

Response to the Middle East sheep exports policy options discussion paper

Who we are

Live Export Reference Group (LERG)

The Department of Primary Industries and Regional Development (DPIRD) appointed group with members selected through a public EOI process in 2018. This group consists of three members from the production sector of the live export industry, three key stakeholders from the WA sheep industry value chain with DPIRD Chair and Executive Officer (EO).

Members are producer and industry representatives; Murray Hall of Brookton, John Wallace of Esperance, Steven Bolt of Corrigin, Bindi Murray of Woodanilling, Peter Trefort, meat industry and Dean Hubbard Elders with DPIRD chair Bruce Mullan and DPIRD EO Mandy Curnow.

The group's responsibilities are to:

- provide an external point of reference and advice for the planning and conduct of DPIRD activities that will be developed to respond to the changing market and regulatory conditions, including developing alternative value chains for the WA sheep industry;
- provide advice on what information and or modelling will help to support on-farm and value chain decision making within the industry;
- share information with industry on the outcomes of these activities and provide information relevant to the projects that are undertaken.

This submission

Producers are concerned about animal welfare and the treatment of sheep in the live trade from the paddock through to the customer. This submission will focus on pre-shipping conditions and their impact on producers, supporting industries, the environment and regional communities.

General comments and recommendations on the Live Export shipping conditions and options presented

- The production sector places importance on the continuity of access and confidence that the export of live animals will continue in a consistent manner
- We recommend that the conditions be set for at least 2 summers. This is long enough for industry to plan but short enough to integrate new work when needed. If there is strong supporting evidence within this time frame then a review may be needed.
- The importance of properly enforcing current regulations including time on registered premises, prior to increasing regulation.
- Timely and transparent reporting on both exporter and the Department of Agriculture
- Need for better understanding around how sheep respond to a heat stress event and respite cycles under different conditions and interventions.
- Any new regulations need resources in terms of communication and education as well as enforcement. The new conditions need to be rigorous enough to ensure risk is low and issues will be dealt with promptly.

Issues and options affecting the industry pre-shipping

Importance of sheep in the WA farming system

Livestock, particularly sheep, play an important part in the Western Australia (WA) agricultural farming system. Ninety five percent of producers in the region are mixed farms with differing ratios of broad acre cropping to sheep production.

From a profitability perspective, latest analysis shows that 60-70% crop to sheep is the optimal enterprise mix in the cereal-sheep zone (R Kingwell, UWA 2019) and 20-40% cropping are optimal in the medium rainfall zone (J Young, Farming Systems Analysis Service 2019). These analyses take into account the likely proportion of arable land, profitability of each component of the system and growing season/feed constraints.

WA produces 22% of Australia's fine apparel wools (Australian Wool Innovation). This industry is worth approximately \$900 million annually to the state. Eighty five percent of the state's ewe flock are pure Merino. This Merino ewe base also produces most of the lamb and mutton with less than 25% of producers having a meat production focus (most of these produce a Merino ewe -terminal sire meat product). An essential co-product of a Merino wool based system are young Merino wethers. Merino animals mature more slowly than those produced directly for the meat trade and so are generally not suitable for the prime lamb slaughter trade (i.e. they do not reach a suitable weight and fat score by 12 months of age). Merino wethers are usually kept until hogget age (12 to 24 months of age) with 1-2 shearings of fine wool before being sold as 'shippers'. This trade underpins the wool industry in WA.

Livestock are complimentary in the broad acre cropping system through providing a profitable pasture break phase in continuous cropping to combat weeds and contribution of nitrogen. The increasing prevalence of herbicide resistance means that grazing sheep in the lead up to the cropping season provide an effective alternative to knockdown chemicals. Sheep grazing stubbles in the summer are a key component not just in the sheep enterprise but they help to recycle nutrients, reduce dry matter build up and minimise summer weeds that utilise water in the soil profile prior to winter planting. Sheep also provide an opportunity to value add to lower quality grains produced on farm.

WA seasonal conditions

In WA, as in the rest of Australia, every year hinges on break of the season – something that is very hard to predict and plan for due to the position of WA's land mass. In WA's strongly Mediterranean climate producers work with seasonal variation and put in place a step wise plan for the key time of break of the season. This involves working forward on stocking rate numbers, which then influence turn-off times for different classes of stock. Below is an example taken from the Sheep's Back program (fig 1), a highly regarded planning tool run by the largest sheep-consulting firm in WA, ICON Ag.

