

Fertility and Nutrition in the Suckler Herd

This focus farm discussion group meeting focused on bull management and explored issues affecting both fertility and nutrition, how these impact on production and outlined some practical steps that could improve performance in the suckler herd.

Key points:

- Semen test all bulls. Some may not be working as well as you think
- Carry out BCS (body conditioning score) and feed accordingly (cows & bulls)
- Know feed value and mineral content of silage; this will allow you to adjust diets as needed
- Ensure good bull fertility - necessary for compact calving
- A tight calving pattern **increases financial returns up to £141 per calf** from trials
- Average bull depreciation cost of £25/calf
- Ensure vaccination & parasite treatments are carried out prior to mating
- Implement biosecurity procedures for purchased bulls

Bull fertility and semen testing

Making sure all bulls are healthy and working is key to getting cows in calf and optimising herd efficiency.



Randall Mathers from Meadows Veterinary Centre went through the results from the four bulls at Nether Aden.

A number of cows were not in calf - was this as a result of an infertile bull?

Bull 1

- 5yr old Charolais
- 8mls milky sample
- Body condition score 2.5
- Scrotal circumference 50 cm
- Live:Dead 85:15
- <10% abnormal

Bull 2

- 4yr old A. Angus
- 7mls creamy sample
- Body condition score 3
- Scrotal circumference 38 cm
- Live:Dead 90:10
- <10% abnormal

Bull 3

- 8yr old Limousin
- 10mls milky sample
- Body condition score 2.5
- Scrotal circumference 38cm
- Live:Dead 90:10
- <15% abnormal

Bull 4

- 5yr old A. Angus
- 6 mls watery sample
- Body condition score 2
- Scrotal circumference 44.5 cm
- Live:Dead 10:90
- **Most sperm abnormal**

Suckler herd nutrition

Six key points were highlighted by John Smith of Harbro when thinking about suckler herd nutrition at Nether Aden:

1. Feed more early protein to heifers to maximise growth potential, especially during the 'store' period.
2. Carry out condition scoring and group accordingly.
3. Carry out forage mineral analysis. Could low copper availability or high soil molybdenum be holding the herd back?

4. Would a supplement such as Rumitech improve overall efficiency of the beef herd?

5. Would a straw based feeding system, using cheap draff and minerals with more forage crops for silage, e.g. pea silage be more suitable?

6. Feed bulls for fertility; include fish oils, selenium, minerals and vitamins at least 6 weeks before required to work.

Management of bulls

At least **20%** of bulls are sub-fertile or infertile.

Targets:

- 95% of cows in calf in 9–10 week period (3 cycles)
- At least 65% of cows calved in first three weeks

Needs:

- Cows & heifers to be healthy & cycling
- Conception rates between 60 - 70%

If 60% Conception rate:

- 94% pregnant in 9 weeks
- Feasible with a healthy bull
- 1 bull, 9 weeks, 60% conception

If 40% conception rate:

- 76% pregnant in 9 weeks

If 30% conception rate:

- 66% pregnant in 9 weeks

Impact of calving pattern

	Age @ wean	Wt @ wean	Calve pattern % Best	Calve pattern % Moderate	Calve pattern % Poor
1 st 3 weeks	230	309	68	25	13
2 nd 3 weeks	209	285	21	20	15
3 rd 3 weeks	188	261	11	20	16
4 th 3 weeks	167	236	0	18	38
5 th 3 weeks	146	212	0	5	14
6 th 3 weeks	125	188	0	2	4
Av wean age			220	199	180
Av wean wt			299	274	252
Wean value (£3/kg)			£897	£822	£756
Difference				£75	£141

Lameness

A common problem leading to poor performance

- If buy at sales, find out what rations were fed and adjust gradually if needed
- Sudden change from high concentrate to forage ration may induce laminitis
- Check feet regularly – get any trimming done at least 2 months before mating
- Lameness reduces libido and ability to mate.

Productivity of bulls and cost per calf

Based on purchase price of £4,500 and cull price of £1,500

	Poor	Average	Excellent
No. Cows sired/yr	30	35	50
No. cows pregnant	8	32	48
No. calves weaned/yr	7	30	47
Working life (yrs)	2	4	8
Total calves weaned	14	120	376
Depreciation cost/calf	£214	£25	£8

Body Condition / Nutrition

- Bulls should be fit, not fat (CS 3.0 – 3.5) - avoid high levels of concentrate (reduces breeding performance)
- Obesity can lead to sub optimal semen quality
- Thin bulls can have semen quality & libido problems
- Assess bulls for loss of condition during mating - ensure CS stays above 2
- For a 1 tonne bull, 1 CS is approx 130 kg of weight
- Grow until 3.5 year old
- Normally need to regain 0.75 of a CS over 180 day winter (1000kg bull would need to gain 0.54 kg/day for 180 days - 55 kg silage, 2.50 kg concentrates)
- If need to gain more weight, start feeding earlier rather than increasing concentrates
- If can't avoid feeding large amounts of concentrates, feed twice per day (1000kg bull, to regain 1.25 CS - feed for 210 days at 0.77kg/

day silage 45kg, concentrates 5.25kg (fed twice).

Testicular problems

- Scrotal circumference has a direct relationship with fertility
- Bulls should achieve certain standards by certain ages **depending on breed** – if fail then often sub fertile (e.g at least 32 cm at 18 months; at least 34 cm at 24 months)

Disease

- Vaccination/treatments need to match the cows, so BVD, IBR, Lepto
- Many high health scheme bulls may be naive
- Complete vaccine course at least 2 to 4 weeks prior to mating
- Don't forget parasite control for bulls (especially young bulls - may not have age acquired immunity)



Farming for a Better Climate (FFBC) focuses on **maximising efficiencies**, which can help to **improve farm profits**, reduce farm emissions linked to climate change and help to demonstrate that the agricultural sector is taking action.

Working with volunteer climate change focus farmers, the initiative focuses on 5 key action areas - you can find out more on our webpages, find us on Facebook and follow us on Twitter.

Keep up to date with activities at the focus farms. Find us on-line www.farmingforabetterclimate.org



Focus Farm discussion group meetings

Come along to the next Nether Aden discussion group meeting. Through a series of free, on-farm meetings and visits you will have the opportunity to:

- Identify practical ways to improve farm profits
- Benchmark farm performance; both against national and group KPI's
- Exchange ideas with other working farmers. How are others approaching similar issues?
- Access specialist advice and guidance at the meetings
- Help prioritise and decide future meeting topics, visits and guest speakers
- Improve farm efficiency and reduce the farm carbon footprint

For more information, contact farm facilitator Alan Bruce on 01888 563 333 or email alan.bruce@sac.co.uk

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New bulls

Plan ahead when purchasing bulls

- May need to manage diet change and environment change carefully - gradual changes
- Change of diet – rumen needs time to adjust. Need to know feed system the bull was on (ask for a bag of the actual feed). Aim to prevent upsetting health / temperament etc as this could affect sexual performance
- Forced bulls more likely to have problems with arthritis in the hind legs and back
- Give bulls **at least 2 months** from purchase to introduction to females
- Biosecurity – consider diseases the bull might be carrying. Isolate new bull for at least 21 days until have negative test results
- Know the health status of the herd the bull was bought from (e.g. IBR, Johnes, BVD status?)
- Test bulls from non accredited herds during the quarantine period - vaccinate if required before joins herd
- Treat for fluke, gut worms, lice & mites (vet)
- Ideally buy 3 months before use

