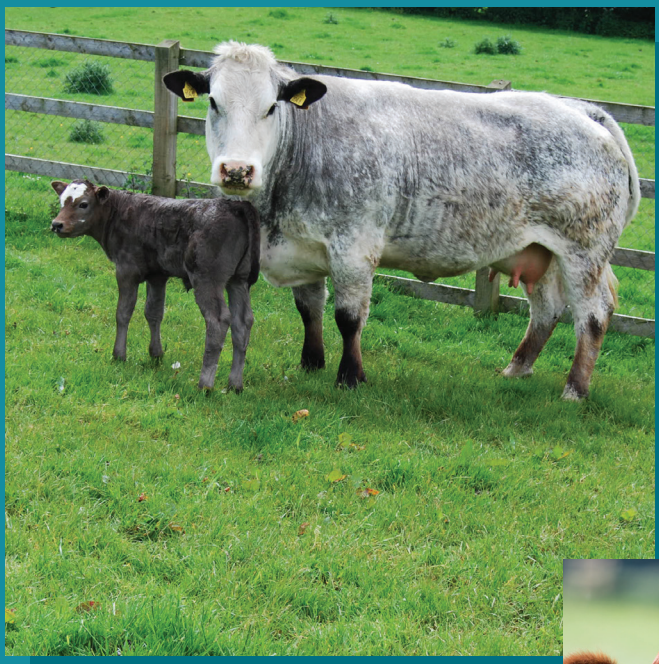
AgriSearch NI

Driving Excellence & Innovation



Synchronisation

- What it can offer you?

INTRODUCTION

A low proportion (<20%) of AI is used within the suckler herd. WHY?

- Labour intensive
- Difficulty with heat detection
- Cost
- Low success rate

For successful heat detection it is recommended that you check the cattle for 20-30 minutes 3 times a day.

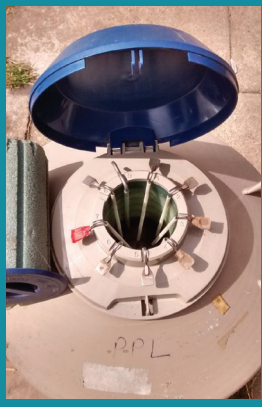
Synchronisation may be the help you need!

Synchronisation involves using veterinary products to bring cows on heat at the same time, allowing them to be served as the one group.

Influencing when a cows becomes pregnant has the added advantage of giving you an indication when she should calve.

Advantages of using AI

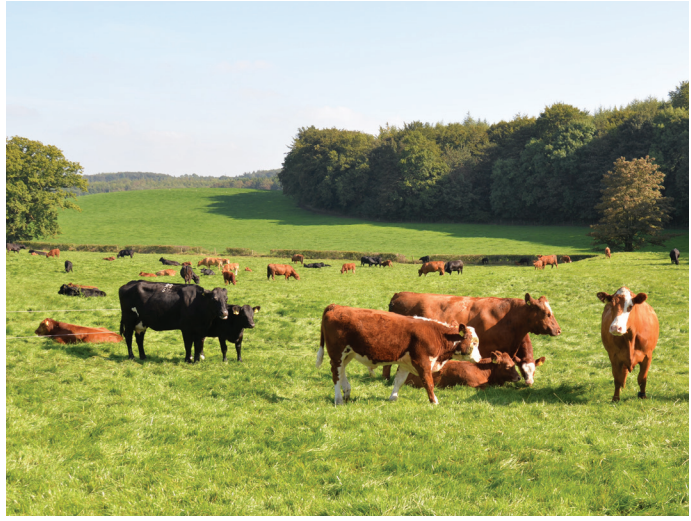
- Can match bull to what you want for your business:
  - Easy calving sire
  - Terminal Sire
  - Maternal sire
- Greater potential to match up sires with individual cows
- Change breed and genetics quickly
- Low capital investment
- Good semen quality



If answering 'YES' to any of these then Artificial Insemination could be for you...

Is it practical for you to get a cow in for AI on her own?

Will you need help to get her in?



