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Sheep CRC Genetics Training Initiative:
Communication and skills development needs assessment



Aims

- To identify the current barriers to increased utilisation of genetic technologies
- Recommend ways (communications, training, skills development) of overcoming these barriers that will contribute to increased utilisation of genetic technologies

Methodology

- Terms of reference/deliverables issued by Sheep CRC
- Consultation with Project Steering Committee
- Preliminary consultation with key industry personnel
- Background review of previous reports and publications
- 80 depth interviews with 4 broad industry segments- seedstock producers, commercial producers, breed own rams and service providers (agents, classers, consultants)
- Online survey of Sheep CRC database- 123 completed
- 3 focus groups to ratify the preliminary findings and suggested strategies



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Rams sold with ASBVs

15% Merino ram-selling flocks users of Merino Select,
representing:

- 30% of Merino rams sold with ASBVs
- 45% of Maternal rams sold with ASBVs
- 70% of Terminal rams sold with ASBVs



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Estimated % of Commercial Producers and Service Providers using ASBV's

- | | |
|-----------------------|-----|
| ■ Merino wool | 5% |
| ■ Merino Dual Purpose | 10% |
| ■ Maternal Prime Lamb | 20% |
| ■ Terminal Prime Lamb | 40% |
| | |
| ■ Agents | 15% |
| ■ Sheep Classers | 5% |
| ■ Wool Classers | 1% |



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Subjective assessment of sheep

- Not witnessing the benefits from ASBV's
 - No demonstration of sheep bred by ASBVs
 - Low number of studs using ASBVs
- Lack of clear market signals/feedback
 - Big is best
 - 1st X ewe sales
 - Very few processors providing meaningful feedback
- Why spend more \$ when results unknown
- No need to change ('don't need a computer to breed good sheep, been doin' it for years')
- Poor sheep making good returns



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Barriers to adoption

Lack of evidence of impacts & \$ benefits

Limited support for commercial producer adoption

Lack of awareness, knowledge, & understanding of ASBV's



Minimal promotion by key influencers

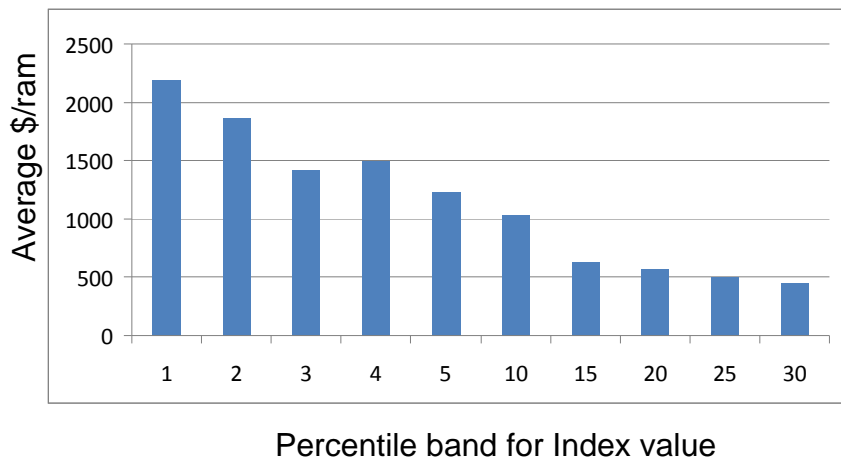
Complexity- which traits what values 'website'

Reliance on ram breeders to extend the technology

Limitations with reliance on ram breeders

- Level of engagement of ram breeders with technology- particularly Merino studs
- Level of commitment to use the technology to breed the most productive and profitable sheep for their commercial clients and themselves
- Level of commitment to educate their clients in the use of the technology and support adoption

Ram Value versus Genetic Merit



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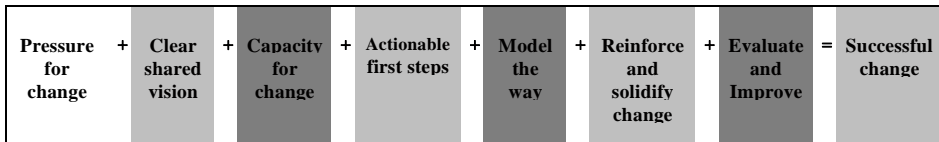
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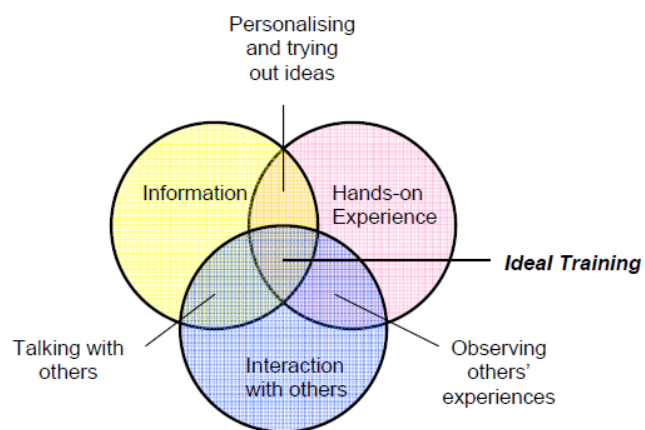
**NEED A MORE DIVERSE RANGE OF STRATEGIES
THAT ADDRESS EXISTING BARRIERS TO ADOPTION**

