

**Table S1.** Raw data used to estimate the probability density distribution of  $R_0$ .

flock ID	flock size	virus strain	first sampling			second sampling			third sampling			fourth sampling		
			day	serology result (positive/tested)	virology result (pool)	day	serology result (positive/tested)	virology result (pool)	day	serology result (positive/tested)	virology result (pool)	day	serology result (positive/tested)	virology result (pool)
1	8900	H7N3	92	0/10	not done	97	not done	negative	125	<b>10/10</b>	<b>negative</b>			
2	13300	H7N3	79	0/10	not done	103	not done	negative	127	<b>10/10</b>	<b>negative</b>			
3	4300	H7N3	133	<b>5/10</b>	<b>negative</b>									
4	11000	H7N3	58	0/10	negative	105	<b>10/10</b>	<b>negative</b>	147	7/10	not done			
5	8000	H7N3	82	0/10	negative	124	0/10	positive	128	0/10	negative	135	<b>9/10</b>	<b>negative</b>
6	6400	H7N3	64	0/10	negative	92	0/10	negative	99	<b>10/10</b>	<b>negative</b>			
7	13000	H7N3	73	0/10	not done	107	<b>9/10</b>	<b>negative</b>	149	not done	negative			
8	11000	H7N3	78	0/10	negative	112	<b>9/10</b>	<b>negative</b>	154	not done	negative			
9	15000	H7N3	101	not done	positive	107	0/10	positive	<b>109</b>	<b>10/10</b>	not done	<b>114</b>	not done	<b>negative</b>
10	16800	H7N3	89	0/10	negative	126	0/10	negative	131	<b>9/10</b>	<b>negative</b>			
11	10000	H7N1	77	0/10	not done	96	<b>10/10</b>	not done	99	not done	<b>negative</b>			
12	10900	H7N3	34	0/10	not done	49	not done	negative	83	<b>10/10</b>	<b>negative</b>			
13	6116	H7N3	63	0/10	not done	106	<b>9/10</b>	<b>negative</b>						
14	5200	H7N3	66	0/10	negative	117	<b>10/10</b>	<b>negative</b>	144	not done	negative			
15	5000	H7N3	73	0/10	negative	109	<b>8/8</b>	<b>negative</b>	116	9/10	negative	132	not done	negative
16	6800	H7N3	80	0/10	not done	84	not done	negative	118	<b>10/10</b>	<b>negative</b>	151	not done	negative
17	16000	H7N3	43	0/10	negative	79	<b>10/10</b>	<b>negative</b>						
18	6580	H7N1	87	0/10	positive	102	<b>20/20</b>	<b>negative</b>	110	not done	negative			
19	12600	H7N1	81	<b>9/10</b>	<b>negative</b>	93	6/10	not done						
20	12600	H7N1	81	<b>8/10</b>	<b>negative</b>	93	6/10	not done						
21	12600	H7N1	81	<b>10/10</b>	<b>negative</b>	93	3/10	not done						
22	3600	H7N3	56	not done	negative	101	<b>10/10</b>	<b>negative</b>						
23	25600	H7N1	71	<b>12/15</b>	<b>negative</b>	78	8/20	not done						
24	7600	H7N3	55	0/10	not done	76	0/10	negative	98	<b>10/10</b>	<b>negative</b>	111	10/10	not done
25	7500	H7N1	51	0/10	not done	64	<b>1/10</b>	<b>negative</b>						
26	7800	H7N3	84	0/10	negative	102	<b>10/10</b>	<b>negative</b>						
27	4000	H7N1	81	0/10	not done	86	0/15	negative	106	0/10	not done	110	<b>10/10</b>	<b>negative</b>
28	6400	H7N1	<b>87</b>	<b>8/10</b>	not done	<b>91</b>	not done	<b>negative</b>	98	8/10	not done			
29	12000	H7N3	88	10/10	not done	92	<b>10/10</b>	<b>negative</b>	112	not done	negative	115	not done	negative
30	17760	H7N3	65	0/10	not done	131	<b>9/10</b>	<b>negative</b>	145	7/10	negative	147	not done	negative
31	17760	H7N3	65	0/10	not done	131	<b>7/10</b>	<b>negative</b>						
32	12000	H7N3	42	not done	negative	77	0/10	negative	106	<b>10/10</b>	<b>negative</b>			
33	12320	H7N3	103	0/10	not done	125	0/10	negative	137	not done	negative	152	<b>10/10</b>	<b>negative</b>
34	16000	H7N3	56	not done	negative	84	0/10	negative	112	<b>10/10</b>	<b>negative</b>			
35	9800	H7N3	71	0/10	negative	113	0/10	negative	136	<b>2/10</b>	<b>negative</b>	137	10/10	negative
36	15300	H7N3	91	0/10	not done	112	0/10	negative	140	<b>9/10</b>	<b>negative</b>			

**Legend:** **day** indicates the day of sampling, starting from the onset of the production cycle; the **shaded cells** corresponds to the data included in the analysis (i.e., earliest positive serological result associated to a negative virological result within  $\pm 5$  days).