

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

Month	Manual	Model	dil
Jan	19.52	19.52	0
Feb	19.52	19.52	0
Mar	19.52	19.52	0
Apr	19.52	19.52	0
May	19.52	19.52	0
Jun	19.52	19.52	0
Jul	19.52	19.52	0
Aug	19.52	19.52	0
Sep	19.52	19.52	0
Oct	19.52	19.52	0
Nov	19.52	19.52	0
Dec	19.52	19.52	0

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

Month	Manual	Model	dil
Jan	22.4480	22.4480	0
Feb	26.3520	26.3520	0
Mar	27.1328	27.1328	0
Apr	27.9136	27.9136	0
May	28.6944	28.6944	0
Jun	29.4752	29.4752	0
Jul	30.2560	30.2560	0
Aug	31.0368	31.0368	0
Sep	31.8176	31.8176	0
Oct	19.5200	19.5200	0
Nov	20.4960	20.4960	0
Dec	21.4720	21.4720	0

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

Month	Manual	Model	dil
Jan	3.811956	3.811956	0
Feb	4.474905	4.474905	0
Mar	13.822484	13.822484	0
Apr	14.220254	14.220254	0
May	14.618023	14.618023	0
Jun	20.021056	20.021056	0
Jul	15.413562	15.413562	0
Aug	15.811331	15.811331	0
Sep	16.209100	16.209100	0
Oct	3.314744	3.314744	0
Nov	3.480482	3.480482	0
Dec	3.646219	3.646219	0

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

Month	Manual	Model	dil
Jan	1.575038	1.575038	0
Feb	1.848958	1.848958	0
Mar	5.711226	5.711226	0
Apr	5.875578	5.875578	0
May	6.039930	6.039930	0
Jun	8.272376	8.272376	0
Jul	6.368634	6.368634	0
Aug	6.532985	6.532985	0
Sep	6.697337	6.697337	0
Oct	1.369599	1.369599	0
Nov	1.438079	1.438079	0
Dec	1.506558	1.506558	0

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

Month	Manual	Model	dil
Jan	0.2250055	0.2250055	0
Feb	0.2641369	0.2641369	0
Mar	0.8158895	0.8158895	0
Apr	0.8393683	0.8393683	0
May	0.8628471	0.8628471	0
Jun	1.1817679	1.1817679	0
Jul	0.9098048	0.9098048	0
Aug	0.9332836	0.9332836	0
Sep	0.9567625	0.9567625	0
Oct	0.1956569	0.1956569	0
Nov	0.2054398	0.2054398	0
Dec	0.2152226	0.2152226	0

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

Month	Manual	Model	dil
Jan	16.8360	16.8360	0
Feb	19.7640	19.7640	0
Mar	6.7832	6.7832	0
Apr	6.9784	6.9784	0
May	7.1736	7.1736	0
Jun	0.0000	0.0000	NA
Jul	0.0000	0.0000	NA
Aug	0.0000	0.0000	NA
Sep	0.0000	0.0000	NA
Oct	14.6400	14.6400	0
Nov	15.3720	15.3720	0
Dec	16.1040	16.1040	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	7.563945	7.563945	0
Aug	7.759144	7.759144	0
Sep	7.954342	7.954342	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	0.000000e+00	0.000000e+00	NA
Feb	0.000000e+00	0.000000e+00	NA
Mar	0.000000e+00	0.000000e+00	NA
Apr	0.000000e+00	0.000000e+00	NA
May	0.000000e+00	0.000000e+00	NA
Jun	0.000000e+00	0.000000e+00	NA
Jul	3.448663e−05	3.448663e−05	0
Aug	3.537661e−05	3.537661e−05	0
Sep	3.626658e−05	3.626658e−05	0
Oct	0.000000e+00	0.000000e+00	NA
Nov	0.000000e+00	0.000000e+00	NA
Dec	0.000000e+00	0.000000e+00	NA



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

Month	Manual	Model	dil
Jan	0.000000e+00	0.000000e+00	NA
Feb	0.000000e+00	0.000000e+00	NA
Mar	0.000000e+00	0.000000e+00	NA
Apr	0.000000e+00	0.000000e+00	NA
May	0.000000e+00	0.000000e+00	NA
Jun	0.000000e+00	0.000000e+00	NA
Jul	2.045978e-05	2.045978e-05	0
Aug	2.098778e-05	2.098778e-05	0
Sep	2.151577e-05	2.151577e-05	0
Oct	0.000000e+00	0.000000e+00	NA
Nov	0.000000e+00	0.000000e+00	NA
Dec	0.000000e+00	0.000000e+00	NA

