MINDA LIVE
Reproduction

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Workbook version 1

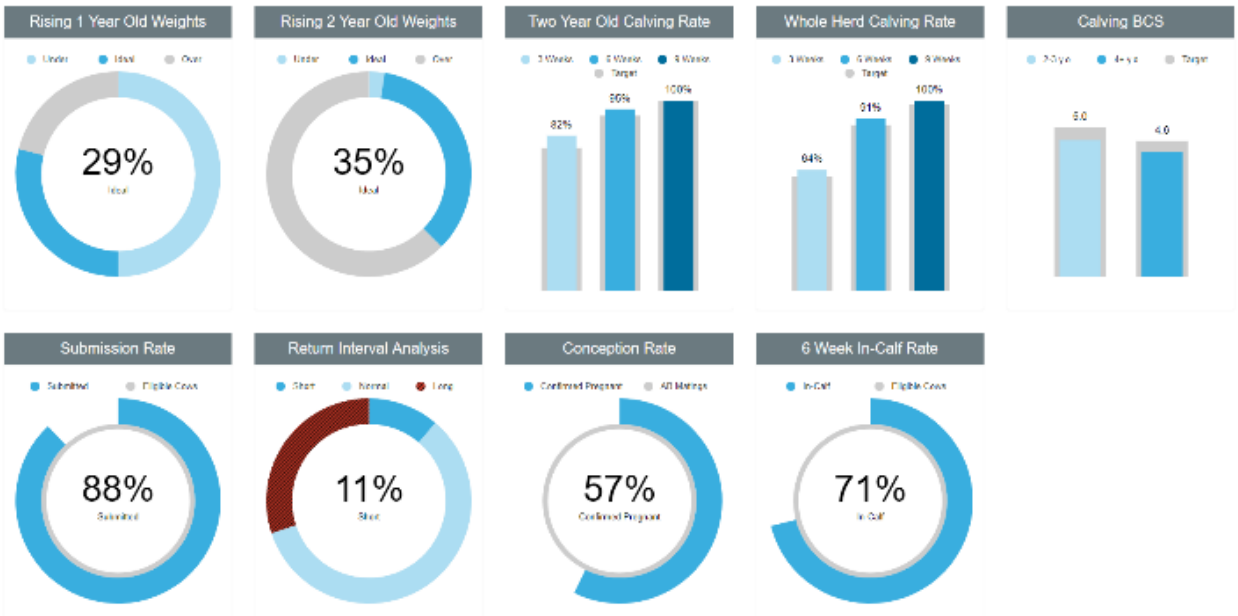
Contents

Summary

MINDA Reproduction provides comprehensive information about your herd's reproductive performance. By using MINDA Reproduction you are able to monitor your herd throughout their reproductive cycle from pre-mating through to mating and calving to identify any potential issues in a timely manner.

Dashboard Tab

The Reproduction dashboard provides a high-level view of key areas and performance of your herd, based on the latest data available.



In-Calf Rates for Whole Herd

A high 6-week in-calf rate will give you improved herd fertility - deliver more days in milk, more AB replacement calves and reduce empty rates.

Use the graph to see if there is a period of time where things went well or not so well, to help you identify strategies you used that worked well and those that may need tweaking for next mating season. For example, if your in-calf rate significantly drops off once the bulls go out, have a look at your bull numbers and management to see if improvements could be made.

The graph requires at least 80% of cows eligible for mating to be pregnancy tested. For cows recorded pregnant with a non-aged pregnancy test result, the last recorded mating will be used to determine conception date.

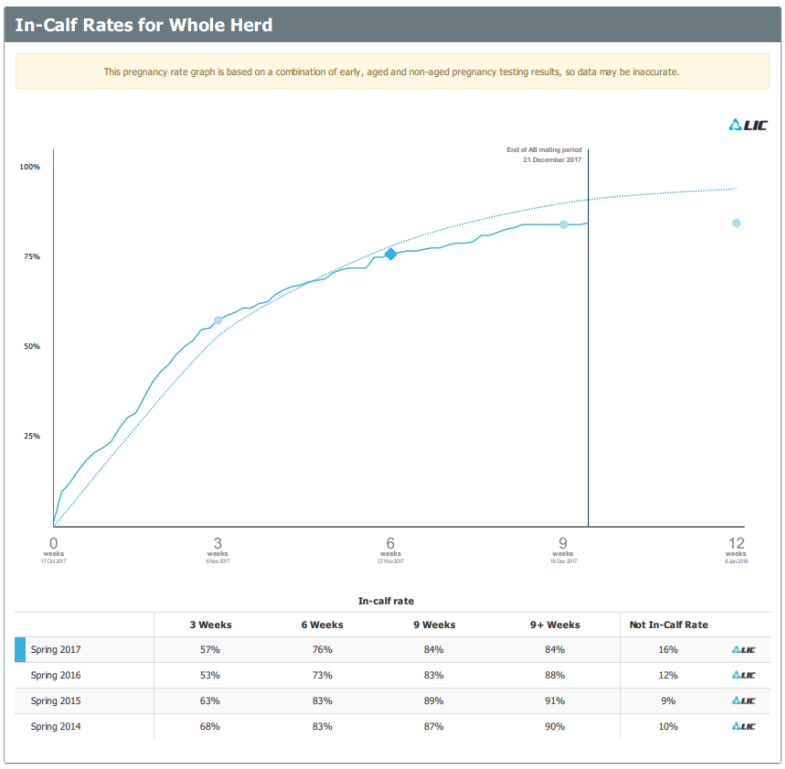
Eligible cows are those that were present in the herd at the mating start date that also had a calving recorded for the season

..... is the target in-calf rate based on the industry InCalf program.

——— is your herd's daily cumulative in-calf rate.

◆ is your 6-week in-calf rate (the proportion of cows that got in calf in the first 6 weeks of mating).

Click anywhere on ——— to see the in-calf rate, not in-calf rate and number of cows contributing to the calculation at that point in time.



	3 Weeks	6 Weeks	9 Weeks	9+ Weeks	Not In-Calf Rate
Spring 2017	57%	76%	84%	84%	16%
Spring 2016	53%	73%	83%	88%	12%
Spring 2015	63%	83%	89%	91%	9%
Spring 2014	68%	83%	87%	90%	10%

In the table attached to the graph, you can see up to four years of data. This allows you to see how your herd's 6-week in-calf rate and not-in-calf rate are tracking over time.

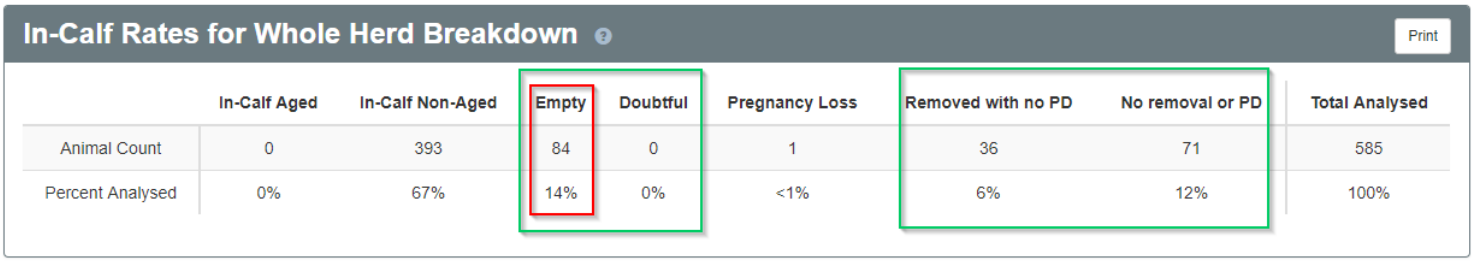
In-Calf Rates for Whole Herd Breakdown

This table provides a breakdown of the pregnancy diagnosis results that feed into the In-Calf graphs and not-in-calf rate. The table helps shed light on what may be causing differences between perceived and actual reproductive performance. Inaccurate, or missing records may contribute to differences in In-Calf and Not-in-Calf rates.

