Webinar Q&A: More lambs from ewe lambs

Friday 6 March 2026

The first webinar in our PDS Updates series, 'More lambs from ewe lambs', explores practical and research-based strategies to improve the management and reproductive performance of ewe lambs from joining through to their second breeding cycle.

Led by Jason Trompf (JT Agrisource) with producers Andrew Hunter and Charlie de Fegely, the session delivers clear, evidence-based guidance to help producers lift conception, lamb survival and overall ewe productivity.

This Q&A captures the questions raised during the webinar. Responses have been refined for clarity while retaining the intent and technical accuracy of the presenters' advice. Questions that were not addressed during the live session have also been included with detailed answers.

Q. What if ewe lambs are already 55kg to 60kg at joining? Do they still need to grow at 150g a day?

A. No. As the matrix shows, once ewe lambs are 50kg or more at joining, their required growth rate begins to decrease. You can back off the target daily gain, but it needs to be done appropriately.

To flip the question around: the more work you do early, the less you need to do later. The challenge we're seeing across industry at the moment is the opposite – ewe lambs are often being joined too light. For every 5kg they are underweight at joining, they need to gain an extra 10–15kg during pregnancy to compensate. So yes, ewe lambs at 55–60kg at joining still need to keep growing through pregnancy, but not at the same rate as lighter ewe lambs. The matrix provides those adjusted targets.

Q. Is there a weight gain that is too high over the course of pregnancy?

A. We didn't identify an upper limit where weight gain became detrimental, as outlined in the matrix discussed earlier. Within the parameters of the research, the low-grade treatment averaged 128 g/day, and the high-grade treatment averaged 287 g/day (with a range of 200–400 g/day). The key point to remember is that the number one cause of lamb loss in ewe lambs is low birthweight.

As an industry, we tend to worry too much about high birthweights, which can lead to underfeeding during pregnancy. This contributes to low birthweights, inadequate maternal energy, and increased risk of secondary dystocia – essentially hypoxia during birth. The ewe lamb must have enough energy to deliver the lamb and then get up and mother it.

We found no downside to appropriate, faster growth in either single- or twin-bearing ewe lambs. If your adult ewe reference weight is in the 60kg range (as is typical across many breeds), then you want your ewe lambs to be at least 60kg at lambing before conceptus weight is removed.

No doubt there is an upper ceiling somewhere, but within the conditions studied, we did not reach it.

Q. What advice do you have to turn the ewe lamb around between lambing and second-year joining?

A. The foundation for success in the second joining is laid in the ewe lamb's first year. The heavier she is at joining, and the heavier she is at her first lambing, the better positioned she will be for her second breeding cycle.

We'll present more detail on this in the *Best Practice Guide* (to be released later this year), but as a general rule: if your lambing period is five weeks, lambs should be weaned no later than 13–14 weeks from the start of lambing, earlier if possible. The earlier you can begin the ewe lamb's recovery, the stronger her performance in year two.

Andrew Hunter demonstrates this well: if a ewe lamb weans in low condition score 2, he actively intervenes, feeding them up promptly, and gets them back above condition score 3 within 30–40 days post-weaning. This strategy consistently delivers strong second-year scanning results.

And as Charlie mentioned, continue to treat the ewe lamb as a ewe lamb. Don't wean her and then run her with mature ewes. Her energy and protein requirements remain different because she is still growing and needs to complete that development while recovering from her first lactation.

Q. Is there an age effect in addition to weight and gain? Asking in terms of maintaining annual cycle and having enough time for recovery post-weaning.

A. Yes, there is definitely an age effect. We didn't have time to present this during the session, but our data clearly shows that age at joining influences reproductive performance, based on the genotypes represented in our studies to date.

The model of joining ewe lambs at seven months, so they lamb at 12 months, essentially on their first birthday, is now relatively uncommon. Most producers are shifting that out by about six weeks. Instead of joining at seven months, they are joining at eight to nine months.

Moving joining back from seven months to eight months lifts scanning rates by approximately 20%. Delaying a further month (i.e. joining at nine months) will lift scanning rates by approximately an additional 10–15% (approximately 30-35% lift in scanning rates from moving from seven to nine months).

Over time, continued selection for earlier sexual maturity among leading seedstock producers will reduce the need to push the joining age beyond seven months. However, based on current industry genetics, age remains an important lever alongside weight and growth rate for maintaining the annual cycle and allowing adequate post-weaning recovery.

Q. Are ewe lambs that are not joined taken out of the system or are they mated again as a hogget? If kept [as hoggets], have records been kept comparing results between those joined as ewe lambs and hoggets?

