

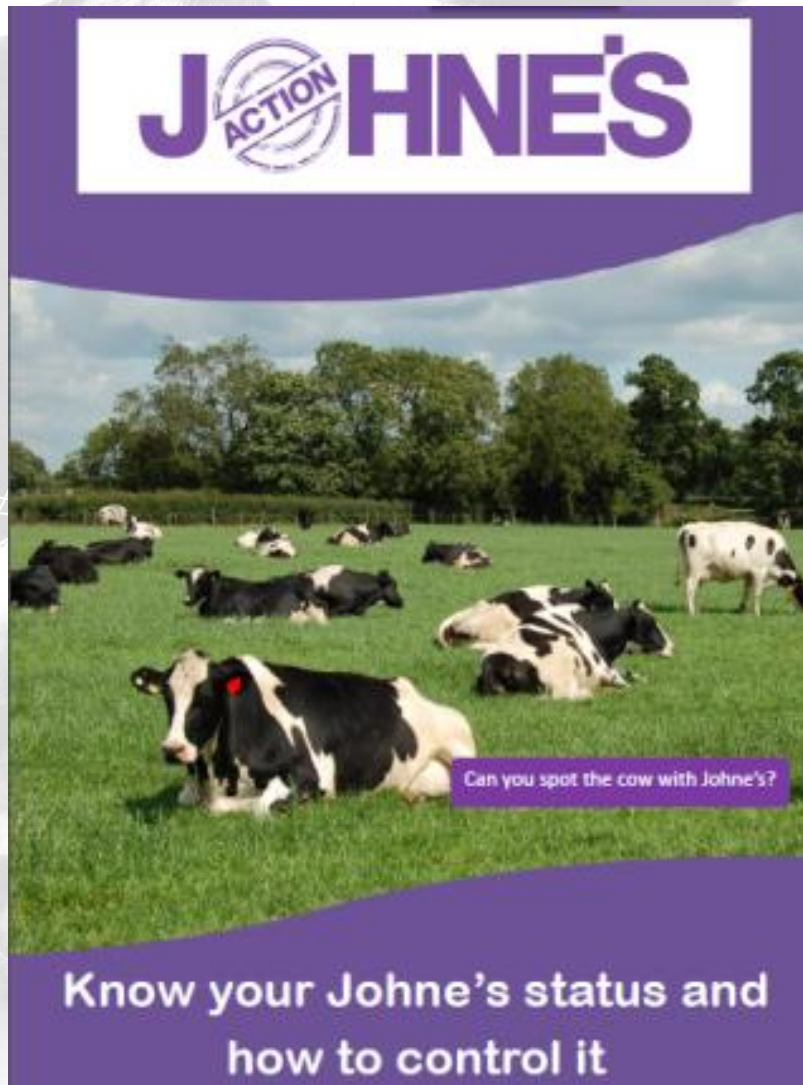
Johnes Disease-Implementing an IFM Control Programme on Farm

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Bishopton Veterinary Group

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Wildon Grange Farm



Johnes Disease Case Study Strategy 2: Improved Farm Management (IFM)



