



Department of  
Primary Industries and  
Regional Development

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# Livestock management in 2023-24



## Executive Summary

Parts of WA have experienced below average rainfall resulting in feed limitations, with below average rainfall also predicted for the coming months. The feed shortage has been further compounded by limited slaughter space and reduced market prices for sheep.

Sheep industry economist, John Young, of Farming Systems Analysis Service was commissioned to look at the economics of some key decisions this season, taking into account current seasonal and market conditions.

WA sheep producers need to have plans in place early to monitor stock condition and make decisions about which classes of stock to keep. This will also include the feed and water required to see them through, and the resources available to aid in decision making. The information provided is of a general nature, and producers should use this in conjunction with advisors and other support resources to formulate a plan specific to their enterprise and financial situation.

Key points for decision making from now through to the break of next season include:

- Make decisions early. Previous dry seasons have shown that planning and early decision making benefits the business and everyone working in it.
- Have contingency plans for best- and worst-case scenarios.
- Seek support when making decisions. Use your network including livestock consultants, farm business advisors, accountants and/or rural financial counsellors to help in the decision making process specific to your enterprise and financial situation.
- Consider your mental health and factor it into decisions made. There is support available for you and your family.
- If stock is a minor contribution to farm income, the best option is likely to sell down to an easily manageable number and concentrate the management focus on the crop enterprise.
- Conduct a feed budget in November for the December to June period which includes all the sheep that you plan to retain after the coming shearing (spring/early summer shearing).
- It is much cheaper, only requiring half the amount of grain, to maintain weight than allow weight loss and then try to regain later. Therefore, start with low rates of feed early and gradually increase. Note – you may need to start supplementary feeding much earlier than you normally would.
- Sheep will expend 1 to 2 MJ of energy per day walking when feed is scarce. If Feed on Offer (FOO) is low and quality is poor, then the energy used is not replaced by feed consumed. Consider reducing energy requirement by confinement feeding.
- Joining ewes in less than condition score (CS) 2.3 is an animal welfare risk and a profit risk. Ewe deaths can be very high, which means it is not recommended to mate ewes in less than CS 2.3. Separate low condition score ewes at shearing.
- Ensure the growth rate of weaners remains at least 1.5 kg/month. This lifts them to a low-risk region and increases survival over summer/autumn after pastures hay off.
- An effective method for minimising the total amount of supplement required is to separate the tail of the mob, for both weaned lambs and ewes, and feed separately. Segregating ewes on CS and allocating feed appropriately will be a high value practice this year.
- With current wool prices, 20% of the cost of extra grain fed for maintenance is recouped in wool income. It doesn't include an impact on staple strength which

could be important if the extra supplementary feeding is increasing wool growth during the weakest period of the staple.

- If animals need to be sold, wethers and wether hoggets would be the first to sell, while mature 2.5 to 3.5 year old ewes should be the last group to consider selling.
- For stock that are retained, the highest priority to get any limited green feed are the at-risk young weaners, and ewes too thin for mating (<CS 2.3), while CS 3 ewes being mated to terminals, and those being fattened for sale are the lowest priority for green feed.
- 2024 will be a high value year for pregnancy scanning the ewes being mated, so the empty ewes can be sold.

## The decision making context for this season

- Parts of WA have below average Feed on Offer (FOO) for the end of spring, hence there will be feed shortages during summer and autumn even though feed quality now and during early summer will be high.
- The dry conditions have coincided with and possibly exacerbated low sheep prices. This is different to other recent poor seasons when the sheep market was buoyant and destocking decisions were associated with very positive cashflow outcomes.
- The WA mutton price in the saleyard averaged 102c/kg cwt in September 2023, down 71% compared to September 2022 which averaged 346c/kg cwt. This is the lowest monthly average since December 2007.
- The Eastern states has followed a similar trend with saleyard mutton prices down 74% YOY, however they remain higher than WA averaging 140c/kg cwt.
- Prices have fallen further in October with mutton prices averaging 98.6c/kg cwt the week of October 13th (WA).
- The live export market has been stronger than previous years, with a 49% YOY increase of sheep exported live in 2023 (January-August). A total of 433,141 so far in 2023, compared to 290,317 this time in 2022.
- Agistment may be available because there are some regions in WA having average or above average pasture growth
- Currently killing space is limited relative to the number of animals being turned off. This is leading to timeliness problems for turning off both finished lambs and older animals. Furthermore, the discount for selling in the saleyards is higher than usual. This could be important when budgeting the cashflow implications of selling animals.