A. Whether unjoined or scanned-empty ewe lambs are kept or removed depends on the individual production system and whether replacement numbers need to be retained or reduced. In many systems, unjoined ewe lambs are not automatically culled, they are often carried through and joined as hoggets the following year.

Research and industry evidence show that ewe lambs that successfully breed in their first year have higher lifetime performance than those that first lamb as two-year-olds.

New Zealand research also shows that reproductive wastage is higher among ewe lambs (dry ewes, failures to rear) and that heavier and better-growing ewe lambs are more likely to conceive and rear a lamb successfully. These findings support the view that breeding as a ewe lamb, when weight and condition targets are achieved, provides a lifetime productivity advantage.

Many producers will still mate unjoined animals as hoggets, provided they reach appropriate liveweight and condition score targets by the next joining. Those that fail to reach targets a second time are more commonly culled, depending on the breeding objective, feed availability, and replacement requirements.

Q. Is there any advantage to using teasers for longer?

A. There is no clear advantage to leaving teasers in for longer than the recommended 10–14 days. The purpose of teasers is to stimulate a synchronised onset of oestrus via the "ram effect", which depends on a short, sharp period of pheromonal stimulation. Research shows that:

- The ram effect triggers a neuro-hormonal response within hours, leading to an induced ovulation 2–3 days later.
- The strength and synchrony of that response occurs when teasers are introduced suddenly after a period of ram isolation (typically 4–6 weeks).
- Extending teaser exposure does not improve synchrony, conception rate, or cycling activity beyond what is achieved in the first 10–14 days.
- Keeping teasers in longer may actually reduce effectiveness, because prolonged exposure can cause the stimulus to "wear off," resulting in less synchronised heats.

In short, the benefit comes from the acute introduction, not prolonged exposure. Once the ram effect has been triggered, keeping teasers in longer does not add further value.

Q. Should I give my ewe lambs a longer joining than 35 days?

A. A 35-day joining covers roughly two full oestrous cycles in ewe lambs, which is generally considered the minimum effective joining period. However, ewe lambs have later onset of puberty, shorter and less obvious heats, and lower conception rates per cycle compared with mature ewes. Because of this, some situations warrant extending joining.

You might consider extending joining when:

- Ram activity increases late in the 35-day period, indicating some ewe lambs are cycling later.
- Teasers have not been used – without the ram effect, onset of cycling is delayed, so a 6–7 week joining allows for two effective cycles.
- Ewe lambs are joined at 8–9 months and will be rejoined earlier the following year, where allowing more time to conceive reduces the risk of a prolonged lambing and short recovery interval.

In short:

A 35-day joining is generally sufficient, but extending by 1–2 weeks, or up to maximum of seven weeks if not teased, can improve conception in ewe lambs that cycle later, without compromising the next joining.

Q. Is there a danger of feeding too much protein during pregnancy?

A. In most Australian commercial production systems, the greater risk is insufficient nutrition, especially in late pregnancy, rather than "too much protein." What matters is achieving the right balance of protein and energy and maintaining appropriate condition throughout pregnancy.

Protein supports foetal growth and continued development of the ewe lamb herself. Recent research indicates little downside to providing good nutrition right through pregnancy with ewe and lamb survival improving in both single- and twin-bearing ewe lambs.

Key points:

- Aim to meet (not exceed or restrict) late-pregnancy requirements with balanced energy and protein and manage mobs by pregnancy status (multiples first priority).
- Avoid pushing single-bearing ewes to very high condition (CS > 4) late in gestation, which can increase dystocia risk.
- In typical Australian pasture systems, there's no demonstrated benefit to limiting protein below requirement, and the practical "danger" from high protein alone is low compared with the well-documented harms of undernutrition or over-conditioning.

Q. Can you join for just two cycles?

A. Yes, you can join for just two cycles, but whether it is appropriate depends on the class of ewe and your joining objectives.

A full oestrous cycle is around 17 days, so two cycles equate to roughly 34 days. Research and industry guidelines emphasise that ewe lambs have shorter and less predictable heats, and their pregnancy rate per oestrus is lower than that of mature ewes. To ensure a high proportion have the opportunity to cycle and conceive, ewe lamb joinings typically need at least 35 days, and in some cases longer.

If ewe lambs have not been teased, their effective cycling window starts later. In these cases, extending joining to 6–7 weeks can help compensate for the later onset of puberty and poorer oestrus expression. This aligns with existing recommendations to allow more time for ewe lambs to cycle, especially when joined at 8–9 months or when they need sufficient recovery before the next joining.

