

The Livestock Event

Using breeding protocols and fertility visits
to improve pregnancy rates in beef and
dairy herds





Longmoor
HOLSTEINS

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Longmoor HOLSTEINS

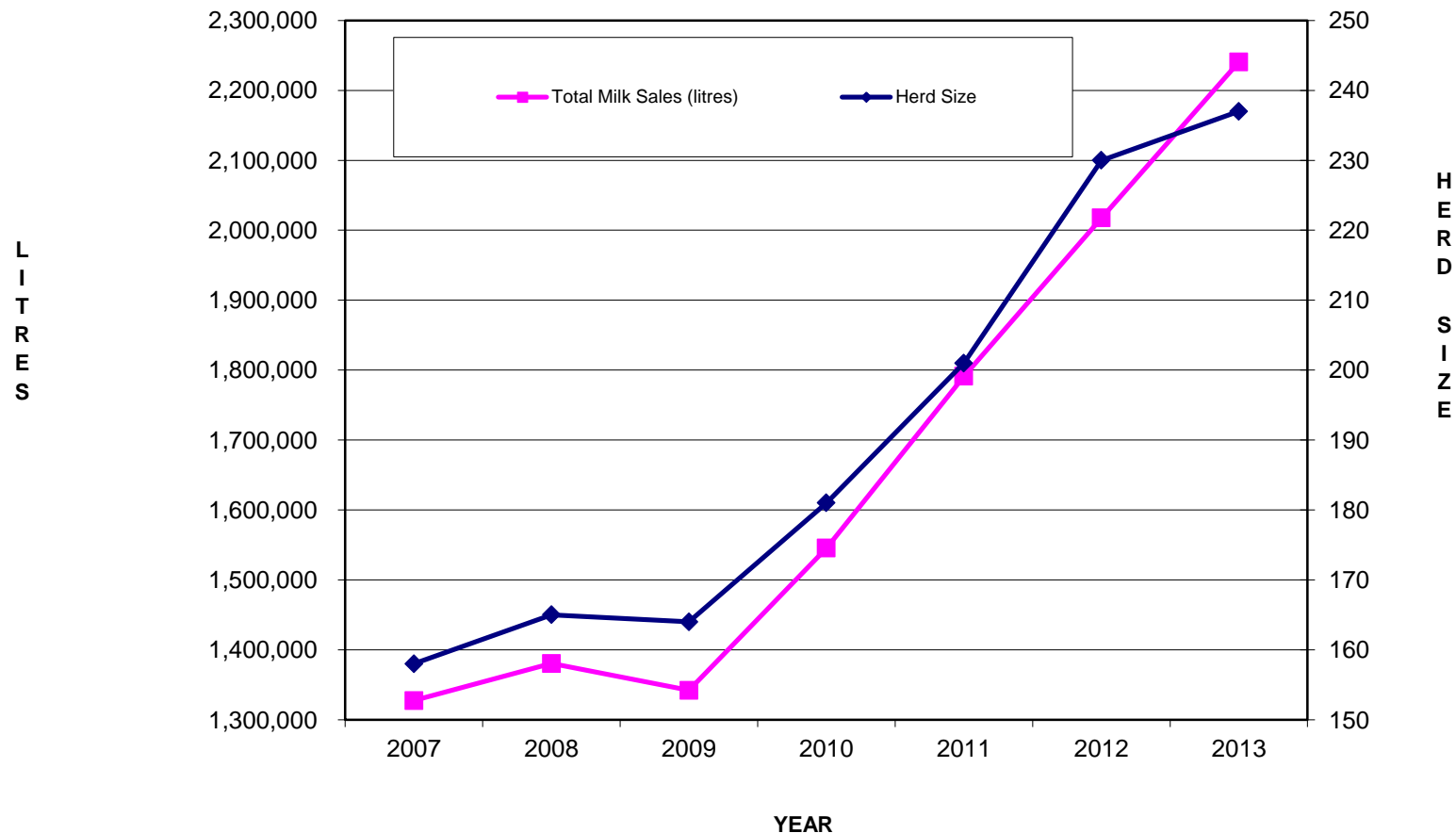
- 240 cows, AYR calving, supplying Waitrose contract
 - Tenants of the Duchy of Cornwall
 - Moved herd 3 ½ years ago from Oxfordshire to North Dorset.
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- Aim to breed high quality, high yielding pedigree Holsteins with an emphasis on health and fitness traits





Longmoor

HOLSTEINS



Can we maintain fertility as yield increases?