## Technical tips

- It is much cheaper, only requiring half the amount of grain, to maintain weight than allow weight loss and then try to regain later. Therefore, start with low rates of feed early and gradually increase.
- In WA, the link between a poor season this year and the probability of different season types next year is very weak. So, although this year is tough you need to be mentally and physically prepared to manage your property for a profitable season next year.
- Sheep will expend 1 to 2 MJ of energy per day walking when feed is scarce. If FOO is low and quality is poor, then the energy used is not replaced by feed consumed. Consider reducing energy requirement by confinement feeding.

- Joining ewes in less than CS 2.3 is an animal welfare risk and also a profit risk. Ewe deaths can be very high which means it is not recommended to mate ewes in less than CS2.3.

Rules of thumb for level of grain feeding:

	Fed on pasture MJ (kg)	Confinement feeding MJ (kg)
To reduce LW loss by 1kg	40MJ or 3kg	25MJ or 2kg
To achieve LW gain of 1kg	100MJ or 8kg	50MJ 4kg
To maintain a 1kg heavier animal during pregnancy & lactation	30MJ or 2.5kg	28MJ or 2.3kg

*Table 1: Amount of extra grain feeding (MJ and kg) required above current feeding level to meet a liveweight (LW) change target. The rule of thumb is valid for a LW change period of between 2 weeks and 2 months.*

- Supplementing with grain while feeding on pasture requires more MJ fed for the same liveweight outcome compared to confinement because:
  - Animals expend more energy walking when grazing on pasture
  - A higher proportion of the grain offered is wasted in the paddock
  - Supplement offered in the paddock substitutes the intake of pasture. Therefore, an extra 1 MJ of supplement consumed results in less than 1 MJ of extra intake. There is more substitution with higher quality and quantity of paddock feed available.
- The majority of weaner deaths occur in the first 4 months after weaning, therefore these 4 months are the critical period. Weaners growing at just 250 g/month are high risk and have low survival. Increasing weaner growth rate to 1.5 kg/month lifts them to a low-risk region and increases survival by 30% - 55% depending on weaning weight.
- With current wool prices, 20% of the cost of extra grain fed for maintenance is recouped in wool income. This is allowing for the efficiency of wool growth and the change in fibre diameter due to increased growth. It doesn't include an impact on staple strength which could be important if the extra supplementary feeding is increasing wool growth during the weakest period of the staple.
- An effective method for minimising the total amount of supplement required is to separate the tail of the mob. This allows targeting of the supplement to the animals that require it, rather than feeding the whole mob to manage the mortality risk for a subset of the animals. Segregating ewes on CS and allocating feed appropriately will be a high value practice this year.

More information on calculating Feed on Offer and how to condition score can be found on our website.

## Management in a poor season – Getting the big picture correct

### Make decisions early

Early decision making reduces stress because the decision is made, and you can move on. Know your response to stress. Some like the continual decision making and monitoring the unfolding situation, others prefer a set and forget.

### Consider alternative outcomes

The outlook for the future is just that, and it may turn out differently. Consider alternative weather and market conditions, particularly, it's worth considering a worst-case scenario and having a contingency plan if that were to happen. This ensures you are not caught off guard and incur big losses if it were to occur. In the current situation, the worst-case scenario would be rainfall around Christmas that affects the dry feed quality, followed by a late break to the 2024 season.

Reach out to your networks for support. Use your farm business advisor, livestock consultant, accountant or rural financial counsellor to work through the options most suited to your business and financial position.

### Be prepared

Your current position and the forecast for the remainder of the season can give you a picture of the feed that will be available for the coming summer and autumn. This outlook allows you to feed budget and estimate the likely requirements for supplement.

