

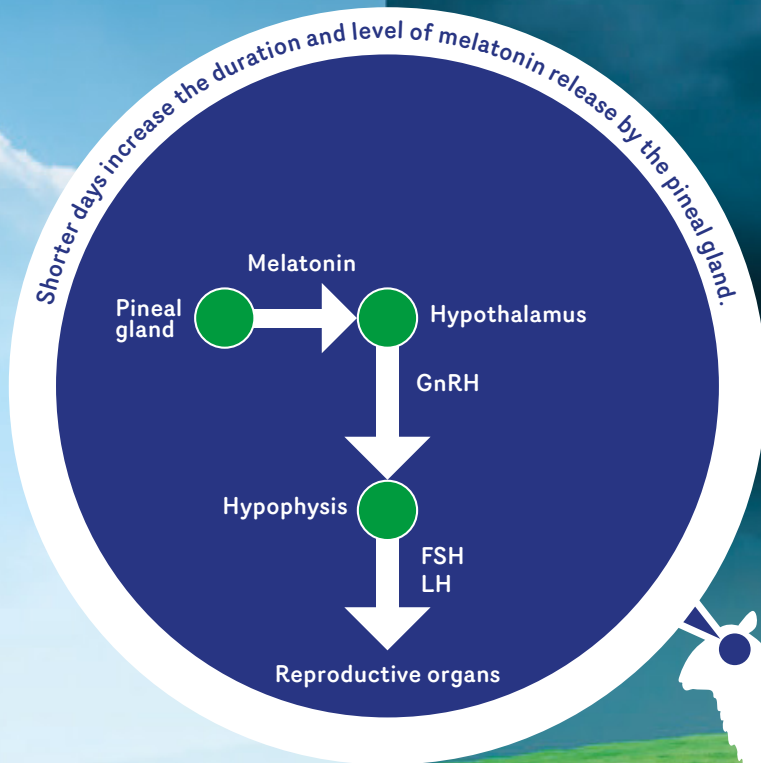


Regulin
gives you more



Take control of nature's clock

Following a period of long days in summer, the shortening day length in autumn triggers a return to reproductive activity and ewes show oestrus behaviour¹. Ewes have evolved this way to produce lambs in the spring, when warmer weather and increasing grass supply gives them the greatest chance of survival.



Even in less seasonal breeds there is a seasonal peak of reproductive activity in the autumn when most of the flock is cycling and females will have a good ovulation rate¹.

Key

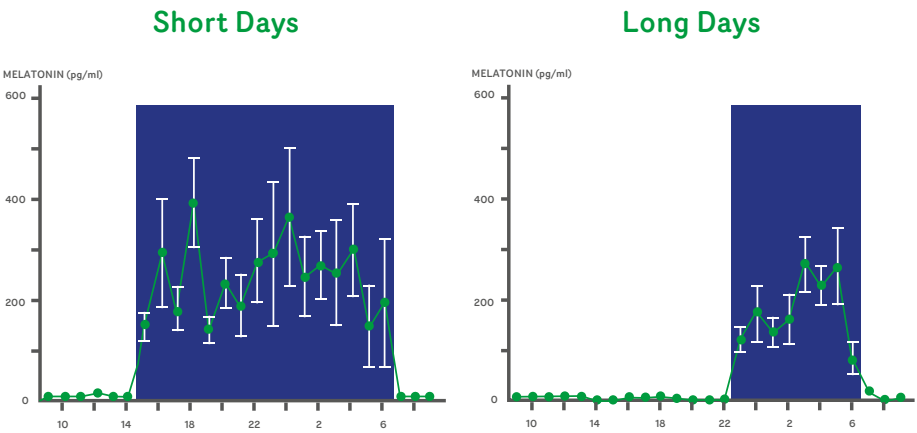
FSH - Follicle Stimulating Hormone Luteinising hormone

LH - Luteinising Hormone

GnRH - Gonadotropin-releasing Hormone

Breed out of season with Regulin

The natural melatonin control mechanism can make it difficult to achieve good conception rates and lamb numbers out of the breeding season.



Levels of melatonin release during short and long days²

Abecia *et al*³ assessed the response of the ewe to ram effect after 42 days of separation.