Current 12 monthly facts:
Pregnancy Rate: 42%
Calving to first service: 69 d
Calving to conception: 86 d
100 day in calf rate: 50%
200 day in calf rate: 85%

Submission Rate: 60%



Longmoor HOLSTEINS

Goldwyn Bridget

EX 90

PLI 171

**Predicted yield 4th
lactation:**

13,557 litres

5%BF, 3.3%P, 18 SCC



Fertility at Longmoor Farm

- Weekly routine – NSB, PDs and Fresh calver checks (temperature and vaginal exam), 21-28 DIM check.
- Important to not be economical on the frequency of vet visits!!
- Fresh calver checks essential and ketosis monitoring

Highest risk period for a cow is around the time of calving.

Getting the transition period right 3 weeks before and 3 weeks after calving is essential all year round!





Benefits of routine fertility monitoring

- Monitor close calvers diet, intakes and BCS
- Highlight struggling fresh calvers
- Monitor resumption of uterine involution and ovarian activity
- Reduce days open by prompt US PDs



Uterine involution

- All cows have an infection in their uterus post-calving
- Their ability to fight this infection depends on:

Level of infection

Metabolic disease

Twins / Difficult calving

Quick detection and useful
treatment of metritis and *whites* is essential





Resumption of ovarian activity

- All cows resume follicle growth 3-5 days after calving
- 50-80% of dairy cows (20-35% beef cows) *ovulate* their first dominant follicle
- The more cycles a cow has prior to the start of the breeding period, the larger the dominant follicle and the more hormones it will secrete at the start of breeding
- Resumption of ovarian activity influenced by:
 - BCS loss and BCS at calving
 - Uterine disease
 - Metabolic disease
 - Diet
 - Presence of calf/suckling (beef)

Importance of BCS at calving in beef/dairy COWS:

- Good BCS beef cow, ovulation of Dominant Follicle 3.2 cycles after calving
- Poor BCS beef cow, ovulation of DF 10.6 +/- 1.2 cycles!!



Oestrous detection

- Use a three week diary
- Record early heats
- Present cows with history of whites and metabolic disease prior to end of VWP
- Don't rely on heat detection aids alone!! Use your eyes!



Inseminations

- AI vs bull
- Breed for the correct number of replacements, if housing space is limited.
- Check the figures of all AI technicians on farm. Refresher courses are ALWAYS useful, however good you think you are!!
- Make sure everyone follows the same semen thawing protocol
- Keep your AI flask water clean



Breeding protocols can supplement oestrus detection



- Not every protocols is suitable for all cows/heifers
- Dairy Heifers and Beef cows/heifers have three follicles develop every 21 days
- Dairy Cows have two follicles
- *Do not* use Ovsynch on dairy heifers or beef animals



Breeding protocols

- Dairy heifers synchronisation: **2 x PGF** injections 11 days apart,
 - Serve 72 hrs after 2nd PGF
- Dairy Cows: **Ovsynch**
 - GnRH day 0, PG day 7, GnRH day 9,
 - FTAI 72 hrs after PG



Breeding protocols

- Dairy cows and Beef cows: **CIDR/PRID protocols**
 - Day 0 GnRH and CIDR/PRID
 - Day 7 PG
 - Day 8 CIDR/PRID out
 - 36 hr later inject GnRH
 - AI 16-20 hrs after GnRH



- Can you use breeding programmes for tightening up your calving pattern?
- Are these protocols appropriate for the block calver?
- Which is the better protocol to use?
- Should you serve to any detected heats in the middle of the OvSynch programmes?
- Double Ovsynchs can help reduce twinning rate!



Don't forget your heifers!

- Heifers will get you out of a lot of trouble if you are struggling to maintain a tight calving pattern
- Get the best growth rates possible during the first two months of life
- If block calving, get them to calve two weeks early
- *These heifers have your highest genetic potential so breed wisely!!*



Repeat breeders

- Low progesterone reduces growth of embryo, which increase the risk of embryonic mortality
- Try CIDR/PRID application 5 days after service (leave in for one week)



Take Home Messages

- Post Natal Check ALL cows
- Don't assume that cows are clean and are 'about' to come into heat – get them checked!
- Use synchronisation protocols to supplement submission rate