Strategies to deal with a late break

Define a late break: Post 15th May

Options

- Feed hay
- Pregnancy scan and sell dry ewes
- So not sow canola
- Feedlot 780 wether hoggets
- Feedlot all 1565 wether hoggets

Sensitivity of options:

date	action	effect	Stocking rate
7 May	nil	nil	9.00
14 May	Feed hay to reduce SR by 1 DSE	-1000 DSE	8.00
21 May	Pregnancy test and sell dry ewes	-575 DSE	7.45
28 May	Do not sow canola	+WGHA by 50ha	7.05
4 June	Feedlot half wether hoggets @ 80/ha	-WGHA by 10ha – 780 DSE	6.37
11 June	Feedlot all wether hoggets	-WGHA by 10ha – 1565 DSE	5.68

Consequences of actions

- Organise hay purchase
- Organise pregnancy testing
- Organise canola rotation to go into pasture (don't spray top)
- Build feedlot and purchase grain. ~40T lupins on hand

Figure 1 Excerpt from the Sheep's Back handbook

Pastures from Space (CSIRO) records the daily pasture growth rate across the agricultural area. The figure below shows the variability of seasonal growth in West Arthur shire over 10 years (fig 2). The typical break of the season (described as consistent pasture growth to sustain the season) is around the beginning of May. In many years the break of the season is around the 25 May meaning that most producers won't know the extent of the season until then. A late break also limits the total pasture grown for the year as winter growth rates at low sunshine and soil temperatures limits pasture production.

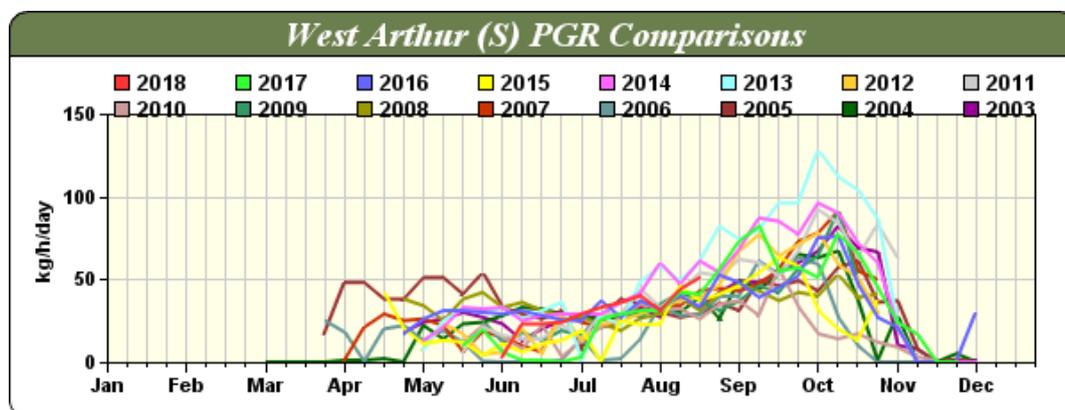


Figure 2 Pasture growth rates (PGR) for West Arthur Shire (CSIRO)

While the pasture is not adequate producers will need to provide all the dietary needs of sheep to maintain or grow until pasture growth rates have been enough to produce 400-600kg dry matter per hectare (eg 20kg/ha/day for 20-40 days).

Conversely, in the spring, pasture growth has reached a peak and there is a surplus of feed. The key decisions for a producer is to utilise as much of that feed to grow young stock, feed lactating ewes and build reserves for the next mating cycle (fig 3).

	Normal break	Early break	Late break
Pasture/fodder	Paddock feed available from 1 May	Paddock feed available from 1 April	Paddock feed available from 15 June or later
Sheep condition	Lowest condition May	Lowest condition April	Lowest condition June
Lambing (June lambing)	Paddock feed sufficient during late pregnancy & lactation	Paddock feed available from mid-pregnancy	Hand feed required through lactation
Stocking rate strategies	Off load all surplus sheep by May to give feed to lambing ewes	Surplus sheep may be retained for wool production or to make heavy mutton	A second cull required in May/June to lighten stocking rate for breeding ewes

Figure 3 A summary of the impacts of different breaks to the season

By December the quality of the pasture has deteriorated to 40-50% and therefore isn't at a value that will support maintenance of adult sheep let alone growing sheep with a daily requirement of 70-80% digestibility and >10% protein per kilogram. At this time most producers are utilising stubbles or fodder crops for their sheep enterprise.

Lamb production systems

Sheep meat is a highly valuable product for WA producing about \$450M, with 87% of this being exported. Lamb makes up about 45% of the number slaughtered each year with 2.6M lambs, but only 390,000 of the lambs are produced from specialist meat based flocks (ABS stats, DPIRD analysis). Half of the remaining lambs produced are pure Merino and the remainder are first cross lambs (Meat sire over a Merino ewe).

The role of specialist meat lamb producing flocks is limited in WA due to the short growing season in most of the state and the limited ability to outperform a self-replacing Merino ewe based flock, producing first cross lambs. Victoria and southern NSW have a much longer growing season and hence a greater suitability for specialist meat lamb producing flocks.

The DPIRD Sheep Producer survey in 2018 showed that only 9% of producers identified as a dedicated lamb producer. It is estimated that a consistent 140% lambing must be achieved by a meat lamb flock to match the Merino meat flock at 90% due to the extra value of the wool produced and the lower feed required. Meat flocks typically achieve 105% lamb marking (DPIRD Sheep Producer Survey 2018).

