

Total number of Cow–calf pairs (dil = 1E+06)

Month	Manual	Model	dil
Jan	32.49	32.49	0
Feb	32.49	32.49	0
Mar	32.49	32.49	0
Apr	32.49	32.49	0
May	32.49	32.49	0
Jun	32.49	32.49	0
Jul	32.49	32.49	0
Aug	32.49	32.49	0
Sep	32.49	32.49	0
Oct	32.49	32.49	0
Nov	32.49	32.49	0
Dec	32.49	32.49	0

## Animal Units by month of Cow–calf pairs (dil = 1E+06)

Month	Manual	Model	dil
Jan	37.3635	37.3635	0
Feb	43.8615	43.8615	0
Mar	45.1611	45.1611	0
Apr	46.4607	46.4607	0
May	47.7603	47.7603	0
Jun	49.0599	49.0599	0
Jul	50.3595	50.3595	0
Aug	51.6591	51.6591	0
Sep	52.9587	52.9587	0
Oct	32.4900	32.4900	0
Nov	34.1145	34.1145	0
Dec	35.7390	35.7390	0

## Cow–calf pairs on land for pasture without stream access (dil = 1E+06)

Month	Manual	Model	dil
Jan	7.544299	7.544299	0
Feb	8.856350	8.856350	0
Mar	27.356283	27.356283	0
Apr	28.143514	28.143514	0
May	28.930745	28.930745	0
Jun	39.623968	39.623968	0
Jul	30.505207	30.505207	0
Aug	31.292438	31.292438	0
Sep	32.079670	32.079670	0
Oct	6.560260	6.560260	0
Nov	6.888273	6.888273	0
Dec	7.216286	7.216286	0

Cow-calf pairs on land for pasture with stream access (dil = 1E+06)

Month	Manual	Model	dil
Jan	1.572004	1.572004	0
Feb	1.845396	1.845396	0
Mar	5.700225	5.700225	0
Apr	5.864260	5.864260	0
May	6.028295	6.028295	0
Jun	8.256440	8.256440	0
Jul	6.356366	6.356366	0
Aug	6.520401	6.520401	0
Sep	6.684436	6.684436	0
Oct	1.366960	1.366960	0
Nov	1.435308	1.435308	0
Dec	1.503656	1.503656	0

## Cow–calf pairs in stream for pasture (dil = 1E+06)

Month	Manual	Model	dil
Jan	0.2245721	0.2245721	0
Feb	0.2636281	0.2636281	0
Mar	0.8143178	0.8143178	0
Apr	0.8377514	0.8377514	0
May	0.8611850	0.8611850	0
Jun	1.1794915	1.1794915	0
Jul	0.9080522	0.9080522	0
Aug	0.9314858	0.9314858	0
Sep	0.9549194	0.9549194	0
Oct	0.1952800	0.1952800	0
Nov	0.2050441	0.2050441	0
Dec	0.2148081	0.2148081	0

## Cow–calf pairs in confinement (dil = 1E+06)

Month	Manual	Model	dil
Jan	28.02262	28.02262	0
Feb	32.89612	32.89612	0
Mar	11.29027	11.29027	0
Apr	11.61517	11.61517	0
May	11.94007	11.94007	0
Jun	0.00000	0.00000	NA
Jul	0.00000	0.00000	NA
Aug	0.00000	0.00000	NA
Sep	0.00000	0.00000	NA
Oct	24.36750	24.36750	0
Nov	25.58588	25.58588	0
Dec	26.80425	26.80425	0

Cow–calf pairs on land for forest without stream access (dil = 1E+06)

Month	Manual	Model	dil
Jan	0.00000	0.00000	NA
Feb	0.00000	0.00000	NA
Mar	0.00000	0.00000	NA
Apr	0.00000	0.00000	NA
May	0.00000	0.00000	NA
Jun	0.00000	0.00000	NA
Jul	12.58933	12.58933	0
Aug	12.91421	12.91421	0
Sep	13.23910	13.23910	0
Oct	0.00000	0.00000	NA
Nov	0.00000	0.00000	NA
Dec	0.00000	0.00000	NA

Cow–calf pairs on land for forest with stream access (dil = 1E+06)

Month	Manual	Model	dil
Jan	0.0000000000	0.0000000000	NA
Feb	0.0000000000	0.0000000000	NA
Mar	0.0000000000	0.0000000000	NA
Apr	0.0000000000	0.0000000000	NA
May	0.0000000000	0.0000000000	NA
Jun	0.0000000000	0.0000000000	NA
Jul	0.0003431489	0.0003431489	0
Aug	0.0003520044	0.0003520044	0
Sep	0.0003608599	0.0003608599	0
Oct	0.0000000000	0.0000000000	NA
Nov	0.0000000000	0.0000000000	NA
Dec	0.0000000000	0.0000000000	NA



## Cow-calf pairs in stream for forest (dil = 1E+06)

Month	Manual	Model	dil
Jan	0.0000000000	0.0000000000	NA
Feb	0.0000000000	0.0000000000	NA
Mar	0.0000000000	0.0000000000	NA
Apr	0.0000000000	0.0000000000	NA
May	0.0000000000	0.0000000000	NA
Jun	0.0000000000	0.0000000000	NA
Jul	0.0002035790	0.0002035790	0
Aug	0.0002088326	0.0002088326	0
Sep	0.0002140863	0.0002140863	0
Oct	0.0000000000	0.0000000000	NA
Nov	0.0000000000	0.0000000000	NA
Dec	0.0000000000	0.0000000000	NA

