

Supplementary Table S1. Responses to questions about housing system of dairy cows during lactation, drying-off and dry period given by farmers ($n = 340$) participating in a web-based questionnaire.

Question/Categories	Herd n (%)	Significant Herd Variables ¹
How many persons take care of the lactating cows?		MP, MS, NC, R
1	45 (13)	
2-3	231 (69)	
>3	60 (18)	
Where are most ($\geq 50\%$) of the lactating cows housed?		BMSCC, NC, PS
Free-stalls	235 (70)	
Tie-stalls	100 (30)	
Type of flooring in cubicles/lying areas for most ($\geq 50\%$) of lactating cows?		BMSCC, MP, MS, NC, PS
Cubicle mat	157 (46)	
Cubicle mattress	149 (44)	
Deep-straw	4 (1)	
Other	27 (8)	
Do you use bedding in cubicles/lying areas for most ($\geq 50\%$) of the lactating cows?		na
Yes	332 (99)	
No	5 (1)	
If bedding is used for lactating cows, which material do you use?		
Peat	50 (15)	NC, R
Recycled manure	5 (2)	na
Sawdust	84 (25)	MP, R
Straw, chopped	69 (21)	MS, R
Straw, whole	18 (5)	MP, MS, NC, R
Wood shavings	191 (58)	R
Other	15 (5)	na
Is the housing (see above) of cows different during drying-off compared to lactation?		R
Yes	102 (30)	
No	235 (70)	

If housing is different, where are most ($\geq 50\%$) of the cows housed during drying-off?		na
Free-stalls	70 (69)	
Tie-stalls	27 (26)	
Other	6 (6)	
If housing is different, which type of flooring in cubicles/lying areas for most ($\geq 50\%$) cows during drying-off?		na
Cubicle mat	40 (39)	
Cubicle mattress	10 (10)	
Deep-straw	43 (42)	
Other	10 (9)	
If housing is different, do you use bedding in cubicles/lying areas for most ($\geq 50\%$) of the cows during drying-off?		na
Yes	97 (98)	
No	2 (2)	
If housing is different and bedding is used for cows during drying-off, which material do you use?		na
Peat	5 (5)	
Recycled manure	0 (0)	
Sawdust	19 (20)	
Straw, chopped	19 (20)	
Straw, whole	27 (28)	
Wood shavings	41 (42)	
Other	7 (7)	
Is the housing (see above) of cows different during the dry period compared to lactation?		MP, MS, NC, R
Yes	121 (36)	
No	215 (64)	
If housing is different, where are most ($\geq 50\%$) of the cows housed during the dry period?		na
Free-stalls	79 (65)	
Tie-stalls	27 (23)	
Other	13 (11)	

If housing is different, which type of flooring in cubicles/lying areas for most ($\geq 50\%$) cows during the dry period?		NC
Cubicle mat	47 (39)	
Cubicle mattress	5 (4)	
Deep-straw	61 (50)	
Other	11 (7)	
If housing is different, do you use bedding in cubicles/lying areas for most ($\geq 50\%$) of the cows during the dry period?		na
Yes	113 (96)	
No	5 (4)	
If housing is different and bedding is used for cows during drying-off, which material do you use?		na
Peat	9 (8)	
Recycled manure	0 (0)	
Sawdust	13 (12)	
Straw, chopped	30 (27)	
Straw, whole	46 (41)	
Wood shavings	43 (38)	
Other	4 (3)	

¹ na = not analysed; BMSCC = bulk milk somatic cell count; PS = production system, MP = milk production; MS = milking system; NC = number of cows/herd; R = region.

Supplementary Table S2. Significant associations between herd variables and responses to questions about routines during drying-off of dairy cows given by farmers ($n = 340$) participating in a web-based questionnaire as analysed using univariable logistic or multinomial logistic regression models

Do you have written routines for these cows?	Yes N (%)	No N (%)	OR ¹	p -value ²
Milk production, kg ECM ³ /cow/year				R ² = 0.03
<9,000	6 (15)	34 (85)	Ref. ¹	
9,000-11,000	63 (32)	131 (68)	2.72	0.03
>11,000	48 (48)	53 (52)	5.13	0.001
Milking system				R ² = 0.08
AMS ⁴	48 (34)	93 (66)	0.45	0.006
Tie-stall	16 (15)	89 (85)	0.15	<0.001
Parlour	42 (53)	37 (47)	Ref.	
Rotary	9 (100)	0 (0)	-	-
Combinations	2 (66)	1 (33)	1.76	0.65
Number of cows/herd				R ² = 0.07
<53	14 (17)	69 (83)	Ref.	
53-77	24 (29)	59 (71)	2.00	0.07
78-137	33 (39)	51 (61)	3.19	0.002
≥138	46 (54)	39 (46)	5.81	<0.001

¹OR = odds ratio; Ref. = referent. ²R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable). ³ECM = energy-corrected milk. ⁴AMS = automatic milking system.

How many persons take care of these cows?	1 N (%)	2-3 N (%)	>3 N (%)	RRR ¹	p -value ²
Milk production, kg ECM ³ /cow/year					R ² = 0.02
<9,000	23 (57)	16 (40)		Ref.	
9,000-11,000	71 (36)	118 (61)		0.42	0.02
>11,000	34 (34)	57 (56)		0.41	0.02
<9,000		16 (40)	1 (3)	1.23	0.85
9,000-11,000		118 (61)	6 (3)	Ref.	
>11,000		57 (56)	10 (10)	3.45	0.02
<9,000	23 (57)		1 (3)	0.51	0.55
9,000-11,000	71 (36)		6 (3)	Ref.	
>11,000	34 (34)		10 (10)	3.48	0.03
Milking system					R ² = 0.06
AMS ⁴	59 (42)	78 (55)		0.41	0.006
Tie-stall	53 (50)	50 (48)		0.29	<0.001
Parlour	17 (22)	55 (70)		Ref.	
Rotary	0 (0)	6 (67)		-	-
Combinations	1 (33)	2 (67)		0.62	0.70
AMS	59 (42)		5 (4)	0.21	0.02
Tie-stall	53 (50)		2 (2)	0.09	0.005
Parlour	17 (22)		7 (9)	Ref.	
Rotary	0 (0)		3 (33)	-	-
Combinations	1 (33)		0 (0)	-	-
AMS		78 (55)	5 (4)	0.13	0.02
Tie-stall		50 (48)	2 (2)	0.08	0.01
Parlour		55 (70)	7 (9)	0.25	0.09

Rotary		6 (67)	3 (33)	Ref.	
Combinations		2 (67)	0 (0)	-	-
Number of cows/herd					R ² = 0.08
<53	49 (59)	34 (39)		Ref.	
53-77	35 (42)	48 (54)		1.97	0.03
78-137	23 (27)	62 (73)		3.88	<0.001
≥138	21 (25)	64 (61)		4.39	<0.001
<53	49 (59)		2 (2)	0.07	0.001
53-77	35 (42)		3 (4)	0.15	0.007
78-137	23 (27)		0 (0)	-	-
≥138	21 (25)		12 (14)	Ref.	
<53		34 (39)	2 (2)	0.27	0.10
53-77		48 (54)	3 (4)	0.29	0.07
78-137		62 (73)	0 (0)	-	-
≥138		64 (61)	12 (14)	Ref.	
Region					R ² = 0.04
East Sweden	17 (33)	32 (63)		0.81	0.59
Norrland	18 (37)	28 (57)		0.67	0.30
Northern Middle Sweden	15 (50)	13 (43)		0.37	0.03
Småland and the islands	35 (49)	37 (51)		0.46	0.02
South Sweden	20 (45)	23 (52)		0.50	0.07
West Sweden	25 (27)	58 (63)		Ref. ¹	
East Sweden	17 (33)		2 (4)	0.33	0.18
Norrland	18 (37)		3 (6)	0.46	0.29
Northern Middle Sweden	15 (50)		2 (7)	0.37	0.24
Småland and the islands	35 (49)		0 (0)	-	-
South Sweden	20 (45)		1 (2)	0.14	0.07
West Sweden	25 (27)		9 (10)	Ref.	
East Sweden		32 (63)	2 (4)	0.40	0.26
Norrland		28 (57)	3 (6)	0.69	0.60
Northern Middle Sweden		13 (43)	2 (7)	0.99	0.99
Småland and the islands		37 (51)	0 (0)	-	-
South Sweden		23 (52)	1 (2)	0.28	0.24
West Sweden		58 (63)	9 (10)	Ref.	

