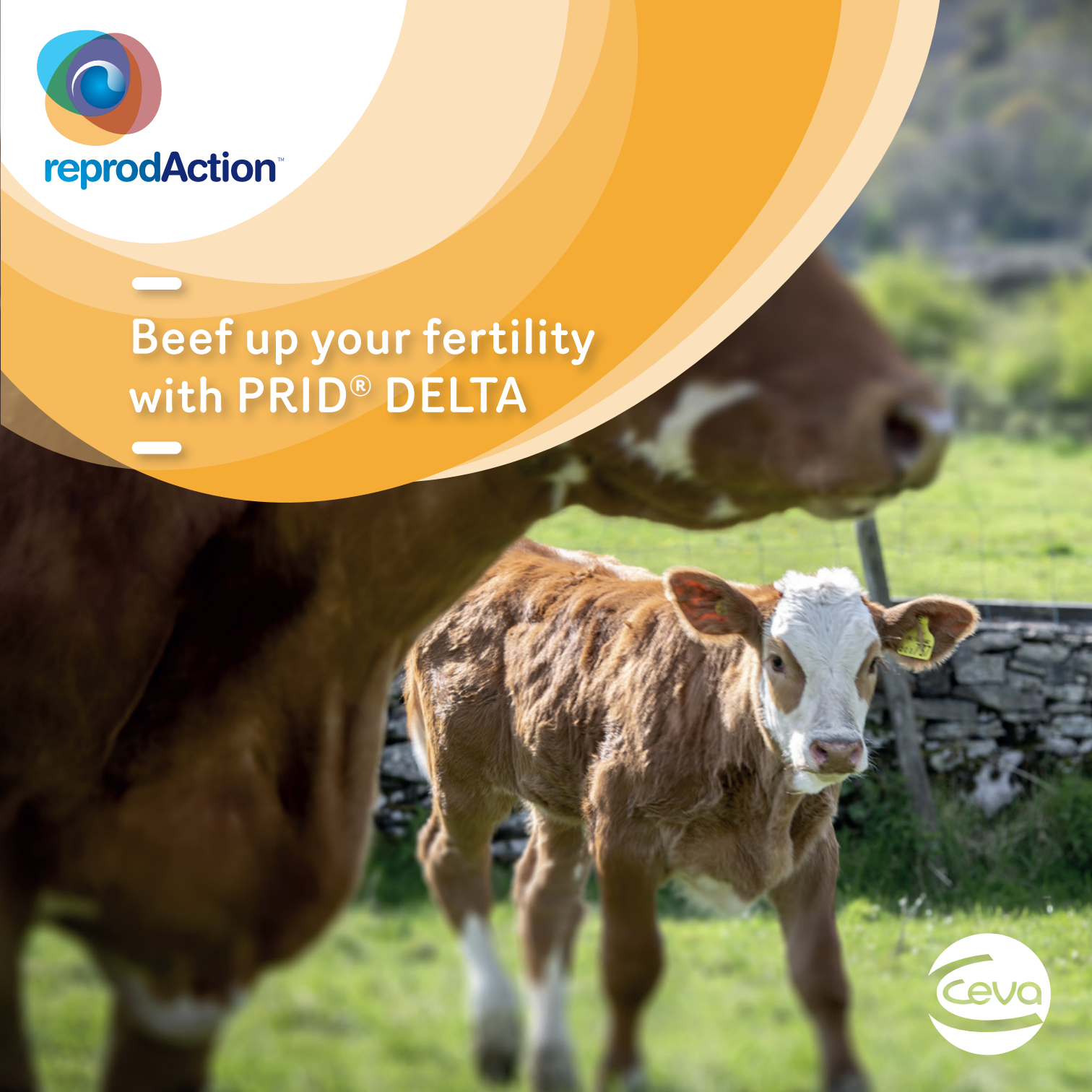
reprodAction™

Beef up your fertility with PRID® DELTA



Better fertility means more profit!

