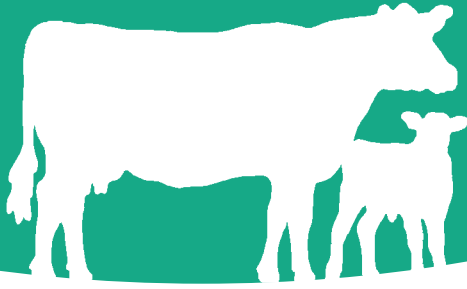


Your HerdWise Results and Reports



Risk Based Management

Cows are allocated risk categories after each test, based on their antibody profile. The risk levels can either be simplified into high/low risk cows or divided into three cow types; green, amber and red.

In addition to the cow types, there are a number of infection groups into which the cows are placed. This covers transmission as well as predictions related to milk production loss.

This information can then form an integral part of a risk-based Johne's management plan on-farm.

Accessing your reports

Following testing, all results are available for you and your vet to view and download from Herd Companion – www.herdcompanion.co.uk.

You will need a username and password to access your results. Your vet will require their own log-in as well.

To request a free Herd Companion username and password, please contact NMR Customer Services on 03330 043 043.

We will notify you via email once your results are available to access.

Risk Classification Table

Risk level	HerdWise classification	Johne's infection group	Definition	Infection status
LOW	Green	J0	Repeat ELISA negative – minimum two tests.	Low risk - no evidence of infection.
	Green	J1	ELISA negative - one test only.	
HIGH	Amber	J2	ELISA negative but positive within previous three tests.	Moderate risk - evidence of infection and may be shedding MAP. Should be managed as a risk for calving and milk/colostrum.
	Amber	J3	ELISA negative but positive on previous test.	
	Amber	J4	ELISA positive – first positive test.	
	Red	J5	Repeat ELISA positive - minimum two tests. Two or more positive results in any four consecutive tests at any time in individual cow test history.	High risk - evidence of infection and highly likely to be shedding MAP (i.e. high level of infectivity).

Red Cows

There is a large body of research to show that cows which have been classified as 'red' should be treated as a risk for their lifetime, even if they have subsequent negative tests. To reflect this, any cow that has ever been classified as 'red' remains flagged as a 'red' cow regardless of subsequent test results. This will allow you to keep better track of those cows that pose a risk of spreading Johne's disease in your herd and means that high risk cows will always be flagged at the top of your report.

Cows classified as 'red' will continue to be tested as long as they remain in the herd. Whilst there is a cost implication involved with continuing to test these animals, this extra information makes a valuable contribution towards breeding and culling decisions.



NML Risk Assessment Tool

Alongside testing, an assessment of the risk of Johne's entry and spread in your herd is essential to effective Johne's management.

The risk assessment tool uses the information gathered from a questionnaire filled out by the farmer and their vet along with the latest set of HerdWise test results to generate a two sided report.

The report includes a summary of current status and likely future prevalence of Johne's in your herd based on the latest test results and the current risks. The report is intended as a discussion document between farmer and vet. If the report highlights areas of high risk or predicts an increase in prevalence it is recommended that the Johne's management plan is reviewed with input from your vet to allow for necessary changes to be made.



Completion of this risk assessment in conjunction with your vet fulfils part of the requirements of the National Johne's Management Plan. For more information, visit www.actionjohnesuk.org



Summary Report

This report provides a summary of the last six results for each cow in the herd. It allows the whole herd to be viewed together and results are displayed in order of risk.

Indicates that a sample was not available for testing from this cow (cow dry or not recorded)

This shows the risk status of the cow at her last test date and is calculated using her last four test results. This provides a clear visual guide to identify high risk cows.