Dedicated lamb production also suits a single focus enterprise and all large-scale farmers in WA run either a dedicated cropping business or a mixed sheep cropping business.

Turn off decision-making

There are a number of turnoff options for a sheep producer to consider.

Sheep volumes at market are influenced by:

- Surplus or non-breeding stock sold to reduce stock pressure on feed in Autumn and Winter
- Lamb turnoff when stock reach the right grade and weight for price and feed availability
- Balancing wool prices and other enterprises like crop returns
- High meat prices – cashing in in times of uncertainty

- Droughts or times of critical feed shortage

Sheep sale prices are influenced by:

- Market volume and price processors can receive for mutton and lamb on a daily basis
- The competition for the sheep by processors, exporters and restockers
- Eastern states processors come into the market when the price disparity is about \$25/head and they have markets to fill and can cover freight costs.
- Eastern states producer buyers come into the market when they are rebuilding flocks after drought, such as in 2011.

Producers balance the factors based on the timing of the break of the season, prices for wool and grain, and flexibility in their farm's capacity to increase the proportion of livestock or crop.

"Live export is an integral part of the sheep selling programme.

100% of my clients sell wethers into the live export market.

The proportion ranges from ~30% to 100% depending on price and seasonal conditions. On a YIYO basis ~65-70% of wethers are sold into the live export market.

Wether sales represent 45-50% of sheep sales income.

Typically clients are lambing in July and August and carry the wether lambs through summer aiming to sell them off shears from March to June.

A proportion that don't meet market specifications at this time are carried through winter and sold in the spring early summer depending on price and seasonal conditions.

Lambing in July/ August provides valuable flexibility for production improvements and seasonal risk management. The risk management aspect is particularly important as the growing seasons are becoming increasingly variable. The more traditional autumn lambing system is relatively rigid with greater exposure to seasonal risk.

The live export market is strategically valuable as it provides a good opportunity to sell wethers that do not reliably meet specification for the processing markets at a time of year when it demonstrably advantageous to have them off the farm."

Ashley Herbert: Agrarian Management, mixed farm consultant, WA

Modelling by the Sheep CRC examined the opportunity to sell yearlings for meat with a price benefit over mutton but discounted compared to lamb, to determine the value of developing a yearling market in the face of live export changes. The report shows that air freight lamb (light carcass bagged chilled to the Middle East) and live export hogget dominated the value proposition even with a price premium for yearling, if it was to ever be offered by the market (fig 4).

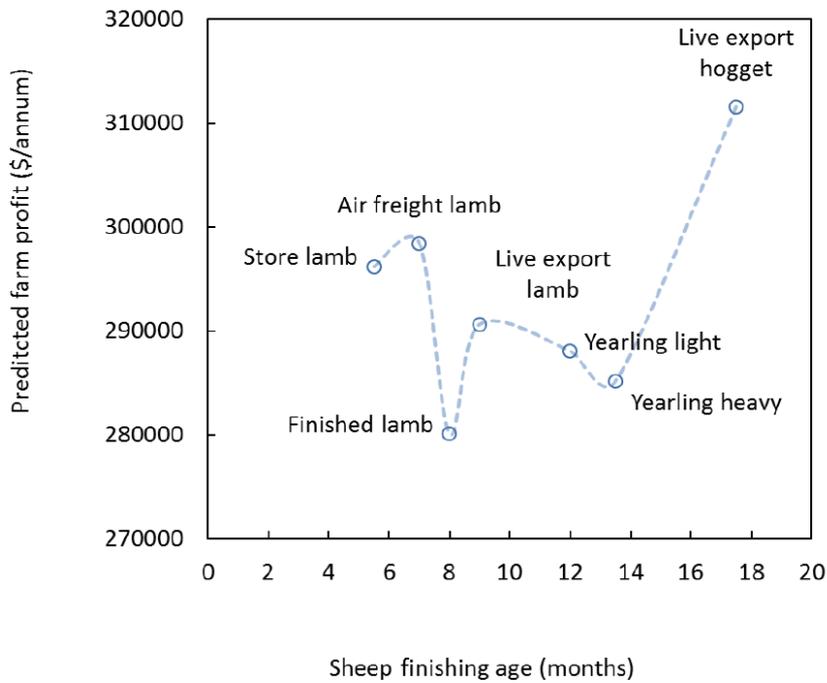


Figure 4 The predicted profit of seven different markets by age in months (Ritchie and Young, 2016, Sheep CRC).

Opportunistic versus dedicated turn off to live export

The pastoral regions of Western Australia are heavily reliant on live export in that there is no opportunity for prime lamb production (fig 5). The sell down of sheep in the region in 2017 due to poor conditions and limited opportunity for hand feeding has seen the proportion of sheep turned off there decline rapidly in 2018 with expected further decline in 2019. Substantial investment in dog fencing and vermin control is hoped to rebuild the sheep industry in these areas. Live export is a key market for these businesses.