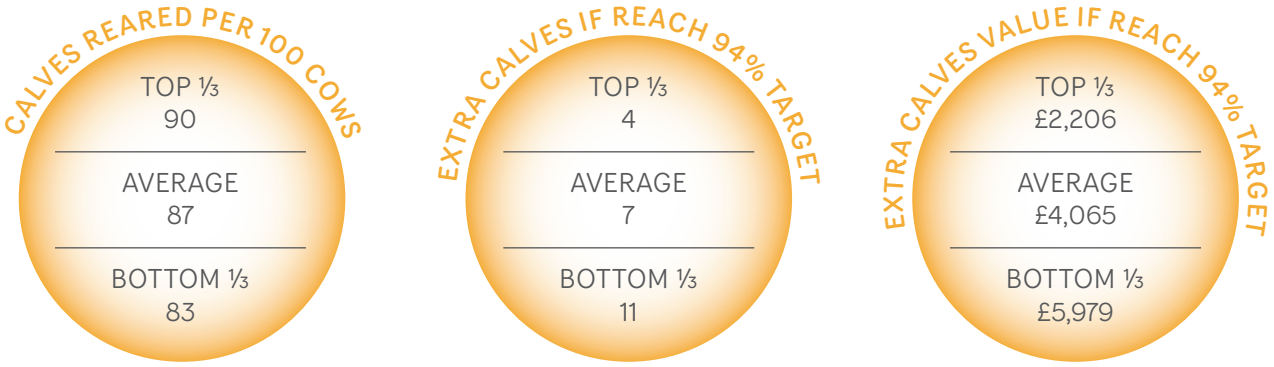
Reproductive management of cattle is strongly related to net return:

Fertility efficiency of a beef suckler herd is defined by achieving the maximum output (kg) of saleable beef / breeding cow / year and is commonly measured by calf crop % (number of calves weaned / number of cows mated x 100), **the target being >94%.**

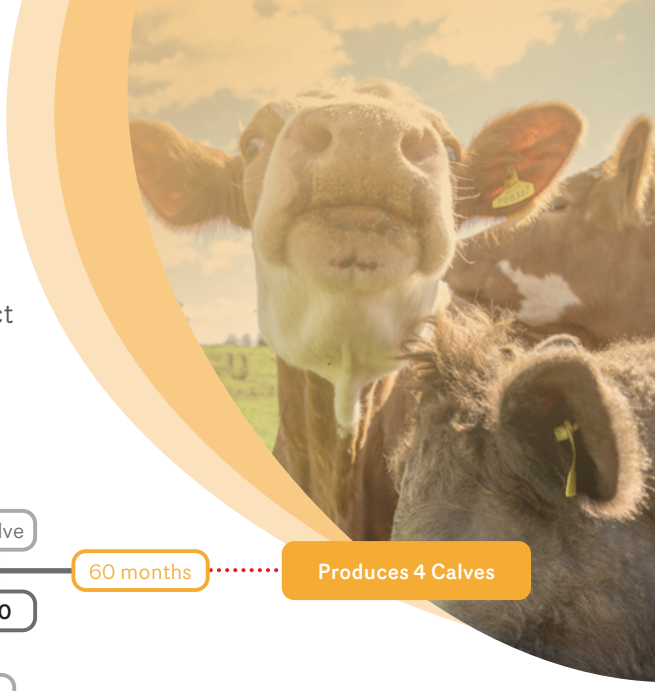


This has a direct impact on farm profitability, for example: in a 100-cow herd, increasing the number of calves reared per 100 cows put to the bull by 2% could increase calf sales by £800 to £1,000 per year.

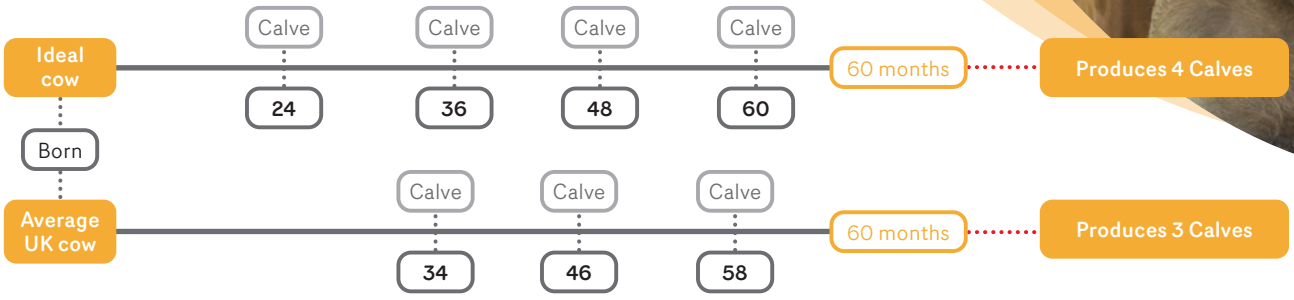
Calves reared per 100 cows / heifers to bull*



*Source – Cattle and Sheep Enterprise Profitability in Scotland – 2009, 2010 and 2011. Aggregated data for non LFA, LFA selling weaned calves and LFA selling yearling calves. *Assumption – calf value of £550 at weaning, based on weight of 275kg and price of £2.00/kg.



