







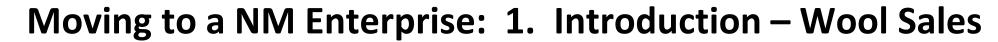
Findings of interviews with 40 Non Mules Merino enterprises with a diverse range of environments and sheep types







- 1. Introduction
- 2. Plan for Success
- 3. Think Beyond Mulesing
- 4. Sheep Type
- 5. Management Focus
- 6. Financial Impact
- 7. Check List
- 8. 2017 Husbandry Practice Survey





Bales Merino Wool						
Bales	CM	M	NM	M PR	Not Dec	TOTAL
2014-15	35,159	284,651	68,632	292,667	651,541	1,332,650
2015-16	33,916	253,114	71,617	323,943	534,190	1,216,780
2016-17	35,554	268,111	83,074	407,838	486,220	1,280,797
2017-18	31,389	263,785	97,489	477,232	428,070	1,297,695
% Bales	CM	M	NM	M PR	Not Dec	TOTAL
2014-15	2.6%	21%	5.2%	22%	49%	100%
2015-16	2.8%	21%	5.9%	27%	44%	100%
2016-17	2.8%	21%	6.5%	32%	38%	100%
2017-18	2.4%	20.3%	<mark>7.5%</mark>	36.8%	33.0%	100%



Source AWEX: Auction Sales

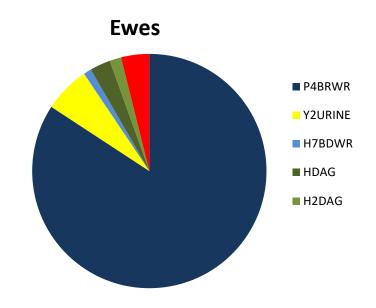
- Not Mulesed wool volumes; low but increasing
- However Australia is a major world exporter of NM wool
- Fly intro Aust 1890's, mulesing adoption slow but widespread
- Fly intro NZ 1980's, will cease Oct 2018, very different environment
- Key message is to declare; especially NM, CM and PR

Moving to a NM Enterprise: 2. Plan for Success



- Get a detailed plan, don't just stop, may take years
- Know your environment and sheep
- Rebalance ways of reducing strike risk
- All people need to be "on board"
- Still may need a leap of faith
- Some growers found it easier than they first thought

Variation in ewe breech strike dominated by breech wrinkle DPIRD WA







➤ Issue is about continuous improvement in animal welfare rather than mulesing — it is a journey not a destination,

It is about whole of life welfare, over a range of animal health risks

- More than tick a "NM" box
- Monitor and have evidence of improving lifetime welfare, then issues move to a bigger picture
- "Welfare" to "sustainability", to "transparency" and "telling a story"

Moving to a NM Enterprise: 4. Sheep Type



- In hindsight some woolgrowers stopped mulesing too early
- Need low wrinkle, low dag, profitable flock first
- > Shortage of low breech strike, profitable genetics, particularly in super fine type







- From AWI "Breeding for Breech Strike" Flocks:
 - To have a similar risk of breech strike to mulesing, the following is needed
 - 2 score and less for Breech Wrinkle, Dags and Urine Stain
 - 3 score and less for Breech Cover
 - The lower the natural score the better, for both NM or M enterprises
- What do these phenotypic scores mean in Breeding Value terms?
 - Determined by your management & country & environment
 - Wrinkle ASBVs for NM enterprise without undue reliance on chemical?
 ASBV varies between -0.3 to -1.0?





