

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

Month	Manual	Model	dil
Jan	44.53	44.53	0
Feb	44.53	44.53	0
Mar	44.53	44.53	0
Apr	44.53	44.53	0
May	44.53	44.53	0
Jun	44.53	44.53	0
Jul	44.53	44.53	0
Aug	44.53	44.53	0
Sep	44.53	44.53	0
Oct	44.53	44.53	0
Nov	44.53	44.53	0
Dec	44.53	44.53	0

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

Month	Manual	Model	dil
Jan	51.2095	51.2095	0
Feb	60.1155	60.1155	0
Mar	61.8967	61.8967	0
Apr	63.6779	63.6779	0
May	65.4591	65.4591	0
Jun	67.2403	67.2403	0
Jul	69.0215	69.0215	0
Aug	70.8027	70.8027	0
Sep	72.5839	72.5839	0
Oct	44.5300	44.5300	0
Nov	46.7565	46.7565	0
Dec	48.9830	48.9830	0

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

Month	Manual	Model	dil
Jan	6.657235	6.657235	0
Feb	7.815015	7.815015	0
Mar	24.139713	24.139713	0
Apr	24.834381	24.834381	0
May	25.529049	25.529049	0
Jun	34.964956	34.964956	0
Jul	26.918385	26.918385	0
Aug	27.613053	27.613053	0
Sep	28.307721	28.307721	0
Oct	5.788900	5.788900	0
Nov	6.078345	6.078345	0
Dec	6.367790	6.367790	0

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

Month	Manual	Model	dil
Jan	5.376997	5.376997	0
Feb	6.312128	6.312128	0
Mar	19.497460	19.497460	0
Apr	20.058539	20.058539	0
May	20.619616	20.619616	0
Jun	28.240926	28.240926	0
Jul	21.741773	21.741773	0
Aug	22.302850	22.302850	0
Sep	22.863929	22.863929	0
Oct	4.675650	4.675650	0
Nov	4.909433	4.909433	0
Dec	5.143215	5.143215	0

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

Month	Manual	Model	dil
Jan	0.7681425	0.7681425	0
Feb	0.9017325	0.9017325	0
Mar	2.7853515	2.7853515	0
Apr	2.8655055	2.8655055	0
May	2.9456595	2.9456595	0
Jun	4.0344180	4.0344180	0
Jul	3.1059675	3.1059675	0
Aug	3.1861215	3.1861215	0
Sep	3.2662755	3.2662755	0
Oct	0.6679500	0.6679500	0
Nov	0.7013475	0.7013475	0
Dec	0.7347450	0.7347450	0

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

Month	Manual	Model	dil
Jan	38.40713	38.40713	0
Feb	45.08663	45.08663	0
Mar	15.47417	15.47417	0
Apr	15.91948	15.91948	0
May	16.36478	16.36478	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	33.39750	33.39750	0
Nov	35.06737	35.06737	0
Dec	36.73725	36.73725	0

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

Month	Manual	Model	dil
Jan	0.00000	0.00000	NA
Feb	0.00000	0.00000	NA
Mar	0.00000	0.00000	NA
Apr	0.00000	0.00000	NA
May	0.00000	0.00000	NA
Jun	0.00000	0.00000	NA
Jul	10.83018	10.83018	0
Aug	11.10967	11.10967	0
Sep	11.38916	11.38916	0
Oct	0.00000	0.00000	NA
Nov	0.00000	0.00000	NA
Dec	0.00000	0.00000	NA

Cow–calf pairs in forest on land 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	4.032715	4.032715	0
Aug	4.136785	4.136785	0
Sep	4.240855	4.240855	0
Oct	0.000000	0.000000	NA
Nov	0.000000	0.000000	NA
Dec	0.000000	0.000000	NA



## Cow–calf pairs in forest in 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	2.392477	2.392477	0
Aug	2.454218	2.454218	0
Sep	2.515959	2.515959	0
Oct	0.000000	0.000000	NA
Nov	0.000000	0.000000	NA
Dec	0.000000	0.000000	NA