¹ RRR = relative risk ratio; Ref. = referent; ² R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable). ³ ECM = energy-corrected milk. ⁴ AMS = automatic milking system.

Are these cows milked with prolonged milking interval?	Yes, ≥75% of the cows N (%)	Yes, <75% of the cows N (%)	No N (%)	RRR ¹	p-value ²
Region					R ² = 0.05
East Sweden	46 (90)	4 (8)		0.34	0.08
Norrland	43 (88)	4 (8)		0.36	0.10
Northern Middle Sweden	25 (83)	3 (10)		0.47	0.28
Småland and the islands	47 (65)	12 (17)		Ref. ¹	
South Sweden	34 (77)	2 (5)		0.23	0.07
West Sweden	74 (81)	9 (10)		0.48	0.12

East Sweden	46 (90)	1 (2)	0.08	0.02
Norrland	43 (88)	2 (4)	0.17	0.02
Northern Middle Sweden	25 (83)	2 (7)	0.29	0.12
Småland and the islands	47 (65)	13 (18)	Ref.	
South Sweden	34 (77)	8 (18)	0.85	0.78
West Sweden	74 (81)	8 (9)	0.39	0.05
East Sweden	4 (8)	1 (2)	0.06	0.04
Norrland	4 (8)	2 (4)	0.12	0.08
Northern Middle Sweden	3 (10)	2 (7)	0.17	0.14
Småland and the islands	12 (17)	13 (18)	0.27	0.14
South Sweden	2 (5)	8 (18)	Ref.	
West Sweden	9 (10)	8 (9)	0.22	0.11

¹ RRR = relative risk ratio; Ref. = referent; ² R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable).

If ≥75 % of these cows are milked with prolonged milking interval, how often are they milked?	Once per day N (%)	Once every second day N (%)	Other or varying interval N (%)	RRR ¹	p-value ²
BMSCC					R ² = 0.02
< 200,000	47 (23)	75 (38)		Ref. ¹	
≥ 200,000	26 (25)	56 (54)		1.35	0.32
< 200,000	47 (23)		78 (39)	Ref.	
≥ 200,000	26 (25)		21 (20)	0.49	0.04
< 200,000		75 (38)	78 (39)	Ref.	
≥ 200,000		56 (54)	21 (20)	0.36	0.001
Milking system					R ² = 0.05
AMS ³	26 (20)	66 (50)		3.15	0.001
Tie-stall	36 (38)	29 (30)		Ref.	
Parlour	10 (15)	29 (43)		3.60	0.004
Rotary	0 (0)	9 (100)		-	-
Combinations	1 (33)	0 (0)		-	-
AMS	26 (20)		39 (30)	1.80	0.10
Tie-stall	36 (38)		30 (32)	Ref.	
Parlour	10 (15)		28 (42)	3.36	0.006
Rotary	0 (0)		0 (0)	-	-
Combinations	1 (33)		2 (67)	2.40	0.48
AMS		66 (50)	39 (30)	0.57	0.09
Tie-stall		29 (30)	30 (32)	Ref.	
Parlour		29 (43)	28 (42)	0.93	0.85
Rotary		9 (100)	0 (0)	-	-
Combinations		0 (0)	2 (67)	-	-
Number of cows/herd					R ² = 0.03
<53	28 (36)	20 (26)		Ref.	
53-77	18 (23)	36 (47)		2.80	0.01
78-137	13 (17)	35 (47)		3.77	0.002
≥138	13 (17)	41 (55)		4.41	0.001

<53	28 (36)	29 (38)	Ref.	
53-77	18 (23)	23 (30)	1.23	0.61
78-137	13 (17)	27 (36)	2.00	0.11
≥138	13 (17)	20 (27)	1.48	0.37
<53	20 (26)	29 (38)	Ref.	
53-77	36 (47)	23 (30)	0.44	0.04
78-137	35 (47)	27 (36)	0.53	0.10
≥138	41 (55)	20 (27)	0.34	0.006

¹ RRR = relative risk ratio; Ref. = referent; ² R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable). ³ AMS = automatic milking system.

If ≥75 % of these cows are milked with prolonged milking interval, for how long are they milked?	1 week N (%)	2 weeks N (%)	Other N (%)	RRR ¹	p-value ²
Milking system					R ² = 0.03
AMS ³	85 (65)	24 (18)		0.60	0.12
Tie-stall	55 (60)	26 (28)		Ref. ¹	
Parlour	47 (72)	6 (9)		0.26	0.008
Rotary	7 (78)	0 (0)		-	-
Combinations	1 (33)	0 (0)		-	-
AMS	85 (65)		21 (16)	1.23	0.61
Tie-stall	55 (60)		11 (12)	Ref.	
Parlour	47 (72)		12 (18)	1.28	0.60
Rotary	7 (78)		2 (22)	1.43	0.68
Combinations	1 (33)		2 (67)	9.98	0.07
AMS		24 (18)	21 (16)	2.07	0.12
Tie-stall		26 (28)	11 (12)	Ref.	
Parlour		6 (9)	12 (18)	4.73	0.01
Rotary		0 (0)	2 (22)	-	-
Combinations		0 (0)	2 (67)	-	-

¹ RRR = relative risk ratio; Ref. = referent; ² R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable). ³ AMS = automatic milking system.

Do you change the feeding for these cows?	Yes, for ≥75% of the cows N (%)	Yes, for <75% of the cows N (%)	No N (%)	RRR ¹	p-value ²
Milk production, kg ECM ³ /cow/year					R ² = 0.03
<9,000	31 (77)	3 (8)		8.90	0.06
9,000-11,000	159 (82)	17 (9)		9.84	0.03
>11,000	92 (91)	1 (1)		Ref.	
<9,000	31 (77)		6 (15)	2.22	0.17
9,000-11,000	159 (82)		18 (9)	1.30	0.55
>11,000	92 (91)		8 (8)	Ref.	
<9,000		3 (8)	6 (15)	0.25	0.28
9,000-11,000		17 (9)	18 (9)	0.13	0.07
>11,000		1 (1)	8 (8)	Ref.	

¹ RRR = relative risk ratio; Ref. = referent; ² R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable). ³ ECM = energy-corrected milk.