It is not unusual for there to be a difference between the empty rate you have in mind and the not-in-calf rate on MINDA. This is because the 'Empty rate' that most farmers have in mind is the percentage of the cows tested that are diagnosed as empty on the day of scanning (red box). However, the not-in-calf rate displayed on all of the in-calf rate graphs is made up of four categories of cows (green boxes):

- Cows recorded as Empty,
- Cows still only recorded as Doubtful,
- Cows that have been recorded as culled but do not have a pregnancy test result recorded (Removed with no PD), and
- Cows that are still on the herd's records (have not been recorded as culled) but do not have a pregnancy result (No removal or PD)

The cows still recorded as Doubtful etc. are included in 'not-in-calf rate' and not 'empty rate' are the reason that there is often differences between empty rate and not-in-calf rate.



In-Calf Rates for Whole Herd Breakdown Print

	In-Calf Aged	In-Calf Non-Aged	Empty	Doubtful	Pregnancy Loss	Removed with no PD	No removal or PD	Total Analysed
Animal Count	0	393	84	0	1	36	71	585
Percent Analysed	0%	67%	14%	0%	<1%	6%	12%	100%

In-Calf Rates by Calving Pattern

This graph is designed to help you understand the impact calving pattern has on subsequent herd reproductive performance. Cows that calve in the first six weeks of the calving period should perform significantly better reproductively than cows that calve in the second six weeks.

Rule of thumb: Medium calvers (calved by week 6 of calving) should have a 6-week in-calf rate within 8% of the 6-week in-calf rate of the Early calvers (calved by week 3 of calving). If the gap between Early and Medium calvers is greater than this, think about what the differences are between these two groups of cows, and whether these differences are something you can beneficially influence for next mating.

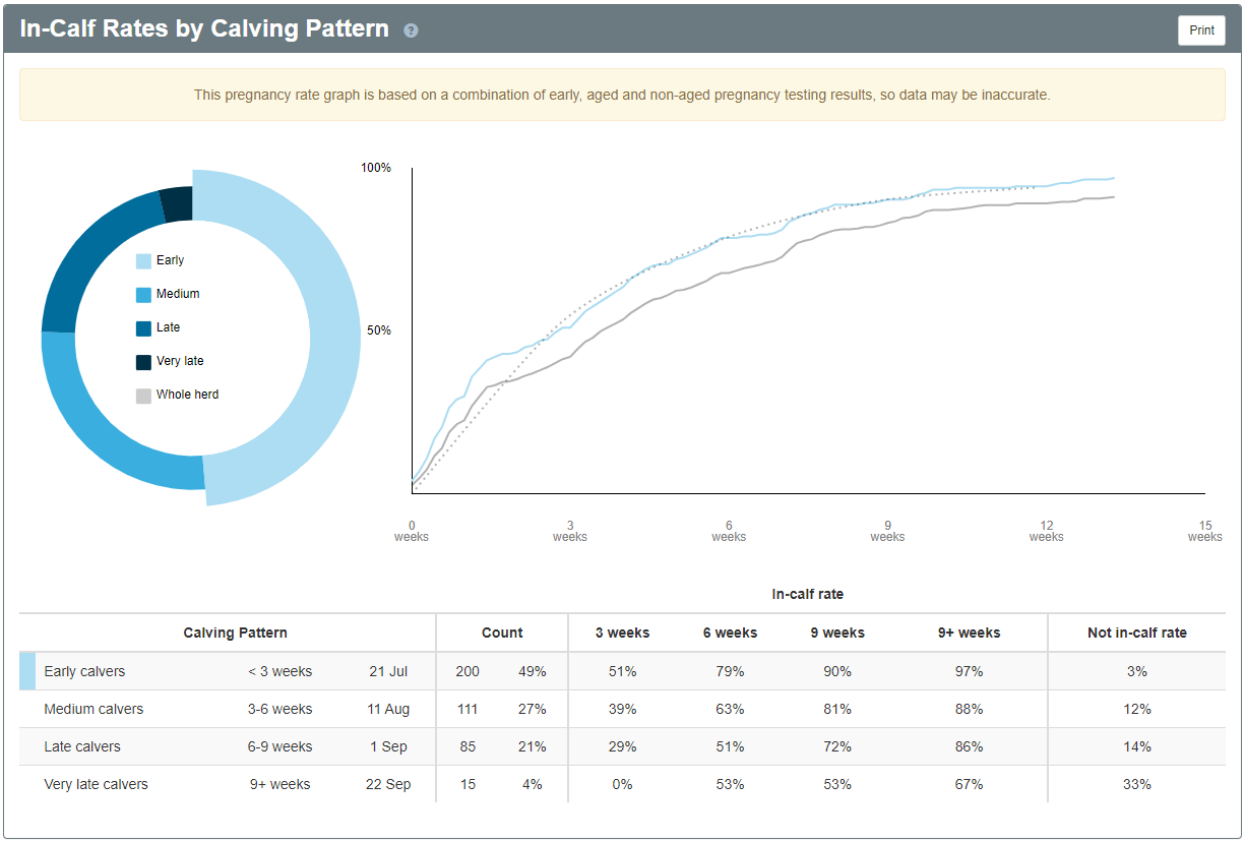
The circle on the left shows the proportion of cows eligible for mating that calved by weeks 3, 6, 9 and after week 9 (9+) of your calving period.

The graph on the right shows the cumulative in-calf rate for one or more calving patterns compared with your whole herd.

..... is the target in-calf rate based on the industry InCalf program.

The table gives you the proportion of animals in each calving group as well as a breakdown of in-calf rates for each calving pattern through weeks 3, 6, 9 of mating and the not-in-calf rate at the end of mating.

Click colour blocks on the circle (or rows in the table) to add or remove calving patterns to the line graph.



Calving Pattern			Count		In-calf rate 3 weeks	6 weeks	9 weeks	9+ weeks	Not in-calf rate
Early calvers	< 3 weeks	21 Jul	200	49%	51%	79%	90%	97%	3%
Medium calvers	3-6 weeks	11 Aug	111	27%	39%	63%	81%	88%	12%
Late calvers	6-9 weeks	1 Sep	85	21%	29%	51%	72%	86%	14%
Very late calvers	9+ weeks	22 Sep	15	4%	0%	53%	53%	67%	33%

In-Calf Rates by Age

This graph is designed to help you identify how each age group in your herd has performed and their effect on your overall herd performance.

