

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

Month	Manual	Model	dil
Jan	1.15	1.15	0
Feb	1.15	1.15	0
Mar	1.15	1.15	0
Apr	1.15	1.15	0
May	1.15	1.15	0
Jun	1.15	1.15	0
Jul	1.15	1.15	0
Aug	1.15	1.15	0
Sep	1.15	1.15	0
Oct	1.15	1.15	0
Nov	1.15	1.15	0
Dec	1.15	1.15	0

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

Month	Manual	Model	dil
Jan	1.3225	1.3225	0
Feb	1.5525	1.5525	0
Mar	1.5985	1.5985	0
Apr	1.6445	1.6445	0
May	1.6905	1.6905	0
Jun	1.7365	1.7365	0
Jul	1.7825	1.7825	0
Aug	1.8285	1.8285	0
Sep	1.8745	1.8745	0
Oct	1.1500	1.1500	0
Nov	1.2075	1.2075	0
Dec	1.2650	1.2650	0

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

Month	Manual	Model	dil
Jan	0.2895432	0.2895432	0
Feb	0.3398986	0.3398986	0
Mar	1.0499090	1.0499090	0
Apr	1.0801222	1.0801222	0
May	1.1103354	1.1103354	0
Jun	1.5207315	1.5207315	0
Jul	1.1707618	1.1707618	0
Aug	1.2009750	1.2009750	0
Sep	1.2311882	1.2311882	0
Oct	0.2517767	0.2517767	0
Nov	0.2643656	0.2643656	0
Dec	0.2769544	0.2769544	0

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

Month	Manual	Model	dil
Jan	0.03594654	0.03594654	0
Feb	0.04219811	0.04219811	0
Mar	0.13034527	0.13034527	0
Apr	0.13409621	0.13409621	0
May	0.13784715	0.13784715	0
Jun	0.18879746	0.18879746	0
Jul	0.14534904	0.14534904	0
Aug	0.14909998	0.14909998	0
Sep	0.15285093	0.15285093	0
Oct	0.03125786	0.03125786	0
Nov	0.03282075	0.03282075	0
Dec	0.03438364	0.03438364	0

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

Month	Manual	Model	dil
Jan	0.005135220	0.005135220	0
Feb	0.006028301	0.006028301	0
Mar	0.018620753	0.018620753	0
Apr	0.019156602	0.019156602	0
May	0.019692451	0.019692451	0
Jun	0.026971066	0.026971066	0
Jul	0.020764149	0.020764149	0
Aug	0.021299998	0.021299998	0
Sep	0.021835847	0.021835847	0
Oct	0.004465408	0.004465408	0
Nov	0.004688679	0.004688679	0
Dec	0.004911949	0.004911949	0

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

Month	Manual	Model	dil
Jan	0.991875	0.991875	0
Feb	1.164375	1.164375	0
Mar	0.399625	0.399625	0
Apr	0.411125	0.411125	0
May	0.422625	0.422625	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	0.862500	0.862500	0
Nov	0.905625	0.905625	0
Dec	0.948750	0.948750	0

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

Month	Manual	Model	dil
Jan	0.0000000	0.0000000	NA
Feb	0.0000000	0.0000000	NA
Mar	0.0000000	0.0000000	NA
Apr	0.0000000	0.0000000	NA
May	0.0000000	0.0000000	NA
Jun	0.0000000	0.0000000	NA
Jul	0.4427878	0.4427878	0
Aug	0.4542145	0.4542145	0
Sep	0.4656413	0.4656413	0
Oct	0.0000000	0.0000000	NA
Nov	0.0000000	0.0000000	NA
Dec	0.0000000	0.0000000	NA

Cow–calf pairs on land for forest with 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	0.001780769	0.001780769	0
Aug	0.001826725	0.001826725	0
Sep	0.001872680	0.001872680	0
Oct	0.000000000	0.000000000	NA
Nov	0.000000000	0.000000000	NA
Dec	0.000000000	0.000000000	NA



## Cow-calf pairs in stream for forest (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	0.001056472	0.001056472	0
Aug	0.001083736	0.001083736	0
Sep	0.001110999	0.001110999	0
Oct	0.000000000	0.000000000	NA
Nov	0.000000000	0.000000000	NA
Dec	0.000000000	0.000000000	NA