- 1. IFM principles
- 2. Wildon Grange
- 3. IFM at Wildon Grange



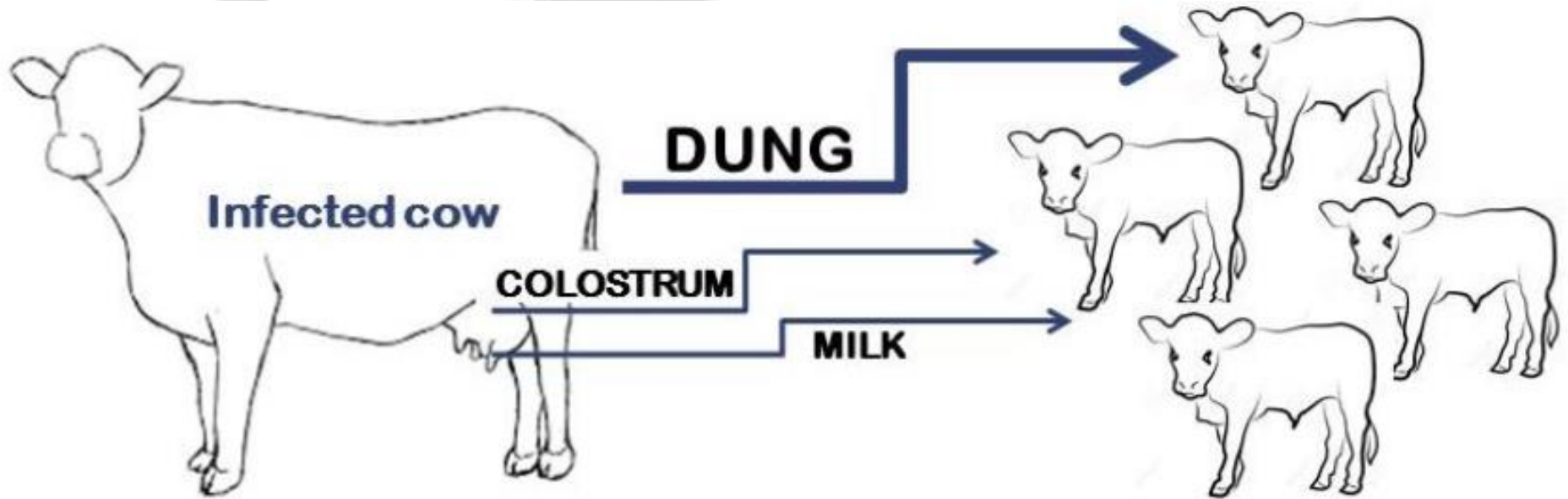
1. How does IFM work?

What do you think is the most important source of transmission of infection of Johnes in the herd?

- Faecal contaminated material
- Trans-placental during pregnancy
- Bacteria excreted directly in the milk and colostrum
- Aerosol route



Breaking the Johne's cycle is Key



Johne's infection is mainly caused by calves ingesting dung through contaminated bedding, udders, teats or on dirty buckets of colostrum or milk. Much less commonly the disease can be acquired in the womb or later in life.

80% of Johne's infections occur within the first month of life

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2. Improved Farm Management

- Works by reducing the risk of spread to calves using husbandry measures alone
- Requires dedication and labour



2. Improved Farm Management

- Prevent ingestion of manure by all animals
 - Particularly the young ones
 - Keep manure out of feed
- Do this by:
 - Colostrum /milk management
 - Calf management
 - Cleaning and disinfection
- Calving pen
 - Clean and dry
- Separating cows from calves



Prevent New Infections

Protecting Calves for the future

Manage calving/maternity area
& separate calves from cows



Hygienic colostrum
management



2. Wildon Grange, Yorkshire

Vale of York

380 High Yielding
Holsteins

Sell 10 400 litres milk per
cow per year @
3.32% protein & 4.5% fat

Year round Housing

All replacements home
reared



Herd Expansion underway



High Health Status closed herd



Expand to 600-800 cows



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Expansion ALL homebred



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Heifer replacements -from sexed semen