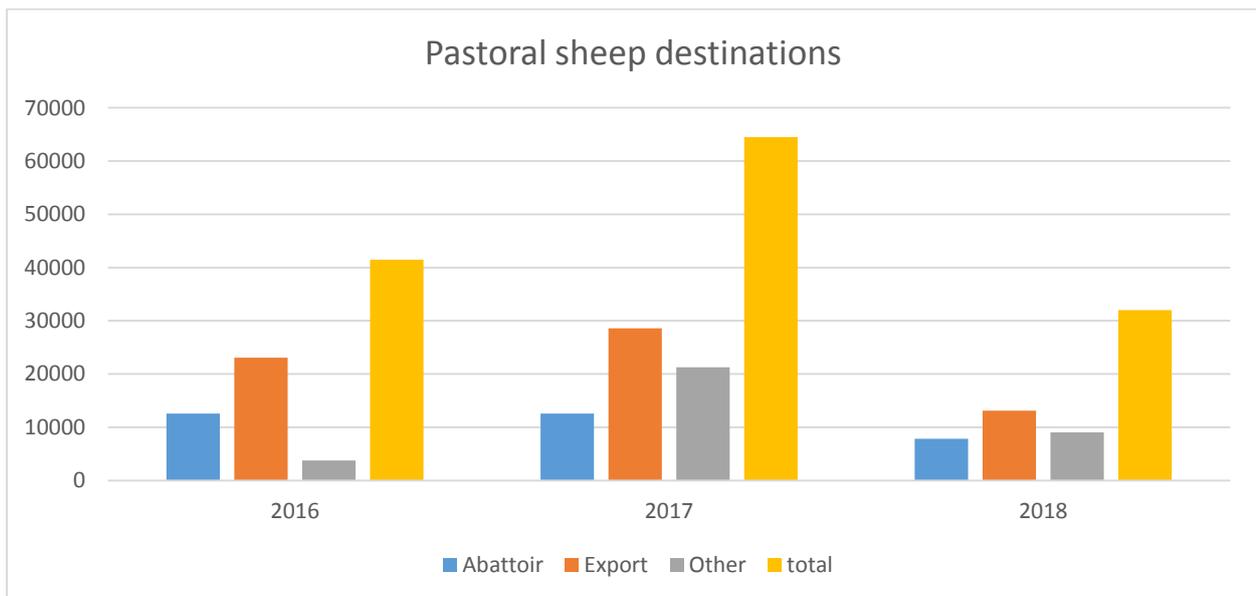


Figure 5 Destinations from pastoral businesses for sheep (NLIS, DPIRD analysis) * other is sales to other producers

In the agricultural zone approximately 20% of all sheep turnoff is to live export with 35% of these being lambs.

Forty to fifty percent of lambs from wool enterprises in 2017 were sold to live export making this a key market for lambs in a wool system. Between 20 and 30 percent of lambs were turned off to live export in dual wool and meat enterprises and dedicated prime lamb enterprises showing that even for those producing first cross and pure meat lambs live export is a valuable market in those systems.

In 2017-18 42% of adults (including hoggets) were sold to the mutton market and this includes all cull for age ewes, wethers and rams. The remainder were sold to the live trade. Some of the businesses are dedicated wool producers who rely heavily on the live export trade or trade in live export animals only each year. Others will use the trade opportunistically, with either varying numbers or class of animals each year or sell only in years where seasons dictate the rapid destock of sheep or animals that can't reach slaughter grids such as heavy weight mutton.