## Bacteria on land for pasture without stream access (dil = 1E+06)

Month	Manual	Model	dil
Jan	19351125791	19351125791	0
Feb	22716538972	22716538972	0
Mar	70168864826	70168864826	0
Apr	72188112735	72188112735	0
May	74207360643	74207360643	0
Jun	101635478070	101635478070	0
Jul	78245856461	78245856461	0
Aug	80265104369	80265104369	0
Sep	82284352278	82284352278	0
Oct	16827065906	16827065906	0
Nov	17668419201	17668419201	0
Dec	18509772496	18509772496	0

## Bacteria on land for pasture with stream access (dil = 1E+06)

Month	Manual	Model	dil
Jan	4032191261	4032191261	0
Feb	4733441915	4733441915	0
Mar	14621076137	14621076137	0
Apr	15041826529	15041826529	0
May	15462576921	15462576921	0
Jun	21177769752	21177769752	0
Jul	16304077706	16304077706	0
Aug	16724828099	16724828099	0
Sep	17145578491	17145578491	0
Oct	3506253270	3506253270	0
Nov	3681565934	3681565934	0
Dec	3856878597	3856878597	0

## Bacteria in stream for pasture (dil = 1E+06)

Month	Manual	Model	dil
Jan	576027323	576027323	0
Feb	676205988	676205988	0
Mar	2088725162	2088725162	0
Apr	2148832361	2148832361	0
May	2208939560	2208939560	0
Jun	3025395679	3025395679	0
Jul	2329153958	2329153958	0
Aug	2389261157	2389261157	0
Sep	2449368356	2449368356	0
Oct	500893324	500893324	0
Nov	525937991	525937991	0
Dec	550982657	550982657	0

## Bacteria in confinement (dil = 1E+06)

Month	Manual	Model	dil
Jan	28.02262	28.02262	0
Feb	32.89612	32.89612	0
Mar	11.29027	11.29027	0
Apr	11.61517	11.61517	0
May	11.94007	11.94007	0
Jun	0.00000	0.00000	NA
Jul	0.00000	0.00000	NA
Aug	0.00000	0.00000	NA
Sep	0.00000	0.00000	NA
Oct	24.36750	24.36750	0
Nov	25.58588	25.58588	0
Dec	26.80425	26.80425	0

## Bacteria on land for forest with and without stream access (dil = 1E+06)

Month	Manual	Model	dil
Jan	0	0	NA
Feb	0	0	NA
Mar	0	0	NA
Apr	0	0	NA
May	0	0	NA
Jun	0	0	NA
Jul	32292507195	32292507195	0
Aug	33125862219	33125862219	0
Sep	33959217244	33959217244	0
Oct	0	0	NA
Nov	0	0	NA
Dec	0	0	NA

## Bacteria in stream for forest (dil = 1E+06)

Month	Manual	Model	dil
Jan	0.0	0.0	NA
Feb	0.0	0.0	NA
Mar	0.0	0.0	NA
Apr	0.0	0.0	NA
May	0.0	0.0	NA
Jun	0.0	0.0	NA
Jul	522180.1	522180.1	0
Aug	535655.7	535655.7	0
Sep	549131.3	549131.3	0
Oct	0.0	0.0	NA
Nov	0.0	0.0	NA
Dec	0.0	0.0	NA

## Bacteria in stream (dil = 1E+06)

Month	Manual	Model	dil
Jan	576027323	576027323	0
Feb	676205988	676205988	0
Mar	2088725162	2088725162	0
Apr	2148832361	2148832361	0
May	2208939560	2208939560	0
Jun	3025395679	3025395679	0
Jul	2329676138	2329676138	0
Aug	2389796813	2389796813	0
Sep	2449917487	2449917487	0
Oct	500893324	500893324	0
Nov	525937991	525937991	0
Dec	550982657	550982657	0



## Accum for pasture (dil = 1E+06)

Month	Manual	Model	dil
Jan	71970813	71970813	0
Feb	84487476	84487476	0
Mar	260972425	260972425	0
Apr	268482423	268482423	0
May	275992421	275992421	0
Jun	378003225	378003225	0
Jul	291012417	291012417	0
Aug	298522414	298522414	0
Sep	306032412	306032412	0
Oct	62583315	62583315	0
Nov	65712481	65712481	0
Dec	68841647	68841647	0

## Accum for Forest (dil = 1E+06)

Month	Manual	Model	dil
Jan	0	0	NA
Feb	0	0	NA
Mar	0	0	NA
Apr	0	0	NA
May	0	0	NA
Jun	0	0	NA
Jul	5118970	5118970	0
Aug	5251072	5251072	0
Sep	5383174	5383174	0
Oct	0	0	NA
Nov	0	0	NA
Dec	0	0	NA

## SQOLIM for pasture (dil = 1E+06)

Month	Manual	Model	dil
Jan	647737314	647737314	0
Feb	760387282	760387282	0
Mar	2348751827	2348751827	0
Apr	2416341808	2416341808	0
May	2483931788	2483931788	0
Jun	3402029026	3402029026	0
Jul	2619111750	2619111750	0
Aug	2686701730	2686701730	0
Sep	2754291711	2754291711	0
Oct	563249839	563249839	0
Nov	591412331	591412331	0
Dec	619574823	619574823	0

## SQOLIM for Forest (dil = 1E+06)

Month	Manual	Model	dil
Jan	0	0	NA
Feb	0	0	NA
Mar	0	0	NA
Apr	0	0	NA
May	0	0	NA
Jun	0	0	NA
Jul	46070726	46070726	0
Aug	47259647	47259647	0
Sep	48448569	48448569	0
Oct	0	0	NA
Nov	0	0	NA
Dec	0	0	NA