CONSULT WITH YOUR VET

You need to work with your vet

- Discuss different synchronisation programmes
- Discuss when you would like to have your cows calving
- Think about what days suit you to serve the cows
- Have you help available to bring the cows in
- Get vet to check reproductive tract prior to insertion of progesterone devices

Before you begin

Body condition of cows and heifers:

It is recommended that cows and heifers are body condition score 2.5-3 at the start of synchronisation. Cows too thin or too fat may struggle to get pregnant.

Guide to body condition scoring

Score	Description
1	**Tail head** - deep cavity with no fatty tissue under skin. Skin fairly supple, coat condition often rough **Loin** - spine prominent and horizontal processes sharp **Ribs** - sharp with no fat cover
2	**Tail head** - shallow cavity but pin bones prominent; some fat under skin. Skin supple **Loin** - horizontal processes can be identified individually with ends rounded **Ribs** - can be identified individually but feel rounded rather than sharp
3	**Tail head** - fat cover over whole area and skin smooth but pelvis can be felt, but only with firm pressure **Loin** - end of horizontal process can only be felt with pressure; only slight depression in loin **Ribs** - individual ribs can only be felt with firm pressure
4	**Tail head** - completely filled and folds and patches of fat evident **Loin** - cannot feel processes and will have completely rounded appearance **Ribs** - folds of fat developing over ribs
5	**Tail head** - almost buried in fatty tissue **Loin** - pelvis impalpable even with firm pressure **Ribs** - covered with thick layer of fat

Source: Better returns from Body Condition Scoring (BCS) beef cows and heifers (AHDB)

Lameness

Lame cows have poorer conception rates whether using AI or a stock bull, treat lame cows as soon as possible and ideally 3 weeks before starting synchronisation.

Bull selection

Discuss with your AI company to decide what bulls you would like to use. Check Estimated Breeding Values that are important for your business and the availability for any semen you are considering.

When are my cows ready to synchronise?

It is recommended that cows are not served before they are calved 55 days or more. Keeping this in mind should give you an indication when your cows are available to breed.

COST OF SYNCHRONISATION

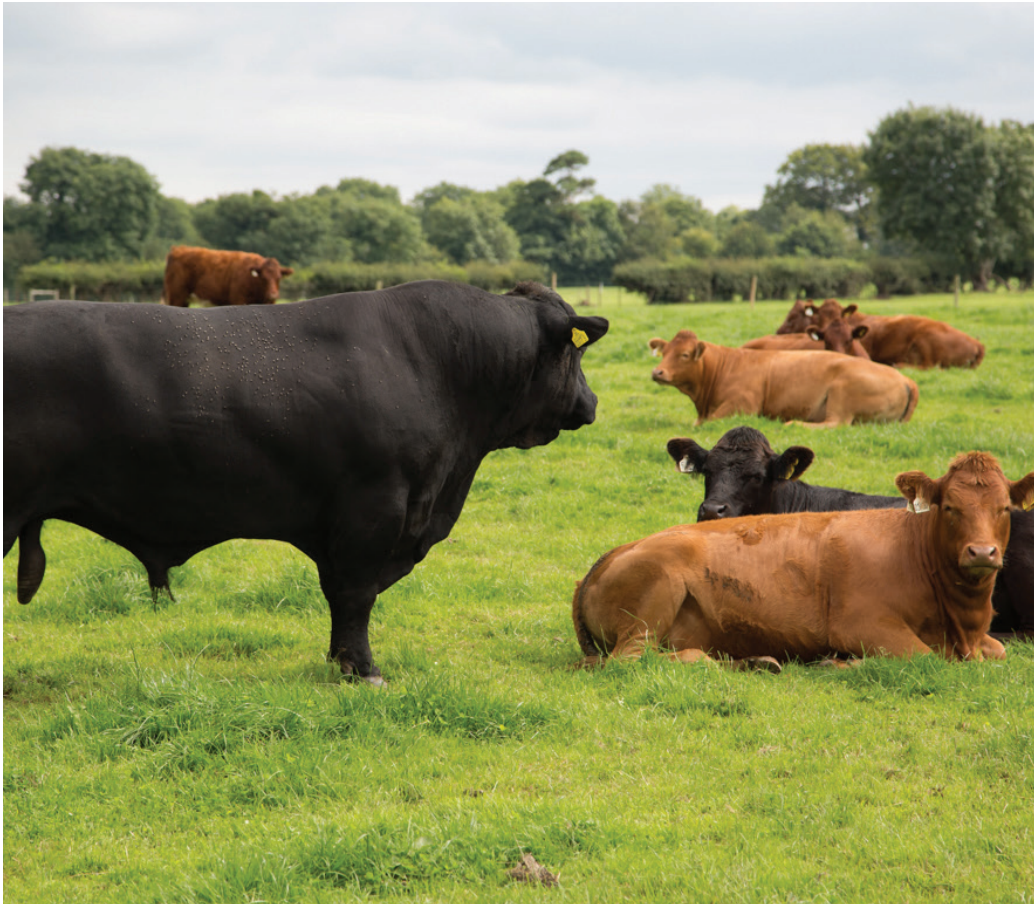
Depending on programmes used it could cost between £15-£25 per animal for heifers and cows, plus semen and AI charges. (Usually £30-£40 in total) Don't forget the cost of keeping a stock bull for the year. Figure 1 details the costs involved with stock bulls.

