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

Month	Manual	Model	dil
Jan	14.62	14.62	0
Feb	14.62	14.62	0
Mar	14.62	14.62	0
Apr	14.62	14.62	0
May	14.62	14.62	0
Jun	14.62	14.62	0
Jul	14.62	14.62	0
Aug	14.62	14.62	0
Sep	14.62	14.62	0
Oct	14.62	14.62	0
Nov	14.62	14.62	0
Dec	14.62	14.62	0

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

Month	Manual	Model	dil
Jan	16.8130	16.8130	0
Feb	19.7370	19.7370	0
Mar	20.3218	20.3218	0
Apr	20.9066	20.9066	0
May	21.4914	21.4914	0
Jun	22.0762	22.0762	0
Jul	22.6610	22.6610	0
Aug	23.2458	23.2458	0
Sep	23.8306	23.8306	0
Oct	14.6200	14.6200	0
Nov	15.3510	15.3510	0
Dec	16.0820	16.0820	0

Cow−calf pairs on pasture without stream access (dil = 1E+06)

Month	Manual	Model	dil
Jan	2.900242	2.900242	0
Feb	3.404632	3.404632	0
Mar	10.516531	10.516531	0
Apr	10.819165	10.819165	0
May	11.121799	11.121799	0
Jun	15.232578	15.232578	0
Jul	11.727067	11.727067	0
Aug	12.029701	12.029701	0
Sep	12.332335	12.332335	0
Oct	2.521950	2.521950	0
Nov	2.648047	2.648047	0
Dec	2.774145	2.774145	0

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

Month	Manual	Model	dil
Jan	1.1401316	1.1401316	0
Feb	1.3384153	1.3384153	0
Mar	4.1342162	4.1342162	0
Apr	4.2531864	4.2531864	0
May	4.3721567	4.3721567	0
Jun	5.9881693	5.9881693	0
Jul	4.6100972	4.6100972	0
Aug	4.7290674	4.7290674	0
Sep	4.8480377	4.8480377	0
Oct	0.9914187	0.9914187	0
Nov	1.0409897	1.0409897	0
Dec	1.0905606	1.0905606	0

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

Month	Manual	Model	dil
Jan	0.1628759	0.1628759	0
Feb	0.1912022	0.1912022	0
Mar	0.5906023	0.5906023	0
Apr	0.6075981	0.6075981	0
May	0.6245938	0.6245938	0
Jun	0.8554527	0.8554527	0
Jul	0.6585853	0.6585853	0
Aug	0.6755811	0.6755811	0
Sep	0.6925768	0.6925768	0
Oct	0.1416312	0.1416312	0
Nov	0.1487128	0.1487128	0
Dec	0.1557944	0.1557944	0

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

Month	Manual	Model	dil
Jan	12.60975	12.60975	0
Feb	14.80275	14.80275	0
Mar	5.08045	5.08045	0
Apr	5.22665	5.22665	0
May	5.37285	5.37285	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	10.96500	10.96500	0
Nov	11.51325	11.51325	0
Dec	12.06150	12.06150	0

Cow−calf pairs in forest without stream access (dil = 1E+06)

Month	Manual	Model	dil
Jan	0.000000	0.000000	NA
Feb	0.000000	0.000000	NA
Mar	0.000000	0.000000	NA
Apr	0.000000	0.000000	NA
May	0.000000	0.000000	NA
Jun	0.000000	0.000000	NA
Jul	5.660746	5.660746	0
Aug	5.806830	5.806830	0
Sep	5.952914	5.952914	0
Oct	0.000000	0.000000	NA
Nov	0.000000	0.000000	NA
Dec	0.000000	0.000000	NA

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

Month	Manual	Model	dil
Jan	0.000000000	0.000000000	NA
Feb	0.000000000	0.000000000	NA
Mar	0.000000000	0.000000000	NA
Apr	0.000000000	0.000000000	NA
May	0.000000000	0.000000000	NA
Jun	0.000000000	0.000000000	NA
Jul	0.002826612	0.002826612	0
Aug	0.002899557	0.002899557	0
Sep	0.002972502	0.002972502	0
Oct	0.000000000	0.000000000	NA
Nov	0.000000000	0.000000000	NA
Dec	0.000000000	0.000000000	NA

Cow−calf pairs in forest in stream access (dil = 1E+06)