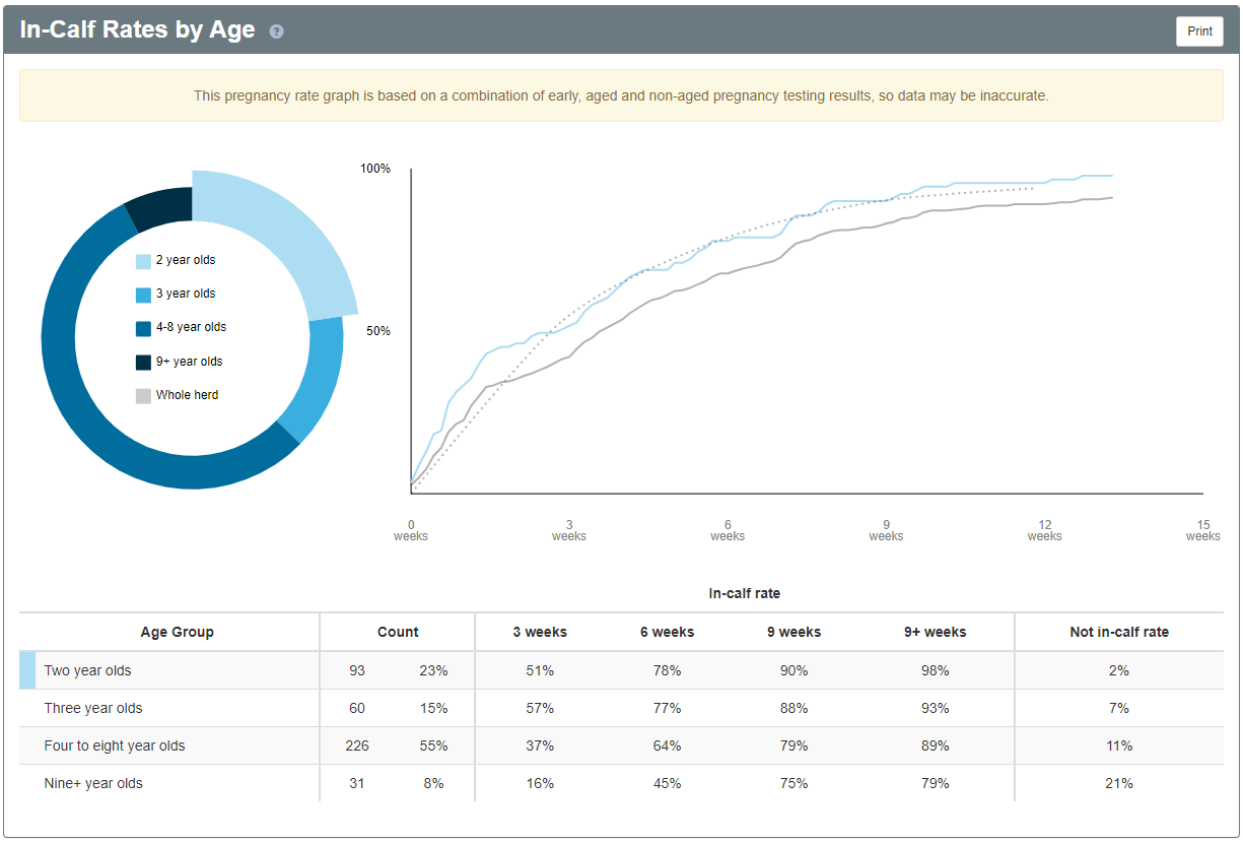
Rule of thumb: Younger cows are expected to perform better than older animals. The older a cow is the worse their reproductive performance is as an age group. If your first and second calvers (2 and 3 year olds on the graph) do not have a higher 6-week in-calf rate than your older cows, look into your young stock management.

The circle on the left shows the proportion of cows eligible for mating grouped by their age, 2 years, 3 years, 4-8 years or 9+ years

The graph on the right shows the cumulative in-calf rate for one or more age groups compared with your whole herd.

..... is the target in-calf rate based on the industry InCalf program.

The table gives you proportion of animals in each age group as well as a breakdown of in-calf rates for each age group through weeks 3, 6, 9 of mating and the not-in-calf rate at the end of mating.



Age Group	Count		3 weeks	6 weeks	9 weeks	9+ weeks	Not in-calf rate
Two year olds	93	23%	51%	78%	90%	98%	2%
Three year olds	60	15%	57%	77%	88%	93%	7%
Four to eight year olds	226	55%	37%	64%	79%	89%	11%
Nine+ year olds	31	8%	16%	45%	75%	79%	21%

In-Calf Rates by Body Condition Score (BCS)

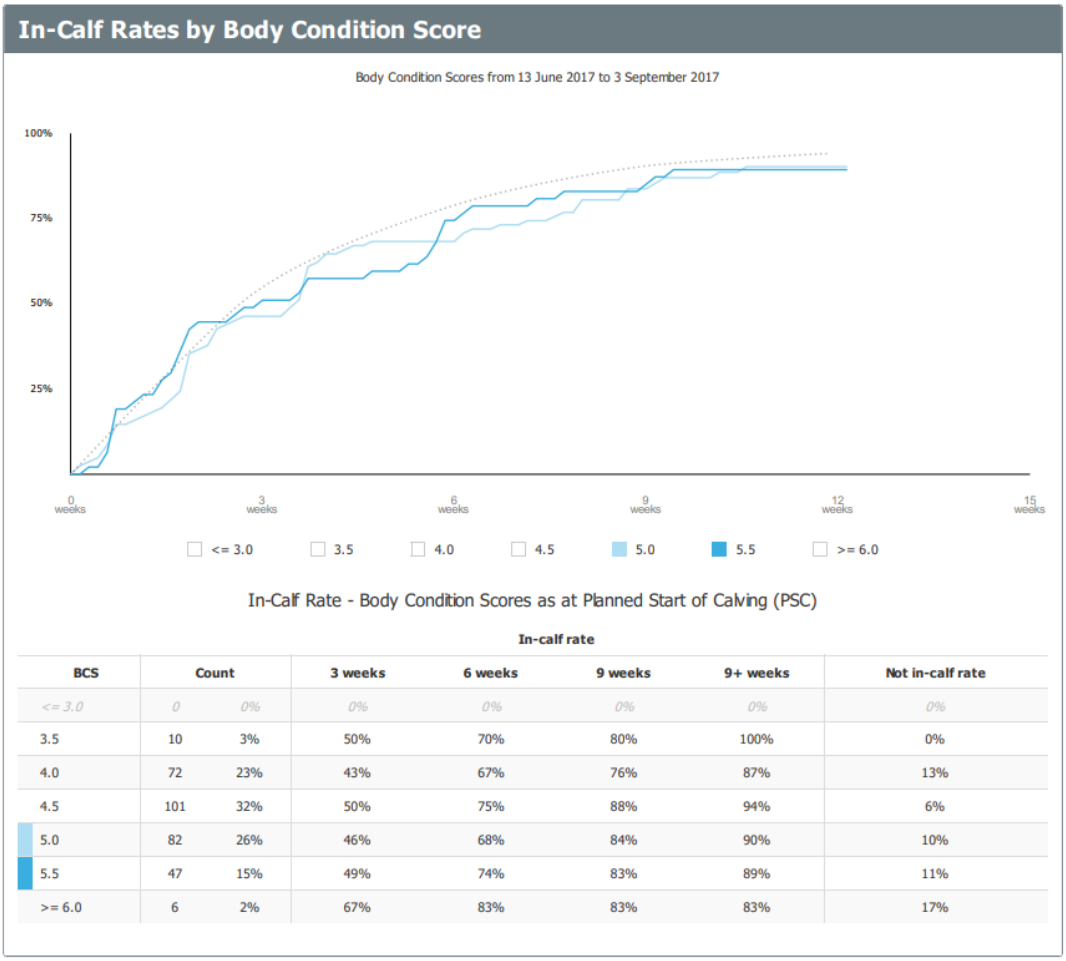
This graph is designed to help you understand the impact BCS at calving and/or mating has on subsequent herd reproductive performance. The graph shows the cumulative in-calf rate for one or more BCS groups compared with your whole herd. At least 70 individual animal's BCS records (scored within a month either side of calving/mating) are required to produce this graph.

Mature cows should be at BCS 5 at calving. As a group, no more than 15% of them should be below BCS 5 and no more than 15% should be above 5.5. At mating no more than 15% of cows should be below BCS 4.

Two and 3 year old cows should calve at BCS 5.5. As a group, no more than 15% of them should be below BCS 5.5 and no more than 15% should be above 5.5. At mating no more than 15% of cows should be below BCS 4.5.

The table gives you a breakdown of BCS distribution and proportion at either Planned Start of Calving or Mating Start Date through weeks 3, 6, 9 of mating and the not-in-calf rate at the end of mating.

