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Introduction: In Ireland, the single intradermal comparative tuberculin tests (SICTT) is used to conduct field surveillance for bovine Tuberculosis (bTB). A SICTT "standard inconclusive reactor" (SIR) occurs when the bovine response is >2mm and 1-4mm greater than the avian response. The farmer then has three choices to manage the SIR,

option 1: to have the animal retested after a minimum period of 42 days, or

option 2: to slaughter the SIR and, if no visible lesion (NVL), have a herd test 42-days after the SIR leaves the herd, or

option 3: to slaughter the SIR and subject target lymph nodes to lab examination.

Objective: this study examines the outcomes for the 3 options namely: the results of the retest of SIRs; if SIRs are more likely to be slaughtered prior to the inconclusive reactor retest and the results of post-mortem examination for both SIRs and herd mates.

Materials and Methods: All SIRs identified between 2005 and 2009 inclusive, in otherwise bTB-free herds were included in the study. Slaughtered SIRs (option 2 or 3) were compared to the non-SIRs slaughtered from the same herd; proportions were adjusted to account for the herd-type, animal class and month of testing. The proportion of animals that were positive at post-mortem were compared along with the proportion of animals that were positive at the inconclusive retest.

Results and discussion: Of the SIRs that were retested under option 1, 21% were positive resulting in 23.6% of herds being restricted (Table 1). SIRs were twice as likely to be slaughtered compared to non-SIRs, even after accounting for herd-type, animal class and month (Table 2). SIRs slaughtered before retest were almost 100 times more likely to show lesions on slaughter than non SIRs (Table 3). Under option 3 of SIRs slaughtered and NVL, 6.8% were then positive in the laboratory. Of the herds that were retested following slaughter of a SIR, 26% were restricted.

Conclusion: Farmers and Veterinarians need to be aware that, in Ireland, SIRs are highly likely to be infected with bTB even if not associated with an outbreak of TB when diagnosed.

Table 1. Herds with SIRs retested, number and % of herds restricted due to a positive SIR retest

Year	Herds with SIRs	Herds with +ve SIRs	% herds restricted
2005	3656	764	21.0
2006	2720	674	24.8
2007	2802	781	27.9
2008	2785	689	24.7
2009	2611	531	20.3
Total	14574	3439	23.6

Table 2. % SIRs and non SIRs slaughtered and the % Observed versus expected standardised mortality rate

Year	Slaughtered %		
	Non-SIRs	SIRs	O/E
2005	5.57	12.24	1.97
2006	5.04	12.40	2.23
2007	5.00	12.10	2.34
2008	4.65	10.04	1.85
2009	4.22	12.79	2.61

Table 3. P.M. confirmation % BTB SIRs and Non SIRs

Year	% Non-SIRs +ve BTB	% SIRs +ve BTB
2005	0.14	14.17
2006	0.18	21.45
2007	0.23	20.76
2008	0.20	17.49
2009	0.13	11.85