### Know your own position

- Role of sheep in your system and capacity to increase other enterprises such as cropping in 2024 and 2025 if stock numbers are reduced.
- Amount of paddock feed available
- Water quantity and quality in the areas where the feed is available, and what is available if confinement feeding.
- Cashflow and finance available to purchase supplement if it is required.
- Skills in feed budgeting and confinement feeding
- Susceptibility to stress. Do you like a system that requires continuous monitoring and adjustments, or is it preferable to make the hard decisions now to reduce the decisions required later?

If stock are a minor contribution to farm income, the best option is likely to be to sell down to an easily manageable number and concentrate the management focus on the crop enterprise.

When considering livestock management over the coming summer and autumn period there are several constraints to consider

- Feed supply and ground cover
- Water supply
- Cashflow to afford sufficient grain/supplement to keep animals productive and alive.

The plan adopted needs to relate to the factor that is most limiting in the given situation. What is your most limiting factor?

If cashflow will limit grain purchases, then selling sheep early is better than retaining animals and experiencing excessive weight loss and potentially having a forced sale of animals in poor condition later.

### **The most limiting factor**

This can be determined with a feed budget that includes all the stock you plan to retain after the coming shearing.

The steps to follow are:

1. Stocktake of the animals in each different class. Calculate a total number of grazing days required through to the next break.
2. Calculate available paddock feed and the number of grazing days it will provide:
  - a. Pasture – consider pasture seed set and grazing intensity during the seed set period when determining the number of grazing days.
  - b. Stubble
  - c. Failed crops
3. Compare the grazing days required (step 1) and the grazing days available (step 2). Will paddock feed run out, creating an erosion risk and is confinement feeding required to control the erosion risk?
  - a. Calculate how much confinement feeding is required and whether there is sufficient water available
  - b. If not confinement feeding, calculate how many animals will need to be sold.
4. Feed budget the supplement required if all animals are retained on farm. Do this for the expected scenario and a worst-case scenario.
5. Determine whether the supplement required is within the cashflow capacity of the business.
6. Do extra animals need to be sold to operate within the cashflow constraints?
7. Assess whether there is sufficient water on the farm and in locations near the feed supply. Will extra animals need to be sold due to a lack of water?

If animals need to be sold, consider which age groups and classes are the priority mobs. Further information on determining priority mobs is outlined below.

More information on [feed budgeting](#) and [water budgeting and quality](#) can be found on our website.

## **Management steps**

- Poor seasons lead to reduced profitability. The focus is to minimise the long-term cost to the business. Poor seasons are expensive, but your management decisions now can reduce the cost.
- The most important goal is for you, your family and your business to survive the poor season.
- The most important action is to evaluate your situation and make a decision. This will lead to better outcomes and reduced stress.
- The conditions that will be received for the remainder of this growing season and break of season in 2024 is unknown. Therefore, the prudent or 'good' decision is to expect average conditions from now on, whilst ensuring that you, your family and your business can survive a worst-case scenario.

- The worst-case scenario is below average rain for the remainder of 2023, extra summer rainfall that reduces the quality of the dry feed and a late break in 2024.
- The amount of feed available for the summer/autumn period can be estimated fairly accurately now.

The management options that can be considered include:

- Grazing standing crop rather than harvesting, perhaps with crop desiccation to reduce weed seed set
- Agistment may be available because some areas of the state are experiencing average or above rainfall for 2023.
- Moving planned sheep sales earlier, the trade-off is between reduced wool income and potentially higher sale prices and reduced supplementary feed requirement
- Selling extra sheep at shearing to reduce the feed demand through summer and autumn.
- Monitoring CS targets and feeding extra supplement to counteract the reduced paddock feed
- Feeding sheep in confinement to remove grazing pressure from paddocks and reduce erosion risk
- Not mating or delaying mating

## The optimum flock size

A cyclical upturn in meat prices has been observed over the last 10 years, which has transitioned into a downward trend within the last 12 months. The optimum proportion of the farm to crop and the optimum number of stock to carry varies with commodity prices. Did you overshoot the rebuilding of your stock numbers in response to good seasons and high prices? If so, you will be over-stocked for current market conditions even with normal seasonal conditions. In this situation, a decision to destock in response to the current poor seasonal conditions would be complementary with reducing stock numbers if the medium-term price outlook is for prices to remain depressed.