How is the total amount of roughage changed?	Decreases N (%)	Not changed N (%)	Increases N (%)	Other batch N (%)	RRR ¹	<i>p</i> -value ²
Milking system						R ² = 0.04
AMS ³	41 (34)	63 (52)			1.89	0.07
Tie-stall	35 (38)	49 (54)			1.72	0.14
Parlour	27 (40)	22 (37)			Ref.	
Rotary	2 (25)	4 (50)			2.45	0.33
Combinations	2 (67)	0 (0)			-	-
AMS	41 (34)		5 (4)		0.12	0.06
Tie-stall	35 (38)		2 (2)		0.06	0.02
Parlour	27 (40)		1 (2)		0.04	0.02
Rotary	2 (25)		2 (25)		Ref.	
Combinations	2 (67)		1 (33)		0.50	0.66
AMS	41 (34)			13 (11)	0.86	0.75
Tie-stall	35 (38)			5 (5)	0.39	0.12
Parlour	27 (40)			10 (17)	Ref.	
Rotary	2 (25)			0 (0)	-	-
Combinations	2 (67)			0 (0)	-	-
AMS		63 (52)	5 (4)		1.94	0.44
Tie-stall		49 (54)	2 (2)		Ref.	
Parlour		22 (37)	1 (2)		1.11	0.93
Rotary		4 (50)	2 (25)		12.5	0.03
Combinations		0 (0)	1 (33)		-	-
AMS		63 (52)		13 (11)	2.02	0.21
Tie-stall		49 (54)		5 (5)	Ref.	
Parlour		22 (37)		10 (17)	4.45	0.01
Rotary		4 (50)		0 (0)	-	-
Combinations		0 (0)		0 (0)	-	-
AMS			5 (4)	13 (11)	0.26	0.25
Tie-stall			2 (2)	5 (5)	0.25	0.30
Parlour			1 (2)	10 (17)	Ref.	
Rotary			2 (25)	0 (0)	-	-
Combinations			1 (33)	0 (0)	-	-
Number of cows/herd						R ² = 0.04
<53	25 (36)	40 (57)			3.12	0.002
53-77	21 (30)	39 (57)			3.63	0.001
78-137	19 (27)	37 (54)			3.80	0.001
≥138	41 (55)	21 (28)			Ref.	
<53	25 (36)		1 (1)		0.27	0.24
53-77	21 (30)		1 (1)		0.32	0.31
78-137	19 (27)		3 (4)		1.08	0.92
≥138	41 (55)		6 (8)		Ref.	
<53	25 (36)			4 (6)	1.09	0.90

53-77	21 (30)			8 (12)	2.60	0.11
78-137	19 (27)			10 (14)	3.60	0.03
≥138	41 (55)			6 (8)	Ref.	
<53		40 (57)	1 (1)		0.09	0.03
53-77		39 (57)	1 (1)		0.09	0.03
78-137		37 (54)	3 (4)		0.28	0.10
≥138		21 (28)	6 (8)		Ref.	
<53		40 (57)		4 (6)	0.35	0.13
53-77		39 (57)		8 (12)	0.72	0.58
78-137		37 (54)		10 (14)	0.95	0.92
≥138		21 (28)		6 (8)	Ref.	
<53			1 (1)	4 (6)	4.00	0.27
53-77			1 (1)	8 (12)	8.00	0.09
78-137			3 (4)	10 (14)	3.33	0.17
≥138			6 (8)	6 (8)	Ref.	
Region						R ² = 0.05
East Sweden	12 (27)	25 (57)			2.87	0.01
Norrland	8 (20)	28 (70)			4.83	0.001
Northern Middle Sweden	4 (17)	15 (62)			5.15	0.007
Småland and the islands	26 (41)	29 (45)			1.54	0.24
South Sweden	17 (50)	12 (35)			0.97	0.95
West Sweden	40 (51)	29 (37)			Ref.	
East Sweden	12 (27)		2 (5)		6.67	0.14
Norrland	8 (20)		0 (0)		-	-
Northern Middle Sweden	4 (17)		2 (8)		20.0	0.03
Småland and the islands	26 (41)		4 (6)		6.15	0.11
South Sweden	17 (50)		2 (6)		4.71	0.22
West Sweden	40 (51)		1 (1)		Ref.	
East Sweden	12 (27)			5 (11)	2.08	0.27
Norrland	8 (20)			4 (10)	2.50	0.21
Northern Middle Sweden	4 (17)			3 (13)	3.75	0.12
Småland and the islands	26 (41)			5 (8)	0.96	0.95
South Sweden	17 (50)			3 (9)	0.88	0.87
West Sweden	40 (51)			8 (10)	Ref.	
East Sweden		25 (57)	2 (5)		2.32	0.50
Norrland		28 (70)	0 (0)		-	-
Northern Middle Sweden		15 (62)	2 (8)		3.87	0.29
Småland and the islands		29 (45)	4 (6)		4.00	0.23
South Sweden		12 (35)	2 (6)		4.83	0.22
West Sweden		29 (37)	1 (1)		Ref.	
East Sweden		25 (57)		5 (11)	0.72	0.61
Norrland		28 (70)		4 (10)	0.52	0.32
Northern Middle Sweden		15 (62)		3 (13)	0.72	0.67
Småland and the islands		29 (45)		5 (8)	0.62	0.45
South Sweden		12 (35)		3 (9)	0.91	0.90
West Sweden		29 (37)		8 (10)	Ref.	

East Sweden	2 (5)	5 (11)	0.31	0.39
Norrland	0 (0)	4 (10)	-	-
Northern Middle Sweden	2 (8)	3 (13)	0.19	0.98
Småland and the islands	4 (6)	5 (8)	0.16	0.23
South Sweden	2 (6)	3 (9)	0.19	0.14
West Sweden	1 (1)	8 (10)	Ref.	0.23

¹ RRR = relative risk ratio; Ref. = referent; ² R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable). ³ AMS = automatic milking system.

How is the total amount of straw changed?	Not changed N (%)	Increases N (%)	OR ¹	p-value ²
Milking system				R ² = 0.02
AMS ³	39 (38)	65 (62)	0.49	0.06
Tie-stall	31 (44)	40 (56)	0.38	0.02
Parlour	12 (23)	41 (77)	Ref.	
Rotary	0 (0)	8 (100)	-	-
Combinations	0 (0)	1 (100)	-	-
Number of cows/herd				R ² = 0.07
<53	20 (42)	28 (58)	0.24	0.001
53-77	31 (51)	30 (49)	0.16	<0.001
78-137	20 (34)	38 (66)	0.32	0.01
≥138	10 (14)	59 (86)	Ref.	
Region				R ² = 0.05
East Sweden	14 (36)	25 (64)	3.57	0.02
Norrland	16 (67)	8 (33)	Ref.	
Northern Middle Sweden	7 (44)	9 (56)	2.57	0.16
Småland and the islands	20 (34)	39 (66)	3.90	0.008
South Sweden	9 (27)	24 (73)	5.33	0.004
West Sweden	16 (24)	50 (76)	6.25	<0.001

¹ OR = odds ratio; Ref. = referent; ² R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable). ³ AMS = automatic milking system.

How is the total amount of hay changed?	Decreases N (%)	Not changed N (%)	Increases N (%)	Other batch N (%)	RRR ¹	p-value ²
Number of cows/herd						R ² = 0.05
<53	8 (14)	30 (54)			2.34	0.13
53-77	7 (12)	36 (61)			3.21	0.04
78-137	5 (10)	35 (70)			4.38	0.02
≥138	10 (18)	16 (29)			Ref	
<53	8 (14)		14 (25)		1.46	0.54
53-77	7 (12)		8 (14)		0.95	0.94
78-137	5 (10)		4 (8)		0.67	0.61
≥138	10 (18)		12 (22)		Ref	
<53	8 (14)			4 (7)	0.29	0.09
53-77	7 (12)			8 (14)	0.67	0.54
78-137	5 (10)			6 (12)	0.71	0.63
≥138	10 (18)			17 (31)	Ref	
<53		30 (54)	14 (25)		0.62	0.34
53-77		36 (61)	8 (14)		0.30	0.03

78-137	35 (70)	4 (8)	0.15	0.004
≥138	16 (29)	12 (22)	Ref	
<53	30 (54)	4 (7)	0.12	0.001
53-77	36 (61)	8 (14)	0.21	0.003
78-137	35 (70)	6 (12)	0.16	0.001
≥138	16 (29)	17 (31)	Ref	
<53		14 (25)	4 (7)	Ref
53-77		8 (14)	8 (14)	3.50
78-137		4 (8)	6 (12)	5.25
≥138		12 (22)	17 (31)	4.96

¹ RRR = relative risk ratio; Ref. = referent. ² R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable).

How is the total amount of silage changed (if the herd changes feeding for ≥75% of these cows)?	Decreases N (%)	Not changed N (%)	OR ¹	<i>p</i> -value ²
Number of cows/herd				R ² = 0.03
<53	41 (14)	23 (36)	1.96	0.41
53-77	30 (51)	29 (49)	3.38	0.002
78-137	34 (63)	20 (37)	2.06	0.08
≥138	49 (78)	14 (22)	Ref.	
Region				R ² = 0.04
East Sweden	23 (61)	15 (39)	2.51	0.04
Norrland	15 (45)	18 (55)	4.61	0.001
Northern Middle Sweden	12 (56)	10 (45)	3.20	0.03
Småland and the islands	37 (64)	21 (36)	2.18	0.06
South Sweden	18 (64)	10 (36)	2.14	0.13
West Sweden	50 (79)	13 (21)	Ref.	