Select the BCS number blocks (up to a maximum of four) under the graph to add or remove BCS groups in the line graph.



In-Calf Rate - Body Condition Scores as at Planned Start of Calving (PSC)

			In-calf rate				
BCS	Count		3 weeks	6 weeks	9 weeks	9+ weeks	Not in-calf rate
<= 3.0	*0*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*
3.5	10	3%	50%	70%	80%	100%	0%
4.0	72	23%	43%	67%	76%	87%	13%
4.5	101	32%	50%	75%	88%	94%	6%
5.0	82	26%	46%	68%	84%	90%	10%
5.5	47	15%	49%	74%	83%	89%	11%
>= 6.0	6	2%	67%	83%	83%	83%	17%

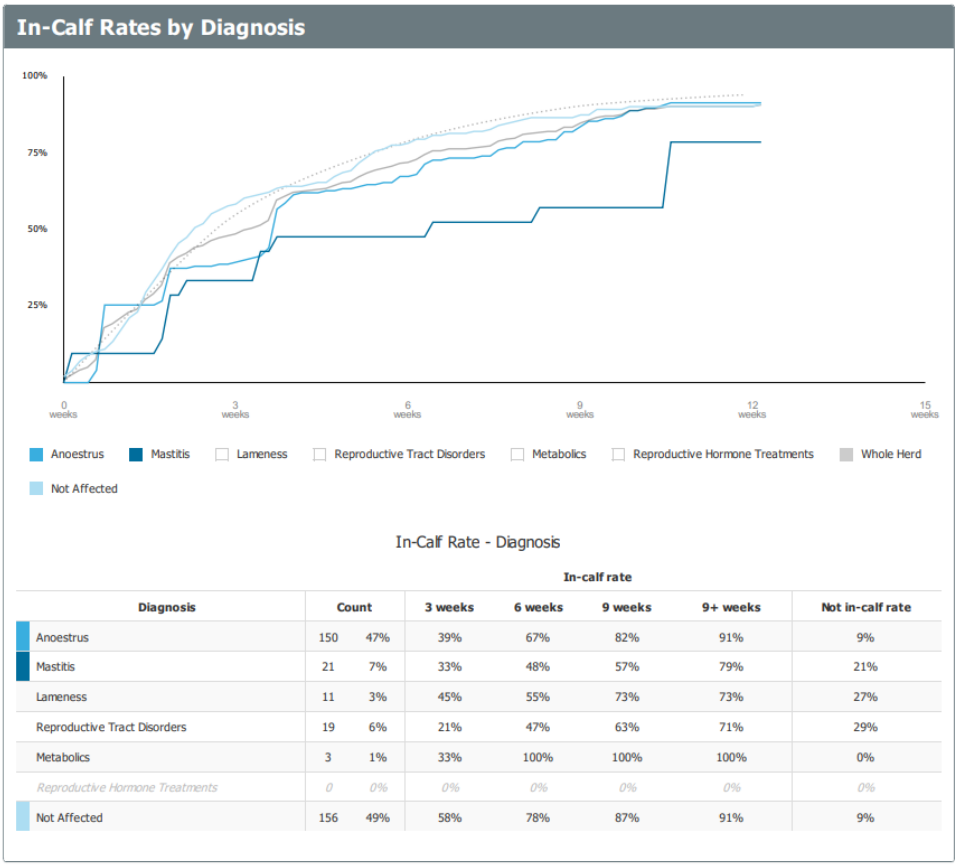
In-Calf Rates by Diagnosis

This graph is designed to help you understand the impact recorded health events and hormonal intervention had on your herd reproductive performance.

By selecting one or two of the categories listed you will compare, for example, cows who were diagnosed with mastitis against the cows which were not affected by it ('Not Affected'). The health events included in this graph are those that occur between a cow's calving date and the date that she conceived or the end of the mating date (if she is empty at the end of mating).

If two categories are selected the cows that are compared have not been affected by either of the chosen conditions.

Rule of thumb: If the 6-week in-calf rate of your affected cows is significantly lower than your Not Affected cows, check to see what percentage of the herd was affected. If it is only a small number, e.g. 2% of the herd, don't lose any sleep over it. For mastitis and lameness, the DairyNZ InCalf industry targets are to have no more than 5% of the herd with mastitis, and no more than 5% lame between calving and the end of mating. If the incidence of mastitis or lameness is higher than 5% in your herd, have a look at ways to improve cow health through this time period.



In-Calf Rate - Diagnosis

Diagnosis	Count		In-calf rate 3 weeks	6 weeks	9 weeks	9+ weeks	Not in-calf rate
Anoestrus	150	47%	39%	67%	82%	91%	9%
Mastitis	21	7%	33%	48%	57%	79%	21%
Lameness	11	3%	45%	55%	73%	73%	27%
Reproductive Tract Disorders	19	6%	21%	47%	63%	71%	29%
Metabolics	3	1%	33%	100%	100%	100%	0%
Reproductive Hormone Treatments	*0*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*
Not Affected	156	49%	58%	78%	87%	91%	9%

The table gives you proportion of animals in each health event group as well as a breakdown of in-calf rates for health event group through weeks 3, 6, 9 of mating and the not-in-calf rate at the end of mating.

Conception Rates

Conception rate is the percentage of recorded AB inseminations that resulted in a pregnancy (as determined by early aged pregnancy testing).

Inseminations are included if they are recorded as happening on or after the Mating Start Date and are more than 35 days before the last recorded pregnancy diagnosis.

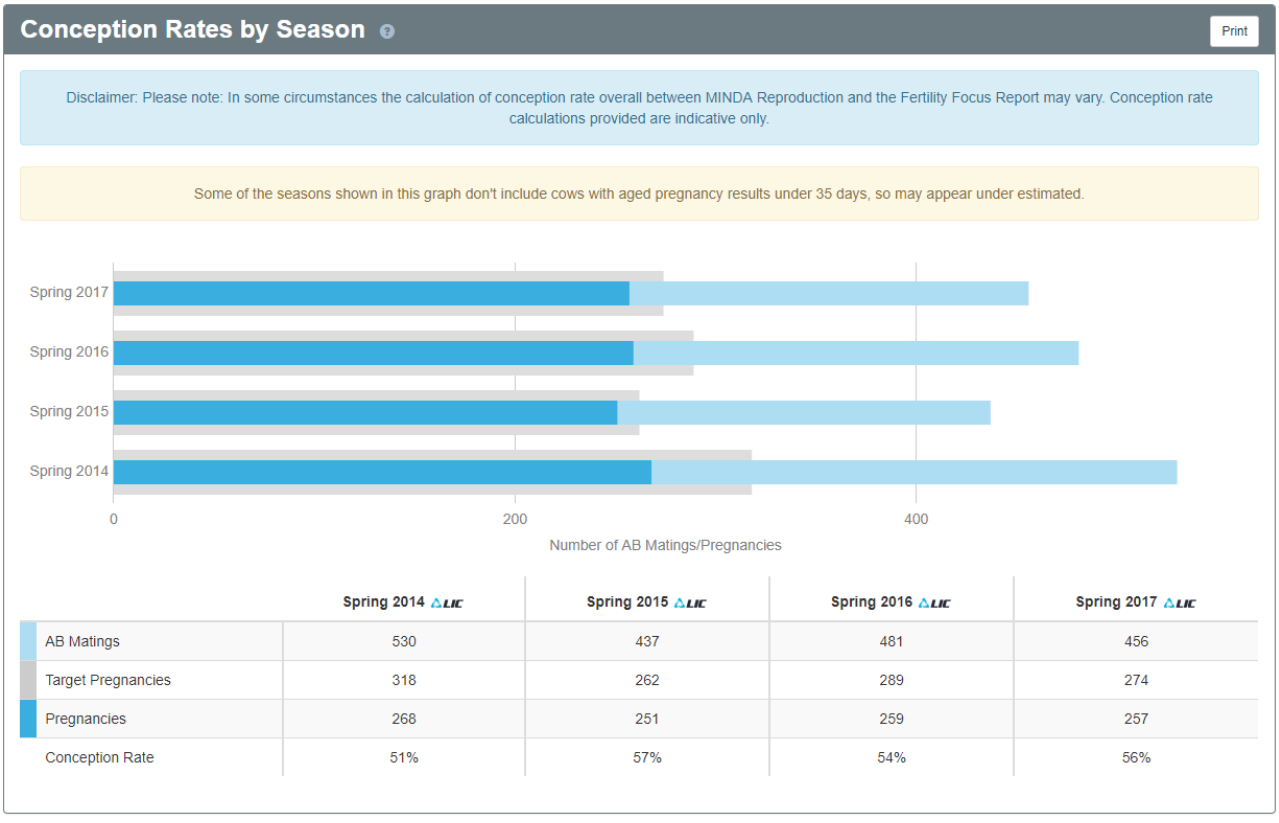
Disclaimer: Please note - In some circumstances the calculation of conception rate overall between MINDA Reproduction and the Fertility Focus Report may vary. Conception rate calculations provided are indicative only.

