

Table S1. Distribution of explanatory variables associated with MTC seropositivity in sheep farms in southern Spain.

Variable	Categories	N/total*	%	P
Province	Almeria Cadiz Cordoba Granada Huelva Jaen Malaga Seville	2/6 0/3 0/18 3/9 2/9 1/6 2/6 2/26	33.3 0.0 0.0 33.3 22.2 16.7 33.3 7.7	0.138
Farm in a bovine TB high risk area	No Yes	2/12 9/70	16.7 12.9	0.505
Individual prevalence of TB in wild boar around the farms	≤ 10% 10-29% ≥ 30	2/11 2/26 0/4	18.2 7.7 0.0	0.485
Production system	Meat Milk Mixed	11/62 0/4 0/8	17.7 0.0 0.0	0.286
Management system	Extensive Semi-extensive	4/48 8/32	8.3 25.0	0.043
Natural mating	No Yes	0/1 12/77	0.0 15.6	0.846
Artificial insemination	No Yes	12/74 0/3	16.2 0.0	0.597
Type of replacement	External Internal	1/21 11/60	4.8 18.3	0.122
Census of sheep	≤ 165 166-635 ≥ 636	3/27 3/27 6/26	11.1 11.1 23.1	0.373
Pre-breeding census	≤ 20 21-63 ≥ 64	1/20 3/20 6/20	5.0 15.0 30.0	0.102
Presence of dogs	No Yes	0/7 12/75	0.0 16.0	0.315
Presence of cats	No Yes	5/40 7/42	12.5 16.7	0.414
Presence of cattle	No Yes	12/69 0/10	17.4 0.0	0.172
Presence of pigs	No Yes	12/66 0/14	18.2 0.0	0.082
Presence of equines	No Yes	10/56 2/25	17.9 8.0	0.212
Presence of poultry	No Yes	6/51 6/30	11.8 20.0	0.244
Presence of wild boar	No Yes	5/36 7/46	13.9 15.2	0.561
Presence of red deer	No Yes	7/47 5/34	14.9 14.7	0.619
Presence of fallow deer	No Yes	12/80 0/2	15.0 0.0	0.727
Presence of mouflon	No Yes	12/81 0/1	14.8 0.0	0.854
Presence of badger	No Yes	7/55 5/27	12.7 18.5	0.349

Distance to nearest ruminant farm (m)	0 1-1,000 ≥ 1,000	5/35 2/23 5/21	14.3 8.7 23.8	0.370
Transhumance in the last three years	No Yes	12/76 0/4	15.8 0.0	0.515
Disinfection baths (entry)	No Yes	8/44 3/22	18.2 13.6	0.465
Perimeter livestock fencing	No Yes	3/10 8/57	30.0 14.0	0.205
Dung removal system	No Yes	1/13 10/53	7.7 18.9	0.307
Use of manure as fertilizer	No Yes	1/7 10/56	14.3 17.9	0.647
Presence of sanitary lazaretto	No Yes	1/7 10/57	14.3 17.5	0.655
Quarantine of replacement animals	No Yes	7/48 4/16	14.6 25.0	0.274
Carcass container	No Yes	10/44 1/9	22.7 11.1	0.394
Carcass removal system	No Yes	2/13 9/54	15.4 16.7	0.639
Parking outside the farm	No Yes	7/42 4/22	16.7 18.2	0.568
Livestock transport vehicles enter the farm perimeter	No Yes	4/23 7/41	17.4 17.1	0.614
Carcass vehicle is allowed to enter the farm perimeter	No Yes	8/35 3/17	22.9 17.6	0.483
Contact with wild species in feeders	No Yes	10/71 2/10	14.1 20.0	0.457
Contact with wild species in drinkers	No Yes	9/62 2/17	14.5 11.8	0.564
Contact with wild species in ponds	No Yes	8/47 4/34	17.0 11.8	0.372
Contact with wild species in pastures	No Yes	5/34 7/47	14.7 14.9	0.619
Contact with cattle from neighboring farms	No Yes	11/63 0/12	17.5 0.0	0.126
Contact with goats from neighboring farms	No Yes	10/59 1/16	16.9 6.3	0.262
Contact with sheep from neighboring farms	No Yes	9/52 2/23	17.3 8.7	0.277
Indirect contact with other farms (machinery)	No Yes	12/76 0/4	15.8 0.0	0.515
Indirect contact with other farms (staff)	No Yes	5/24 7/56	20.8 12.5	0.263
Indirect contact with other farms (pastures)	No Yes	10/62 2/18	16.1 11.1	0.461
Indirect contact with other farms (troughs)	No Yes	12/71 0/9	16.9 0.0	0.213
Use of public roads	No Yes	9/62 1/14	14.5 7.1	0.410
Presence of rodents	No Yes	3/18 7/43	16.7 16.3	0.620
Rodent control	No Yes	5/18 4/42	27.8 9.5	0.081
Cleaning protocol	No	0/7	0.0	0.272

	Yes	10/55	18.2	
Disinfection protocol	No	1/9	11.1	0.552
	Yes	9/53	17.0	
Animal insecticide treatment	No	2/15	13.3	0.613
	Yes	7/46	15.2	
Vaccination against pasteurellosis	No	11/63	17.5	0.344
	Yes	1/13	7.7	
Vaccination against enzootic abortion	No	12/71	16.9	0.583
	Yes	0/3	0.0	
Vaccination against contagious agalactia	No	12/64	18.8	0.211
	Yes	0/10	0.0	
Vaccination against bluetongue	No	5/15	33.3	0.053
	Yes	7/61	11.5	

* Missing values omitted.