Good fertility + health

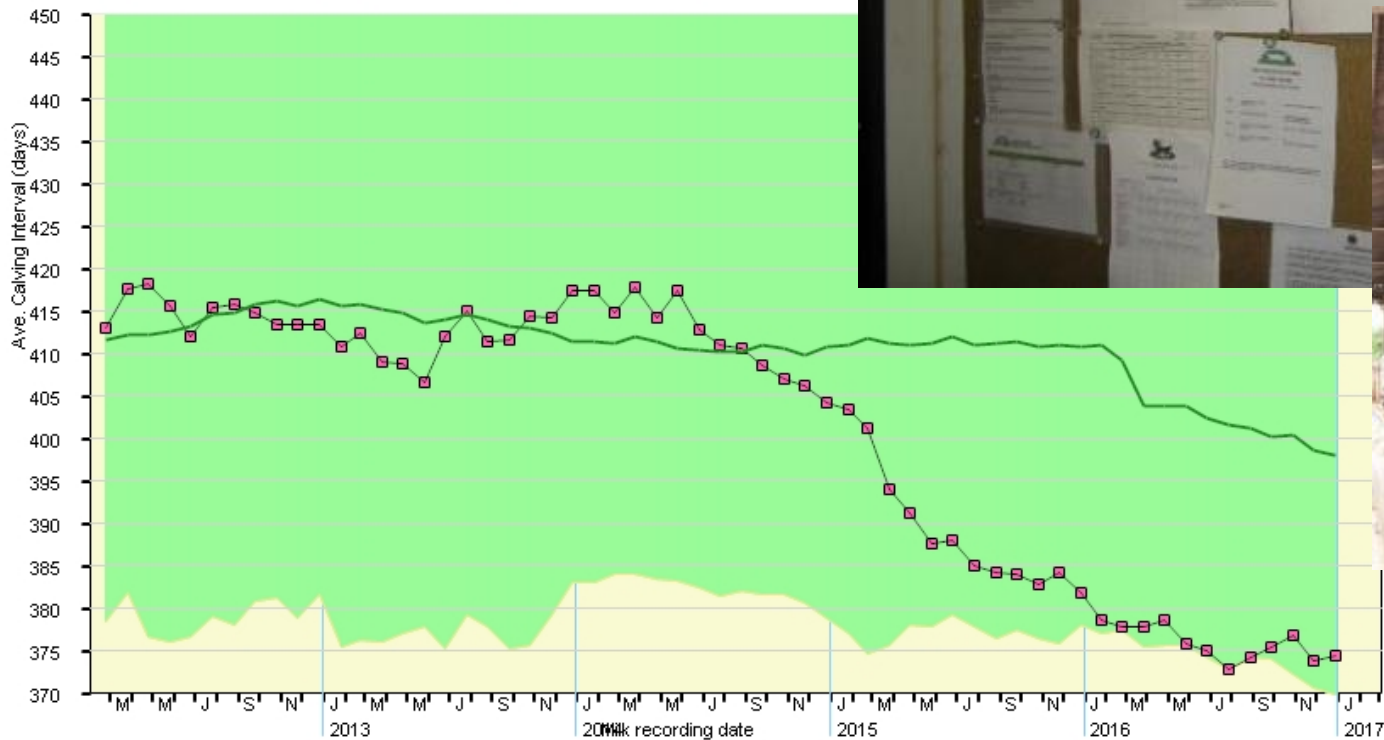
Name: A E BANKS & SON LTD

Ave. Calving Interval

Benchmark: Bishopton: All Recorded Herds

No Years: 5 70 Max Y-axis: 450 Change

Period from: 05/02/2012 to 05/02/2017



3. IFM at Wildon Grange



CALVING AREA



Separate clean calving area



Building design -clean and dry



Clean udder & teats for harvesting colostrum



Dry Cow Management



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Colostrum-fresh or frozen





Individually labelled frozen bags



Detailed records

124 (April 2016) and summer

CALVING			COLOSTRUM 2nd			CALVING		PEN		
DATE	DAM	TIME	L	TIME	WGT	TIME	WGT	WGT	WGT	
14/1	3838	UK	3	23:00	288			2	H	
15/1	3857	08:05	3	09:25	3838			4	B	
16/1	3979	10:30	3	12:00	419			3	H	
17/1	103	UK		(Suckling)		3	9:00	103	2	H
17/1	3225	UK				3	9:00	103/3835	2	D
17/1	3824	2:00	3	22:10	419			3	H	
18/1	997	UK	3	5:00	3946/			2	H	
"	3963	5:30	3	7:00	241/73			3	H	
21/1	3977	04:00	3	05:00	3784					
22/1	138	UK	3	7:30	7					
"	3839	7:00	3	8:30	3839					
"	3971	10:00								
24/1	3725	UK		04:30	325	Suckling				
24/1	3846	UK		17:00						
25/1	92	06:00		07:15	193/21					