¹ OR = odds ratio; Ref. = referent; ² R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable).

How is the total amount of other feeds changed?	Decreases N (%)	Not changed N (%)	Increases N (%)	Other batch N (%)	RRR ¹	<i>p</i> -value ²
Number of cows/herd						R ² = 0.08
<53	16 (30)	26 (49)			2.67	0.04
53-77	6 (13)	34 (76)			9.31	<0.001
78-137	8 (17)	33 (70)			6.78	<0.001
≥138	23 (45)	14 (27)			Ref	
<53	16 (30)		2 (4)		0.57	0.54
53-77	6 (13)		3 (7)		2.30	0.33
78-137	8 (17)		1 (2)		0.67	0.64
≥138	23 (45)		5 (10)		Ref	
<53	16 (30)			9 (17)	1.44	0.53
53-77	6 (13)			2 (4)	0.85	0.86
78-137	8 (17)			5 (11)	1.60	0.50
≥138	23 (45)			9 (18)	Ref	
<53		26 (49)	2 (4)		0.21	0.09
53-77		34 (76)	3 (7)		0.25	0.08

78-137	33 (70)	1 (2)		0.08	0.03
≥138	14 (27)	5 (10)		Ref	
<53	26 (49)		9 (17)	0.54	0.28
53-77	34 (76)		2 (4)	0.09	0.005
78-137	33 (70)		5 (11)	0.24	0.02
≥138	14 (27)		9 (18)	Ref	
<53		2 (4)	9 (17)	2.50	0.34
53-77		3 (7)	2 (4)	0.37	0.35
78-137		1 (2)	5 (11)	2.78	0.41
≥138		5 (10)	9 (18)	Ref	

¹ RRR = relative risk ratio; Ref. = referent. ² R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable).

Do these cows stay in the lactating group?	Yes, ≥75% of the cows N (%)	Yes, <75% of the cows N (%)	No N (%)	RRR ¹	p-value ²
Milk production, kg ECM ^{3,4} /cow/year					R ² = 0.04
<9,000	24 (63)		7 (18)	Ref.	
9,000-11,000	69 (36)		95 (49)	0.21	0.001
>11,000	35 (35)		61 (60)	0.16	<0.001
<9,000		7 (18)	7 (18)	Ref.	
9,000-11,000		29 (15)	95 (49)	0.30	0.04
>11,000		5 (5)	61 (60)	0.08	<0.001
<9,000	24 (63)	7 (18)		2.04	0.27
9,000-11,000	69 (36)	29 (15)		2.94	0.04
>11,000	35 (35)	5 (5)		Ref.	
Milking system					R ² = 0.05
AMS ⁵	55 (39)		74 (52)	0.47	0.009
Tie-stall	49 (48)		31 (31)	Ref.	
Parlour	22 (28)		50 (63)	0.28	<0.001
Rotary	1 (11)		8 (89)	0.08	0.02
Combinations	1 (33)		2 (67)	0.32	0.36
AMS		13 (9)	74 (52)	0.26	0.001
Tie-stall		21 (21)	31 (31)	Ref.	
Parlour		7 (9)	50 (63)	0.21	0.001
Rotary		0 (0)	8 (89)	-	-
Combinations		0 (0)	2 (67)	-	-
AMS	55 (39)	13 (9)		0.55	0.14
Tie-stall	49 (48)	21 (21)		Ref.	
Parlour	22 (28)	7 (9)		0.74	0.56
Rotary	1 (11)	0 (0)		-	-
Combinations	1 (33)	0 (0)		-	-
Number of cows/herd					R ² = 0.09
<53	46 (57)		19 (24)	9.40	<0.001
53-77	37 (45)		34 (41)	4.22	<0.001
78-137	27 (32)		46 (54)	2.28	0.02
≥138	17 (20)		66 (78)	Ref.	

<53		15 (19)	19 (24)	26.0	<0.001
53-77		12 (14)	34 (41)	11.6	0.002
78-137		12 (14)	46 (54)	8.61	0.006
≥138		2 (2)	66 (78)	Ref.	
<53	46 (57)	15 (19)		2.77	0.21
53-77	37 (45)	12 (14)		2.76	0.22
78-137	27 (32)	12 (14)		3.78	0.11
≥138	17 (20)	2 (2)		Ref.	
Region ⁶					R ² = 0.03
East Sweden	21 (41)		25 (49)	0.50	0.11
Norrland	27 (57)		16 (34)	Ref.	
Northern Middle Sweden	15 (50)		9 (30)	0.99	0.98
Småland and the islands	24 (33)		37 (51)	0.38	0.02
South Sweden	13 (30)		24 (54)	0.32	0.02
West Sweden	28 (31)		54 (60)	0.31	0.003
East Sweden		5 (10)	25 (49)	0.30	0.09
Norrland		4 (8)	16 (34)	0.37	0.20
Northern Middle Sweden		6 (20)	9 (30)	Ref.	
Småland and the islands		11 (15)	37 (51)	0.45	0.20
South Sweden		7 (16)	24 (54)	0.44	0.22
West Sweden		8 (9)	54 (60)	0.22	0.02
East Sweden	21 (41)	5 (10)		0.44	0.23
Norrland	27 (57)	4 (8)		0.27	0.07
Northern Middle Sweden	15 (50)	6 (20)		0.74	0.66
Småland and the islands	24 (33)	11 (15)		0.85	0.79
South Sweden	13 (30)	7 (16)		Ref.	
West Sweden	28 (31)	8 (9)		0.53	0.30

¹ RRR = relative risk ratio; Ref. = referent; ² R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable). ³ ECM = energy-corrected milk. ⁴ In addition, more herds producing 9 000 to 11 000 kg ECM than herds producing >11 000 kg ECM sometimes let the cows stay in the lactating group. ⁵ AMS = automatic milking system. ⁶ In addition, more herds in Northern Middle Sweden than in South (RRR = 0.32, $p = 0.04$) and West Sweden (RRR = 0.31, $p = 0.02$) always let their cows stay in the lactating group during drying off.

Are ≥75% of these cows teat dipped/sprayed?	Yes N (%)	No N (%)	OR ¹	p -value ²
Region				R ² = 0.04
East Sweden	41 (80)	10 (20)	0.58	0.26
Norrland	42 (86)	7 (14)	0.40	0.08
Northern Middle Sweden	28 (93)	2 (7)	0.17	0.03
Småland and the islands	52 (72)	20 (28)	0.92	0.84
South Sweden	31 (70)	13 (30)	Ref.	
West Sweden	79 (86)	13 (14)	0.39	0.04

¹ OR = odds ratio; Ref. = referent; ² R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable).

Is the udder of ≥75% of these cows controlled?	Yes N (%)	No N (%)	OR ¹	p -value ²
Milk production kg ECM ³ /cow/year				R ² = 0.03
<9,000	16 (40)	24 (60)	Ref.	

9,000-11,000	123 (63)	72 (37)	0.39	0.008
>11,000	72 (71)	29 (39)	0.27	0.001

¹ OR = odds ratio; Ref. = referent; ² R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable). ³ ECM = energy-corrected milk.

Is the udder controlled by visual inspection?	Yes N (%)	No N (%)	OR ¹	<i>p</i> -value ²
Region				R ² = 0.06
East Sweden	28 (85)	5 (15)	7.70	0.002
Norrland	24 (71)	10 (29)	3.30	0.05
Northern Middle Sweden	8 (42)	11 (58)	Ref.	
Småland and the islands	29 (67)	14 (33)	2.85	0.06
South Sweden	23 (82)	5 (18)	6.32	0.007
West Sweden	45 (82)	10 (18)	6.19	0.002

¹ OR = odds ratio; Ref. = referent; ² R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable).

