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P & L Cook and Partners**



Cairngorms Monitor Farm

**A & J Adams
Eastfield Farm
Ballater
Aberdeenshire**

Report on Meeting held on 4th June 2009

BVD its importance and control.

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TOP TIPS FROM THIS MEETING

1. BVD is a virus disease present in 70-80% of Deeside herds and has a major financial importance, causing on average £37/head of losses. It causes abortion, impaired fertility, poor health (scours & pneumonia) and lower quality calves.
2. Control and prevention of BVD can only be achieved by blood testing to establish if disease present, vaccination and long term control strategies, and good biosecurity procedures. Remember the market will pay a premium for accredited BVD-free and vaccinated stock – consider joining CHIP - discuss control with your vet.

1. INTRODUCTION

This meeting was first meeting of the Group following all the 2009 spring work. The main aim of the meeting was to get a catch-up from Alan and have a look at cattle and crops. The meeting then moved on to the Victoria Hall, Ballater for coffee and the second part of the meeting, which focused on one of the most common cattle disease – BVD.

Programme;

1. Update from Monitor Farmer - Alan
2. Move on to the Victoria Hall for fly – kindly sponsored by Pfizer
3. BVD;
 - o Review of symptoms and treatment;
 - o Vaccines and their use,
 - o Cattle Health Improvement Plan (CHIP)
4. My farm; Stephen Allardyce, Easttown Fm, Tarland

2. MONITOR FARM UPDATE - Alan Adams

Alan provided a summary of activity since the last MF meeting

- ❑ 22 back end calving heifers PD'd - all in calf
- ❑ Weaned and sold 4 Johnes positive cows.
- ❑ PD'd 58 cows; 1 not in calf , 1 late - culled
- ❑ Culled 4 cows - feet, udder, poor calf.
- ❑ Above 10 cows culled at average price £744

- ❑ Bought new AA bull, culled AA bull - used EBVs. Now have 4 bulls; 2 AAs and 2 Salers

- ❑ Sold 64 spring born (mainly stot) calves average £736
- ❑ Sold 10 Heifers with calf at foot average £1,765

- ❑ Johnes tested 25 heifers (20 - 18 month & 5 - 13 month) put to Saler bull 1/5/09

- ❑ Back end calvers left with their calves again - creep feed available to calves.

- ❑ Spring cows at Braemar being fed 1.5 Kg barley + mineral to help conception???
- ❑ Buffer feeding backend cows at Eastfield due to tight supply of grazing grass.
- ❑ Blue tongue vaccinating calves prior to going to summer grazing at Braemar

Other Activity

- ❑ 161 acres of Barley sown. All Waggon (feed). Roughly same area as last year, but no malting.
- ❑ Of this 64 acres is undersown (6 acres with red clover mix and 34 acres with some cocksfoot)
- ❑ 6 acres of above barley direct drilled into stubble
- ❑ 12 acres of yellow neeps sown on flat.
- ❑ No fertiliser applied to Braemar or Lary.
- ❑ Ordered 28 tons of 22:7:12:S fertiliser for June delivery £265/ton
- ❑ Around 40 tons of feeding barley left, use for bulling cows/calf creeps.

Other

- ❑ Old Farmhouse plastered inside ready for decorating and final fixing out.
- ❑ Hydro schemes; no progress!

Breeding Cattle Performance

The breeding performance of the cows was reviewed by the Group – see Appendix 1.

Direct Drilled Barley Trial

The Group inspected a crop of sp barley (undersown) that Alan didn't plough but used a direct drill to establish the crop. The motivation was to try and find a low-cost way to establish cereals. Ploughing is becoming more expensive in terms of time, fuel and plough metal. It also preserved moisture which could be important in dry years.

The field was first sprayed with 'Round-up'. The sp barley was sown on the 3rd April using a 2.5M Unimore drill with 6 inch drills. Unfortunately there was an error in the calibration so half the field only received half the seed, as result looked thin and poor. Fortunately it wasn't a large field. The other half of the field looked fine with a good plant population. The crop was clean of both weeds and disease. The field had also suffered from severe rabbit grazing.