	Control	Melatonin implant
Percentage ewes cyclic at ram introduction	17%	44%
Percentage ewes renewed cyclicity by ram introduction	0%	42%
Number of days after rams introduced to first oestrus	23 days (+/-1)	15 days (+/-1)
Percentage ewes lambd in first 17 days	0%	39%

Regulin releases melatonin which acts on the brain (hypothalamus) to increase the release of reproductive hormones and therefore stimulates a return to fertile ovulations with associated behaviour.

Regulin therefore can advance the start of the breeding season and the return to normal oestrus cycles.

Breed out of season with Regulin

Trial work has shown that Regulin improves fertility and prolificacy within the genetic predisposition of the ewe, giving fewer barren ewes³ and **up to a 19% increase in the number of lambs** at scan⁴.

Regulin also helps **compact the breeding season** by ensuring that when the tups are added, the ewes are primed to respond to the ram effect. Teaser tups can also be used to enhance this natural response.

Other techniques can be used to induce oestrus and breed out of season. However, ewes that do not hold to the induced oestrus are then unlikely to return to natural cyclicity until their normal breeding season, the following year.





Regulin - a tiny implant that's so easy to use



Regulin is a small implant containing melatonin that is placed under the skin, at the base of the ear. Just like the natural secretion of the pineal gland in autumn, Regulin releases melatonin which stimulates ovarian activity, giving an earlier onset to the normal reproductive cycle.



Actual size - 4mm

Each implant of
Regulin is 2 x 4mm
in size and contains
18mg of melatonin



Benefits of using Regulin:

- One handling
- Advance breeding season by up to 2 months
- Improve fertility
- Improve prolificacy and fecundity
- Compact the lambing season
- Decrease barren ewes
- Good return to natural cycle
- Maximise genetic potential
- More lambs results in better returns

Separate rams and ewes pre implantation

Minimises interference with ovulatory (ET) pro process and maximises ram effect

-7
DAYS

DAY
0

Implant Regulin

1 implant per ewe

Introduce Rams

(teasers can be used initially)

DAY
40

DAY
80

Remove rams



Use of Regulin compared with progesterone devices for early lambs

	Progesterone Devices	Regulin
Advance the breeding season	Any time but potential decrease in fertility and fecundity	Yes - up to 2 months
Condense lambing period	Yes - to a week	Yes - 4-5 weeks
Synchronise for oestrus	Yes - they should all show oestrus in approximately 48-72 hours but may not have normal returns subsequently	No - expect peak mating at 2-3 weeks post ram introduction and then normal returns to oestrus
Fertility and prolificacy	Potentially increased risk of multiples, if PMSG used, consider dose.	Natural oestrus, good fertility and good prolificacy without increased risk of abnormal litter sizes
Return to oestrus	No or reduced - particularly if out of season	Yes - normal cycles
Use in ewe lambs	Can be used but may be more difficult to insert	Can be used if sexually mature
Ram ratio	1 ram for 5-10 ewes as they all should cycle in 48-72 hours	1 ram for 20-30 ewes

Regulin can be used with sponges to further compact the lambing period and also in artificial insemination (AI) and embryo transfer (ET) programmes. The dose of PMSG may need to be decreased if Regulin and sponges are used together.





REGULIN®

GIVES YOU MORE



References

1. Abecia J. et al. 2011. Pharmaceutical Control of Reproduction in Sheep and Goats. Vet Clin Food Anim 27 (2011) 67-79
2. Chemineau P. et al. 1993. Re-initiation of ovulatory activity by melatonin given as a constant-release implant in long-day treated Ile-de-France ewes, depends on endogenous secretion of melatonin.
3. Abecia J et al. 2006. The effect of melatonin treatment on the ovarian response of ewes to the ram effect. Domestic Animal Endocrinology 31:52--62
4. Palacin I. et al. 2011. Meta-analysis of the efficacy of melatonin implants for improving reproductive performance in sheep (2011). Spanish Journal of Agricultural Research 9(3): 730-43.
5. Scott PR. et al. 2009. Melatonin treatment prior to the normal breeding season increases fetal number in United Kingdom sheep flocks. The Veterinary Journal 182(2): 198-202.

Regulin 18mg melatonin implant.

Legal category: UK POM-VPS.

**More information can be found
on the datasheet.**

**Prescription decisions are for
the person issuing the
prescription alone.**

**Use medicines responsibly
(www.noah.co.uk/responsible)**

**Ceva Animal Health Ltd, Explorer House, Mercury Park, Wooburn Green,
Buckinghamshire, HP10 0HH
Tel 01628 334056 www.ceva.co.uk**

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