Is the udder controlled by palpation?	Yes N (%)	No N (%)	OR ¹	<i>p</i> -value ²
Milking system				R ² = 0.08
AMS ³	74 (85)	13 (15)	0.08	0.02
Tie-stall	67 (99)	1 (1)	Ref.	
Parlour	43 (86)	7 (14)	0.09	0.03
Rotary	6 (86)	1 (14)	0.09	0.10

¹ OR = odds ratio; Ref. = referent; ² R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable). ³ AMS = automatic milking system.

Supplementary Table S3. Significant associations between veterinary variables and responses to questions about giving advice to farmers and personnel regarding drying-off of dairy cows given by veterinarians ($n = 130$) participating in a web-based questionnaire as analysed using univariable logistic or multinomial logistic regression models

Do you give advice about drying-off?	Yes N (%)	No N (%)	OR ¹	p -value ²
Mastitis cases/month				$R^2 = 0.08$
<1	8 (47)	9 (53)	9.00	0.005
1-3	19 (63)	11 (37)	4.63	0.03
4-8	30 (75)	10 (25)	2.67	0.17
9-15	24 (89)	3 (11)	Ref.	
>15	16 (100)	0 (0)	-	-
Post-graduate training				$R^2 = 0.15$
Yes	69 (90)	8 (10)	Ref.	
No	28 (54)	24 (46)	7.39	<0.001
Region				$R^2 = 0.09$
East Sweden	19 (58)	14 (42)	Ref.	
Norrland	20 (87)	3 (13)	0.20	0.03
Northern Middle Sweden	11 (61)	7 (39)	0.86	0.81
Småland and the islands	15 (83)	3 (17)	0.27	0.07
South Sweden	14 (93)	1 (7)	0.10	0.03
West Sweden	18 (78)	5 (22)	0.38	0.11
Year of degree ³				$R^2 = 0.11$
1977-1991	25 (96)	1 (4)	Ref.	
1992-2001	20 (77)	6 (23)	7.50	0.07
2002-2008	20 (83)	4 (17)	5.00	0.16
2009-2014	16 (64)	9 (36)	14.1	0.02
2015-2020	16 (55)	13 (45)	20.3	0.006

¹ OR = odds ratio; Ref. = referent. ² R^2 = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable). ³ In addition, a larger proportion among those with an exam from 2002-2008 compared to 2015-2020 stated that they give advice (OR = 1.40, $p = 0.03$).

Do you think removing these cows from the lactating group is important?	Yes, very N (%)	Yes, rather N (%)	No N (%)	Don't know N (%)	RRR ¹	p -value ²
Mastitis cases/month ³						$R^2 = 0.11$
<1	2 (12)	11 (69)			Ref.	
1-3	20 (67)	7 (23)			0.06	0.002
4-8	21 (54)	13 (33)			0.11	0.01
9-15	11 (41)	13 (48)			0.21	0.08
>15	12 (75)	1 (6)			0.02	0.001
<1	2 (12)		2 (12)		Ref.	
1-3	20 (67)		0 (0)		-	-
4-8	21 (54)		1 (3)		0.05	0.03
9-15	11 (41)		0 (0)		-	-
>15	12 (75)		1 (6)		0.08	0.09
<1	2 (12)			1 (6)	Ref.	
1-3	20 (67)			3 (10)	0.30	0.38
4-8	21 (54)			4 (10)	0.38	0.47
9-15	11 (41)			3 (11)	0.54	0.66

>15	12 (75)		2 (12)	0.33	0.45
<1		11 (69)	2 (12)	Ref.	
1-3		7 (23)	0 (0)	-	-
4-8		13 (33)	1 (3)	0.42	0.51
9-15		13 (48)	0 (0)	-	-
>15		1 (6)	1 (6)	5.50	0.29
<1		11 (69)	1 (6)	Ref.	
1-3		7 (23)	3 (10)	4.71	0.22
4-8		13 (33)	4 (10)	3.38	0.31
9-15		13 (48)	3 (11)	2.54	0.45
>15		1 (6)	2 (12)	22.0	0.06
<1			2 (12)	1 (6)	Ref.
1-3			0 (0)	3 (10)	-
4-8			1 (3)	4 (10)	8.00
9-15			0 (0)	3 (11)	-
>15			1 (6)	2 (12)	4.00

¹ RRR = relative risk ratio; Ref. = referent. ² R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable). ³ In addition, a larger proportion of veterinarians who treated 1-3 (RRR = 3.38, $p = 0.04$) or >15 (RRR = 14.2, $p = 0.02$) mastitis cases/month stated that they think moving cows is very important compared to those who treated 9-15 cases/month.

Do you recommend abrupt cessation of milking?	Yes, always N (%)	Yes, under certain conditions N (%)	No N (%)	RRR ¹	p -value ²
Mastitis cases/month ³					R ² = 0.08
<1		2 (12)	14 (82)	Ref.	
1-3		7 (24)	21 (72)	2.33	0.33
4-8		20 (50)	20 (50)	7.00	0.02
9-15		11 (42)	15 (58)	5.13	0.06
>15		8 (50)	8 (50)	7.00	0.03
<1	1 (6)		14 (82)	Ref.	
1-3	1 (3)		21 (72)	0.67	0.78
4-8	0 (0)		20 (50)	-	-
9-15	0 (0)		15 (58)	-	-
>15	0 (0)		8 (50)	-	-
<1	1 (6)	2 (12)		Ref.	-
1-3	1 (3)	7 (24)		0.28	0.44
4-8	0 (0)	20 (50)		-	-
9-15	0 (0)	11 (42)		-	-
>15	0 (0)	8 (50)		-	-
Post-graduate training					R ² = 0.05
Yes		37 (48)	39 (51)	Ref.	
No		11 (22)	38 (76)	0.30	0.004
Yes	1 (1)		39 (51)	Ref.	
No	1 (2)		38 (76)	1.03	0.99

Yes	1 (1)	37 (48)	Ref.	
No	1 (2)	11 (22)	3.36	0.41
Region ⁴				R ² = 0.13
East Sweden		10 (30)	23 (70)	0.20
Norrland		7 (30)	15 (65)	0.21
Northern Middle Sweden		1 (6)	16 (94)	0.03
Småland and the islands		11 (65)	5 (29)	Ref.
South Sweden		9 (60)	6 (40)	0.68
West Sweden		10 (43)	13 (57)	0.35
East Sweden	0 (0)		23 (70)	-
Norrland	1 (4)		15 (65)	0.33
Northern Middle Sweden	0 (0)		16 (94)	-
Småland and the islands	1 (6)		5 (29)	Ref.
South Sweden	0 (0)		6 (40)	-
West Sweden	0 (0)		13 (57)	-
East Sweden	0 (0)	10 (30)		-
Norrland	1 (4)	7 (30)		1.57
Northern Middle Sweden	0 (0)	1 (6)		-
Småland and the islands	1 (6)	11 (65)		Ref.
South Sweden	0 (0)	9 (60)		-
West Sweden	0 (0)	10 (43)		-

¹ RRR = relative risk ratio; Ref. = referent. ² R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable). ³ In addition, a larger proportion of veterinarians from South Sweden (RRR = 24.0, $p = 0.006$) or West Sweden (RRR = 12.3, $p = 0.02$), than in Northern Middle Sweden, stated that they recommend abrupt cessation under certain conditions. ⁴ In addition, a larger proportion among those treating 4-8 cases /month (RRR = 3.00, $p = 0.04$) stated that they recommend cessation under certain conditions than among those treating 1-3 cases/month.