Conclusion

Although the crop looked poor and patchy the cause was not the technique but applying the wrong seedrate. Alan was keen to try it again next year as the technique showed promise.

3. Bovine Virus Diarrhoea (BVD) – David Miskelly, Torphins Vet Practice

David provided the Group with review of the symptoms, impact and treatment. BVD virus causes a variety of diseases in cattle, most importantly reproductive failure. It is also believed to cause significant suppression of disease resistance and may contribute to pneumonia in calves.

Infection immediately before or during the breeding season will reduce conception rates and cause early death of the embryo. Infection during early to mid pregnancy can result in abortion or the later birth of deformed calves. However, of particular importance is infection in the first third of pregnancy, when developing calves, which survive remain persistently-infected with the virus (PI calves). It is these calves, once born, which provide the major route of spread for this virus. They often appear normal, but they shed virus throughout their lives. Many develop a fatal enteritis known as mucosal disease before they reach maturity. However, significant numbers of PIs survive well into adulthood.

Symptoms

- ❑ Poor fertility – increased returns to service
- ❑ Abortion, abnormal calves
- ❑ Diarrhoea in calves in worst cases only
- ❑ Poor doers - suppression of immune system
- ❑ Mucosal disease – dramatic – severe scours leading to death
- ❑ PI animals – poor doers which are born with infection, carries and infects herd

Impact

- ❑ Been estimated 95% of dairy herds have it.
- ❑ Estimate 70-80% of Deeside beef herds have it.
- ❑ Eg Typical case in Deeside with 100 cows. PI's first identified in Jan 07. Lost 10-12 yearlings, mainly PI's and poor doers.
- ❑ Stress on staff /farmer
- ❑ Animal welfare issue
- ❑ Loss on performance difficult to assess
- ❑ SAC estimate the average loss from BVD is £37/cow

Diagnosis and Control

- ❑ No treatment
- ❑ Use of vaccines
- ❑ Buy accredited stock
- ❑ Biosecurity
- ❑ Eradication (done in Orkney)

Best Practice

- ❑ Test cattle to establish herd status and if BVD present (cost £4/hd) Do 6 animals 8-14 mths old
- ❑ Free lab blood tests from Pfizer and Novartis
- ❑ Where possible, identify and remove PI animals if BVD present
- ❑ Vaccinate all cows and replacements prior to breeding
- ❑ Sample future calf crops – sample 5 animals.

- ❑ Consult with your own vet

Future Developments

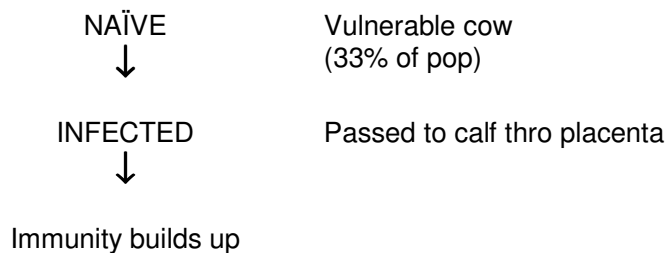
- ❑ Accreditation Schemes
- ❑ Virus free vaccinated stock – ANM Marts considering – may be worth + £50/hd
- ❑ National eradication plan e.g. As in Orkney and Shetland
- ❑ New tests being developed – ear tissue testing with tag; PCR sensitive test

4. Vaccine control of BVD – Andre Pryde, Pfizer.

PI identification is central to the control
 These are born infected, the reservoir of infection – virus factories!
 Vaccinate won't make any difference
 1-2% of cattle population will be PI's
 17% of herds - majority of herds don't have a PI Calf.

PI Cows will produce a PI calf.
 Over half will go on to breed, not all will die.

However, main source of infection is from infected cattle.
 Spread by body fluid – nose to nose, through urine, shared equipment, etc.