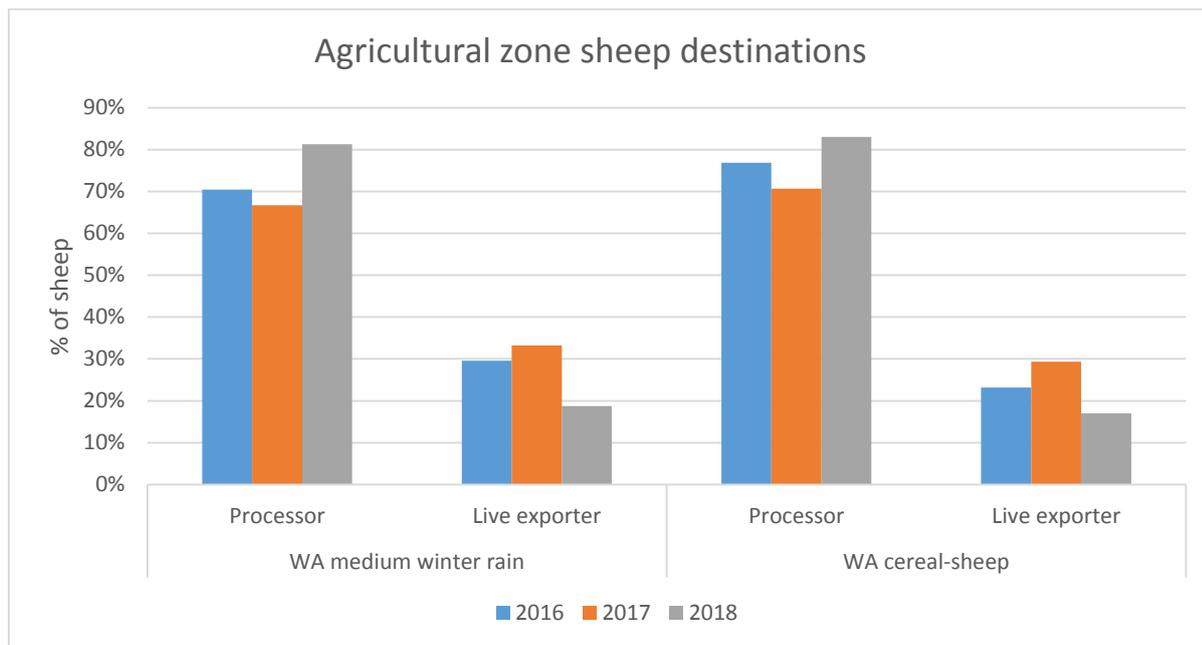


Figure 6 Destinations from WA agricultural zone for all sheep including lambs, hoggets and adults (NLIS, DPIRD analysis)

Impact on pre-shipping with relation to including shoulder months in any prohibition:

Table 7 A summary of the key elements of enterprises, the environment and allied industries by month

	May	June	Sept	October
Enterprise timing	<ul style="list-style-type: none"> • 50% have lambing or near lambing ewes • Need to reduce stocking rate to protect this class of sheep 	<ul style="list-style-type: none"> • 50% lambing ewes and 50% lactating ewes 	<ul style="list-style-type: none"> • 20% lambs ok for turnoff as light trade • 20% lambs for heavy trade 	<ul style="list-style-type: none"> • 60% of lambs OK for light to heavy trade • Returning ewes in good condition for mating is a priority for feed
NRM	<ul style="list-style-type: none"> • Erosion risks for sheep on paddocks • Emerging pasture needs to be protected from grazing 	<ul style="list-style-type: none"> • If late break a critical time for removing all stock off paddocks 	<ul style="list-style-type: none"> • Little impact on erosion/soil • Spring growth provides buffer 	<ul style="list-style-type: none"> • Little impact on erosion/soil • Spring growth provides buffer for higher stocking rates if needed
Profitability	<ul style="list-style-type: none"> • Expensive to get sheep to slaughter grade at this time • Cull animals are to be turned off for max price 	<ul style="list-style-type: none"> • If late break, sheep are confinement fed – high cost 	<ul style="list-style-type: none"> • Light unfinished lambs and young stock are in condition for LE • Prime lambs just ready for slaughter 	<ul style="list-style-type: none"> • Flexibility to choose markets at the right time and grade
Shearers/contractors	<ul style="list-style-type: none"> • Lull time for shearers so important work in shearing sheep for LE 	<ul style="list-style-type: none"> • Lull time for shearers so important work in shearing sheep for LE 	<ul style="list-style-type: none"> • Busy time for shearers so lower impact on services • Usually busy for wether and early lamb shearing 	<ul style="list-style-type: none"> • Busy time for shearers so lower impact on services if no LE
Sheep in paddock or Reg. Premises	<ul style="list-style-type: none"> • Acclimatised to hotter weather • Most animals familiar with supplementary feed including pellets 	<ul style="list-style-type: none"> • Some acclimatisation particularly from central or northern areas 	<ul style="list-style-type: none"> • Acclimatised to cold weather • Off green feed, no acclimatisation to pellets 	<ul style="list-style-type: none"> • Acclimatised to cold weather • Off green feed, no acclimatisation to pellets
Processors	<ul style="list-style-type: none"> • Under supply of lamb to slaughter • Often dry ewes to mutton • Mutton demand lower than supply • Lamb supply lower than demand 	<ul style="list-style-type: none"> • Often shut down for winter to do maintenance 	<ul style="list-style-type: none"> • Full books for processors with spring lamb and heavy mutton 	<ul style="list-style-type: none"> • Full books for spring lamb and heavy mutton • Mutton demand meeting supply • Lamb supply higher than demand

Response to Options presented

Options and response

- 1) Three month prohibition—Conditions under the Middle East Order apply for the northern summer months and industry continue to use the existing HSRA model or agreed animal welfare indicators.**

The LERG accepts this as a viable option with recommended months being those with the least impact on pre export enterprises, the natural environment and the welfare of sheep in the agricultural system. From this perspective, it recommends a three month prohibition including 15 June to 15 September. Though not the area of expertise of this group, there may be the opportunity to use other controls or technologies during shoulder periods to minimise any gap between the period of least impact on farm and the climatic conditions during the voyage or in country.

