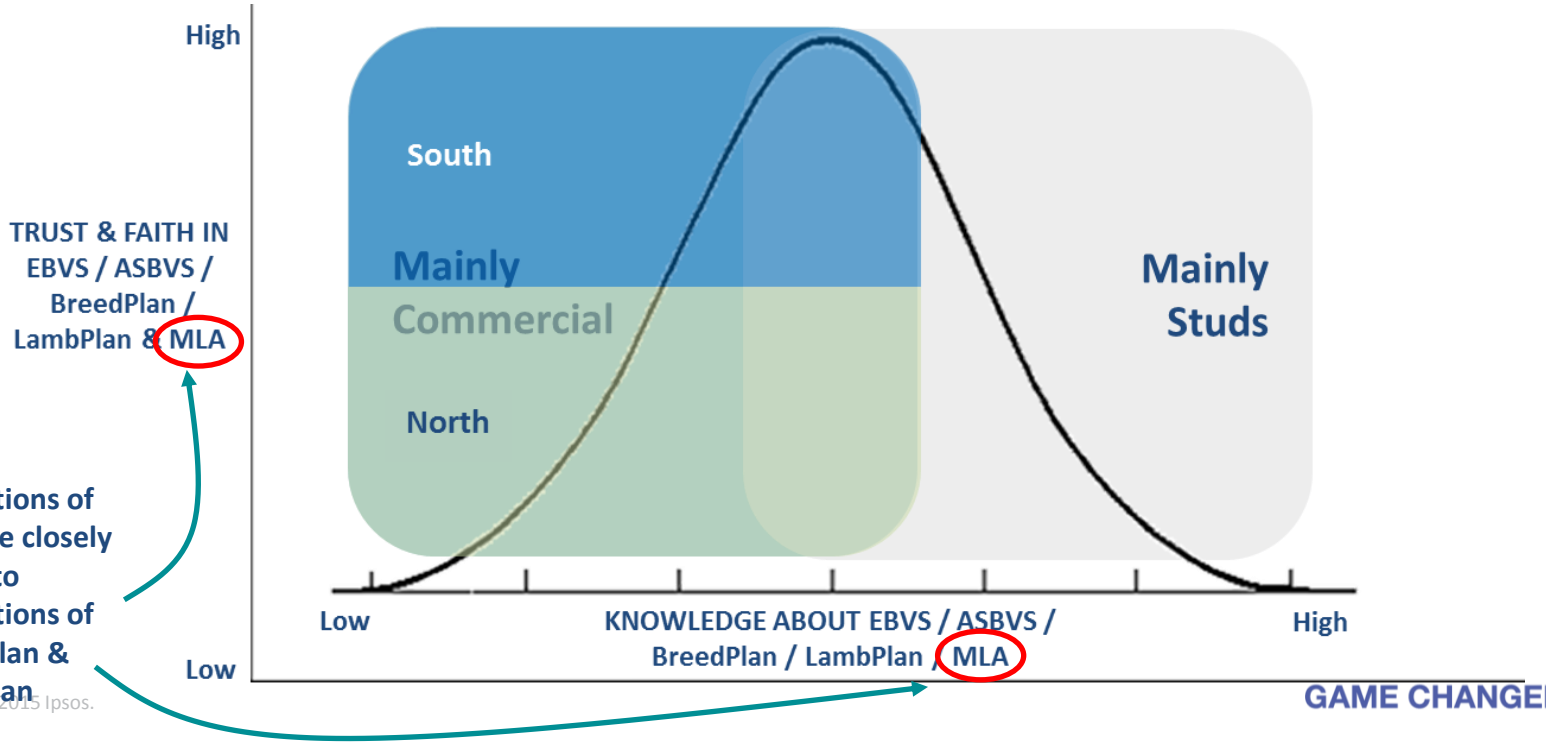
> *Even genomic science is getting beyond breeds and it becomes more difficult. I think the problem is that you've got scientists stuck in academia in saying this is a really sexy data base because it's all pure bred and everyone else is trying new composites.*

> *The Senepol give you a better quality like heifer and cow when they get older. The steers are definitely better but some of the Brahman cross cows throw better calves with the Brahman bull.*

> *My father in law was given some Hereford cows from his father and he put a Brahman bull over them and that's how he started his herd with these fantastic cross bred cows that were super productive.*

PERCEPTIONS OF MLA

Perceptions of MLA are closely linked to Perceptions of BreedPlan & LambPlan



PERCEPTIONS OF MLA

Key Insights

BEEF STUD / SEED | **SHEEP STUD** | **BEEF COMMERCIAL** | **SHEEP COMMERCIAL**

PERCEPTIONS OF MLA'S MARKET-BUILDING ACTIVITIES ARE GENERALLY POSITIVE ACROSS ALL FARM TYPES:

Awareness and knowledge of MLA varied widely, and a large minority knew almost nothing.

Of those with some knowledge of MLA, the general sector-building work was best-known and appreciated (e.g. opening new markets, promoting red meat consumption etc). There is strong support for some activities carried out by MLA.

IMPLICATIONS:

The support for MLA should be leveraged to promote the reliability of BreedPlan/ LambPlan and counter the negative word of mouth.

"They take a percentage of an animal sale and use it to market and promote animals overseas."

"The people have their hearts in the right place but they're all restricted by bureaucracy and politics."

"MLA is an industry body that polices the industry and policy within the industry. They handle a lot of shit sometimes. A lot of stuff that people don't see."

PERCEPTIONS OF MLA

Key Insights

BEEF STUD / SEED	SHEEP STUD

STUD / SEEDSTOCK FARMERS OFTEN HAVE A TENSE OR WARY RELATIONSHIP WITH MLA IN REGARDS TO BREEDPLAN & LAMBPLAN.

