

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

Month	Manual	Model	dil
Jan	11.61	11.61	0
Feb	11.61	11.61	0
Mar	11.61	11.61	0
Apr	11.61	11.61	0
May	11.61	11.61	0
Jun	11.61	11.61	0
Jul	11.61	11.61	0
Aug	11.61	11.61	0
Sep	11.61	11.61	0
Oct	11.61	11.61	0
Nov	11.61	11.61	0
Dec	11.61	11.61	0

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

Month	Manual	Model	dil
Jan	13.3515	13.3515	0
Feb	15.6735	15.6735	0
Mar	16.1379	16.1379	0
Apr	16.6023	16.6023	0
May	17.0667	17.0667	0
Jun	17.5311	17.5311	0
Jul	17.9955	17.9955	0
Aug	18.4599	18.4599	0
Sep	18.9243	18.9243	0
Oct	11.6100	11.6100	0
Nov	12.1905	12.1905	0
Dec	12.7710	12.7710	0

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

Month	Manual	Model	dil
Jan	2.269755	2.269755	0
Feb	2.664495	2.664495	0
Mar	8.230329	8.230329	0
Apr	8.467173	8.467173	0
May	8.704017	8.704017	0
Jun	11.921148	11.921148	0
Jul	9.177705	9.177705	0
Aug	9.414549	9.414549	0
Sep	9.651393	9.651393	0
Oct	1.973700	1.973700	0
Nov	2.072385	2.072385	0
Dec	2.171070	2.171070	0

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

Month	Manual	Model	dil
Jan	0.934605	0.934605	0
Feb	1.097145	1.097145	0
Mar	3.388959	3.388959	0
Apr	3.486483	3.486483	0
May	3.584007	3.584007	0
Jun	4.908708	4.908708	0
Jul	3.779055	3.779055	0
Aug	3.876579	3.876579	0
Sep	3.974103	3.974103	0
Oct	0.812700	0.812700	0
Nov	0.853335	0.853335	0
Dec	0.893970	0.893970	0

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

Month	Manual	Model	dil
Jan	0.133515	0.133515	0
Feb	0.156735	0.156735	0
Mar	0.484137	0.484137	0
Apr	0.498069	0.498069	0
May	0.512001	0.512001	0
Jun	0.701244	0.701244	0
Jul	0.539865	0.539865	0
Aug	0.553797	0.553797	0
Sep	0.567729	0.567729	0
Oct	0.116100	0.116100	0
Nov	0.121905	0.121905	0
Dec	0.127710	0.127710	0

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

Month	Manual	Model	dil
Jan	10.013625	10.013625	0
Feb	11.755125	11.755125	0
Mar	4.034475	4.034475	0
Apr	4.150575	4.150575	0
May	4.266675	4.266675	0
Jun	0.000000	0.000000	NA
Jul	0.000000	0.000000	NA
Aug	0.000000	0.000000	NA
Sep	0.000000	0.000000	NA
Oct	8.707500	8.707500	0
Nov	9.142875	9.142875	0
Dec	9.578250	9.578250	0

Cow–calf pairs on land for 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	4.497889	4.497889	0
Aug	4.613964	4.613964	0
Sep	4.730039	4.730039	0
Oct	0.000000	0.000000	NA
Nov	0.000000	0.000000	NA
Dec	0.000000	0.000000	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	0.0006185772	0.0006185772	0
Aug	0.0006345405	0.0006345405	0
Sep	0.0006505037	0.0006505037	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	0.0003669815	0.0003669815	0
Aug	0.0003764520	0.0003764520	0
Sep	0.0003859225	0.0003859225	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	5821921575	5821921575	0
Feb	6834429675	6834429675	0
Mar	21110793885	21110793885	0
Apr	21718298745	21718298745	0
May	22325803605	22325803605	0
Jun	30577744620	30577744620	0
Jul	23540813325	23540813325	0
Aug	24148318185	24148318185	0
Sep	24755823045	24755823045	0
Oct	5062540500	5062540500	0
Nov	5315667525	5315667525	0
Dec	5568794550	5568794550	0

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

Month	Manual	Model	dil
Jan	2397261825	2397261825	0
Feb	2814176925	2814176925	0
Mar	8692679835	8692679835	0
Apr	8942828895	8942828895	0
May	9192977955	9192977955	0
Jun	12590836020	12590836020	0
Jul	9693276075	9693276075	0
Aug	9943425135	9943425135	0
Sep	10193574195	10193574195	0
Oct	2084575500	2084575500	0
Nov	2188804275	2188804275	0
Dec	2293033050	2293033050	0

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

Month	Manual	Model	dil
Jan	342465975	342465975	0
Feb	402025275	402025275	0
Mar	1241811405	1241811405	0
Apr	1277546985	1277546985	0
May	1313282565	1313282565	0
Jun	1798690860	1798690860	0
Jul	1384753725	1384753725	0
Aug	1420489305	1420489305	0
Sep	1456224885	1456224885	0
Oct	297796500	297796500	0
Nov	312686325	312686325	0
Dec	327576150	327576150	0

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

Month	Manual	Model	dil
Jan	10.013625	10.013625	0
Feb	11.755125	11.755125	0
Mar	4.034475	4.034475	0
Apr	4.150575	4.150575	0
May	4.266675	4.266675	0
Jun	0.000000	0.000000	NA
Jul	0.000000	0.000000	NA
Aug	0.000000	0.000000	NA
Sep	0.000000	0.000000	NA
Oct	8.707500	8.707500	0
Nov	9.142875	9.142875	0
Dec	9.578250	9.578250	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	11538673068	11538673068	0
Aug	11836445276	11836445276	0
Sep	12134217484	12134217484	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	941307.5	941307.5	0
Aug	965599.3	965599.3	0
Sep	989891.1	989891.1	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	342465975	342465975	0
Feb	402025275	402025275	0
Mar	1241811405	1241811405	0
Apr	1277546985	1277546985	0
May	1313282565	1313282565	0
Jun	1798690860	1798690860	0
Jul	1385695032	1385695032	0
Aug	1421454904	1421454904	0
Sep	1457214776	1457214776	0
Oct	297796500	297796500	0
Nov	312686325	312686325	0
Dec	327576150	327576150	0



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

Month	Manual	Model	dil
Jan	70794000	70794000	0
Feb	83106000	83106000	0
Mar	256705200	256705200	0
Apr	264092400	264092400	0
May	271479600	271479600	0
Jun	371822400	371822400	0
Jul	286254000	286254000	0
Aug	293641200	293641200	0
Sep	301028400	301028400	0
Oct	61560000	61560000	0
Nov	64638000	64638000	0
Dec	67716000	67716000	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	3217969	3217969	0
Aug	3301014	3301014	0
Sep	3384058	3384058	0
Oct	0	0	NA
Nov	0	0	NA
Dec	0	0	NA

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

Month	Manual	Model	dil
Jan	637146000	637146000	0
Feb	747954000	747954000	0
Mar	2310346800	2310346800	0
Apr	2376831600	2376831600	0
May	2443316400	2443316400	0
Jun	3346401600	3346401600	0
Jul	2576286000	2576286000	0
Aug	2642770800	2642770800	0
Sep	2709255600	2709255600	0
Oct	554040000	554040000	0
Nov	581742000	581742000	0
Dec	609444000	609444000	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	28961725	28961725	0
Aug	29709124	29709124	0
Sep	30456524	30456524	0
Oct	0	0	NA
Nov	0	0	NA
Dec	0	0	NA