- 2) Apply the 2019 prohibition period—Conditions under the Middle East Order apply for the northern summer months. The department would remove the requirement for a HSRA on live sheep export voyages to, or through, the Middle East.**

The LERG accepts this as a viable option if more than 3 months is required to meet the welfare conditions of sheep on ship and in feedlots in market.

- 3) Adopt a revised HSRA model with risk settings based on heat stress thresholds or agreed animal welfare indicators.**

The LERG does not recommend this option due to the current lack of a publicly available HSRA model.

- 4) No prohibition—live sheep exports to, or through the Middle East would be permitted 12 months of the year. Conditions under the Middle East Order apply for the northern summer months and industry continue to use the existing HSRA model.**

The LERG does not accept this option as it feels that this level of control would present too higher risk with the scientific understanding and technology currently at hand.

Contact:

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References:

Western Australian Sheep Producer Survey 2018, M Curnow and J Conte, DPIRD 2019
The prospects for sheep in WA's mixed farming systems, Prof Ross Kingwell, AGEIC 2019
The Yearling Sheep Meat Product - Profitability in the Medium-High Rainfall Zone of WA and the Impact of Sheep Meat Prices, A Ritchie and J Young, Sheep CRC 2016
Unpublished, J Young, Farming Systems Analysis Service 2019
The Sheep's Back - a woolgrowers manual, A Ritchie, ICON Ag AWI 2009

Appendix 1 – a summary of decisions for wether sheep production

Farmer who sells wethers as lambs

- Can be sold as stores (light unfinished lamb), air-freight, Live Ex or finished as a trade lamb but there is an emphasis on maximising sell weight and therefore price by either lambing early or growing them fast
- The store market demand is linked to the Live Ex market
- The store market is important for those farmers who have a poor season including pastoral areas

- Without Live Ex the store market demand will be more reliant on the meat and wool price v crop price and seasonal conditions. The air-freight market will become more important for those farmers who can't or don't want to produce a trade lamb. The Eastern states has a bigger store market because of the larger area.
- Farmers who have this system generally have a high ewe percentage of the total flock
- Greater focus on growing greater quantity and quality of pastures to produce heavier lambs
- Greater focus on achieving a high weaning percentage to maximise numbers sold
- Less focus on wool, more focus on the meat enterprise
- Less focus on merino lambs greater focus on x-bred lambs (terminals over merino ewes)
- Greater focus on fast growing genotypes
- Greater focus on sheep management skills (worms, feeding)
- Greater exposure to seasonal risk (grain price and quantity for feeding) because of the high percentage of ewes in the flock
- However, some farmers reduce the seasonal risk associated with a high ewe percentage by reducing stocking rates and therefore may miss out if seasonal conditions are good
- In poor seasons with a restricted ability to sell pregnant or lambing ewes results in less crop area if feed grain reserves are too costly or not available and this has implications on grain revenue
- There is increased public exposure so there is a greater emphasis on keeping sheep alive but ewe and lamb deaths still happen in poor seasons

Farmer who sells wethers as hoggets

- Can be sold relatively quickly if poor seasonal conditions
- Greater exposure to the wool market v wet ewes or selling them as lambs
- Reduces the risk associated with supplementary feeding (price and quantity) compared to ewes if seasonal conditions are below average
- Wethers have lower management requirements compared to ewes and therefore need less time, money and they are less stressful to run
- Often run at high stocking rate in the higher rainfall areas to maximise wool return but can come at a cost to weight gain
- Ideally suited to Live Ex because their liveweight may not be sufficient to maximise kill weights via local processing
- When seasonal conditions are below average it tends to affect the whole of the agriculture area in WA so less of a market for store sheep
- With the Live Ex market there is less requirement for faster growing genotypes or good pastures as the sheep can be sold at lower weights
- System suited to farmers which have a fine micron and there is a premium for this wool type
- System suited to traders that buy in wether lambs or hoggets and sell when they are older (hoggets or adult sheep) and get one or more wool returns as well as a weight gain

Farmer who sells wethers as adult sheep

- As for the points under hogget wethers
- Greater exposure to the wool market v hogget wethers
- Less emphasis on micron and any premium for finer microns
- More likely to be at sufficient liveweight to maximise kill weights via local processing compared to hoggets but depends on stocking rate and seasonal conditions
- System suited to slower growing genotypes, heavy wool cutting, low and variable weaning percentage, high stocking rates in higher rainfall areas or crop focussed system in the low to medium rainfall areas on poor low density pastures
- Less requirement for sheep nutrition skills v lambing ewes and therefore suits farmers who are more focussed on crop

Appendix 2 – A wool grower perspective - Murray Hall, Brookton

Back ground- Understanding Sheep utilisation in a West Australian Mixed farming operation

Sheep are very important the Mediterranean mixed farming belt of WA in the following ways;

