

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

Month	Manual	Model	dil
Jan	9.25	9.25	0
Feb	9.25	9.25	0
Mar	9.25	9.25	0
Apr	9.25	9.25	0
May	9.25	9.25	0
Jun	9.25	9.25	0
Jul	9.25	9.25	0
Aug	9.25	9.25	0
Sep	9.25	9.25	0
Oct	9.25	9.25	0
Nov	9.25	9.25	0
Dec	9.25	9.25	0

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

Month	Manual	Model	dil
Jan	10.6375	10.6375	0
Feb	12.4875	12.4875	0
Mar	12.8575	12.8575	0
Apr	13.2275	13.2275	0
May	13.5975	13.5975	0
Jun	13.9675	13.9675	0
Jul	14.3375	14.3375	0
Aug	14.7075	14.7075	0
Sep	15.0775	15.0775	0
Oct	9.2500	9.2500	0
Nov	9.7125	9.7125	0
Dec	10.1750	10.1750	0

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

Month	Manual	Model	dil
Jan	2.454138	2.454138	0
Feb	2.880945	2.880945	0
Mar	8.898918	8.898918	0
Apr	9.155002	9.155002	0
May	9.411086	9.411086	0
Jun	12.889559	12.889559	0
Jul	9.923254	9.923254	0
Aug	10.179337	10.179337	0
Sep	10.435421	10.435421	0
Oct	2.134033	2.134033	0
Nov	2.240735	2.240735	0
Dec	2.347436	2.347436	0

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

Month	Manual	Model	dil
Jan	0.1795824	0.1795824	0
Feb	0.2108141	0.2108141	0
Mar	0.6511814	0.6511814	0
Apr	0.6699204	0.6699204	0
May	0.6886595	0.6886595	0
Jun	0.9431980	0.9431980	0
Jul	0.7261375	0.7261375	0
Aug	0.7448766	0.7448766	0
Sep	0.7636156	0.7636156	0
Oct	0.1561586	0.1561586	0
Nov	0.1639665	0.1639665	0
Dec	0.1717745	0.1717745	0

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

Month	Manual	Model	dil
Jan	0.02565463	0.02565463	0
Feb	0.03011630	0.03011630	0
Mar	0.09302591	0.09302591	0
Apr	0.09570292	0.09570292	0
May	0.09837992	0.09837992	0
Jun	0.13474257	0.13474257	0
Jul	0.10373393	0.10373393	0
Aug	0.10641094	0.10641094	0
Sep	0.10908794	0.10908794	0
Oct	0.02230837	0.02230837	0
Nov	0.02342379	0.02342379	0
Dec	0.02453921	0.02453921	0

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

Month	Manual	Model	dil
Jan	7.978125	7.978125	0
Feb	9.365625	9.365625	0
Mar	3.214375	3.214375	0
Apr	3.306875	3.306875	0
May	3.399375	3.399375	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	6.937500	6.937500	0
Nov	7.284375	7.284375	0
Dec	7.631250	7.631250	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	3.576494	3.576494	0
Aug	3.668791	3.668791	0
Sep	3.761087	3.761087	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	0.000000000	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	0.004946322	0.004946322	0
Aug	0.005073969	0.005073969	0
Sep	0.005201616	0.005201616	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	0.002934490	0.002934490	0
Aug	0.003010219	0.003010219	0
Sep	0.003085948	0.003085948	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	6294863896	6294863896	0
Feb	7389622834	7389622834	0
Mar	22825723866	22825723866	0
Apr	23482579229	23482579229	0
May	24139434592	24139434592	0
Jun	33061719940	33061719940	0
Jul	25453145318	25453145318	0
Aug	26110000681	26110000681	0
Sep	26766856044	26766856044	0
Oct	5473794692	5473794692	0
Nov	5747484427	5747484427	0
Dec	6021174161	6021174161	0

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

Month	Manual	Model	dil
Jan	460628857	460628857	0
Feb	540738223	540738223	0
Mar	1670280290	1670280290	0
Apr	1718345909	1718345909	0
May	1766411529	1766411529	0
Jun	2419302865	2419302865	0
Jul	1862542769	1862542769	0
Aug	1910608389	1910608389	0
Sep	1958674009	1958674009	0
Oct	400546832	400546832	0
Nov	420574174	420574174	0
Dec	440601515	440601515	0

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

Month	Manual	Model	dil
Jan	65804122	65804122	0
Feb	77248318	77248318	0
Mar	238611470	238611470	0
Apr	245477987	245477987	0
May	252344504	252344504	0
Jun	345614695	345614695	0
Jul	266077538	266077538	0
Aug	272944056	272944056	0
Sep	279810573	279810573	0
Oct	57220976	57220976	0
Nov	60082025	60082025	0
Dec	62943074	62943074	0

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

Month	Manual	Model	dil
Jan	7.978125	7.978125	0
Feb	9.365625	9.365625	0
Mar	3.214375	3.214375	0
Apr	3.306875	3.306875	0
May	3.399375	3.399375	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	6.937500	6.937500	0
Nov	7.284375	7.284375	0
Dec	7.631250	7.631250	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	9186394908	9186394908	0
Aug	9423463163	9423463163	0
Sep	9660531419	9660531419	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	7526967	7526967	0
Aug	7721212	7721212	0
Sep	7915456	7915456	0
Oct	0	0	NA
Nov	0	0	NA
Dec	0	0	NA

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

Month	Manual	Model	dil
Jan	65804122	65804122	0
Feb	77248318	77248318	0
Mar	238611470	238611470	0
Apr	245477987	245477987	0
May	252344504	252344504	0
Jun	345614695	345614695	0
Jul	273604506	273604506	0
Aug	280665267	280665267	0
Sep	287726029	287726029	0
Oct	57220976	57220976	0
Nov	60082025	60082025	0
Dec	62943074	62943074	0



Accum for pasture (dil = 1E+06)

Month	Manual	Model	dil
Jan	73032354	73032354	0
Feb	85733633	85733633	0
Mar	264821667	264821667	0
Apr	272442434	272442434	0
May	280063201	280063201	0
Jun	383578625	383578625	0
Jul	295304736	295304736	0
Aug	302925503	302925503	0
Sep	310546271	310546271	0
Oct	63506395	63506395	0
Nov	66681715	66681715	0
Dec	69857034	69857034	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	2345742	2345742	0
Aug	2406277	2406277	0
Sep	2466813	2466813	0
Oct	0	0	NA
Nov	0	0	NA
Dec	0	0	NA

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

Month	Manual	Model	dil
Jan	657291187	657291187	0
Feb	771602697	771602697	0
Mar	2383394999	2383394999	0
Apr	2451981905	2451981905	0
May	2520568812	2520568812	0
Jun	3452207624	3452207624	0
Jul	2657742625	2657742625	0
Aug	2726329531	2726329531	0
Sep	2794916438	2794916438	0
Oct	571557554	571557554	0
Nov	600135431	600135431	0
Dec	628713309	628713309	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	21111678	21111678	0
Aug	21656496	21656496	0
Sep	22201313	22201313	0
Oct	0	0	NA
Nov	0	0	NA
Dec	0	0	NA