Age at first calving also has a huge impact on beef herd output: more calvings in the same period of time increases net return.



The situation above is looking at the ideal 12 month calving interval. The average in the UK is 426 days (BCMS). An increase of the calving interval from 12 to 14 months will numerically decrease the calf crop by 16 percentage points, meaning that a 50-cow farm with a calf crop of 94% producing 47 calves annually in the ideal situation, will only produce 39 if the calving interval extends to 14 months.

If the overall reproductive efficiency is improved, culls due to reproductive failure are reduced and more calves are on the ground every year.

What does managing beef fertility involve?

COMPACT CALVING PERIOD BENEFITS



- Cows have longer to recover before going back to bull
- Improves calves weaning weights
- Less disease risk in younger calves
- Reduces additional extra labour requirements

In the real example below, **Herd 2** had **6 additional calves** to sell with an increased weaning weight of 23kg.

HERD 1

Weaning 88 calves/100 cows

40% of the cows calve in the first 3 weeks

HERD 2

Weaning 94 calves/100 cows

65% of the cows calve in the first 3 weeks

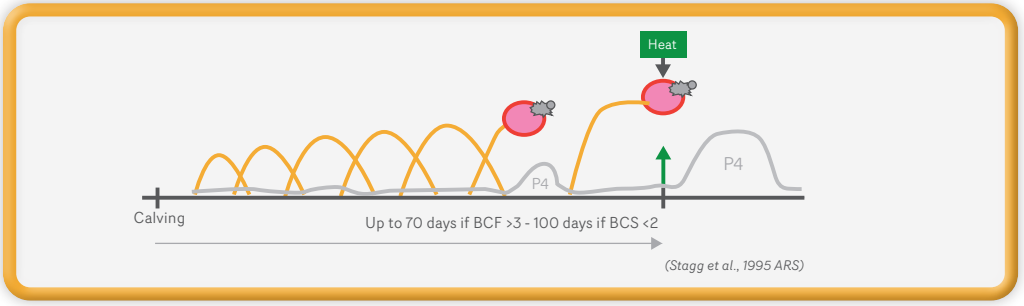
Extra profit = £7,624



PROBLEM COWS



- On average, a beef suckler cow calving in moderate to good Body Condition Score (BCS) will have an anoestrus period of 50-60 days.
- Thin cows, especially 1st calvers which are still trying to grow and suckle their first calf will be at risk of having anoestrus periods of 70 days or more.



Tracking problem cows and checking cows early in the breeding season will help give them a higher chance of getting back in calf.

Difficult calving - any intervention

Retained foetal membranes

Metritis / Endometritis

All of the above = delay in return to cyclicity

What does managing beef fertility involve?



What about the breeding capacity of a stock bull?

BULL AGE	1	2	3+
Mounts, n	207 [a]	120 [b]	85.8 [b]
Services, n	54.5	37.6	40.5
Oestrus females serviced, %	69.4	73.8	72.0
Pregnant of serviced, %	39.6 [a]	59.4 [b]	62.2 [b]
Pregnant overall, %	30.9 [a]	41.5 [b]	49.9 [b]

a, b differ significantly: *Pexton et al., 1990 Theriogenology*

- Best practice advises that bulls are fertility tested annually 60 days prior to the mating season to ensure they are working effectively.
- There is often only 1 bull on the farm, any problem with that bull could have huge financial impact.
- 60 days are needed for sperm production, so any illness like lameness 2 months ago can have an impact.
- The average cost of keeping a quality stock bull on farm is: £1600 / year (based on average longevity of 4 working years, depreciation and fixed and variable costs).
- Few beef bulls sire more than 35 calves / year -> cost/calf is £45 (Nadis).