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

Month	Manual	Model	dil
Jan	17075807775	17075807775	0
Feb	20045513475	20045513475	0
Mar	61918363845	61918363845	0
Apr	63700187265	63700187265	0
May	65482010685	65482010685	0
Jun	89685112140	89685112140	0
Jul	69045657525	69045657525	0
Aug	70827480945	70827480945	0
Sep	72609304365	72609304365	0
Oct	14848528500	14848528500	0
Nov	15590954925	15590954925	0
Dec	16333381350	16333381350	0

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

Month	Manual	Model	dil
Jan	13791998588	13791998588	0
Feb	16190607038	16190607038	0
Mar	50010986182	50010986182	0
Apr	51450151253	51450151253	0
May	52889316323	52889316323	0
Jun	72437975190	72437975190	0
Jul	55767646463	55767646463	0
Aug	57206811532	57206811532	0
Sep	58645976603	58645976603	0
Oct	11993042250	11993042250	0
Nov	12592694363	12592694363	0
Dec	13192346475	13192346475	0

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

Month	Manual	Model	dil
Jan	1970285512	1970285512	0
Feb	2312943863	2312943863	0
Mar	7144426597	7144426597	0
Apr	7350021608	7350021608	0
May	7555616618	7555616618	0
Jun	10348282170	10348282170	0
Jul	7966806638	7966806638	0
Aug	8172401647	8172401647	0
Sep	8377996658	8377996658	0
Oct	1713291750	1713291750	0
Nov	1798956338	1798956338	0
Dec	1884620925	1884620925	0

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

Month	Manual	Model	dil
Jan	38.40713	38.40713	0
Feb	45.08663	45.08663	0
Mar	15.47417	15.47417	0
Apr	15.91948	15.91948	0
May	16.36478	16.36478	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	33.39750	33.39750	0
Nov	35.06737	35.06737	0
Dec	36.73725	36.73725	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	38123333823	38123333823	0
Aug	39107161792	39107161792	0
Sep	40090989762	40090989762	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	6136703052	6136703052	0
Aug	6295069583	6295069583	0
Sep	6453436113	6453436113	0
Oct	0	0	NA
Nov	0	0	NA
Dec	0	0	NA

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

Month	Manual	Model	dil
Jan	1970285512	1970285512	0
Feb	2312943863	2312943863	0
Mar	7144426597	7144426597	0
Apr	7350021608	7350021608	0
May	7555616618	7555616618	0
Jun	10348282170	10348282170	0
Jul	14103509690	14103509690	0
Aug	14467471230	14467471230	0
Sep	14831432770	14831432770	0
Oct	1713291750	1713291750	0
Nov	1798956338	1798956338	0
Dec	1884620925	1884620925	0



Accum for pasture (dil = 1E+06)

Month	Manual	Model	dil
Jan	69319125	69319125	0
Feb	81374625	81374625	0
Mar	251357175	251357175	0
Apr	258590475	258590475	0
May	265823775	265823775	0
Jun	364076100	364076100	0
Jul	280290375	280290375	0
Aug	287523675	287523675	0
Sep	294756975	294756975	0
Oct	60277500	60277500	0
Nov	63291375	63291375	0
Dec	66305250	66305250	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	4362037	4362037	0
Aug	4474606	4474606	0
Sep	4587175	4587175	0
Oct	0	0	NA
Nov	0	0	NA
Dec	0	0	NA

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

Month	Manual	Model	dil
Jan	623872125	623872125	0
Feb	732371625	732371625	0
Mar	2262214575	2262214575	0
Apr	2327314275	2327314275	0
May	2392413975	2392413975	0
Jun	3276684900	3276684900	0
Jul	2522613375	2522613375	0
Aug	2587713075	2587713075	0
Sep	2652812775	2652812775	0
Oct	542497500	542497500	0
Nov	569622375	569622375	0
Dec	596747250	596747250	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	39258336	39258336	0
Aug	40271454	40271454	0
Sep	41284573	41284573	0
Oct	0	0	NA
Nov	0	0	NA
Dec	0	0	NA