CALVING			COLOSTRUM			COLOSTRUM 2nd		
DATE	DAM	TIME	L	TIME	WGT	L	TIME	WGT
14/1	3838	UK	3	23:00	288			
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"	3839	7:00	3	8:30	3839			
"	3971	10:00						
24/1	3725	UK		04:30	325	Suckling		

Calf team



- Dedicated calf rearing team
- Individually labelled calf milk buckets

Separate Calf Accommodation



Group management



Hygiene



Detailed records

DAY	ALARM LIST		CREDIT LIST		TREATMENTS		NEW CALVES	NEXT FEED		I PEN NO	DM DATE
	AM	PM	AM	PM	AM	PM		TIME BORN	COL		
SUN							UK 3 / 24/1			1	3725 B
							UK 3 / 24/1			2	24/1 B
							4:00 UK 3 / 21/1			3	3177 H 21/1 H
										4	
							UK 3 / 17/1			5	103 B 17/1 B
							UK 3 / 22/1			6	139 B 22/1 B
							7:00 UK 3 / 22/1			7	3839 H 22/1 H
							06/00 UK 3 / 25/1			8	5954 H 19/1 H
							17:00 UK 3 / 24/1			9	92 H 25/1 H
										10	3846 H 24/1 B
										11	
										12	

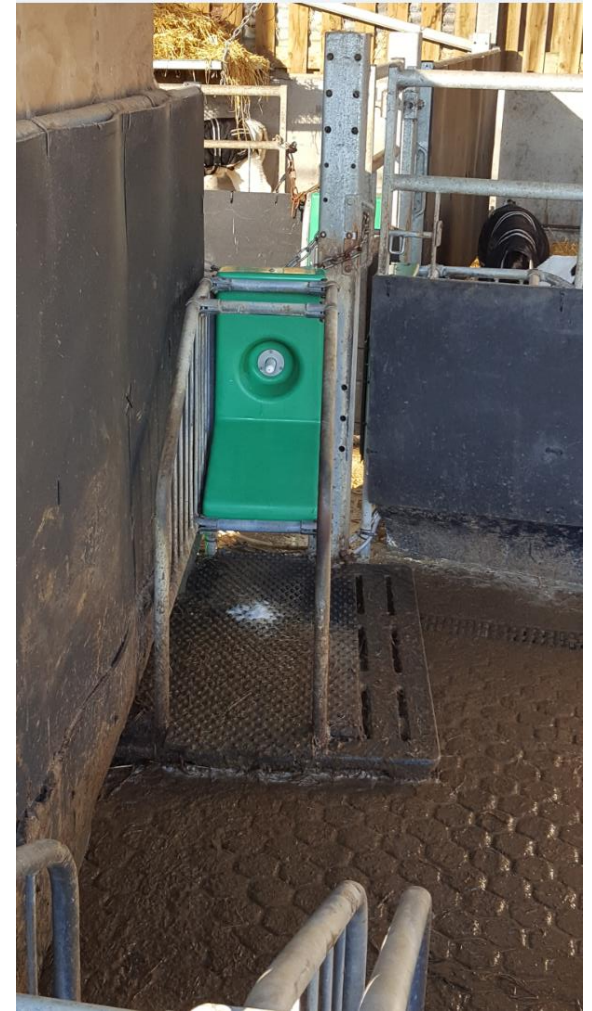
WEEKS	1	2	3	4	5	6	7	8	9	10	11	12
1	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
2	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
3	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
4	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
5	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
6	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
7	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
8	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
9	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
10	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
11	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
12	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000

PEN 1 BEEF - 0
PEN 2 - NEWH - 4
PEN 3 - INT. REF - 14
PEN 4 - H - 17
PEN 5 - H - 15
NOT RECORDED
410 4129
4124 4132
4126 4135