A reduction of \$2/kg for meat is associated with an increase in crop area of 10 to 20% and a reduction in flock size of 20 to 30%. These results were generated as the average for a typical flock in the Great Southern of WA lambing in May or in July, and are only indicative of the adjustment for other regions. The number of stock on the farm is represented relative to the optimum number for a lamb price of \$7/kg.

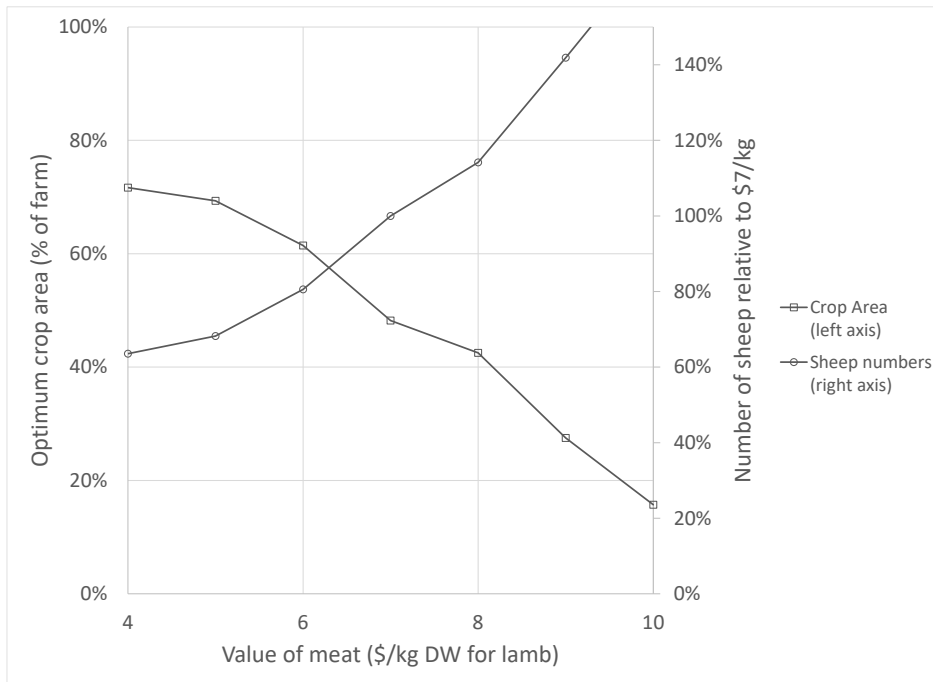


Figure 1 – Relationship between value of meat and the optimum crop area or number of sheep

## Priorities for selling and feeding sheep

### Selling

Sheep classes in priority order for selling:

1. Wether lambs or wether hoggets
2. Early sale of surplus young ewes
3. Low productivity ewes (if they can be identified)
4. Mature ewes 6.5yo, 5.5yo and 4.5yo
5. Ewe lambs (2023 drop)
6. Rising maidens (1.5yo)
7. Mature ewes 2.5 and 3.5yo

If you are selling breeding ewes, it is a good opportunity to apply selection pressure to cull less productive animals. Use index selection if the information is available. If not, ewes that have not reared a lamb, which can be assessed at weaning by udder palpation, would be the priority to sell.

If culling breeding ewes based on productivity information is not possible, then focus on selling ewes that have the lowest future earning capacity and least impact on future numbers. So, ewes older than 4.5 years are a higher priority to sell than the 2.5 and 3.5 year olds. The 2.5 to 3.5 year old ewes are the lowest priority to sell/highest priority to retain because they will produce the most lambs in 2024 and 2025 and they are the most robust ewes.