How to control? – 4 options

1. Do nothing!
2. Eradicate
3. Vaccinate
4. Combination of eradication + vaccination

Key points

Find out status of herd by screening with blood test of 5-10 animals.
 Identify and cull PI carriers

BVD weakens the immune system so increase risk of scours and pneumonia.

Vaccinate before going to the bull
 Provide booster as required.

An ideal BVD vaccine should be powerful and easy to administer.

In herds without good biosecurity or that buy-in significant numbers of stock, vaccination may be a more suitable means of control than eradication and progression towards Accredited status.

5. Cattle Health Improvement Plan (CHIP) - Charlie Adam, Alford

Charlie Adam, from Cushnie, Alford, and Chairman of Dee Don NFU gave the meeting a quick review of CHIP.

In response to farmers' concerns about cattle diseases and BVD in particular, a number of meetings were held with input from animal health experts and local vets. A Steering Group was formed consisting of local farmers and a representative from each of NFUS, Hi Health and S.A.C. BVD is a disease that can be readily controlled and prevented and is the first objective of the Plan.

The Cattle Health Improvement Plan (Scotland) is a partnership between farmers, their vet, and the Steering Group, based in the North East, taking best possible advice from veterinary science, and entirely endorsed by the major influential bodies within our agricultural industry.

Farmers are invited to register their interest to the plan, through their vet, so to ascertain cow numbers, calculate vaccine requirements and further discussions with vaccine manufacturers.

➤ **Aims :-**

To achieve maximum uptake through a farmer friendly plan
Accessibility to maximum practical & financial support
(even if you are currently vaccinating.)
Simplicity - no burden with legislation and bureaucracy
Flexibility - arranged with your own vet to suit you
Certification to a Scottish recognised standard
To achieve more productive, healthier and wealthier, cattle herds

➤ **Benefits :-**

Maximum cost benefit for your cattle enterprise
Improved herd health, performance and productivity
Increased demand for cattle with a known health status
Breeding stock with certification will be especially in demand
Offers benefits to both seller and buyer

➤ **Result :-** Healthy, wealthy, happy farmers. (Hopefully!)

What is the next step? ~ Speak to your vet. Don't DELAY, do it TODAY!

See Appendix 2 for CHIP Factsheet.

5. My Farm: Stephen Allardyce, Easttown Farm, Tarland.

This is a regular feature of the meetings where we will invite a member from the Group to briefly describe their farm and systems. We believe there is tremendous merit in finding out what others do on their farms, to share experiences and best practice.

Stephen took over the tenancy of Alamein and Easttown in 1986, which is part of Douneside Estate. Originally farmed the business in partnership with his brothers for 10 years, which was dissolved in 1996, leaving Stephen to farm alone. Took on two staff to cope, a tractorman and cattleman. On a 15-year limited duration tenancy till 2021. Fortunate all the land in one block and have a good range of modern buildings.

Have three sons, two of which are now working full-time on the farm (no employed staff). In total, farm 960 acres plus take on approx 300ac seasonal grazing. Had SCP quota for 220 cows and finished all the calves fat so fortunate in having a good SFP.

Typical Cropping

	Acres	
Sp Barley	330	2.25t/ac, 90% sold malting
Wheat	100	3.25t/ac, stored and sold cash
W. Barley	60	3.0t/ac, used for feeding
OSR	60	1.5t/ac, sold at harvest
Neeps	40	
Kale	10	
Rotational grass	400	
Silage	160	
Total	1,000	

Crops

Normally grow 500 ac of combinable crops. Now moved on to Precision Farming with the purchase of a vari-rate spreader and JD Combine with yield monitor. Had been soil mapping fields since 2000 on GPS to apply lime and operate corrective fertiliser treatment.

Apply 2/3 fertiliser by combine drill and a balance (third) is liquid fertiliser '3D Technology', which is based on a humus extract. This is the 2nd year of using it, which is tank missed with herbicide.