Automation & precision



Heifer calves



Bull Calves



1. Biosecurity Protect and Monitor

- For herds with no evidence of disease
 1. A plan to protect the herd from disease entry
 2. Monitor through appropriate screening tests
e.g. repeated 30 cow screens /whole herd screens quarterly

Buyer Beware (Testing)

IFM Control -Summary

- Has to be a team approach.
- All staff need to know polices and understand importance
- Educate
- Revisit – don't assume it's all working fine
- Long term Herd Health



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J ACTION HNE'S



Can you spot the

Know your Johne's status
how to control it

Johne's Disease is a chronic, debilitating and irreversible infection of cattle which is common in many herds. While as few as 1 to 5% of cows in any year will show clinical signs of scour or wasting, more of the herd will nevertheless be affected and suffer reduced output. Animals with Johne's Disease are likely to be culled earlier, and are also likely to be affected by other conditions, including chronic mastitis, lameness, and high somatic cell counts.

Work with your vet to assess infection risk and know your herd Johne's Disease status

Johne's Disease is complex and expert veterinary advice is vital to make sure you take the most cost effective steps towards managing the infection in your herd.

Work with your vet to carry out a risk assessment as part of your herd health plan. It is important to note that while 1/3 of dairy herds do not have Johne's Disease present on their farms they still need a robust plan in place to keep it out.

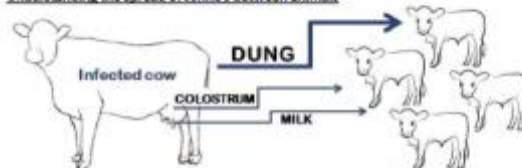
Testing will help determine your herd's Johne's Disease status: the more samples you take, the more accurate will be the indication of your herd's Johne's Disease status.

A popular method of initial Johne's Disease screening is the targeted 30 cow screen using blood or milk from cows over 3 years of age with histories of poor yield, weight loss, or high somatic cell counts. Unlike other diseases, bulk milk testing is not sensitive enough to detect infection at the early stage of infection. If your risks of Johne's Disease are high it is important that you reduce them by adopting an effective control programme and monitor carefully for infection within your herd.



The more frequent the testing, the better the understanding of Johne's Disease

Understanding the spread of Johne's between animals



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Johne's Disease

Remember:

Be realistic about the timescale and what you can achieve: even when positive steps are fully implemented it can take 4-5 years to see significant progress to Johne's Disease control on farm – but the improvements in your herd's general health will be worth the steps you take and will be evident much more quickly.

Events over 3 years ago affect Johne's outcomes today. It is important that all staff understand how this disease works and how they can manage it on farm. A series of targets will help keep a sense of achievement as you progress with managing Johne's disease on your farm.

Case study:

Mr. Dave, Chalk Lodge Farm
Chalk Lodge Farm is a 600 Molstein Friesian herd in Cumbria on zero. Having re-tooled his herd in 2001 from 3 sources post PMD, he wanted to see clinical cases emerge in 2006, with incidences rising to one per month.

Mr. Dave got the opportunity to bleed his whole herd as part of an AD study, which also enabled the identification of positives for Johne's Disease. Working with his vet as part of the 'Paraban' project, he identified and implemented a risk based control strategy.

Measures:
ew calf shed built in Autumn 2000
ew pasteuriser purchased in Spring 2009
calves snatched at birth especially heifer calves
calves fed dam's colostrum if Johne's low risk, or fed from another Johne's Disease low risk cow, then fed pasteurized colostrum for at least 36 hours

ew calving pens built in August 2011
animals put into risk groups and managed according to risk (from immediate culling of high risk animals to observation of animals with a negative blood test)

Following a thorough Johne's control programme with his vet, the herd health at Chalk Farm has greatly improved. There have been no clinical cases for the past 2 years and positive animals are while they still have value. All farm staff have a clear understanding of what to do and how to do it, the team are very aware of bought in and vaccinated animals.

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