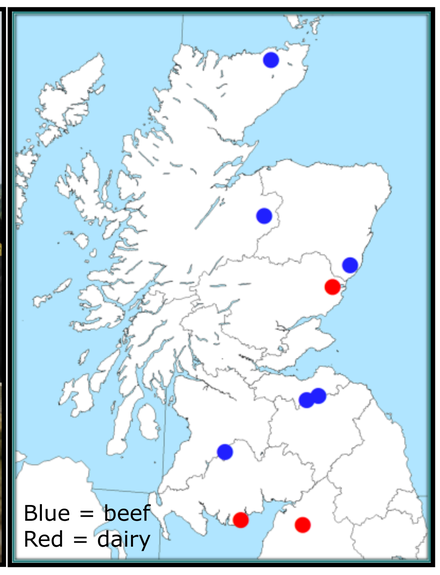
PARABAN

Knowledge exchange for control of Johne's Disease

BEEF FARM 2, NORTH EAST



Beef farm 2 has a 180 head pedigree Aberdeen Angus herd producing breeding females and fattening stock.

Calving occurs in spring and the feeding system is kept separate from the breeding herd.

Measures to combat Johne's Disease have been in place for many years and they would like to eradicate it from the herd.

Winter housing *At grass*

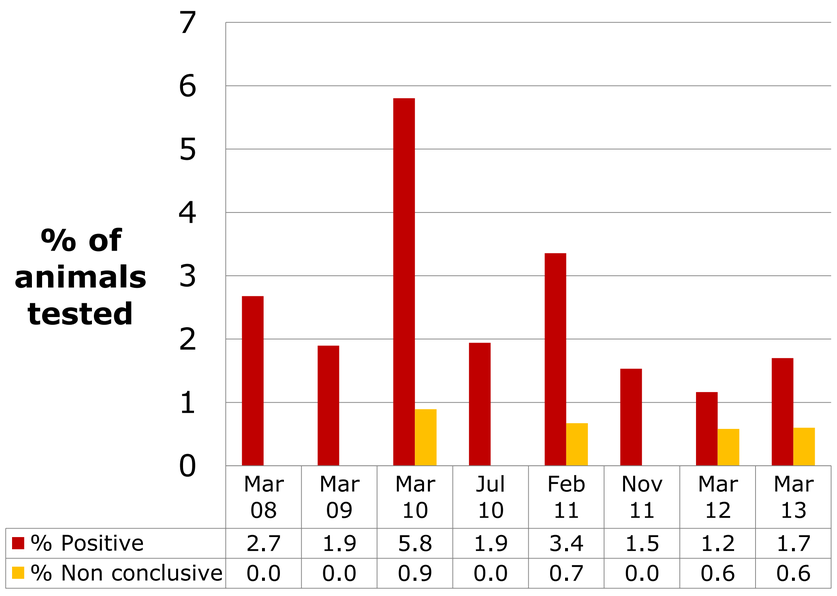
Calving occurs outside. Heifers are calved in a separate group until they have calved a second time.

Summer grazing

The farm is ring-fenced and each field has a mains supply of water in a trough to limit exposure to standing water or streams.

Dung is middened and spread on arable ground.

Johne's on Beef Farm 2



	Mar 08	Mar 09	Mar 10	Jul 10	Feb 11	Nov 11	Mar 12	Mar 13
% Positive	2.7	1.9	5.8	1.9	3.4	1.5	1.2	1.7
% Non conclusive	0.0	0.0	0.9	0.0	0.7	0.0	0.6	0.6

Beef Farm 2 has been testing for Johne's Disease since 1992 and been part of the PCHS for over ten years.

They have not had a clinical case for many years.

Animals testing positive or inconclusive are removed from the herd.

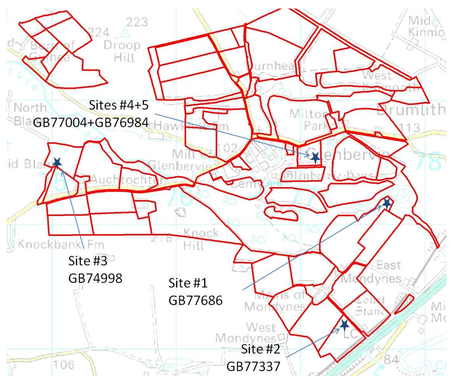
Their offspring are also culled or not retained for breeding.

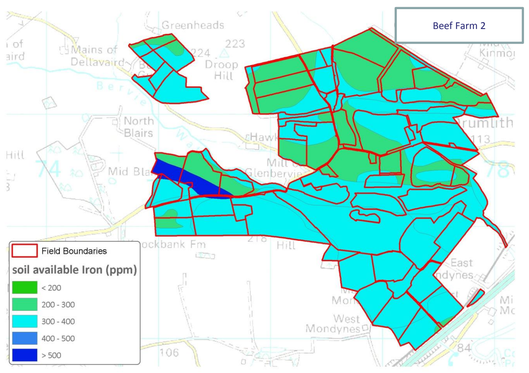
Heifers coming into the herd are blood tested before breeding.

Environmental factors

Evidence suggests that soil environmental factors play a role in the persistence of *Mycobacterium avium paratuberculosis* (MAP).

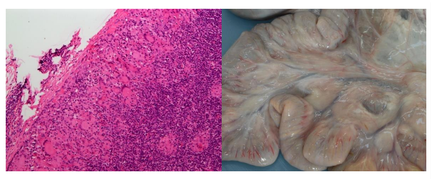
Sample sites were selected according to soil parameters and farming activity.





No MAP specific DNA was found on the farm. However, of 5 sites studied, 4 were arable and no positive samples from arable land were found on any of the champion farms sampled.

Post-mortem samples



		Histopathology			
		+	?	-	Total
Serum ELISA	+	5	1	7	13
	?	0	0	0	0
	-	1	2	21	24
	Total	6	3	28	37

These results suggest that the farm still has MAP present within the herd and that their culling programme is effective at removing infected animals before they become clinical cases.

With thanks to the farm for the farm photographs and Richard Irvine and Cathy Lamm of Glasgow for the post-mortem pictures.

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SRUC RESEARCH

University of Glasgow

The James Hutton Institute

The University of Edinburgh

QMS Quality Meat Scotland