Producer Details		NMR Herd Number		Scheme Commencement Date 01/11/2008		No. Cows present at latest test 186		Page 1 of 10	
Line No.	Ear Tag	ELISA 1 29/2/2017	ELISA 2 27/5/2017	ELISA 3 30/8/2017	ELISA 4 28/11/2017	ELISA 5 29/2/2018	ELISA 6 27/5/2018	Infection Group 27/5/2018	
845	--	18.38	--	6.03	38.33	76.36	123.44	J5	!
36	--	64.75	--	17.94	48.16	61.07	78.29	J5	!
47	--	--	12.96	15.49	26.78	28.45	70.68	J4	?
448	--	--	10.39	9.39	29.69	--	32.54	J4	?
639	--	--	27.12	10.33	12.55	55.34	17.68	J3	?
228	--	--	19.24	22.14	41.51	13.74	16.89	J2	?
123	--	12.21	28.23	43.96	24.98	18.68	21.29	J2	?
341	--	--	--	--	--	--	4.67	J1	✓
67	--	4.14	2.20	15.98	12.78	3.93	3.37	J0	✓
89	--	5.05	0.67	7.08	6.33	10.47	7.66	J0	✓

Individual numerical results are also supplied which can be discussed and interpreted with your vet. These results can be used to help in making breeding and culling decisions.

Cows which are designated Amber J3 are those cows which are currently ELISA negative but were positive on the previous test. These cows are in the sub-clinical phase of the disease and often have production problems and are a risk of spreading the disease.

A cow becomes J2 when she has had a positive reading in the last four tests but her latest two tests are negative.

Cows with consistently negative results will be classified as green and are considered J0 'low risk'.

High and Low Risk Reports

The **High Risk Report** is one of the most significant reports in HerdWise. It highlights which animals are most likely to be shedding bacteria and pose the highest risk of transmitting the disease. **Predicted calving dates are also shown so that cow segregation decisions can be made in good time.**

The milk yield predictor is added to the report so that observations may be made for individual animals.

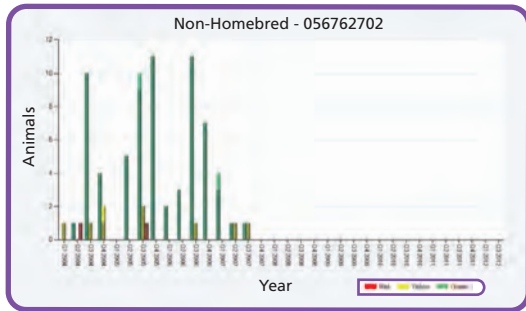
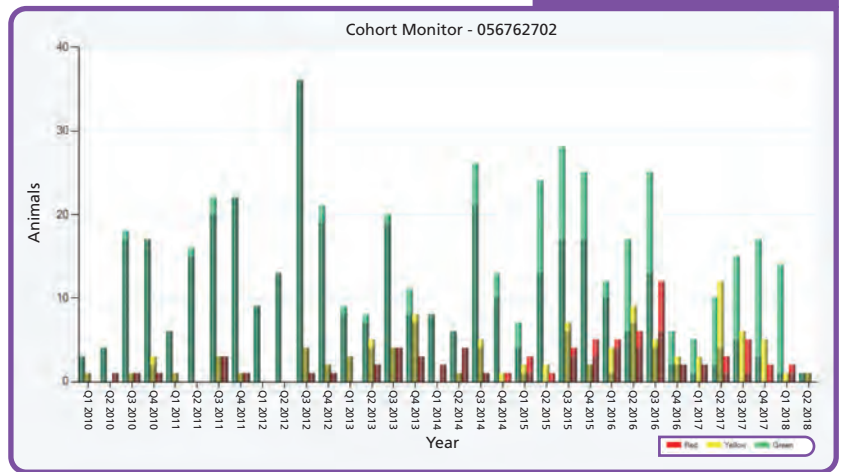
A **Low Risk Report** is also available which is useful for decision making regarding feeding milk and colostrum and establishing which animals can safely be calved in communal pens.