Month	Manual	Model	dil
Jan	0.000000000	0.000000000	NA
Feb	0.000000000	0.000000000	NA
Mar	0.000000000	0.000000000	NA
Apr	0.000000000	0.000000000	NA
May	0.000000000	0.000000000	NA
Jun	0.000000000	0.000000000	NA
Jul	0.001676936	0.001676936	0
Aug	0.001720212	0.001720212	0
Sep	0.001763488	0.001763488	0
Oct	0.000000000	0.000000000	NA
Nov	0.000000000	0.000000000	NA
Dec	0.000000000	0.000000000	NA

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

Month	Manual	Model	dil
Jan	7439122012	7439122012	0
Feb	8732882363	8732882363	0
Mar	26974903297	26974903297	0
Apr	27751159507	27751159507	0
May	28527415717	28527415717	0
Jun	39071562570	39071562570	0
Jul	30079928137	30079928137	0
Aug	30856184347	30856184347	0
Sep	31632440557	31632440557	0
Oct	6468801750	6468801750	0
Nov	6792241837	6792241837	0
Dec	7115681925	7115681925	0

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

Month	Manual	Model	dil
Jan	2924437458	2924437458	0
Feb	3433035277	3433035277	0
Mar	10604264521	10604264521	0
Apr	10909423212	10909423212	0
May	11214581903	11214581903	0
Jun	15359654126	15359654126	0
Jul	11824899286	11824899286	0
Aug	12130057977	12130057977	0
Sep	12435216668	12435216668	0
Oct	2542989094	2542989094	0
Nov	2670138548	2670138548	0
Dec	2797288003	2797288003	0

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

Month	Manual	Model	dil
Jan	417776780	417776780	0
Feb	490433611	490433611	0
Mar	1514894932	1514894932	0
Apr	1558489030	1558489030	0
May	1602083129	1602083129	0
Jun	2194236304	2194236304	0
Jul	1689271327	1689271327	0
Aug	1732865425	1732865425	0
Sep	1776459524	1776459524	0
Oct	363284156	363284156	0
Nov	381448364	381448364	0
Dec	399612572	399612572	0

Bacteria in confinement (dil = 1E+06)

Month	Manual	Model	dil
Jan	12.60975	12.60975	0
Feb	14.80275	14.80275	0
Mar	5.08045	5.08045	0
Apr	5.22665	5.22665	0
May	5.37285	5.37285	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	10.96500	10.96500	0
Nov	11.51325	11.51325	0
Dec	12.06150	12.06150	0

Bacteria in forest on land 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	14527064909	14527064909	0
Aug	14901956907	14901956907	0
Sep	15276848904	15276848904	0
Oct	0	0	NA
Nov	0	0	NA
Dec	0	0	NA

Bacteria in forest in stream (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	4301341	4301341	0
Aug	4412343	4412343	0
Sep	4523346	4523346	0
Oct	0	0	NA
Nov	0	0	NA
Dec	0	0	NA

Bacteria in stream (dil = 1E+06)

Month	Manual	Model	dil
Jan	417776780	417776780	0
Feb	490433611	490433611	0
Mar	1514894932	1514894932	0
Apr	1558489030	1558489030	0
May	1602083129	1602083129	0
Jun	2194236304	2194236304	0
Jul	1693572668	1693572668	0
Aug	1737277769	1737277769	0
Sep	1780982870	1780982870	0
Oct	363284156	363284156	0
Nov	381448364	381448364	0
Dec	399612572	399612572	0

Accum for pasture (dil = 1E+06)

Month	Manual	Model	dil
Jan	70886180	70886180	0
Feb	83214211	83214211	0
Mar	257039452	257039452	0
Apr	264436270	264436270	0
May	271833089	271833089	0
Jun	372306544	372306544	0
Jul	286626727	286626727	0
Aug	294023545	294023545	0
Sep	301420364	301420364	0
Oct	61640156	61640156	0
Nov	64722164	64722164	0
Dec	67804172	67804172	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	2707596	2707596	0
Aug	2777469	2777469	0
Sep	2847343	2847343	0
Oct	0	0	NA
Nov	0	0	NA
Dec	0	0	NA

SQOLIM for pasture (dil = 1E+06)

Month	Manual	Model	dil
Jan	637975617	637975617	0
Feb	748927898	748927898	0
Mar	2313355064	2313355064	0
Apr	2379926433	2379926433	0
May	2446497802	2446497802	0
Jun	3350758894	3350758894	0
Jul	2579640539	2579640539	0
Aug	2646211908	2646211908	0
Sep	2712783277	2712783277	0
Oct	554761406	554761406	0
Nov	582499477	582499477	0
Dec	610237547	610237547	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	24368364	24368364	0
Aug	24997225	24997225	0
Sep	25626086	25626086	0
Oct	0	0	NA
Nov	0	0	NA
Dec	0	0	NA