- The mixed farming economy has remained the most resilient and risk averse farming system throughout the southern wheat belt (Planfarm Bankwest Benchmarks).
- The sheep enterprise provide cash flow in years where frost devastate cash crops
- Provide a mosaic effect in the greater landscape of reduced fuel to slow down wild fire. Grazed crop residues reduce overall biomass to enable subsequent crops to be planted without using fire and its emissions to enable planting. Provide fuel reduction for other tree crops such as Olive and sandalwood plantations.
- Farmers have endured the sheep enterprise's low cash returns in the last decade as the overall value to the business is greater than just cropping alone.
- Sheep meat and wool provide the highest value per kg of any produce for the least amount of water and nutrient export /ha from local environments.
- Profitability of sheep enterprises are strong - Wool fleece currently ranging in value \$7/kg to \$15kg greasy farm gate and yields 20 to 40 kg/ha total product /ha, Meat @ \$4.50 to \$7.50kg farm gate, yields 30kg to 60 kg /ha. Compare this to say wheat at \$0.27/kg @ 2000kg/ha to 4000kg/ha yields along with extractions of nutrients eg. 23kg Nitrogen for every tonne removed, Phosphorus @3kg/tonne, water @80litres per tonne- exported nutrient values which even in isolation can exceed total product removed in stock systems.
- The sheep system has a legume based pasture, which provide a disease break for cropping systems, some pasture legumes provide the only reduction in some damaging soil nematode populations that can devastate cereals on gravel type soils
- Legume based pastures provide a rapid build-up in soil carbon and natural nitrogen for subsequent cropping. Also provides an extended "ley" period for other nutrient mineralisation.
- Sheep consume and value add to crops damaged by frost and drought and rendered not fit for human consumption.

Utilization of access of the Live trade

Our business has a flexible and occasional utilisation of the Live Export market.

Our preferred option is to sell wether hoggets to local graziers who run a wether flock to produce wool. We achieve a similar return for this to Live Export. This option creates local and regional employment with agents, trucking, shearers and overall increases benefits for the local economy.

We turn off wether hoggets in the spring to allow us to carry a suitable stocking rate to achieve the above listed objectives during the growing season and to shear the first wool clip to provide a return. The sale of wethers provides a lower stocking rate on farm to allow pasture for lambing and free up paddocks for the upcoming summer. Stocking rates need to be varied to match the season. Too low a stocking rate and the above objectives are not realised where as too high causes welfare issues, lower performance and environmental stress.

Being in a Mediterranean climate with seasonable variability, the sale in spring option has the risk that in a dryer than average season the overall stocking rate has to be reduced much earlier in the winter period to protect the lambing flock. This will coincide with the same scenario being experienced by the dedicated wether grazier so their ability to buy in stock ceases. At this the time Live Export has provided an exit strategy for both producers.

The accelerated turnoff floods the market quickly with stock that are not suited to local processors as producers make fast decisions to protect the ewe flock and lambs. Supplementary feed becomes targeted to the welfare of the ewe part of the flock. If these decisions are not acted on quickly the wether flock will start to lose body condition and eventually become not suitable for any market. They in turn will steal from the supplementary fees reserves and impact on pasture availability.

2019

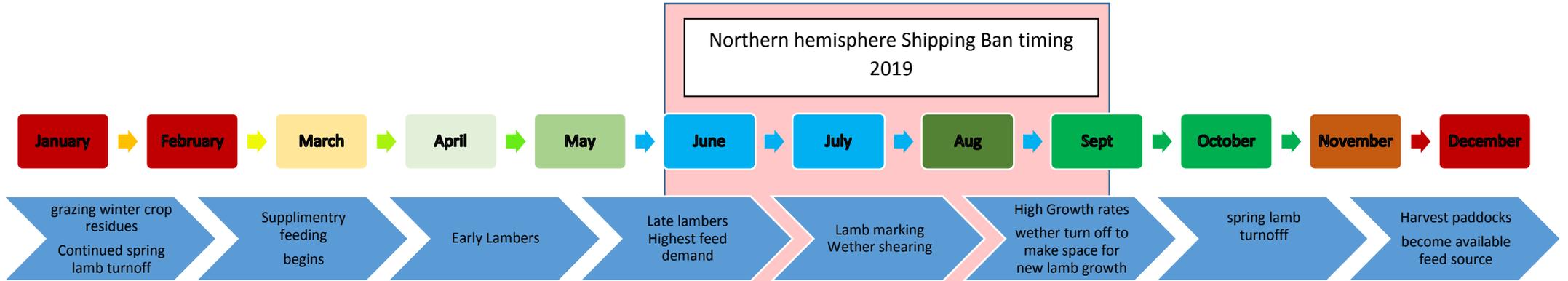
This year had a late and concerning season break. With the Northern Hemisphere Summer shipping recess pending, the decision to feed lot during winter was employed.

The growth rates achieved through Western Australian winter was disappointing and only matched paddock performance in a normal season. Only when the temperatures increased were we able to get feed conversion into liveweight gain to enable the animals to match local trade requirements (higher body fat and condition). Special management and staff time allocation is critical to employing this option. The time in confinement was from June 1 to Mid-September for most animals. The first animals ready for trade was on August 13.