### Pros and cons for selling skinny versus fat ewes

- Fatter ewes will sell for a higher price
- Retained fatter ewes can lose some condition and therefore require less supplement than the skinnier ewes.



- Understand the driver of current condition score:
  - The most likely reason for differing condition score is reproductive performance in 2023. The skinnier ewes are likely to be those that raised twin lambs. These high reproductive performers have double or more the future income earning potential than the low performers.
  - Research has shown there are differences in genetic fatness.
  - Without good records, it is not possible to differentiate between genetically lean animals and animals with higher reproductive potential.

Therefore, only sell the skinnier ewes if they have been identified as poor reproductive performers.

## Feeding retained sheep

The priority order for feeding the retained stock is different to the priority for determining which stock to sell. The return from keeping animals in better condition determines the priority and is related to:

1. Increased wool growth and staple strength, which is slightly offset by increased fibre diameter
2. Reduced mortality
3. Improved reproductive outcomes (conception, lamb survival and weaning weight)
4. Improved sale value if conditions deteriorate beyond the worst case and sales are forced later

## What is the priority for feeding

1. Having “at risk” young weaners gaining weight is the highest priority (\$15/kg return on investment). Gaining 1.5kg/month is sufficient and above this the value of further weight gain drops to between 20c and 50c/kg.
2. Ewes that are currently too thin to mate (CS <2.3) are the highest priority adult sheep (\$10/kg). Drafting off the tail and differential feeding is high return.
3. Lambs being fattened for sale (\$4/kg)
4. Thin ewes (CS 2.5) being mated to merinos, especially if they had twins in 2023 are the next priority (\$2.50/kg).
5. Ewes in CS 3 or more and ewes to be mated to a terminal sire in CS 2.5 (\$2.00/kg)
6. CS3 ewes to be mated to a terminal are a low priority (\$1.50/kg) although it still pays to feed for maintenance.
7. Ewes being fattened for sale are the lowest priority (\$1.30/kg)

Note: Shedding breeds are a similar priority to merino ewes mated to a terminal sire.

## CS targets for the breeding ewes

With current market prices, feeding extra grain to reproducing ewes in early pregnancy to maintain weight during pregnancy (rather than lose weight) is profitable if the ewes are:

- Less than CS 2.7 and lupins are \$350/t
- Less than CS 3 and lupins are \$300/t

Twin bearing ewes identified by pregnancy scanning can be fed to maintain CS 3 if lupins are \$350/t or less. They can be fed to gain weight in late pregnancy if they are less than CS 2.7 and lupins are \$300/t or less.

## Feeding sale animals

Fattening sale lambs is only a medium priority. The payoff depends on increasing the value per kilogram for the animals and being able to sell in a timely manner when they have reached premium market specifications. Feeding to gain weight will be most efficient if carried out in a well managed confinement area, so that the sale animals are not consuming paddock feed in competition to retained breeding ewes.

## Feed or quit lambs ready for sale

The decision to sell finished lambs through the sale yards versus waiting for killing space to become available is dependent on the duration until space becomes available. Retaining stock on farm will cost \$2-\$3 per head per week, so the extra sale value needs to recoup this plus provide a return on effort. If retaining on-farm be aware that:

- It is important to regularly monitor the lambs to ensure that they remain ready for slaughter. The animals will need to continue to gain weight slowly because a lamb at maintenance gains muscle and loses fat.
- If the lambs are grazing in the paddock, they will be expending an extra 1 to 2 MJ/day walking, which requires an extra 100g/hd/d of grain compared to feeding in confinement.
- If grazing on pasture, they will be consuming paddock dry matter and water that could be valuable to allow extra breeding ewes to be retained.

Feeding in confinement is likely to be the best option for these animals.

When planning lamb turnoff and booking lambs in for slaughter, factor the lag time for kill space into your decisions.

## Timing the selling decision

There are several advantages of bringing sales forward for the animals that have been identified for sale. The advantages of selling early

- Removes the requirement for supplement that would have been fed
- Retains extra dry paddock feed that would have been consumed. This dry feed is likely to be high quality and it will delay the time for the paddocks get bare. The value of the pasture not grazed is approximately one third of the value of the equivalent number of MJ of energy from supplement.