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Critical elements for successful change



Ideal Training Design



Supporting commercial producer adoption

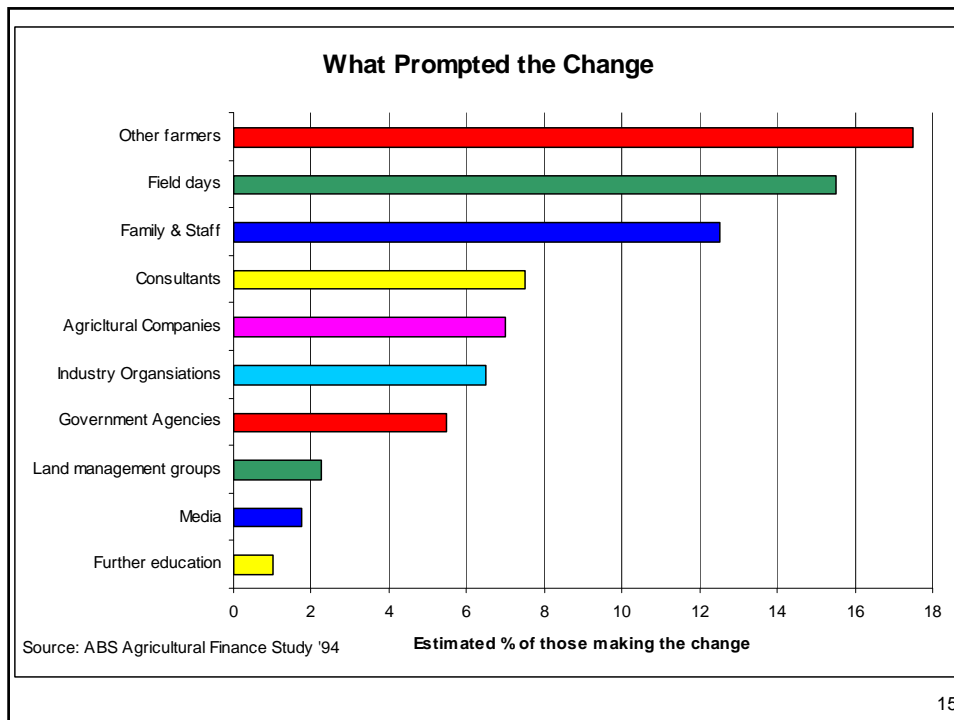
1. Establish **Sheep CRC Program** to enable and support the adoption of ASBV's by commercial producers, through-
 - A network of Development Officers that understand the culture of commercial producers and can support adoption, via
 - A range of evidence building activities
 - A range of educational activities
 - A range of tools for adoptions

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Range of evidence building activities

2. Establish a **national network of commercial producers** that have made gains in their enterprise as a result of using the technology and are advocates for ASBV's

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Range of evidence building activities

2. Establish a **national network of commercial producers** that have made gains in their enterprise as a result of using the technology and are advocates for ASBV's
3. **Regional demonstration sites** established that involve producers, agents, development officers, processors etc
4. Establish protocols for **on-farm progeny testing** that enable producers to identify the benefits of using higher value ASBV's (evaluate genetic gains in their flock)

Proving ASBVs in the field

2000 crossbred ewes joined to terminal sires in central NSW

% of lambs 43kg plus at 16 Weeks

| Sire Group | Av. PWWT ASBV | 43kg + |
|------------|---------------|--------|
| High PWWT | 8.9 | 46.6% |
| Mid PWWT | 4.4 | 18.0% |
| Low PWWT | 1.6 | 11.6% |

Source: Sheep CRC & NSW DPI



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Proving ASBVs in the field

- Lambs from high PWWT rams gained 50g/day more than lambs from low PWWT rams
- At 16 weeks this = 2.5kg extra carcass weight (CWT)
- At \$5.00/kg x 2.5 kg CWT = \$10.00 per lamb
- 60 lambs/joining x \$10/lamb = \$600/joining
- 4 joinings/ram x \$600/joining = \$2,400 value for high growth



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Range of educational activities

5. **Awareness gatherings ('A taste & A Face')** targeted at building awareness amongst producers of the value of using ASBVs when buying rams, using evidence from previous strategies
6. Series of **Bred Well Fed Well** seminars aimed at building producer knowledge, attitude, skills and motivation to use ASBVs
7. Promote more widespread participation in **Edge workshops** aimed at changing KASA and practice in use of ASBV's, and provide additional support for adoption following participation
8. Develop a **national genetics training program** based on LTEM extension model that facilitates practice change in use of ASBVs and enables producers to evaluate the benefits on-farm
9. Series of **training opportunities for service providers** to increase awareness and understanding- especially agents



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Tools for adoption- reducing complexity

10. **Starter kit** that enables producers to understand how they can better meet their breeding objective by using ASBV's and provides tools such as pocket book, percentile band report etc
11. **Decision support tool** that quantifies producers breeding objectives and links key traits & indexes to that objective, and then highlights breeding values on an abbreviated percentile band report that are required to achieve the desired objective
12. Develop a **website** with a practical focus that supports commercial producer adoption of ASBV's, covering topics like-
 - The process for developing a breeding objective
 - How to select rams using visual techniques and ASBV's
 - How to monitor and value genetic progress in commercial flocks



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Sheep CRC Program-
to enable and support the adoption of ASBVs by commercial sheep producers