Conception Rates by Season

This report helps to assess the efficiency of AB mating in your herd by comparing year on year performance.

The light blue bar represents the number of AB inseminations included, and the dark blue bar shows how many of these inseminations resulted in confirmed pregnancies. The grey bar represents the target number of pregnancies expected, based on the industry target conception rate of 60%.

The figures used in the conception rate calculation are shown in the table below.



	Spring 2014	Spring 2015	Spring 2016	Spring 2017
AB Matings	530	437	481	456
Target Pregnancies	318	262	289	274
Pregnancies	268	251	259	257
Conception Rate	51%	57%	54%	56%

Conception Rates for Whole Herd

This report will help you identify if there are periods where conception rate went better/worse than others within the mating period. The table shows the conception rate for the first and second 3 weeks of matings and the overall conception rate.

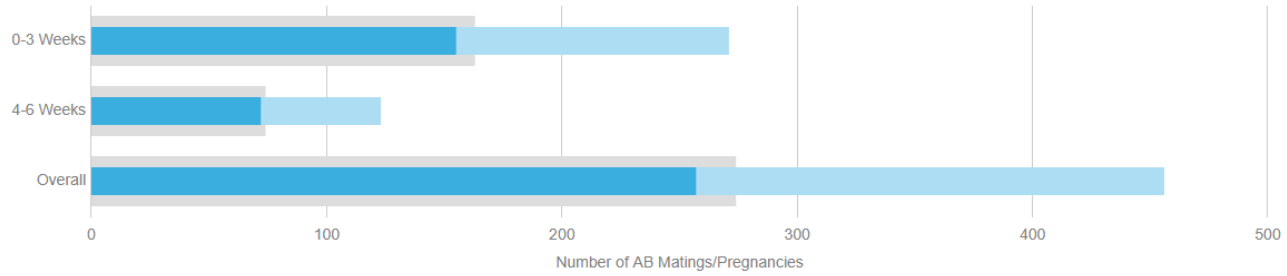
The light blue bar represents the number of AB inseminations included, and the dark blue bar shows how many of these inseminations resulted in confirmed pregnancies. The grey bar represents the target number of pregnancies expected, based on the industry target conception rate of 60%.

Conception Rates for Whole Herd

Print

Disclaimer: Please note: In some circumstances the calculation of conception rate overall between MINDA Reproduction and the Fertility Focus Report may vary. Conception rate calculations provided are indicative only.

The conception rate graph doesn't include cows with aged pregnancy results under 35 days so may appear under estimated.



	0-3 Weeks	4-6 Weeks	Overall
AB Matings	271	123	456
Target Pregnancies	163	74	274
Pregnancies	155	72	257
Conception Rate	57%	59%	56%

Conception Rates by Calving Pattern

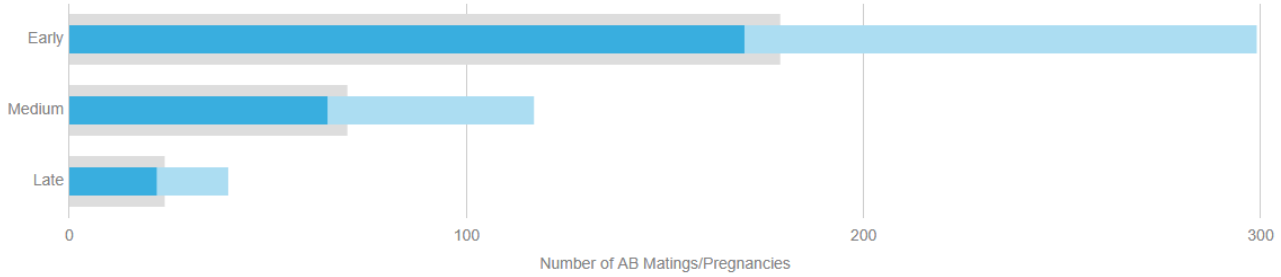
This graph enables you to compare the efficiency of AB mating between calving pattern groups and identify the effect late calving cows have on your herd's conception rate.

The number of Early, Medium, Late and Very late calving cows confirmed pregnant (dark blue bar) is compared against the number of recorded AB inseminations (light blue bar) for each of the calving groups over the AB mating period. The grey bar represents the target number of pregnancies expected, based on the industry target conception rate of 60%.

Conception Rates by Calving Pattern

Print

The conception rate graph doesn't include cows with aged pregnancy results under 35 days so may appear under estimated.



	Early	Medium	Late
AB Matings	299	117	40
Target Pregnancies	179	70	24
Pregnancies	170	65	22
Conception Rate	57%	56%	55%

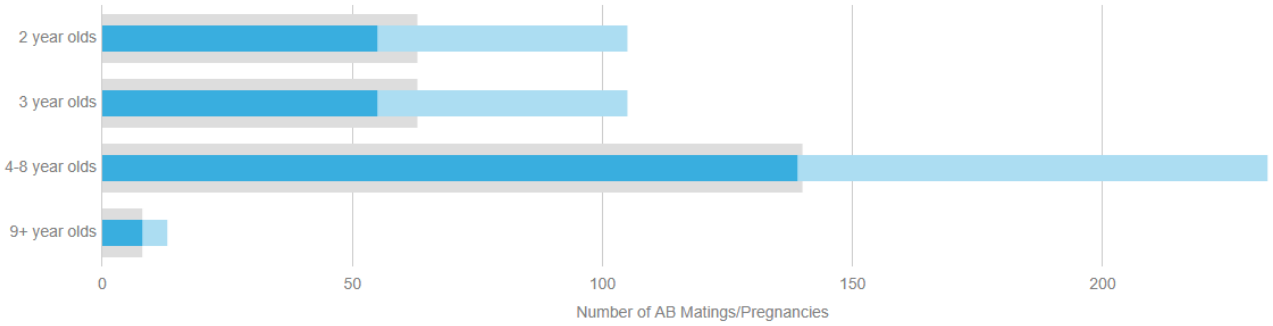
Conception Rates by Age

This graph enables you to compare the efficiency of AB mating within age groups and identify if there is a specific age group that is affecting your herd's conception rate.

The number of cows in each age group confirmed pregnant (dark blue bar) is compared against the number of recorded AB inseminations (light blue bar) for each of the age groups over the AB mating period. The grey bar represents the target number of pregnancies expected, based on the industry target conception rate of 60%.