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

Month	Manual	Model	dil
Jan	742678420	742678420	0
Feb	871839884	871839884	0
Mar	2693016530	2693016530	0
Apr	2770513409	2770513409	0
May	2848010287	2848010287	0
Jun	3900676221	3900676221	0
Jul	3003004045	3003004045	0
Aug	3080500923	3080500923	0
Sep	3157997802	3157997802	0
Oct	645807321	645807321	0
Nov	678097687	678097687	0
Dec	710388054	710388054	0

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

Month	Manual	Model	dil
Jan	92202867	92202867	0
Feb	108238148	108238148	0
Mar	334335614	334335614	0
Apr	343956783	343956783	0
May	353577952	353577952	0
Jun	484265494	484265494	0
Jul	372820289	372820289	0
Aug	382441458	382441458	0
Sep	392062627	392062627	0
Oct	80176406	80176406	0
Nov	84185227	84185227	0
Dec	88194047	88194047	0

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

Month	Manual	Model	dil
Jan	13171838	13171838	0
Feb	15462593	15462593	0
Mar	47762231	47762231	0
Apr	49136683	49136683	0
May	50511136	50511136	0
Jun	69180785	69180785	0
Jul	53260041	53260041	0
Aug	54634494	54634494	0
Sep	56008947	56008947	0
Oct	11453772	11453772	0
Nov	12026461	12026461	0
Dec	12599150	12599150	0

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

Month	Manual	Model	dil
Jan	0.991875	0.991875	0
Feb	1.164375	1.164375	0
Mar	0.399625	0.399625	0
Apr	0.411125	0.411125	0
May	0.422625	0.422625	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	0.862500	0.862500	0
Nov	0.905625	0.905625	0
Dec	0.948750	0.948750	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	1140318275	1140318275	0
Aug	1169745843	1169745843	0
Sep	1199173411	1199173411	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	NA
Feb	0	0	NA
Mar	0	0	NA
Apr	0	0	NA
May	0	0	NA
Jun	0	0	NA
Jul	2709850	2709850	0
Aug	2779782	2779782	0
Sep	2849714	2849714	0
Oct	0	0	NA
Nov	0	0	NA
Dec	0	0	NA

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

Month	Manual	Model	dil
Jan	13171838	13171838	0
Feb	15462593	15462593	0
Mar	47762231	47762231	0
Apr	49136683	49136683	0
May	50511136	50511136	0
Jun	69180785	69180785	0
Jul	55969892	55969892	0
Aug	57414276	57414276	0
Sep	58858660	58858660	0
Oct	11453772	11453772	0
Nov	12026461	12026461	0
Dec	12599150	12599150	0



Accum for pasture (dil = 1E+06)

Month	Manual	Model	dil
Jan	72598373	72598373	0
Feb	85224177	85224177	0
Mar	263248013	263248013	0
Apr	270823495	270823495	0
May	278398977	278398977	0
Jun	381299280	381299280	0
Jul	293549942	293549942	0
Aug	301125424	301125424	0
Sep	308700907	308700907	0
Oct	63129020	63129020	0
Nov	66285471	66285471	0
Dec	69441922	69441922	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	4416415	4416415	0
Aug	4530387	4530387	0
Sep	4644359	4644359	0
Oct	0	0	NA
Nov	0	0	NA
Dec	0	0	NA

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

Month	Manual	Model	dil
Jan	653385355	653385355	0
Feb	767017591	767017591	0
Mar	2369232113	2369232113	0
Apr	2437411454	2437411454	0
May	2505590796	2505590796	0
Jun	3431693516	3431693516	0
Jul	2641949479	2641949479	0
Aug	2710128820	2710128820	0
Sep	2778308161	2778308161	0
Oct	568161178	568161178	0
Nov	596569237	596569237	0
Dec	624977296	624977296	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	39747732	39747732	0
Aug	40773480	40773480	0
Sep	41799228	41799228	0
Oct	0	0	NA
Nov	0	0	NA
Dec	0	0	NA