Operate 8- year rotation:

3yr Grass SB WB OSR WH SB(u/s)

Cattle

Now have 160 suckler cows (110 sp and 50 autumn calving), with all the calves finished fat and sold through McIntosh Donald. Member of Producer Club and use 'Q Box' to monitor livestock performance. Terminal bulls are Simmental and Charolais. Going for high-health status, free from Johnes and testing for BVD. Will move to a closed herd and have a herd of Simmental cows to breed replacements. Surplus heifers will be sold for breeding.

Neeps and kale are grown for the cows for back-end feeding but once too wet, the cows are housed and the sheep will clean them up.

All the cows are housed during the winter and calve inside. Cattle fed on a complete diet using a Keenan wagon largely based on silage but including straw, stock feed pots and pot ale syrup. Have to buy approx 1,000 bales of straw. Feed cows at 7pm at night – helps push calving into day time – 95% calve 5am-5pm. Put lights off at 10pm. Cattle are kept inside for finishing up to July

Put 100 young calves out to be away wintered. On a store ration to put on 0.5kg per day. Cost £5 - £6.50 per head / week which works out £1.35/kg. Once onto grass the stores really motor.

Will also buy in stores to finish, numbers will depend on the opportunity and available feed.

Sheep

Used to have 650 ewes but now only 150 ewes on a flying flock using texel tups. Buy in big ewes; either mules or texel crosses. Everything finished and aiming to produce big lambs. In addition, buy in store lambs - so in total will finish 4,000 lambs per year.

Well mechanised. Machinery one of biggest fixed costs – have high depreciation.

Next Meeting

The next meeting will take the form of an Open Meeting to promote the project to a wider group and review the learning over the past year. The provisional date is **Thursday 6th August 2009 at 6pm**. It is anticipated also to hold a BBQ at the event following the farm tour to allow everyone to network.

APPENDIX 1

Spring Calvers Fertility 2009

	Cows	Heifers	Comments
Date to Bull	1 June '08	7 May '08	
Number Bullied	73	21	
Culls /deaths	6	2	Johnes
PD Results – in-calf	69	19	5 bought in-calf, 3 PD MT
Calved	61	19	
Live Calves	61	20	
Born Dead (within 24 hrs)	3	0	
Calves dying later	1	1	
Purchases	0	-10	10 heifer with calves sold
Calves to be weaned	60	9	
Weaning Date	Dec '09		
Calving Profile			
Date first calf born	8/03/09	14/02/09	
No calves born with:			
- 1 st 3 weeks	20	16	
- 6 weeks	24	3	
- 9 weeks	14		
- 12 weeks	3		
- 15 weeks	4		
- 18 weeks	8 still to calve		

Summary data for 2009 and 2008

	2009	2009	2008	2008
	Cows	Heifers	Cows	Heifers
% Holding to the Bull	95%	90%	90%	90%
Calf survival, to date	98%	100%	91%	83%
% Calving within 9 wks	79%	100%	80%	100%
% Calving within 6 wks	60%		61%	
Calving % (calves weaned /cows to bull)			81%	75%

Autumn Calvers Fertility 2008

	Cows	Heifers	Comments
Date to Bull	1 Oct '07	25 Nov '07	
Number Bullied	79	12	
Culls /deaths	6+4 = 12	2	PD empty, Pre 96, Johnes
PD Results – in-calf	57	10	
Calved	53	10	
Live Calves	51	10	Cows 2 sets of twins
Born Dead (within 24 hrs)	3	0	
Calves dying later	1	0	
Purchases			
Calves to be weaned	51	10	
Weaning Date	July '09	July '09	
Calving Profile			
Date first calf born	8/03/09	14/02/09	
No calves born with:			
- 1 st 3 weeks	9	4	
- 6 weeks	19	5	
- 9 weeks	16		
- 12 weeks	3	1	
- 15 weeks	4		
- 18 weeks			

Summary data for 2008

	2008	2008		
	Cows	Heifers	Cows	Heifers
% Holding to the Bull	90%	83%		
Calf survival, to date	%	%		
% Calving within 9 wks	86%	90%		
% Calving within 6 wks	55%	90%		
Calving % (calves weaned /cows to bull)	81%	83%		

APPENDIX 2

ABERDEENSHIRE BVD INITIATIVE

NFUS Dee Don

AIMS- Farm level

To assist members to reduce the risk of BVD impacting on herd performance, when disease is present support the development of a herd BVD eradication plan.