At no time were there any welfare issues – Just that the wethers condition store remains as “Store condition” That is fit, healthy and lean. The ongoing feed bill for these animals in this period exceeded \$50 per head without allocation for extra labour costs.

The timing of the June 1 Suspension meant that opportunity to access the Live trade as a destock option was lost – Market prices dropped and there was no real option to market animals.

Western Australian Mixed Farming Seasons

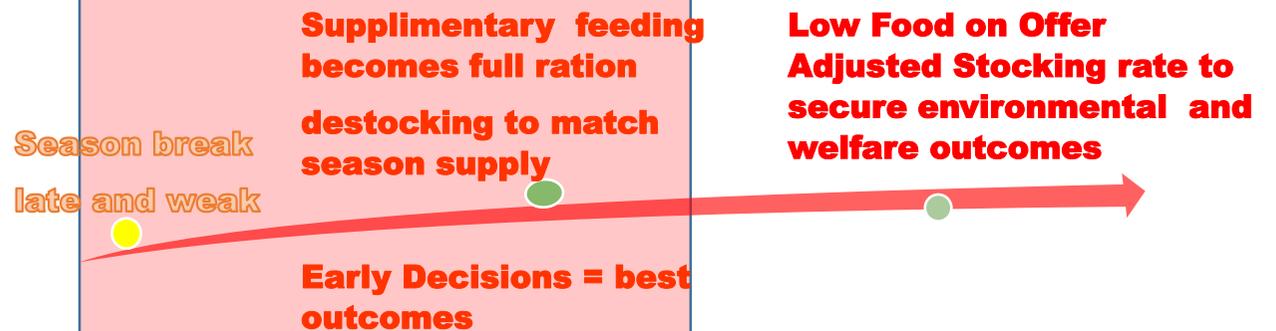


Northern hemisphere Shipping Ban timing 2019

Traditional seasonal flow



Late Break/Drought possibility 2019



Timing of Live Ex recess critical to destock option

Variable season and Market access scenarios –recent years		
	Seasonal description	Outcome
2015	Pasture seasons relatively average. Cropping enterprise suffered some frost	Seasonal spring lamb (XB) turnoff normal. Yearling merinos grown to full wool and turn off to specialist wool growers.
2016	Cropping enterprise suffered some frost and heat stressed 2016 finish - grain quality compromised.	
2017	Wet late summer. Dry Autumn and late winter start – Very poor pastures all year –esp. clover dominant pastures Red clover syndrome establishes - First ever virus invasion here. Killed clover right across central wheat belt and Upper Great Southern regions Cropping outcome recovers– making retaining feed reserves very expensive.	Rapid premature destocking all and any livestock classes. Feed and utilize retained damaged drains from previous season Grazing crops – 10000 sheep in 1 week alone on crops late July Local sheep Markets saturated – Unable to market wethers – Normal purchasing grazier now also destocking – Compounding situation. Prices collapse. – Sold wethers to Live export good values. Sold in wool – L Ex cater for shearing, immediate farm turnoff, All funds received buys in more feed for ewes and lambs-received \$55/hd. above nearest (limited Numbers) local processor offered. All local options require shearing and recovery period. Spring Lamb (XB) turn off delayed – required feed lotting to make market grade giving poor returns.
2018	Typical Brookton season albeit a little late Grew summer forage crops first time to rebuilt stock condition for mating and growth Retained extra grain at very expensive pricing (eastern AU drought effect)+ Silage for insurance against future seasonal and market scenarios	Return to normal stock turn off Wool Grazier- some restocking – but reluctant for large expansion due to Live export uncertainty. We did get most of our wethers off locally, at normal time, in good condition and received good wool cut. Drought in Eastern states sees large demand for processed and live animals and keeps sales going for other producers.
2019	Driest rainfall November to June Period on record here May rainfall very poor – Late Winter start.	Late start sees rush towards Live Export NH Summer pause- Price drops immediately pause implemented Decision here to attempt feed lot wethers through shearing period and process locally (wethers not suited to local trade). 1 Jun 19 sees first wethers enter confinement paddocks No weight gain for 6weeks due to cooler weather -1 st destocking 13 Aug> only 15% make weight Once temperatures rise through August the weight gain improves and allows most sales early Sept. Changes in lamb dentition definition helps to achieve lamb price rather than discounted mutton price.

2019 cont.	Very good later winter rainfall – enables pasture growth to recover. Crop grazing and confinement feeding employed V Poor Spring – crops quality known to be poor already	Average price received only covers cost of feed due to slow winter growth rates. This in a period of High demand due to Eastern States droughts. In a non drought period- reflected pricing and lower demand quite possibly not economic, even when the largest tranche of lambs received \$196/hd. Special skills and cashflow also required for management. Wethers in confinement does allow remaining pastures and flock to gain to a satisfactory position
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