As discussed, these farmers frequently question and debate the value of BreedPlan & LambPlan. If they have raised these concerns with MLA they have tended to become acrimonious and resentful.

IMPLICATIONS:
At best, MLA can be regarded as good people who suffer from being too academic and out of touch.

At worst, MLA can be regarded as overly politicised and self-serving.

> *Well-intentioned but out of touch scientists in a government department – not a good combination. An ineptocracy.*

> *Their responsibility is enormous because to me everything they [MLA] do reflects back onto us as a business long term and our clients so a company like MLA they must have the highest standards in everything they do because it reflects on the sheep meat and cattle meat component of our industry. I would say great value for money.*

> *An ineptocracy*

Key Insights

"I think they are terrific organisation, and even though you hear some questionable things, there is always room for improvement in any outfit - but I think that most of those people that are involved in MLA are genuine and they do the best and I think they are doing a pretty good job and they spend their money fairly wisely in most cases."

"I really don't know anything about them – I was hoping to find out when I agreed to do this interview!"

BEEF COMMERCIAL | **SHEEP COMMERCIAL**

COMMERCIAL FARMERS ARE SWAYED BY WHAT THEIR STUD / SEEDSTOCK SUPPLIERS TELL THEM

These farmers know much less about BreedPlan & LambPlan and so are strongly influenced by their suppliers.

As such, most are 'neutral-to-negative' – they don't know much and what what they do know casts lot of doubt.

IMPLICATIONS:
Winning over the negative farmers will be very difficult as long as their stud / seedstock suppliers continue to speak out against BreedPlan & LambPlan.

PERCEPTIONS OF MLA

Awareness and Familiarity - Politics and People

BEEF STUD / SEED | **SHEEP STUD**

Those who have contacted MLA about matters other than BreedPlan / LambPlan report generally helpful, good people.

However, Stud / seedstock breeders frequently question the value of BreedPlan & LambPlan, and if they have raised these concerns with MLA the conversations tended to become acrimonious and resentful because they report many problems such as stonewalling, slow information provision, overly-academic over-complication (or just as often, over-simplification) and a general lack of 'will to engage'.

This exacerbates the already questioned value of the BreedPlan and LambPlan systems.

> *"I think they [MLA] are scared of the top end, even in the pure breeding like the Angus. The leaders in the industry - the leaders in genetic gain -aren't actually getting a lot of help. The reality is they drive themselves."*

IMPLICATIONS:
Many therefore question the underlying drivers of MLA, asking whether it is truly aiming to help farmers gain value or primarily interested in serving itself and protecting its own interests and investments.

PERCEPTIONS OF MLA

Awareness and Familiarity - Politics and People

BEEF COMMERCIAL | **SHEEP COMMERCIAL**

Many have very little knowledge of MLA, and often all they have seen is the marketing such as cooking shows, Friday Feedback etc.

Those who had more experience or knowledge thought MLA to be good, believing them to be genuine, doing their best, looking after R&D, opening new markets etc. - generally good knowledge of funding and activities. Problems were often cited as being a simple unavoidable product of being a large government organisation.

MLA workshops are very popular for some, especially those focusing on fertility, lamb survival rates, weaning, ram selection, lifetime ewe management etc.

There was a general belief that as farming is getting harder, so farmers need to know more – there is a growing need for info from the likes of MLA. However the MLA emails/ newsletters and events are too limited in geographical relevance, esp Tasmania. More locally specific information and activities are called for.

> *"There are some of them that are a bit green but there is enough people inside the organisation that they know what they are on about and know where they are heading and I think they do a good job."*

> *"I don't see much about them to be honest. I flick through that Friday Feedback but it's hard finding anything relevent to my area."*

IMPLICATIONS:
MLA is mainly viewed positively, through it's self-managed public face. However, some either do not consider MLA as an education source or think that MLA does not have the credibility or mandate to fulfil a farmer training role.

Perceived Value and Relevance

BEEF STUD / SEED | **SHEEP STUD**

Because of the issues surrounding BreedPlan / LambPlan, the value and relevance of MLA was questioned by many stud / seedstock farmers.

These experts in the industry see MLA as being better suited for a marketing role.

IMPLICATION:
Although most know that MLA has a wide range of functions, many of which are valued, BreedPlan / LambPlan have such a high profile and questionable value that they taint most other perceptions of MLA.

> *"There are so many questions over the system, how it's calculated, the data going into it, and its weaknesses with cross-breds and it just seems like a great idea that failed on take-off."*

> *"Their best work is when they keep off the farm and focus on opening new markets and promoting red meat."*

Perceived Value and Relevance

> *They are facilitating a lot of workshops and I have been to a lot of them*

> *I think they have a very important role to play. I don't know much else about them though.*

BEEF COMMERCIAL | **SHEEP COMMERCIAL**

The value and relevance of MLA was generally regarded as high amongst commercial farmers, although could be significantly higher.

Increased relevance and value is mainly regarded to lie in MLA extending the number, range and accessibility of its extension activities.

There is also a call for increasing high-level industry supporting work in areas such as land use management, labour market development, overseas land sales etc.

IMPLICATIONS:
Commercial farmers are always looking for ways to squeeze out extra margin yet do not usually consider MLA as an information source. More extension work needs to be done.

The most important thing with stock is what goes down their throat. The genetics are really probably affecting 10 to 20%. So at the end of the day, you can have the best genetics in the world, but if you're not feeding them properly you're not going to realise those genetics anyway.

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GAME CHANGERS