Conception Rates by Age Print

The conception rate graph doesn't include cows with aged pregnancy results under 35 days so may appear under estimated.



	2 year olds	3 year olds	4-8 year olds	9+ year olds
AB Matings	105	105	233	13
Target Pregnancies	63	63	140	8
Pregnancies	55	55	139	8
Conception Rate	52%	52%	60%	62%

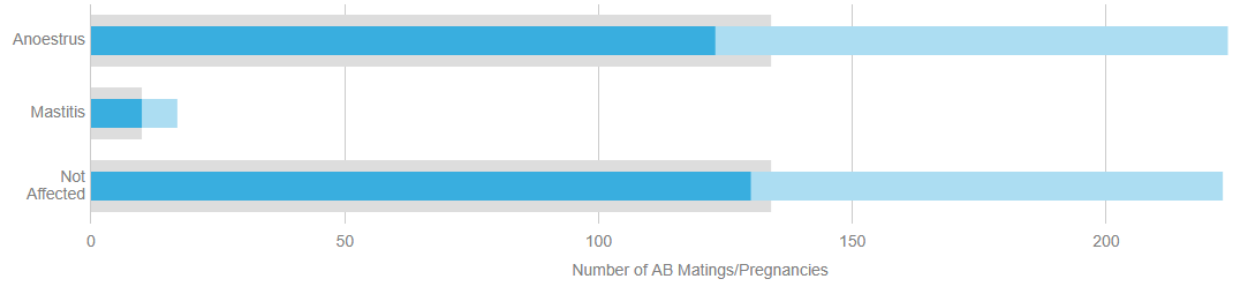
Conception Rates by Diagnosis

This graph enables you to compare the efficiency of AB mating between cows which were recorded as being affected by health or intervention events and 'Not Affected' animals.

The number of cows in each health event group confirmed pregnant (dark blue bar) is compared against the number of recorded AB inseminations (light blue bar) for each of the health event groups over the AB mating period. The grey bar represents the target number of pregnancies expected, based on the industry target conception rate of 60%.

Conception Rates by Diagnosis

Print



	Anoestrus	Mastitis	Not Affected
AB Matings	224	17	223
Target Pregnancies	134	10	134
Pregnancies	123	10	130
Conception Rate	55%	59%	58%

Body Condition Score

A cow's body condition score is a visual estimate of her body fat reserves which can be used to indicate her current and future feed requirements, health status and likely productivity.

The most important times to body condition score cows are pre-calving, pre-mating, mid-lactation, late-lactation (to help with dry off decisions) with the aim to achieve BCS targets at calving.

A BCS scale of 1 to 10 is used in NZ (where 1 is emaciated and 10 obese). At least 70 randomly selected cows should be scored at any one time to provide an accurate BCS profile of your herd.

This graph shows the average BCS of cows scored in your herd for a 15 month period leading to Planned Start of Calving.

◆ depicts the average BCS of cows scored on the date currently selected.

● represents the average BCS of a sample of 70 or more cows.

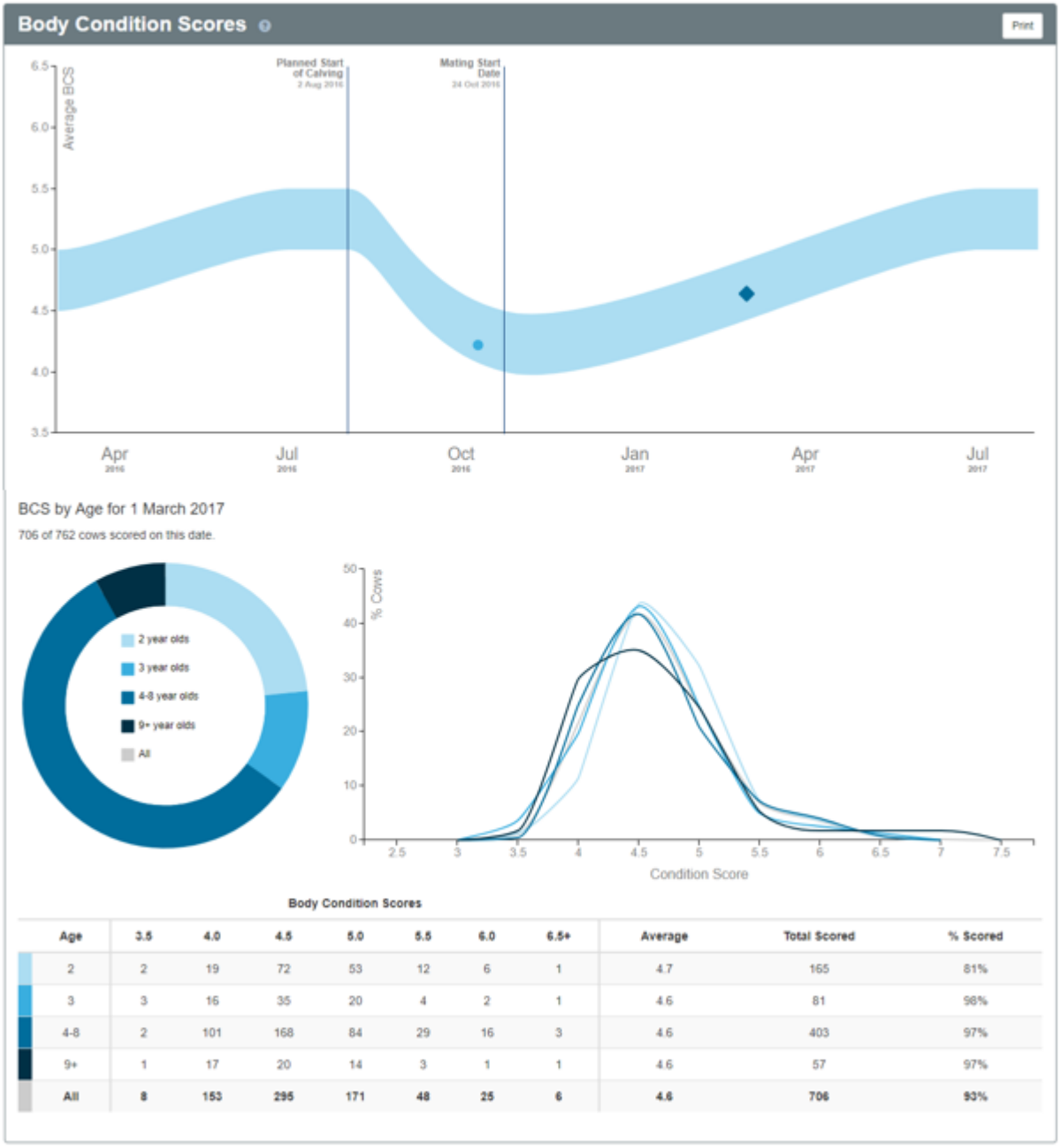
○ represents the average BCS of a sample of less than 70 cows.

The shaded band is the target based on cows achieving BCS at calving of 5 - 5.5 and losing no more than 1 BCS between calving and mating (targeting BCS 4 - 4.5 at planned start of mating). Cows are unlikely to gain any BCS in the month leading to calving.

Click any point on the graph to see the distribution of BCS for that date by age in the graph below.

The % scored represents the proportion of animals in the age group scored on this date out of all animals in the age group current in the herd on this date.

Young Stock (under 22 months of age) body condition scores are excluded from these graphs.



Mature cows should be at BCS 5 at calving. As a group, no more than 15% of them should be below BCS 5 and no more than 15% should be above 5.5. At mating no more than 15% of cows should be below BCS 4.

Two and three year old cows should calve at BCS 5.5. As a group, no more than 15% of them should be below BCS 5.5 and no more than 15% should be above 5.5. At mating no more than 15% of cows should be below BCS 4.5.

