1   **A large-scale study of indicators of Sub-Clinical Mastitis in dairy cattle by attribute weighting**
2   **models: highlighting the predictive power of Lactose**

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4   Esmaeil Ebrahimie, Faezeh Ebrahimi, Mansour Ebrahimi, Sarah Tomlinson, Kiro R Petrovski

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7   **SUPPLEMENTARY FILE**

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9   **Supplementary File Table S1. Frequency of mastitis in different contents of milk lactose**

Lactose content of milk (mg)	Number of records	Frequency of mastitis (%)
1.5	1	100.0
2.0	8	87.5
2.1	4	100.0
2.2	13	100.0
2.3	8	87.5
2.4	20	60.0
2.5	20	75.0
2.6	20	90.0
2.7	24	91.7
2.8	34	97.1
2.9	37	91.9
3.0	56	92.9
3.1	87	89.7
3.2	88	95.5
3.3	118	90.7
3.4	148	91.9
3.5	206	90.3
3.6	271	84.5
3.7	352	86.4
3.8	590	84.8
3.9	928	79.2
4.0	1563	70.8
4.1	2534	61.6
4.2	4444	55.6
4.3	7451	46.8
4.4	12135	38.6
4.5	19378	32.3
4.6	28811	26.4
4.7	39507	21.4

4.8	48065	17.2
4.9	48561	13.7
5.0	42957	11.5
5.1	30352	10.0
5.2	17627	8.6
5.3	8659	7.6
5.4	3476	7.3
5.5	1159	8.0
5.6	452	8.9
5.7	266	12.0
5.8	155	12.3
5.9	125	15.2
6.0	104	20.2
6.1	98	19.4
6.2	75	18.7
6.3	122	21.3
6.4	95	16.8
6.5	81	7.4
6.6	77	13.0
6.7	72	13.9
6.8	56	10.7
6.9	27	14.8
7.0	8	25.0
7.1	10	20.0
7.2	5	20.0
7.3	4	0.0
7.4	5	0.0
7.5	8	37.5
7.6	4	25.0
7.7	4	50.0
7.8	6	0.0
7.9	5	20.0
8.0	2	0.0
8.1	3	33.3
9.8	1	0.0

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11 **Supplementary File Figure S1**

12 Comparison of the prevalence of Sub-Clinical Mastitis (SCM) between different scoring

13 systems (Australia at $\geq 250,000$ cells/mL, New Zealand at $\geq 150,000$ cells/mL, and

14 European Union cut off at $\geq 200,000$ cells/mL).

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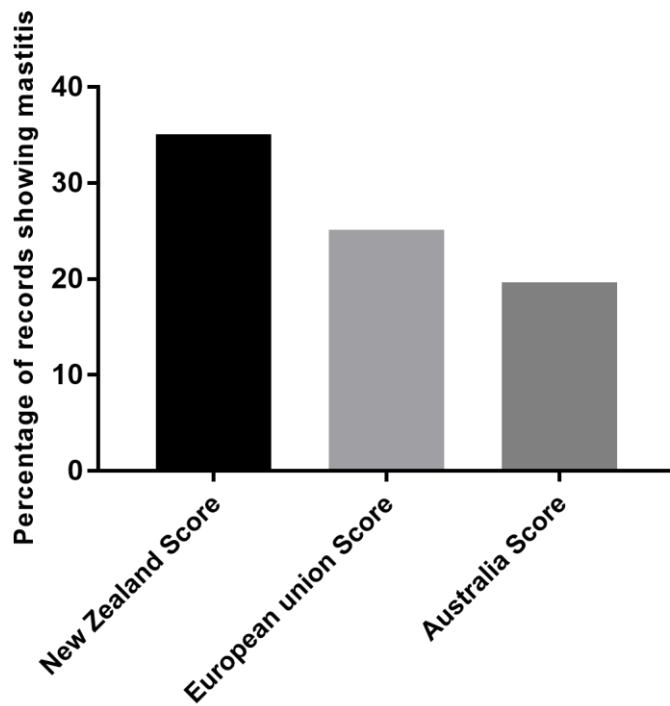
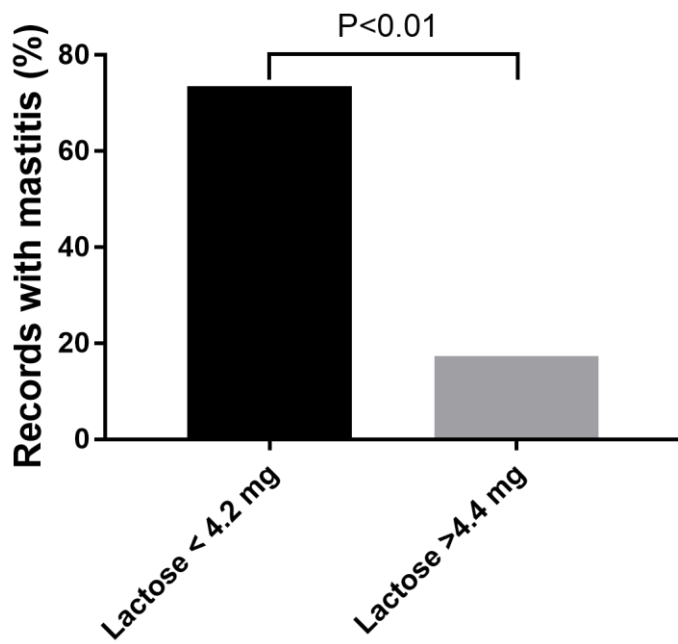17

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26 **Supplementary File Figure S2**

27 Lactose content of milk is a negative indicator of mastitis occurrence

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