High Risk Report

Producer Details		NMR Herd Number		Scheme Commencement Date		Number of High Risk Cows Present At Last Test		Page: 1 of 8	
NM Record The Farm Cow Lane AB12 C34		00/12345/67		01/01/2008		78			
Line No.	Ear Tag	ELISA 1 23/12/17	ELISA 2 17/03/18	Days in Milk	Milk Yield (kg)	Parity	Milk Yield Drop	Predicted Calving Date	Infection Group on 17/03/18
41	UK000000000000	41.85	57.27	243	14.80	4	Very Likely	07/07/2018	J5 !
432	IRE000000000001	69.19	108.42	306	22.20	3	Very Likely	-	J5 !
447	UK000000000011	46.72	60.46	40	59.90	4	Very Likely	-	J5 !
495	UK000000780000	120.13	127.78	204	15.50	3	Very Likely	21/07/2018	J5 !
563	UK980000000001	63.65	99.51	412	15.30	2	Very Likely	05/04/2018	J5 !
573	UK000001002007	32.60	62.91	203	33.00	3	Very Likely	14/09/2018	J5 !
599	IRE000007900430	144.82	142.97	199	34.10	3	Very Likely	04/08/2018	J5 !

Cohort Monitor Report

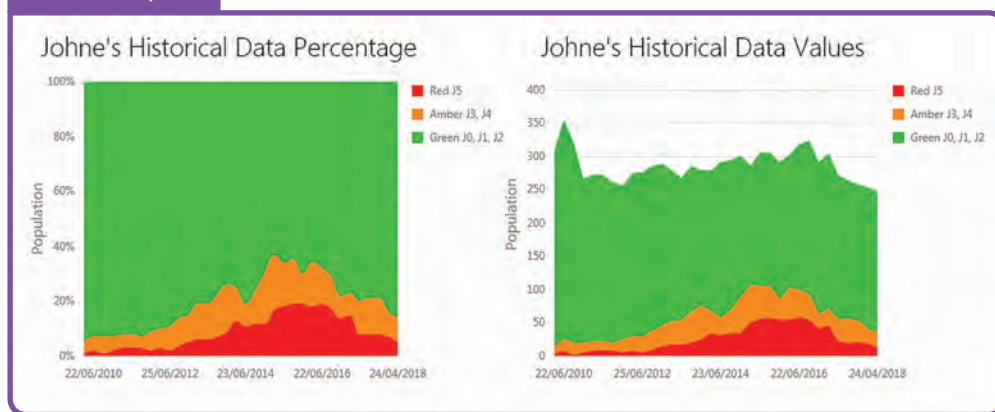
Farmers often observe that groups of animals with consecutive ear tag numbers can become infected with Johne's. This would indicate that the cohort of calves are likely to have been infected at the same time, e.g. were all born in the same maternity area when an infectious cow was present or were all fed a batch of contaminated milk or colostrum. The Cohort Monitor Report aims to establish whether transmission may have occurred to a batch of calves and whether trends can be seen. It shows the current or latest Johne's disease status (before the animal left the herd) according to the date on which the animal was born.



Animals that leave the herd will drop into the darker shaded area in each bar and the report splits homebred and non-homebred animals so that bio-security risks can be illustrated and calving can be managed effectively.

Please note that it is unlikely that current calves will show positive results so the view is retrospective.

Historic Report



Historic Report

A graphical representation of red, amber and green cows is displayed numerically and as percentages in the herd. These graphs illustrate trends in prevalence over time and are a useful tool to monitor herd infection levels and improvements.

Aggregate Data

An aggregate data table summarises how many cows are in each risk group (J0-J5) along with a summary of their colour category. This allows farmers to track the effectiveness of control measures over several years. Below this on Herd Companion is also a composite data table which shows the test profile for each cow in the herd (past and present).

Aggregate Data Table

Test Date	Red	Amber	Green	J0	J1	J2	J3	J4	J5	Total
24/04/2018	13	22	211	195	16	0	12	10	13	246
22/02/2018	19	22	213	195	12	6	17	5	19	254
19/12/2017	21	33	204	176	23	5	16	17	21	258
21/09/2017	20	36	207	191	16	0	19	17	20	263
26/07/2017	23	33	215	182	32	1	10	23	23	271
21/02/2017	47	24	233	210	20	3	7	17	47	304
20/12/2016	42	22	227	193	25	9	11	11	42	291
21/09/2016	55	38	230	206	24	0	22	16	55	323
22/06/2016	59	41	218	184	30	4	25	16	59	318
21/03/2016	55	48	200	182	18	0	14	34	55	303
21/12/2015	55	31	206	171	26	9	20	11	55	292
22/09/2015	57	49	199	175	18	6	24	25	57	305