The cost of synchronisation can easily be justified when you expect to get a superior calf and the hidden cost of keeping stock bulls.

Remember the health and safety aspect to keeping bulls on farms - using AI should reduce the number of bulls needed.

Purchase price (£)	2,000
Working lifetime (years)	3
Cost of upkeep (£400/year)	1,200
Sale Value (£)	800
Net bull cost (£)	2,400
No. cows mated per annum	20
Calving Percentage	90%
No. calves during working life	54
Cost per calf (£)	44.44

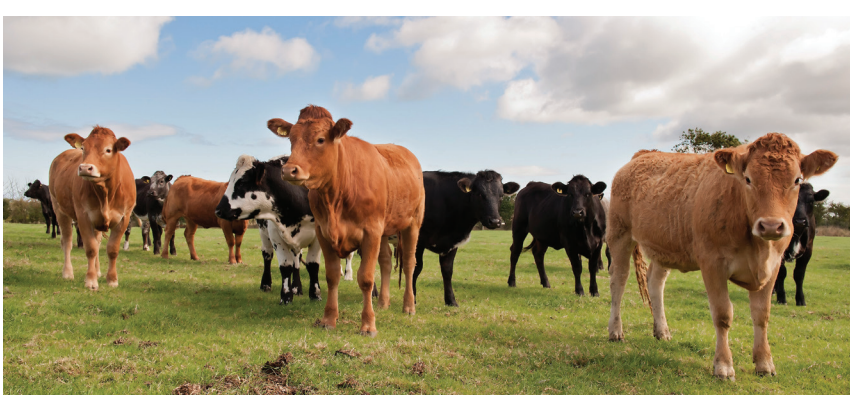
Figure 1. Illustrative cost of keeping a stock



SYNCHRONISATION AND AI (YEAR 1&2) PROVISIONAL

DAY	Mon	Sat	Sun	Mon	Tues	Wed	Thur	Results % (range)
Heifer 1	Prog d. in & GnRH	Prog d. out & PG			FTAI & GnRH			55 (35-73)
Heifer 2	Prog d. in			PG	Prog d. out		FTAI	68 (44-84)
Cow 1	Prog d. in & GnRH			Prog d. out & PG			FTAI & GnRH	63 (46-79)
Cow 2	Prog d. in & GnRH			PG	Prog d. out	GnRH	FTAI	62 (55-72)

Prog d.: Progesterone device
PG: Prostaglandin
GnRH: Gonadotrophin Releasing Hormone
FTAI: Fixed Time Artificial Insemination



THE AIM OF THE PROJECT:

- Improve the genetics through the use of AI
- Reduce the age at calving to 24 months
- Shorten the average calving interval on farm to 365 days.
- Simplify synchronisation programmes
- Reduce labour requirements
- Evaluate the use of sorted-semen within a synchronisation program

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