In short:

- Two cycles (≈34 days) can be sufficient if ewe lambs are well grown and teased.
- If not teased, or if ram activity increases later in the period, consider joining for an extra 1–2 weeks.

A slightly longer joining provides a higher chance of conception without significantly extending lambing.

Q. If ewes are already in body condition score (BCS) 3.5–4 at joining due to good pasture conditions, what's the best strategy to prevent excessive condition gain through early pregnancy without compromising embryo survival?

A. For ewe lambs already at BCS 3.5–4 and 50kg liveweight or more at joining, the aim is to stabilise their nutrition rather than continue rapid growth. Once they reach this weight range, their required growth rate naturally reduces, so the focus shifts to maintaining weight without losing condition.

Ewe lambs should still grow slowly (around 50g/day) to support continued development, but any weight loss in early pregnancy increases the risk of embryo loss, so restricting feed too heavily is not advisable. The best strategy is to place them on maintenance-level feed or moderate-quality pasture that prevents further condition gain while keeping them on a steady or slightly rising plane of nutrition.

Q. Any practical experience using melatonin/Regulin®?

A. Research into the use of melatonin implants (Regulin®) for improving lamb survival has shown mixed outcomes, depending on the class of ewe, pregnancy status, and seasonal conditions.

Previous work led by University of Adelaide (Flinn et al., 2020) demonstrated that administering a single Regulin implant to adult twin-bearing ewes post-scanning produced promising improvements in lamb survival. Across several trials, gains of 5–13% in twin lamb survival were reported. The proposed mechanism is that melatonin provides neuroprotection to lambs experiencing birth-related oxygen deprivation (hypoxia). Through its antioxidant and anti-inflammatory actions, melatonin helps protect the neonatal brain, supporting better teat-seeking behaviour – a critical fine motor skill that can be compromised after a difficult birth. These effects were particularly relevant because hypoxia is a major contributor to early lamb mortality.

Given those positive outcomes in adult twin-bearing ewes, Dr Joe Gebbels (MLA) and Dr Jason Trompf led the research project *More lambs from ewe lambs through developing and extending best practice*. This project evaluated whether the same approach could improve lamb survival in ewe lambs, where survival rates – especially in singles – can be low. Regulin was administered to pregnant ewe lambs (both singles and twins) post-scanning, mirroring the treatment timing used in the earlier research.

However, in this study, no measurable benefit of melatonin was observed in ewe lambs. Lamb survival was virtually identical between the treatment and control groups:

- Control: 70.6% survival
- Regulin: 70.7% survival.

There were no significant differences within either single- or twin-bearing ewe lambs, and statistical analysis confirmed no treatment effect (P = 0.974).

In summary:

While melatonin has shown clear potential as a neuroprotective agent and has improved survival in adult twin-bearing ewes, at this stage, its use for improving lamb survival in ewe lamb pregnancies is not supported by evidence, and the biological mechanisms that benefit adult ewes do not appear to translate to this younger class of animal.

Q. What do producers do with ewe lambs from ewes? How do they fit into the system if we join the ewe lambs 6–8 weeks later?

A. Ewe lambs born to ewe lambs will typically be ~1–2 months younger at the start of the next ewe-lamb joining. That age gap means fewer will reach puberty/target weight in time, so conception rates are usually lower. For flocks that have sufficient replacements, a practical way to reduce system complexity is to join ewe lambs to terminal sires selected for lambing ease and moderate birthweight, then treat most of their progeny as terminal (prime) lambs rather than future breeders.

Why the age gap matters?

Puberty depends on age and weight. Most ewe lambs reach puberty between ~5–12 months, strongly influenced by liveweight (often ~60–80% of mature weight or ≥40–45kg in many Australian systems) and season. Younger, lighter ewe lambs at joining are less likely to cycle and conceive. If their dams were joined 6–8 weeks later, these daughters start the next joining 1–2 months younger, so a smaller proportion will be cycling in time.

Seasonality amplifies the effect. Ewe lambs have shorter, later onset breeding seasons than mature ewes; aligning joining to autumn and ensuring adequate growth is critical. Late-born ewe lambs are consistently less likely to reach targets by the next joining window.

Implication: If you retain ewe-lamb-from-ewe-lamb (EL×EL) progeny as future breeders, expect lower conception unless you can achieve aggressive growth targets and manage them as a priority group.

Note: The matrix referred to in the answers to a number of these questions, is presented in the webinar and will be part of the best practise guide that will be published later this year.

If you have any questions, please feel free to email pds@mla.com.au and we will work with the team to assist with your enquiry.