The main challenge with selling early is sourcing shearers to shear the animals prior to sale. The loss of the wool income will likely negate the feed benefits of early selling if shearing is not possible.

## The case for altering mating decisions

### Not mating

If you currently mate ewe lambs, 2023/24 will be a good year to consider not mating this age group. These young ewes need high nutrition to be profitable and have a low mortality. If they are not mated, then the feed can be re-allocated to the older ewes and will generate more lambs per unit of feed than the ewe lambs.

Joining ewes in less than CS 2.3 is an animal welfare risk and profit risk.

The case for not mating higher condition score adult ewes is based on the reduced energy requirement for the dry ewe compared for the reproducing ewe. However, the reduced energy requirement is in late pregnancy and lactation and the saving in supplement is mostly during the period that this is occurring on dry feed. Therefore, flocks that lamb in late June and July have little or nothing to gain from not mating. Whereas flocks that lamb in April and May, have a much higher proportion of the increased feed demand occurring on dry feed. For these early lambing farms that will be lactating on dry feed, there may be a case to not mate ewes, although only if ground cover prior to the break of the next season is the limitation to the number of animals that can be carried (this maybe the case for producers that are unable or unwilling to confinement feed).

The comparison for profitability in 2024, is the reproductive capacity of the extra ewes that have been carried through (rather than being sold) versus the value of the lambs that would have been born from the reduced number of ewes carried through and mated. However, there is also an aspect of risk management in not mating the ewes that could be important for a worst-case outcome. If there is late break in 2024, then the management of the non-mated ewes is much simpler and less expensive than if the animals have lambs at foot.

However, for flocks for which erosion and cashflow are not constraints, it will be more profitable to mate and feed extra supplement than to not mate, provided 2024 is not a very late break.

## Delay mating

If you are considering not mating your ewes, then an alternative to consider is to delay mating so that the feed demand of lactation is occurring on green feed after the break of season in 2024. This will reduce the requirement for supplementary feeding in autumn and early winter. However, the challenge is ensuring sufficient nutrition for the later born weaners in spring and summer.

## Pregnancy scanning

2024 will be a high value year for pregnancy scanning the ewes being mated, so the empty ewes can be sold. This is a high value practice in a normal year for flocks that scan prior to the break of the season, it will be even more valuable this year. Book in with a scanner early. Use this opportunity to start (and continue) with this high value management practice.

More information on [pregnancy scanning](#) can be found on our website.

## Cost of delaying weaning

2023 is an important year to wean in a timely fashion. Delaying weaning beyond 12-14 weeks from the start of lambing is an inefficient use of feed and reduces your ability to allocate feed to the priority mobs. Early weaning ensures maximum opportunity for the ewes to be in a suitable condition for the 2024 lambing season.

More information on [early weaning](#) and [sheep weaning best practice](#) can be found on our website.

## Advantages/disadvantages of confinement feeding

If confinement feeding is not possible, then the cost of overgrazing is likely to be the main constraint to the number of animals that can be carried.

### Advantages:

- Paddocks can be destocked before the risk of erosion increases to unacceptable levels. The benefit of this depends on the risks from overgrazing which vary between regions and farms
- The workload associated with feeding is reduced
- Grain wastage can be reduced if the grain is fed in troughs,
- The maintenance requirements of animals is reduced by 1 or 2MJ/day due to reduced walking
- Monitoring the animals is improved, especially if the confinement area is close to the yards
- Moisture retention is increased, and soil temperature reduced from the extra ground cover that can be retained
- Earlier seeding opportunities and improved water infiltration at the break

### Disadvantages:

- Capital and labour required to build the lot
- Animal health problems can result from the high stock density which increases costs
- Requires a source of stock water close to the drought lot
- For extended confinement feeding it is necessary to provide a roughage source. Barley straw is a good option.
- Feeding and monitoring is a continuous job
- Summer weed control offered by grazing stock is removed

Is it possible to create the capacity to confinement feed? More information about [confinement feeding](#) can be found on our website.

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