- Some growers started to breed their own rams due to the shortage of suitable sires
- Others started but realised that it is more complicated than first thought and went back to buying in rams
- 2017 AWI survey on animal husbandry practices:
 - 1,200 growers surveyed on their 2017 practices
 - o 22% of growers mulesing, breed their own rams
 - o 23% of growers not mulesing, breed their own rams
 - o 40% of all growers with more than 2,000 ewes, breed their own rams



Moving to a NM Enterprise: 5. Management Focus

- Large variation in Management Practices between the 40 NM woolgrowers interviewed due to very diverse environments:
 - One grower did not crutch, drench or jet and shore 12 monthly
 - One grower crutched or sheared 5 times per year
 - One grower applied chemical protection 3 times per year

There are multiple recipes in NM enterprises; as there are with M enterprises





- Management approach depends on:
 - Business flexibility, ability to respond tactically due to other enterprises
 - Sheep type
 - High or low dag zone
 - High or low worm zone (use of long acting capsules)
 - Shearing frequency, access to shearers
 - Timing of crutching dags on the skin?
 - Length of joining and lambing
 - Access to farm labour
 - Attitude to high use of chemical (fly and worm) and potential for resistance
 - Risk of floods, foot rot and family ill-health (ability to respond to fly outbreaks)



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Moving to a NM Enterprise: 6. Financial Impact

- Intention was to complete detailed financial review of 5 NM businesses
- Quickly found too many complexities to present information in a simple calculator
 - Number and type of other enterprises
 - Sheep type
 - High or low dag zone, high or low worm zone
 - Time period to introduce multiple changes
 - Timing of lambing
 - Intensity and length of high fly risk season
 - Size of wool premiums
 - Variable re-stocker discounts, sheep class and region (Nil to 40%)
 - Attitude to business risk and increased use of chemicals
 - Attitude to change; also age, size of business





- No woolgrower moved to NM for immediate financial gain:
 - Increased costs were generally \$2-3 per head or 50c/kg greasy
 - Large discounts in the re-stocker market has meant the reverse market signal to the wool supply chain signals was being received by woolgrowers in many regions,

But there is a strong desire to make it profitable as soon as possible





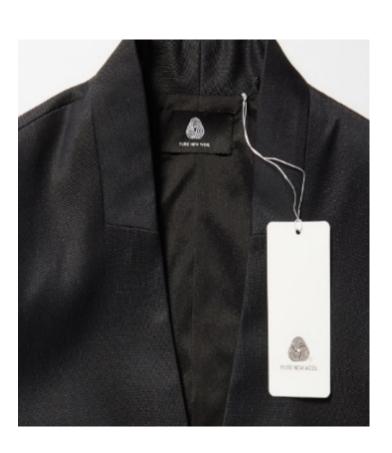


- For most NM growers minimising (or avoiding) the re-stocker market discount was the primary financial focus once the risk of strike was addressed; how?
 - Retain and join "surplus" young and old ewes,
 - Find the right livestock agent
 - Actively seek out NM demand, direct sales
 - Draft off high wrinkle sheep and sell via abattoir
 - Reduce wrinkle rapidly in own flock
 - Change in CM definition has assisted, increasing demand for NM prime lamb dams





- Plan, know your environment and sheep
- All people in business on board
- Focus on continuous improvement to lifetime welfare
- Breed profitable sheep with low wrinkle, cover and dag
- Access to additional labour
- Right wool and livestock agents
- Minimise re-stocker discounts
- Review QA schemes available to maximise wool premiums
- Be determined to make it work



THANK YOU



Full NM case study available on AWI Website: www.wool.com/flystrikelatest





This publication is based on information presented at the Australian Wool Innovation Limited (AWI) National Wool Research and Development Technical Update on Breech Flystrike Prevention held on 17th July 2018. Some information in this publication has been contributed by one or more third parties and licenced to AWI, and AWI has not verified whether this information is correct. This publication should only be used as a general aid and is not a substitute for specific advice. Any reliance on the information contained in this publication is done at your own risk and to the extent permitted by law, AWI and any third party contributors exclude all liability for loss or damage arising from the use of the information in this publication. Except to the extent permitted under Copyright Law no part of this publication may be reproduced by any process, electronic or otherwise without the specific written permission of AWI. Neither may information be stored electronically in any form whatsoever without such permission. AWI gratefully acknowledges the funds provided by the Australian government to support research, development and marketing of Australian wool. GD2792