Do you recommend prolonged milking intervals?	Yes, always N (%)	Yes, under certain conditions N (%)	No N (%)	RRR ¹	p -value ²
Mastitis cases/month					R ² = 0.12
<1		5 (29)	6 (35)	Ref.	
1-3		9 (32)	1 (4)	10.8	0.05
4-8		15 (38)	4 (10)	4.50	0.07
9-15		13 (50)	0 (0)	-	-
>15		13 (81)	0 (0)	-	-
<1	6 (35)		6 (35)	Ref.	
1-3	18 (64)		1 (4)	18.0	0.01
4-8	21 (52)		4 (10)	5.25	0.04
9-15	13 (50)		0 (0)	-	-
>15	2 (19)		0 (0)	-	-
<1	6 (35)	5 (29)		5.20	0.06
1-3	18 (64)	9 (32)		8.67	0.004
4-8	21 (52)	15 (38)		6.07	0.01
9-15	13 (50)	13 (50)		4.33	0.05
>15	2 (19)	13 (81)		Ref.	
Post-graduate training					R ² = 0.06
Yes		33 (43)	1 (1)	Ref.	

No		22 (45)	9 (18)	0.07	0.02
Yes	43 (56)		1 (1)	Ref.	
No	18 (37)		9 (18)	0.05	0.005
Yes	43 (56)	33 (43)		Ref.	
No	18 (37)	22 (45)		0.03	0.24
Region					R ² = 0.09
East Sweden		13 (40)	4 (12)	6.50	0.17
Norrland		11 (48)	2 (9)	11.0	0.10
Northern Middle Sweden		1 (6)	2 (12)	Ref.	
Småland and the islands		10 (59)	0 (0)	-	-
South Sweden		8 (57)	0 (0)	-	-
West Sweden		12 (52)	2 (13)	8.00	0.13
East Sweden	16 (48)		4 (12)	0.57	0.55
Norrland	10 (43)		2 (9)	0.71	0.77
Northern Middle Sweden	14 (82)		2 (12)	Ref.	
Småland and the islands	7 (41)		0 (0)	-	-
South Sweden	6 (43)		0 (0)	-	-
West Sweden	8 (35)		2 (13)	0.38	0.34
East Sweden	16 (48)	13 (40)		0.09	0.03
Norrland	10 (43)	11 (48)		0.06	0.02
Northern Middle Sweden	14 (82)	1 (6)		Ref.	
Småland and the islands	7 (41)	10 (59)		0.05	0.009
South Sweden	6 (43)	8 (57)		0.05	0.01
West Sweden	8 (35)	12 (52)		0.05	0.007

¹ RRR = relative risk ratio; Ref. = referent. ² R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable).

Which recommendation do you give about the total amount of hay fed during drying-off?	Decrease N (%)	No change N (%)	Increase N (%)	RRR ¹	<i>p</i> -value ²
Post-graduate training					R ² = 0.03
Yes	20 (29)	40 (59)		Ref.	
No	16 (33)	19 (39)		0.59	0.23
Yes	20 (29)		8 (12)	Ref.	
No	16 (33)		14 (29)	2.19	0.16
Yes		40 (59)	8 (12)	Ref.	
No		19 (39)	14 (29)	3.68	0.01

¹ RRR = relative risk ratio; Ref. = referent. ² R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable).

Do you recommend controlling the udder by California Mastitis Test (CMT)?	Yes N (%)	No N (%)	OR ¹	<i>p</i> -value ²
Number of years in cattle practice				R ² = 0.08
<5	23 (77)	7 (23)	Ref	
5-9	15 (68)	7 (32)	0.65	0.50
10-14	8 (42)	11 (58)	0.22	0.02
15-19	11 (52)	10 (48)	0.33	0.08

20-24	7 (41)	10 (59)	0.21	0.02
≥25	7 (35)	13 (65)	0.16	0.005
Post-graduate training				R ² = 0.03
Yes	35 (46)	41 (54)	Ref.	
No	35 (67)	17 (33)	2.41	0.02
Year of degree ⁴				R ² = 0.09
1977-1991	9 (36)	16 (64)	Ref.	
1992-2001	13 (50)	13 (50)	1.78	0.32
2002-2008	9 (38)	15 (62)	1.07	0.91
2009-2014	18 (72)	7 (28)	4.57	0.01
2015-2020	22 (76)	7 (24)	5.59	0.004

¹ OR = odds ratio; Ref. = referent. ² R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable). ³ In addition, a lower proportion among veterinarians with ≥25 years (OR = 0.25, $p = 0.04$) in cattle practice, compared to those with 5-9 years, stated that they recommend CMT at drying-off. ⁴ In addition, a larger proportion among veterinarians graduating 2009-2014 (OR = 1.45, $p = 0.02$) or 2015-2020 (OR = 1.66, $p = 0.006$) recommend CMT than among those graduating 2002-2008.

Do you think the routines are important for the fertility of the cows in the beginning of next lactation?	Yes, very important N (%)	Yes, rather important	No N (%)	Don't know	RRR ¹	p -value ²
Number of years in cattle practice ³						R ² = 0.08
<5	11 (37)	12 (40)			0.18	0.05
5-9	10 (45)	7 (32)			0.12	0.02
10-14	3 (16)	6 (32)			0.33	0.29
15-19	2 (10)	12 (57)			Ref	
20-24	6 (33)	7 (39)			0.19	0.08
≥25	2 (10)	5 (25)			0.42	0.44
<5	11 (37)		2 (7)		0.06	0.01
5-9	10 (45)		3 (14)		0.10	0.03
10-14	3 (16)		1 (5)		0.11	0.12
15-19	2 (10)		2 (10)		0.33	0.40
20-24	6 (33)		2 (11)		0.11	0.06
≥25	2 (10)		6 (30)		Ref	
<5	11 (37)			5 (17)	2.27	0.38
5-9	10 (45)			2 (9)	Ref	
10-14	3 (16)			9 (47)	15.0	0.008
15-19	2 (10)			5 (24)	12.5	0.03
20-24	6 (33)			3 (17)	2.5	0.38
≥25	2 (10)			7 (35)	17.5	0.01
<5		12 (40)	2 (7)		0.14	0.04
5-9		7 (32)	3 (14)		0.36	0.26
10-14		6 (32)	1 (5)		0.14	0.11
15-19		12 (57)	2 (10)		0.14	0.04
20-24		7 (39)	2 (11)		0.24	0.15
≥25		5 (25)	6 (30)		Ref	
<5				5 (17)	0.28	0.09
5-9				2 (9)	0.19	0.08

10-14	6 (32)	9 (47)	Ref		
15-19	12 (57)	5 (24)	0.28	0.09	
20-24	7 (39)	3 (17)	0.29	0.15	
≥25	5 (25)	7 (35)	0.93	0.93	
<5		2 (7)	5 (17)	0.28	0.34
5-9		3 (14)	2 (9)	0.07	0.06
10-14		1 (5)	9 (47)	Ref	
15-19		2 (10)	5 (24)	0.28	0.34
20-24		2 (11)	3 (17)	0.17	0.20
≥25		6 (30)	7 (35)	0.13	0.09

¹ RRR = relative risk ratio; Ref. = referent. ² R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable). ³ In addition, among veterinarians with <5 years in cattle practice a larger proportion stated that they think the routines are very important for the fertility than among veterinarians with 10-14 (PR = 6.6, $p = 0.03$) or ≥25 (OR = 7.7, $p = 0.04$) years in cattle practice.

Supplementary Table S4. Significant associations between herd variables and responses to questions about routines during the dry period of dairy cows given by farmers ($n = 340$) participating in a web-based questionnaire as analysed using univariable logistic or multinomial logistic regression models

Do you have written routines for the dry period?	Yes N (%)	No N (%)	OR ¹	p -value ²
Production system				$R^2 = 0.01$
Conventional	68 (25)	201 (75)	Ref.	
Organic	26 (39)	41 (61)	1.87	0.03
Milking system				$R^2 = 0.07$
AMS ³	43 (30)	99 (70)	3.01	0.002
Tie-stall	13 (13)	90 (87)	Ref.	
Parlour	30 (38)	49 (62)	4.24	<0.001
Rotary	6 (67)	3 (33)	13.8	0.001
Combinations	2 (67)	1 (33)	13.8	0.04
Number of cows ⁴				$R^2 = 0.06$
<53	12 (15)	70 (85)	0.20	<0.001
53 – 77	18 (22)	65 (78)	0.33	0.001
78 – 137	25 (30)	59 (70)	0.50	0.03
≥138	39 (46)	46 (54)	Ref.	