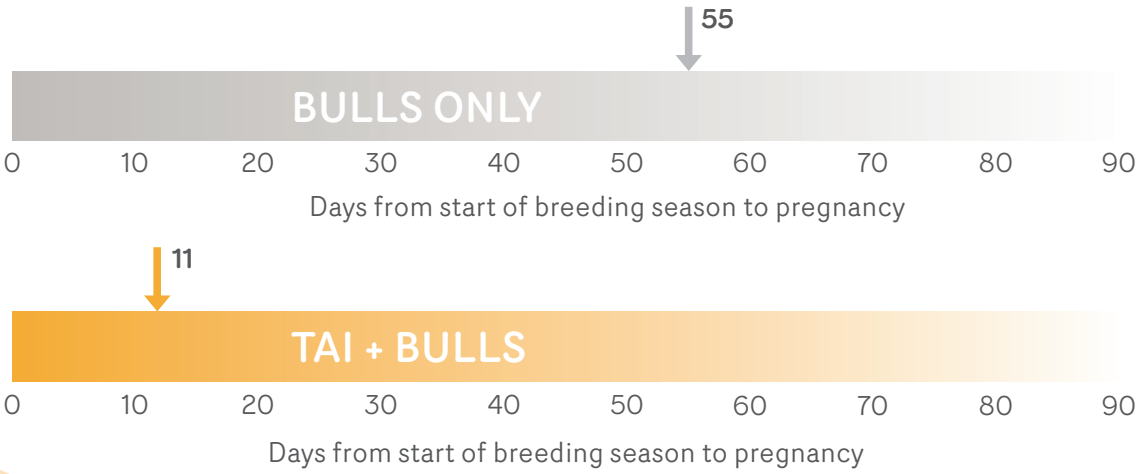
Are you benchmarking fertility performance

The benefits of using **synchronisation** are:

- Less time spent on oestrus detection: targeted AI
- Ability to by-pass oestrus detection: Timed AI (TAI)
- Ability to breed and re-establish cyclicity in anoestrus cows
- Optimised farm organisation: pregnancy check, calving period, optimal utilisation of resources, food resources
- Even batches of calves: decreased neonatal mortality, disease prevention planning, higher profitability at sales

Reproductive performance can be improved significantly. In the example below, in the "Bulls only" group, cows are put to the bull for 90 days and in the "TAI + bulls" group, cows are submitted to synchronisation with TAI on the first day of the breeding season and then put to the bull for 90 days.

Median time taken from start of breeding season and pregnancy





Are you benchmarking fertility performance?

SYNCHRONISATION

The use of synchronisation more easily enables the use of AI which **accelerates genetic gain**. And using EBV (value of additive genetic effects) tested bull semen will mean:

- More focus can be put on specific factors important on individual farms
  - Calving ease
  - Depth of muscle
  - Lameness
  - Milk production (replacements)
- Sexed semen available to breed replacements
- Reduces disease risk if not buying in bulls

Marsh et al. 2007 from Harper Adams compared the difference in value of the finished animal between using top genetics (Top 1%) compared to poorer genetics (Bottom 1%) which are shown in the table below (* significant and **highly significant).

Sire	TOP 1%	BOTTOM 1%	DIFFERENCE
Days to slaughter	396	413	17 days**
DLWG (kg)	1230	1170	60g*
Carcase weight (kg)	296.1	283.6	9.5kg*
Conformation class (1-7 EUROP)	3.85 (R)	3.42 (O+/R)	*
Carcase value (£)	575	543	32**

HEIFER MANAGEMENT

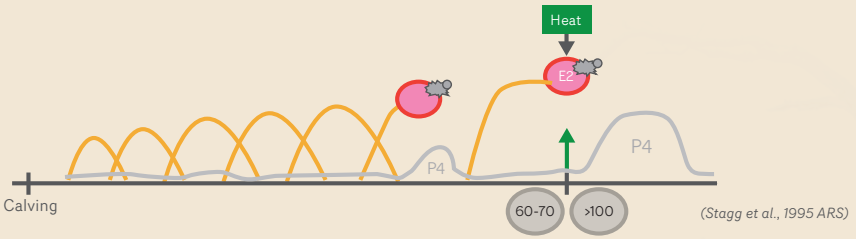
Together with reducing age at first calving as shown previously, improving heifer management will dramatically improve reproductive performance of these future cows:

- Heifers calving in the first 21 days of their first year had increased longevity to heifers calving in the second 21-day period: 5.1 vs 3.9 years
- Heifers calving in the first 21 days of their first breeding season had higher weaning weights every year for 6 calves

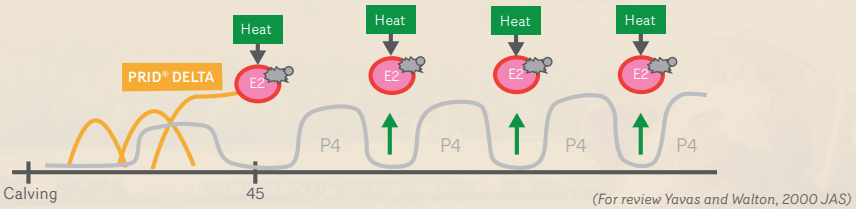


PRID DELTA

Progesterone is the hormone that has the ability to re-establish cow cyclicity

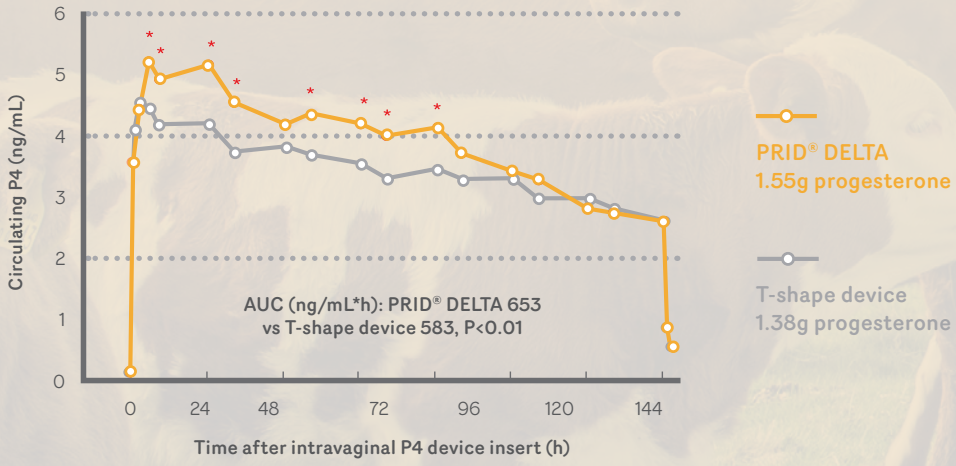


(Stagg et al., 1995 ARS)



(For review Yavas and Walton, 2000 JAS)

PRID® DELTA is the progesterone releasing intravaginal device with the most progesterone available on the market.



PRID DELTA

PRID® DELTA is indicated for the control of the oestrus cycle in beef cows/heifers and dairy cows/heifers including:

- Cycling cattle
- Non-cycling cattle (anoestrus and cystic cows)

PRID® DELTA improves the fertility performance of your cows and therefore increases the net return of your herd by:

- Achieving a 365-day calving pattern
- Increasing pregnancy rates
- Getting heifers pregnant at the right time



PRID DELTA standard protocol enables FTAI



Improve cattle fertility and increase profit with PRID® DELTA

PRID® DELTA improves the fertility performance of your cows and therefore increases the net return of your herd by:

- Increasing pregnancy rates
- Achieving 365-day calving pattern
- Getting heifers pregnant at the right time

PRID® DELTA helps to obtain better fertility, and better fertility means:

- More cows cycling earlier
- More calves
- Compact calving



The causes of poor fertility performance are many and differ from farm to farm therefore specific targeted programmes need to be implemented for those specific circumstances. To identify areas to target on your farm, or for further information, please contact your vet.

PR160

PRID® DELTA 1.55g vaginal delivery system for cattle. COMPOSITION: Each device contains 1.55g progesterone. ENZAPROST® 5 mg/ml Solution for injection for cattle and pig. COMPOSITION: 5 mg Dinoprost (as trometamol). SYNCROSTIM® 500 IU lyophilisate and solvent for solution for injection for cattle and sheep. COMPOSITION: Equine serum Gonadotrophin (eCG, formerly known as PMSG) 500 IU. Legal category: POM-V

Please refer to the product packaging and leaflets for information about side effects, precautions, warnings and contra-indications

Please use medicines responsibly (www.noah.co.uk/responsible)

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