Pre-Calving Tab

Expected Calvings for Week

Use this report to help you make decisions around potential replacement animals, health interventions and feed management.

Select a week from the drop down menu to see which cows are expected to calve on each day of the week.

Accumulated Grazing Days is the total number of milking days expected from the planned start of calving to the last day of the week selected should each cow calve on her due date.

Expected Calves is a count of calves expected to be born in the week selected, should each cow calve on her due date.

Confirmed* means the expected calving date is confirmed through pregnancy testing based on the age of the foetus which was recorded.

Confirmed means the expected calving date is confirmed through pregnancy testing (age not recorded).

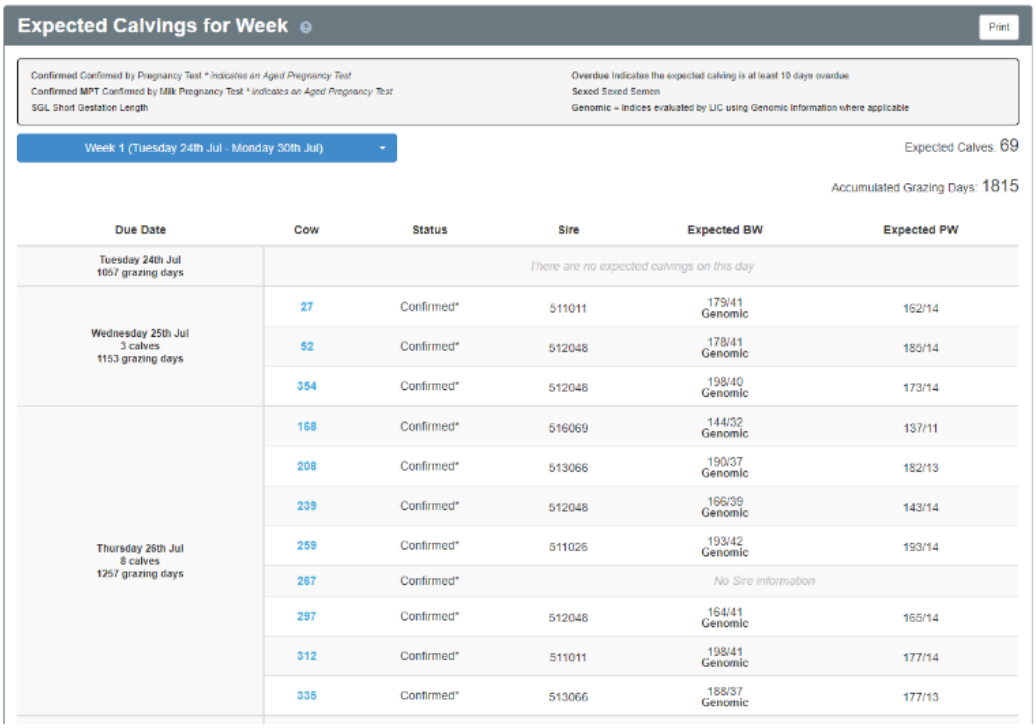
SGL indicates the expected sire is a Short Gestation Length bull.

Sexed indicates this pregnancy may be a result of using Sexed Semen.

Genomic indicates the expected calf BW/PW has been calculated by LIC using Genomic information.

Overdue indicates the expected calving is 10 days overdue.

Planned Start of Calving is calculated as 282 days from the relevant Mating Start Date. Cows are included if their due date falls within the period PSC-60 days and PSC+120 days.



Expected Calving Pattern

Use this graph to analyse the spread of expected calving and get an early indication of calving pattern for the upcoming calving season. This is useful when forecasting feed requirements, deciding whether to dry cows off or sell late calving cows.

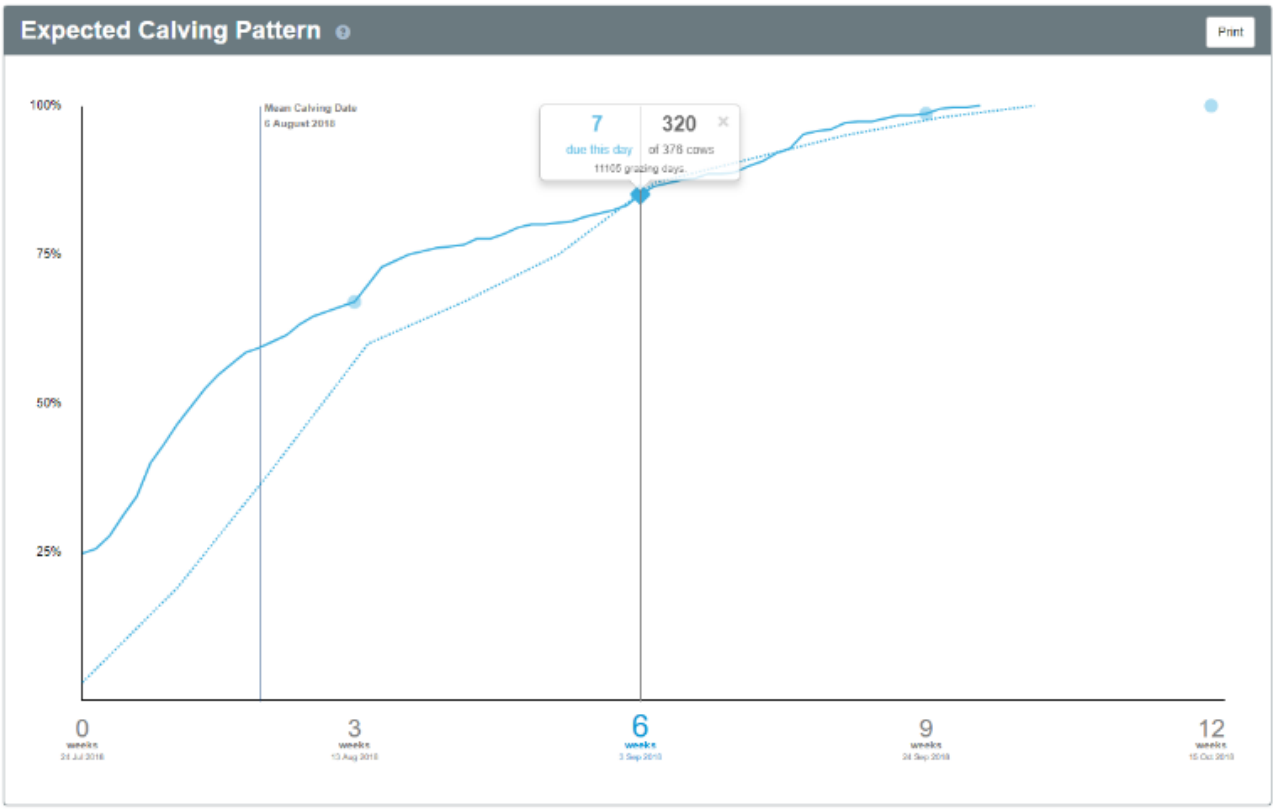
..... represents the industry target calving rate as per the InCalf program.

——— shows your herd's daily cumulative expected calving rate which is based on due to calve dates calculated for each cow from their recorded matings and/or pregnancy diagnoses. *Note: cows with no mating or aged pregnancy test are not included because an expected calving date cannot be calculated.*

Click anywhere on ——— to see the number of cows expected to calve on that date, the total number of cows that should have calved and the expected accumulated cow-milking/grazing days up to that point in time.

Expected Mean Calving Date is calculated as PSC + average number of days cows due to calve from PSC

Planned Start of Calving date (PSC) is calculated as 282 days from the last actual Mating Start Date (MSD).



Calving Rate by Age

Use this graph to evaluate how your herd calved. You can see the percentage of cows that calved throughout your calving period, to help you identify if your calving is too spread out.