¹ OR = odds ratio; Ref. = referent. ² R^2 = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable). ³ AMS = automatic milking system.

⁴ In addition, more herds with 78-137 cows than herds <53 cows had written routines (RRR = 2.47, $p = 0.02$).

How many persons take care of these cows?	1 N (%)	2-3 N (%)	>3 N (%)	RRR ¹	p -value ²
Milking system					$R^2 = 0.07$
AMS ³	36 (26)	99 (70)		0.43	0.04
Tie-stall	37 (36)	64 (62)		0.27	0.002
Parlour	9 (11)	57 (72)		Ref.	
Rotary	0 (0)	5 (56)		0.39	0.99
Combinations	1 (33)	2 (67)		0.32	0.37
AMS	36 (26)		6 (4)	0.11	<0.001
Tie-stall	37 (36)		3 (3)	0.06	<0.001
Parlour	9 (11)		13 (16)	Ref.	
Rotary	0 (0)		4 (44)	-	-
Combinations	1 (33)		0 (0)	-	-
AMS		99 (70)	6 (4)	0.27	0.01
Tie-stall		64 (62)	3 (3)	0.20	0.02
Parlour		57 (72)	13 (16)	Ref.	
Rotary		5 (56)	4 (44)	3.51	0.09
Combinations		2 (67)	0 (0)	-	-
Number of cows/herd					$R^2 = 0.06$
<53	36 (44)	44 (54)		0.25	<0.001
53-77	20 (24)	58 (70)		0.60	0.21
78-137	14 (17)	66 (79)		0.97	0.95
≥138	12 (14)	58 (68)		Ref.	
<53	36 (44)		2 (2)	0.04	<0.001
53-77	20 (24)		5 (6)	0.20	0.01
78-137	14 (17)		4 (5)	0.23	0.03
≥138	12 (14)		15 (18)	Ref.	

<53	44 (54)	2 (2)	0.18	0.03
53-77	58 (70)	5 (6)	0.33	0.05
78-137	66 (79)	4 (5)	0.23	0.01
≥138	58 (68)	15 (18)	Ref.	

¹ RRR = relative risk ratio; Ref. = referent; ² R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable). ³ AMS = automatic milking system.

Do dry cows spend time with lactating cows?	Yes, ≥75% of the cows N (%)	Yes, <75% of the cows N (%)	No N (%)	RRR ¹	p-value ²
Milk production, kg ECM ³ /cow/year					R ² = 0.03
<9000		9 (23)	17 (42)	Ref.	
9000-11000		30 (16)	135 (70)	0.42	0.06
≥11000		10 (10)	79 (79)	0.24	0.007
<9000	14 (35)		17 (42)	Ref.	
9000-11000	28 (14)		135 (70)	0.25	0.001
≥11000	11 (11)		79 (79)	0.17	<0.001
<9000	14 (35)	9 (23)		Ref.	
9000-11000	28 (14)	30 (16)		0.60	0.31
≥11000	11 (11)	10 (10)		0.71	0.57
Milking system					R ² = 0.06
AMS ⁴		16 (11)	105 (74)	0.30	0.001
Tie-stall		26 (25)	52 (50)	Ref.	
Parlour		7 (9)	64 (82)	0.22	0.001
Rotary		0 (0)	9 (100)	-	-
Combinations		0 (0)	3 (100)	-	-
AMS	20 (14)		105 (74)	0.38	0.005
Tie-stall	26 (25)		52 (50)	Ref.	
Parlour	7 (9)		64 (82)	0.22	0.001
Rotary	0 (0)		9 (100)	-	-
Combinations	0 (0)		3 (100)	-	-
AMS	20 (14)	16 (11)		1.25	0.61
Tie-stall	26 (25)	26 (25)		1.00	1.00
Parlour	7 (9)	7 (9)			
Rotary	0 (0)	0 (0)		-	-
Combinations	0 (0)	0 (0)		-	-
Number of cows/herd					R ² = 0.11
<53		22 (27)	34 (41)	Ref.	
53-77		12 (15)	56 (68)	0.33	0.008
78-137		12 (14)	63 (75)	0.29	0.003
≥138		3 (4)	80 (94)	0.06	<0.001
<53	26 (32)		34 (41)	Ref.	
53-77	14 (17)		56 (68)	0.33	0.005
78-137	9 (11)		63 (75)	0.19	<0.001
≥138	2 (2)		80 (94)	0.03	<0.001
<53	26 (32)	22 (27)		Ref.	

53-77	14 (17)	12 (15)	0.99	0.98
78-137	9 (11)	12 (14)	0.63	0.39
≥138	2 (2)	3 (4)	0.56	0.55

¹ RRR = relative risk ratio; Ref. = referent; ² R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable). ³ ECM = energy-corrected milk.

⁴ AMS = automatic milking system.

If dry cows do not spend time with lactating cows, are they in a separate section of the same stable?	Yes N (%)	No N (%)	OR ¹	<i>p</i> -value ²
Milking system				R ² = 0.01
AMS ³	51 (49)	54 (51)	3.70	<0.001
Tie-stall	26 (50)	28 (54)	3.36	0.004
Parlour	51 (80)	51 (80)	Ref.	
Rotary	5 (56)	6 (67)	1.96	0.38
Combinations	2 (67)	2 (67)	1.96	0.59
Production system				R ² = 0.02
Conventional	66 (36)	119 (64)	Ref.	
Organic	26 (54)	22 (46)	2.13	0.02

¹ OR = odds ratio; Ref. = referent. ² R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable). ³ AMS = automatic milking system.

If dry cows do not spend time with lactating cows, are they in another stable?	Yes N (%)	No N (%)	OR ¹	<i>p</i> -value ²
Milking system				R ² = 0.01
AMS ³	57 (54)	48 (46)	0.30	0.001
Tie-stall	26 (50)	26 (50)	0.25	0.001
Parlour	51 (80)	13 (20)	Ref.	
Rotary	5 (56)	4 (44)	0.32	0.12
Combinations	2 (67)	1 (33)	0.51	0.59

¹ OR = odds ratio; Ref. = referent. ² R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable). ³ AMS = automatic milking system.

Are dry cows moved between sections?	Yes, ≥75% of the cows N (%)	Yes, <75% of the cows N (%)	No N (%)	RRR ¹	<i>p</i> -value ²
Milk production, kg ECM ³ /cow/year					R ² = 0.02
<9000		5 (13)	29 (74)	0.90	0.85
9000-11000		31 (16)	118 (61)	1.37	0.44
≥11000		10 (10)	52 (51)	Ref.	
<9000	5 (13)		29 (74)	0.23	0.005
9000-11000	45 (23)		118 (61)	0.51	0.01
≥11000	39 (39)		52 (51)	Ref.	
<9000	5 (13)	5 (13)		0.26	0.02
9000-11000	45 (23)	31 (16)		0.37	0.06
≥11000	39 (39)	10 (10)		Ref.	
Milking system					R ² = 0.02
AMS ⁴		22 (15)	83 (58)	1.23	0.58
Tie-stall		16 (15)	74 (72)	Ref.	

