

Camelid TB Serology Quarterly Report

Number: 32

Report Period 1st January to 31st March 2023

Issued 03/May/2023

Quarterly Camelid Serology Report

Test Criteria

Submission Reason	Explanation
APHA /DEFRA	At Government expense
Parallel Test:	
PAR-TB	TB breakdown herd with confirmed M. bovis infection (including Wales where Officially TB Free Withdrawn [OTFW] status is determined on epidemiological grounds)
PAR-SUS	TB strongly suspected but not currently confirmed by laboratory culture – herd under restrictions
PAR-TRC	Forward tracing(s) from an M. bovis-infected camelid herd (includes camelid herds in Wales only co-located on the same premises with infected cattle, sheep, deer, goats & pigs)
PAR-COL-W	Wales only - camelids under restriction due to sharing a holding (colocation) with an OTFW cattle herd or with other non-bovine animals affected by a culture-confirmed incident
Serial Test:	
SER-SUS (replaces PA	TB strongly suspected but not currently confirmed by laboratory culture – herd under restrictions. If infection is confirmed the initial High Specificity (serial) test results can be reinterpreted at High Sensitivity on request from the APHA case vet.
SER-CONT	Herd not under restriction but contiguous to a TB-infected herd
SER-COL	Herd not under restriction but co-located with an infected herd of cattle, deer, goats etc. (Eng & Scot only)
SER-EPI	Herd not under restriction but TB tested due to an epidemiological link with a known infected herd (e.g. back-tracing)
SER-CHK	Inconclusive Reactor check test – e.g. where private Enferplex test has produced a 2-spot-positive result on 2 consecutive occasions
Commercial/Private	At Owner expense
SER-MVT	Pre- or post-movement test
SER-EXP	Pre-export test
SER-DIAG	Diagnostic to exclude TB from a differential diagnoses in a herd not restricted (TB strongly suspected)
SER-RHT	Monitoring - voluntary routine testing (herd nor restricted)

The camelid TB serology (antibody) test generally comprises two separate antibody tests in a test package that can be applied flexibly to increase the sensitivity or specificity of the test as required, by using a parallel or serial test interpretation respectively. The sensitivity and specificity values of combined antibody testing for camelids were described under AHVLA Project FT1477 (see Rhodes et al., 2012) and re-assessed in May 2018 to show the following test performance;

Table 1 – High Sensitivity / Parallel test options:

	% Se	95% C.I.	% Sp	95% C.I.
IDEXX /DPP VetTB	74	65.4-82.6	96	93.8-98.2
ENFER 2-SPOT/DPP VetTB	71	62.1-79.9	96.7	95.8-99.4
IDEXX/ENFER 2-SPOT	75	66.5-83.5	97.3	95.4-99.1

Fishers Exact [2-sided] test showed no significant difference in sensitivity or specificity between any of these three test options.

Table 2 – High Specificity / Serial test options:

	% Se	95% C.I.	% Sp	95% C.I.
ENFER 4-SPOT	60	50.4-69.9	99.66	98.9-100
IDEXX/DPP VetTB	56	46.3-65.7	100	

Fishers Exact [2-sided] test showed no significant difference in test sensitivity or specificity between these two test options.

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Number of Samples tested and Submission Reason 2023 Q1 (January - March)

Table 1a	
Country	No. Samples Tested
England	326
Wales	46
Total for Q1	372

Table 1b		
	Submission Reason	No. Samples Tested
Parallel	PAR-COL-W	37
	PAR-TB	24
Parallel	Sum:	61
Serial	SER-COL	3
	SER-CONT	186
Serial	Sum:	189
Commercial/Private Testing	SER-MVT	15
Commercial/Private Testing	Sum:	15
	SER-SUS	107
	Sum:	107
Total for Q1	Sum:	372

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Number of Samples tested and Submission Reason 2023 up to end of Q1 (January - March)

Country	No. Samples Tested
England	326
Wales	46
Total for Q1	372

APHA/DEFRA	Submission Reason	No. Samples Tested
Parallel	PAR-COL-W	37
	PAR-TB	24
Parallel	Sum:	61
Serial	SER-COL	3
	SER-CONT	186
Serial	Sum:	189
Commercial/Private Testing	SER-MVT	15
Commercial/Private Testing	Sum:	15
	SER-SUS	107
	Sum:	107
Total for 2023 up to end of Q1		372

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Test Positivity in 2023 Q1 (January - March)

Table 3a						
Submissions Received and Test Positivity in 2023 Q1						
Country		Submission Reason	No. Submissions	No. Samples Tested	No. Positive Samples	% Positive Samples
England	Parallel	PAR-TB	1	24	1	4.2%
	Parallel		1	24	1	4.2%
	Serial	SER-COL	1	3	0	0
		SER-CONT	11	177	1	0.6%
	Serial		12	180	1	0.6%
	Commercial/Private Testing	SER-MVT	4	15	0	0
	Commercial/Private Testing		4	15	0	0
		SER-SUS	1	107	0	0
			1	107	0	0
England Total			18	326	2	0.6%
Wales	Parallel	PAR-COL-W	1	37	4	10.8%
	Parallel		1	37	4	10.8%
	Serial	SER-CONT	4	9	0	0
	Serial		4	9	0	0
Wales Total			5	46	4	8.7%
Totals for Q1			23	372	6	1.6 %

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Test Positivity in 2023 up to end of Q1 (January - March)

Table 3b						
Submissions Received and Test Positivity in 2023 up to the end of Q1						
Country		Submission Reason	No. Submissions	No. Samples Tested	No. Positive Samples	% Positive Samples
England	Parallel	PAR-TB	1	24	1	4.2%
	Parallel		1	24	1	4.2%
	Serial	SER-COL	1	3	0	0
		SER-CONT	11	177	1	0.6%
	Serial		12	180	1	0.6%
	Commercial/Private Testing	SER-MVT	4	15	0	0
	Commercial/Private Testing		4	15	0	0
		SER-SUS	1	107	0	0
			1	107	0	0
England Total			18	326	2	0.6%
Wales	Parallel	PAR-COL-W	1	37	4	10.8%
	Parallel		1	37	4	10.8%
	Serial	SER-CONT	4	9	0	0
	Serial		4	9	0	0
Wales Total			5	46	4	8.7%
Totals up to end Q1			23	372	6	1.6 %

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Submissions Received in 2023 up to end of Q1

Table 4: Number of samples Tested by Test Code

Analysis	Analysis Description	Q1	
		No. samples tested	Totals up to end Q1
TC0503	Camelid TB Enferplex - 2 Spot	24	24
TC0603	Camelid TB Enferplex - 4 Spot	278	278
TC0611	Chembio DPP VetTB lateral flow rapid antibody test	70	70
TC0867	Camelid TB Antibody ELISA	94	94