AIMS-Regional level

To improve BVD control and reduce the incidence of BVD Virus at a regional level.
Assist the development of marketing routes for cattle of defined BVD Health status
[to Scottish national standards]

Initiative structure

1. Two year initial phase.
2. Membership open to all farmers within catchment of participating veterinary practices.
3. To be coordinated by a farmer led steering group
4. Not for profit group
5. Structures and constitution to be defined by farmer group
6. Future activity [year 3 onwards] to be determined by membership
7. Steering group to facilitate aims of the group as defined above

INITIATIVE WORK PLAN - YEARS ONE AND TWO

1. Define best practice BVD Herd management guide
2. With partners; develop financial incentives to support group members who adopt best practice.
3. With partners; provide technical support and advise to group members
4. With partners; explore marketing opportunities for cattle of defined BVD Health status
5. Develop protocols where possible to match CHeCS Standards to facilitate trade at UK level

BEST PRACTICE - PHASE ONE [BEEF]

1. At herd level, determine with farm vet practitioner
 - a. BVD virus risk factors [replacement policy, stock movements/contacts]
 - b. BVD control options
 - c. Support offered by the initiative
 - d. The cost benefit of membership of the initiative
2. Identify BVD status of the herd-

Screen calf crop for BVD antibody through sampling representative animals

 - a. Calves to be blood sampled by farm vet practitioner at 6 months of age or more
 - b. 5 calves from each management group [separate epidemiological unit] to be sampled
 - c. Where a small number of animals have been introduced to a group; 5 animals representative of the group and in addition all the introduced calves should be sampled.
 - d. samples to be antibody tested at a CHeCS standard lab
3. Full vaccination of breeding herd for BVD. Vaccine Brand and vaccination period to be defined at farm level, with input from farm vet practice.

[the level of support may depend on vaccine brand used]

Phase 1 is to be accepted as an entire package.

BEST PRACTICE - PHASE TWO [BEEF]

1. AT HERD LEVEL, UTILISE SCREEN TEST PROCEDURE TO DETERMINE HERD DISEASE STATUS AND FUTURE STRATEGY, IN CONJUNCTION WITH FARM VET PRACTITIONER.
2. Review herd biosecurity
3. Maintain BVD Vaccine cover as per data sheet standard

Phase 2 –herds free of active bvd virus as above 1-3 and in addition:

- a. Screen calf crop as previous to monitor status ; also may be an option to use this test procedure as a qualifying test for CHeCS standard disease freedom

Phase 2 -herds where active BVD is identified , as above 1-3 and in addition:

- a. identify PI Animals and remove to slaughter

Herd screening for PI animals

Option 1 – Blood sample calf crop- PCR antigen test

- All calves antigen/virus positive to be retested from 21 days onwards
- Repeat positives are PI Status and should be removed from herd to slaughter
- Dams of PI calves to undergo the same antigen test procedure and be culled where PI Status is confirmed
- Cows with no calf at foot to be blood sampled and
- tested for antigen/virus. Cows testing positive to be retested at 21 days onwards. Repeat positives are confirmed PI STATUS and should be removed from the herd to slaughter.

Herd screening for PI animals

Option 2

- Ear-tag [rt] PCR CALF CROP [Farmer to collect tissue plugs during tagging procedure]
- all calves antigen positive on tissue test to be retested 21 day onwards; to be blood sampled and antigen PCR Tested
- calves positive on retest are confirmed PI status and should be removed to slaughter.
- dams of PI calves to be blood sampled and antigen PCR tested; positive animals to be repeat tested at 21 days onwards. Those testing positive on both tests are PI status and should be removed from herd to slaughter.
- cows with no calves to be blood sampled and tested as above to determine PI status, Repeat Positives to be removed to slaughter.

Other strategies may be considered where particular circumstances require a different approach. The steering group will determine if any variation is eligible for group support.