Parlour		7 (9)	41 (52)	0.79	0.63
Rotary		1 811)	2 (22)	2.31	0.50
Combinations		0 (0)	1 (33)	-	-
AMS	37 (26)		83 (58)	2.54	0.01
Tie-stall	13 (16)		74 (72)	Ref.	
Parlour	31 (39)		41 (52)	4.30	<0.001
Rotary	6 (67)		2 (22)	17.1	0.001
Combinations	2 (67)		1 (33)	11.4	0.05
AMS	37 (26)	22 (15)		0.38	0.05
Tie-stall	13 (16)	16 (15)		0.18	0.002
Parlour	31 (39)	7 (9)		Ref.	
Rotary	6 (67)	1 811)		1.35	0.79
Combinations	2 (67)	0 (0)		-	-
Number of cows/herd					R ² = 0.03
<53		17 (21)	52 (64)	1.27	0.59
53-77		11 (13)	56 (67)	0.77	0.58
78-137		8 (9)	52 (61)	0.60	0.33
≥138		10 (12)	39 (46)	Ref.	
<53	12 (15)		52 (64)	0.25	<0.001
53-77	16 (19)		56 (67)	0.31	0.001
78-137	25 (29)		52 (61)	0.52	0.05
≥138	36 (42)		39 (46)	Ref.	
<53	12 (15)	17 (21)		Ref.	
53-77	16 (19)	11 (13)		2.06	0.18
78-137	25 (29)	8 (9)		4.43	0.007
≥138	36 (42)	10 (12)		5.10	0.002

¹ RRR = relative risk ratio; Ref. = referent; ² R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable). ³ ECM = energy-corrected milk.

⁴ AMS = automatic milking system.

Are ≥75% of the dry cows teat dipped/sprayed?	Yes N (%)	No N (%)	OR ¹	<i>p</i> -value ²
Bulk milk SCC ³ , cells/ml				R ² = 0.04
<200 000	34 (15)	188 (85)	Ref.	
≥200 000	5 (4)	108 (96)	0.26	0.006

¹ OR = odds ratio; Ref. = referent. ² R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable). ³ SCC = somatic cell count.

Do you palpate the udder (if the udder of the dry cows is controlled)?	Yes N (%)	No N (%)	OR ¹	<i>p</i> -value ²
Milk production, kg ECM ³ /cow/year				R ² = 0.03
<9000	7 (58)	5 (42)	1.40	0.61
9000-11000	60 (71)	24 (29)	2.50	0.01
≥11000	25 (50)	25 (50)	Ref.	
Milking system				R ² = 0.05
AMS ⁴	44 (66)	23 (34)	2.35	0.06
Tie-stall	34 (74)	12 (26)	3.49	0.01
Parlour	13 (45)	16 (55)	Ref.	
Rotary	1 (25)	3 (75)	0.41	0.46

¹ OR = odds ratio; Ref. = referent. ² R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable). ³ ECM = energy-corrected milk. ⁴ AMS = automatic milking system.

Supplementary Table S5. Significant associations between veterinary variables and responses to questions about advice to farmers and personnel regarding the dry period of dairy cows given by veterinarians ($n = 130$) participating in a web-based questionnaire as analysed using univariable logistic or multinomial logistic regression models

Do you give advice to farmers/personnel?	Yes, often N (%)	Yes, sometimes N (%)	No, never/rarely N (%)	RRR ¹	p -value ²
Number of years in cattle practice ³					R ² = 0.13
<5	3 (10)	10 (33)		0.26	0.11
5-9	8 (36)	7 (32)		Ref	
10-14	2 (10)	14 (74)		0.12	0.02
15-19	1 (5)	15 (71)		0.06	0.01
20-24	2 (11)	13 (72)		0.13	0.03
≥25	7 (35)	12 (60)		0.51	0.34
<5		10 (33)	17 (57)	Ref	
5-9		7 (32)	7 (32)	0.59	0.43
10-14		14 (74)	3 (16)	0.13	0.006
15-19		15 (71)	5 (24)	0.20	0.01
20-24		13 (72)	3 (17)	0.14	0.008
≥25		12 (60)	1 (5)	0.05	0.007
<5	3 (10)		17 (57)	Ref	
5-9	8 (36)		7 (32)	0.15	0.02
10-14	2 (10)		3 (16)	0.26	0.23
15-19	1 (5)		5 (24)	0.88	0.92
20-24	2 (11)		3 (17)	0.26	0.23
≥25	7 (35)		1 (5)	0.02	0.003
Post-graduate training					R ² = 0.16
Yes	21 (27)	50 (65)		Ref.	
No	2 (4)	21 (40)		0.23	0.06
Yes		50 (65)	6 (8)	Ref.	
No		21 (40)	29 (56)	11.5	<0.001
Yes	21 (27)		6 (8)	Ref.	
No	2 (4)		29 (56)	50.7	<0.001
Year of degree ⁴					R ² = 0.08
1977-1991	6 (23)	18 (69)		1.11	0.90
1992-2001	4 (15)	17 (65)		0.78	0.78
2002-2008	3 (12)	16 (67)		0.62	0.61
2009-2014	7 (28)	10 (40)		2.33	0.30
2015-2020	3 (10)	10 (34)		Ref.	
1977-1991		18 (69)	2 (8)	0.07	0.002
1992-2001		17 (65)	5 (19)	0.18	0.009
2002-2008		16 (67)	5 (21)	0.19	0.01
2009-2014		10 (40)	8 (32)	0.50	0.27
2015-2020		10 (34)	16 (55)	Ref.	
1977-1991	6 (23)		2 (8)	0.06	0.007
1992-2001	4 (15)		5 (19)	0.23	0.12
2002-2008	3 (12)		5 (21)	0.31	0.23
2009-2014	7 (28)		8 (32)	0.21	0.06

2015-2020	3 (10)	16 (55)	Ref.
¹ RRR = relative risk ratio; Ref. = referent. ² R ² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable). ³ In addition, a larger proportion among veterinarians with 5-10 years (RRR = 0.08, <i>p</i> = 0.03) in practice stated that they rarely/never give advice compared to veterinarians with ≥25 years in practice. Moreover, a larger proportion among veterinarians with 15-19 years in practice (RRR = 0.03, <i>p</i> = 0.02) stated that they rarely/never give advice compared to those with ≥25 years in practice. ⁴ In addition, a larger proportion among veterinarians graduating 2009-2014 (RRR = 7.20, <i>p</i> = 0.03) stated that they rarely/never give advice compared to those graduating 1977-1991.			

Do you think teat dipping/spraying is important?	Yes, very N (%)	Yes, rather N (%)	No N (%)	Don't know N (%)	RRR ¹	<i>p</i> -value ²
Post-graduate training						R ² = 0.16
Yes	28 (36)	26 (34)			Ref.	
No	12 (23)	10 (19)			1.11	0.83
Yes		26 (34)	20 (26)		Ref.	
No		10 (19)	14 (27)		1.82	0.24
Yes		26 (34)		3 (4)	Ref.	
No		10 (19)		16 (31)	13.9	<0.001
Yes	28 (36)		20 (26)		Ref.	
No	12 (23)		14 (27)		1.63	0.32
Yes	28 (36)			3 (4)	Ref.	
No	12 (23)			16 (31)	12.4	<0.001
Yes			20 (26)	3 (4)	Ref.	
No			14 (27)	16 (31)	7.62	0.005

¹ RRR = relative risk ratio; Ref. = referent. ² R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable).

Do you think control of the udder is important?	Yes, very N (%)	Yes, rather N (%)	No N (%)	Don't know N (%)	RRR ¹	<i>p</i> -value ²
Post-graduate training						R ² = 0.05
Yes	41 (53)	34 (44)			Ref.	
No	28 (54)	14 (27)			1.66	0.21
Yes		34 (44)	1 (1)		Ref.	
No		14 (27)	3 (6)		7.29	0.10
Yes		34 (44)		1 (1)	Ref.	
No		14 (27)		7 (13)	17.0	0.01
Yes	41 (53)		1 (1)		Ref.	
No	28 (54)		3 (6)		4.39	0.21
Yes	41 (53)			1 (1)	Ref.	
No	28 (54)			7 (13)	10.2	0.03
Yes			1 (1)	1 (1)	Ref.	

No	3 (6)	7 (13)	2.33	0.59
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¹ RRR = relative risk ratio; Ref. = referent. ² R² = coefficient of variation (the proportion of the variation in the dependent variable that is predictable from the independent variable).