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

Month	Manual	Model	dil
Jan	9777667414	9777667414	0
Feb	11478131312	11478131312	0
Mar	35454672276	35454672276	0
Apr	36474950615	36474950615	0
May	37495228954	37495228954	0
Jun	51354009724	51354009724	0
Jul	39535785632	39535785632	0
Aug	40556063970	40556063970	0
Sep	41576342309	41576342309	0
Oct	8502319491	8502319491	0
Nov	8927435465	8927435465	0
Dec	9352551440	9352551440	0

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

Month	Manual	Model	dil
Jan	4039973513	4039973513	0
Feb	4742577602	4742577602	0
Mar	14649295258	14649295258	0
Apr	15070857712	15070857712	0
May	15492420165	15492420165	0
Jun	21218643492	21218643492	0
Jul	16335545072	16335545072	0
Aug	16757107526	16757107526	0
Sep	17178669979	17178669979	0
Oct	3513020446	3513020446	0
Nov	3688671468	3688671468	0
Dec	3864322490	3864322490	0

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

Month	Manual	Model	dil
Jan	577139073	577139073	0
Feb	677511086	677511086	0
Mar	2092756465	2092756465	0
Apr	2152979673	2152979673	0
May	2213202881	2213202881	0
Jun	3031234785	3031234785	0
Jul	2333649296	2333649296	0
Aug	2393872504	2393872504	0
Sep	2454095711	2454095711	0
Oct	501860064	501860064	0
Nov	526953067	526953067	0
Dec	552046070	552046070	0

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

Month	Manual	Model	dil
Jan	16.8360	16.8360	0
Feb	19.7640	19.7640	0
Mar	6.7832	6.7832	0
Apr	6.9784	6.9784	0
May	7.1736	7.1736	0
Jun	0.0000	0.0000	NA
Jul	0.0000	0.0000	NA
Aug	0.0000	0.0000	NA
Sep	0.0000	0.0000	NA
Oct	14.6400	14.6400	0
Nov	15.3720	15.3720	0
Dec	16.1040	16.1040	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	19401607521	19401607521	0
Aug	19902294166	19902294166	0
Sep	20402980812	20402980812	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	0.00	0.00	NA
Feb	0.00	0.00	NA
Mar	0.00	0.00	NA
Apr	0.00	0.00	NA
May	0.00	0.00	NA
Jun	0.00	0.00	NA
Jul	52479.34	52479.34	0
Aug	53833.64	53833.64	0
Sep	55187.95	55187.95	0
Oct	0.00	0.00	NA
Nov	0.00	0.00	NA
Dec	0.00	0.00	NA

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

Month	Manual	Model	dil
Jan	577139073	577139073	0
Feb	677511086	677511086	0
Mar	2092756465	2092756465	0
Apr	2152979673	2152979673	0
May	2213202881	2213202881	0
Jun	3031234785	3031234785	0
Jul	2333701775	2333701775	0
Aug	2393926337	2393926337	0
Sep	2454150899	2454150899	0
Oct	501860064	501860064	0
Nov	526953067	526953067	0
Dec	552046070	552046070	0



Accum for pasture (dil = 1E+06)

Month	Manual	Model	dil
Jan	70787095	70787095	0
Feb	83097894	83097894	0
Mar	256680162	256680162	0
Apr	264066641	264066641	0
May	271453120	271453120	0
Jun	371786133	371786133	0
Jul	286226079	286226079	0
Aug	293612559	293612559	0
Sep	300999038	300999038	0
Oct	61553996	61553996	0
Nov	64631695	64631695	0
Dec	67709395	67709395	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	3985458	3985458	0
Aug	4088308	4088308	0
Sep	4191159	4191159	0
Oct	0	0	NA
Nov	0	0	NA
Dec	0	0	NA

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

Month	Manual	Model	dil
Jan	637083854	637083854	0
Feb	747881046	747881046	0
Mar	2310121454	2310121454	0
Apr	2376599769	2376599769	0
May	2443078084	2443078084	0
Jun	3346075199	3346075199	0
Jul	2576034715	2576034715	0
Aug	2642513030	2642513030	0
Sep	2708991345	2708991345	0
Oct	553985960	553985960	0
Nov	581685258	581685258	0
Dec	609384556	609384556	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	35869121	35869121	0
Aug	36794776	36794776	0
Sep	37720430	37720430	0
Oct	0	0	NA
Nov	0	0	NA
Dec	0	0	NA