

**Table 1. Results from the univariable analyses of the probability of a positive bacteriology result for positive animals at in-vivo tests from positive herds in Soria and Burgos**

| Dataset (n)              |                                                   |                  |     |                                      |                                       |            |                         |                       |
|--------------------------|---------------------------------------------------|------------------|-----|--------------------------------------|---------------------------------------|------------|-------------------------|-----------------------|
|                          | Variable                                          | Class            | N   | Number of SIT or IFN-y+/Culture- (%) | Number of SIT or IFN-y+/Culture + (%) | Odds Ratio | 95% Confidence interval | <i>P</i> <sup>a</sup> |
| <b>SORIA<br/>(586)</b>   | Years in the herd                                 | 0-1              | 100 | 99 (99%)                             | 1 (1%)                                | 1          | -                       | <b>0.1918</b>         |
|                          |                                                   | 1-3              | 183 | 172 (94%)                            | 11 (6%)                               | 4.27       | 0.7-82.3                |                       |
|                          |                                                   | 3-4              | 139 | 131 (94.2%)                          | 8 (5.8%)                              | 3.6        | 0.5-72.3                |                       |
|                          |                                                   | >4               | 164 | 162 (98.8%)                          | 2 (1.2%)                              | 0.99       | 0.05-23.4               |                       |
|                          | bTB-confirmation in the herd in the previous year | No               | 439 | 422 (96.1%)                          | 17 (3.9%)                             | 1          | -                       | <b>0.0069</b>         |
|                          |                                                   | Yes              | 147 | 142 (96.6%)                          | 5 (3.4%)                              | 0.08       | 0.014-0.5               |                       |
|                          | Age (years)                                       | 0-1              | 94  | 92 (97.8%)                           | 2 (2.1%)                              | 1          | -                       | 0.7954                |
|                          |                                                   | 1-3              | 104 | 98 (94.4%)                           | 6 (5.8%)                              | 1.46       | 0.3-11.3                |                       |
|                          |                                                   | 3-5              | 147 | 141 (95.9%)                          | 6 (4.1%)                              | 1.02       | 0.2-7.9                 |                       |
|                          |                                                   | 5-7              | 79  | 78 (98.7%)                           | 1 (1.3%)                              | 0.38       | 0.01-4.7                |                       |
|                          |                                                   | >7               | 162 | 155 (95.7%)                          | 7 (4.3%)                              | 1.18       | 0.2-8.9                 |                       |
|                          | Herd size (number of animals)                     | Small<br>≤79     | 154 | 145 (94.2%)                          | 9 (5.8%)                              | 1.32       | 0.15-8.6                | 0.9427                |
|                          |                                                   | Medium<br>79-235 | 287 | 279 (97.2%)                          | 8 (2.8%)                              | 1          | -                       |                       |
|                          |                                                   | Large<br>>235    | 145 | 140 (96.6%)                          | 5 (3.4%)                              | 0.93       | 0.01-46.7               |                       |
|                          | County level prevalence in the previous year      | 0-0.07           | 388 | 378 (97.4%)                          | 10 (2.6%)                             | 1          | -                       | 0.9307                |
|                          |                                                   | 0.07-0.17        | 144 | 137 (95.1%)                          | 7 (4.9%)                              | 1.45       | 0.03-8.9                |                       |
|                          |                                                   | ≥0.17            | 54  | 49 (90.7%)                           | 5 (9.3%)                              | 1.35       | 0.02-7.3                |                       |
| <b>BURGOS<br/>(1530)</b> | Years in the herd                                 | 0-1              | 184 | 175 (95.1%)                          | 9 (4.9%)                              | 1          | -                       | <b>0.2797</b>         |
|                          |                                                   | 1-3              | 690 | 664 (96.2%)                          | 26 (3.8%)                             | 1.48       | 0.6-4.3                 |                       |
|                          |                                                   | 3-4              | 474 | 450 (94.9%)                          | 24 (5.1%)                             | 0.67       | 0.2-2.1                 |                       |

|  |                                                             |                  |      |             |           |      |          |               |
|--|-------------------------------------------------------------|------------------|------|-------------|-----------|------|----------|---------------|
|  |                                                             | >4               | 182  | 175 (96.2%) | 7 (3.8%)  | 1.04 | 0.2-4.8  |               |
|  | bTB-<br>confirmation in<br>the herd in the<br>previous year | No               | 1007 | 954 (94.7%) | 53 (5.3%) | 1    | -        | <b>0.0058</b> |
|  |                                                             | Yes              | 523  | 510 (97.5%) | 13 (2.5%) | 0.29 | 0.1-0.7  |               |
|  | Age (years)                                                 | 0-1              | 193  | 186 (96.4%) | 7 (3.6%)  | 1    | -        | 0.7503        |
|  |                                                             | 1-3              | 276  | 270 (97.8%) | 6 (2.2%)  | 0.55 | 0.16-1.9 |               |
|  |                                                             | 3-5              | 338  | 328 (97.1%) | 10 (2.9%) | 0.7  | 0.23-2.2 |               |
|  |                                                             | 5-7              | 199  | 191 (96%)   | 8 (4%)    | 0.86 | 0.27-2.8 |               |
|  |                                                             | >7               | 524  | 489 (93.3%) | 35 (6.7%) | 1    | 0.4-2.8  |               |
|  | Herd size<br>(number of<br>animals)                         | Small<br><=63    | 261  | 249 (95.4%) | 12 (4.6%) | 1.4  | 0.4-4.8  | 0.8166        |
|  |                                                             | Medium<br>63-195 | 782  | 744 (95.1%) | 38 (4.9%) | 1    | -        |               |
|  |                                                             | Large<br>>195    | 487  | 471 (96.7%) | 16 (3.3%) | 0.86 | 0.2-3.5  |               |
|  | County level<br>prevalence in<br>the previous<br>year       | 0-0.05           | 917  | 864 (94.2%) | 53 (5.8%) | 1    | -        | <b>0.0012</b> |
|  |                                                             | 0.05-0.5         | 428  | 418 (97.7%) | 10 (2.3%) | 0.15 | 0.04-0.4 |               |
|  |                                                             | >=0.5            | 185  | 182 (98.4%) | 3 (1.6%)  | 1.3  | 0.2-6.7  |               |

<sup>a</sup> Log likelihood ratio test *P-value*