..... represents the industry target calving rate as per the InCalf program.

Note: Targets for first calvers will differ according to when their mating started.

First calvers with the same Mating Start Date as the herd have a 3 week target of 75% and 6 week target of 92%

First calvers mated one week ahead of the herd have a 3 week target of 82% and 6 week target of 96%

First calvers mated two weeks ahead of the herd have a 3 week target of 87% and 6 week target of 98%

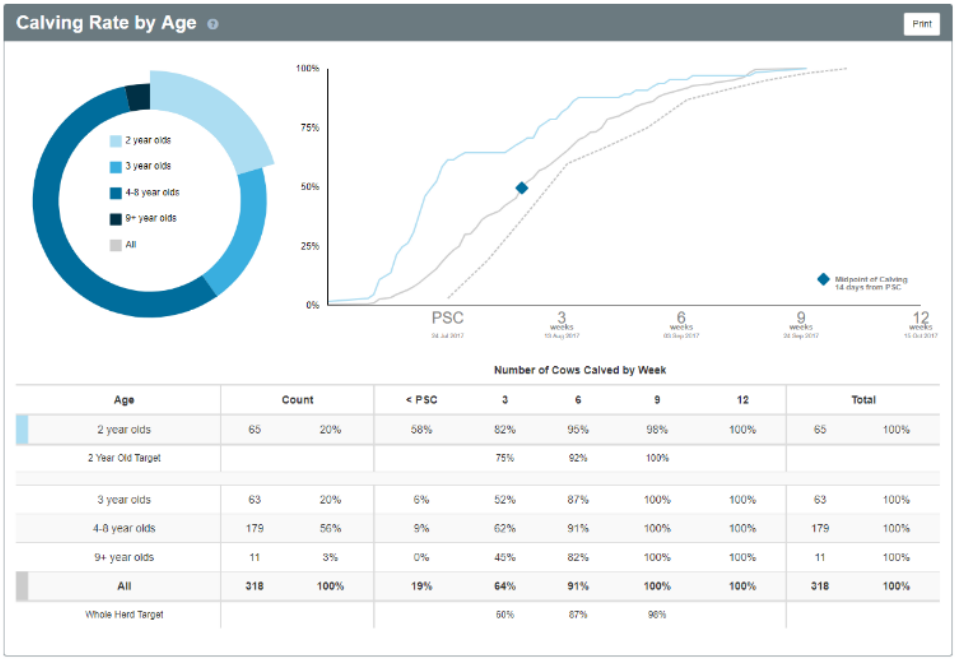
First calvers mated three weeks ahead of the herd have a 3 week target of 92% and 6 week target of 99%

——— shows your herd's *actual* daily cumulative calving rate.

The circle on the left shows the proportion of cows in the group selected that are aged 2 years, 3 years, 4-8 years and 9+ years.

Planned Start of Calving date (PSC) is calculated as 282 days from the last actual Mating Start Date (MSD).

Mid-point of Calving signals the date upon which 50% or more of the cows in the herd have calved.



Number of Cows Calved by Week

Age	Count		< PSC	3	6	9	12	Total	
2 year olds	65	20%	58%	82%	95%	98%	100%	65	100%
2 Year Old Target				75%	92%	100%			
3 year olds	63	20%	6%	52%	87%	100%	100%	63	100%
4-8 year olds	179	56%	9%	62%	91%	100%	100%	179	100%
9+ year olds	11	3%	0%	45%	82%	100%	100%	11	100%
All	**318**	**100%**	**19%**	**64%**	**91%**	**100%**	**100%**	**318**	**100%**
Whole Herd Target				60%	87%	96%			

At Risk Cows for Whole Herd

Use this table to view a list of the cows that may be at risk of future infection or poor mating performance in the current season.

Select one or more of the criteria to filter the animals that will show on the table.

Calving Disorder will include any animals that have had, calving paralysis, calving trouble, prolapsed uterus, retained membranes recorded.

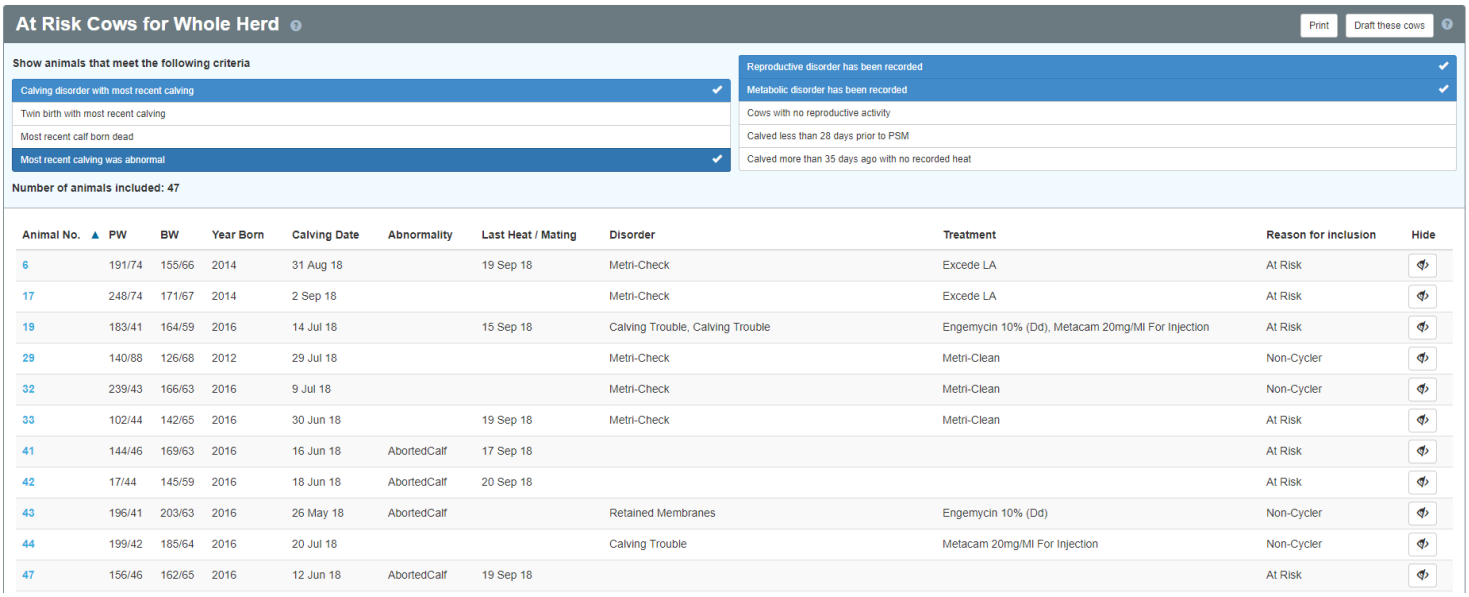
Reproductive Disorder will include any animals that have had an Abortion, Metri-Check, Uterine Infection, Vaginal Injury, Reproductive Disorder - unspecified or Non-Cycling/Anoestrus recorded.

Metabolic Disorder includes animals that have had, Ketosis/Acidosis, Metabolic Disorder - unspecified, Milk Fever, Magnesium/Grass staggers, Pregnancy Toxaemia, Selenium deficiency recorded or they were recorded as a Down cow.

Calving was abnormal will include any cows that have Aborted, Premature or Induced recorded with their calving.

Cows with no Reproductive activity are animals that have no calving date for the latest season, no pregnancy diagnosis in the last year, no expected calving date for the last season and no heats or mating for the last season.

Animals will show on the report if they meet one or more filters that have been selected.



Animal No.	PW	BW	Year Born	Calving Date	Abnormality	Last Heat / Mating	Disorder	Treatment	Reason for inclusion	Hide
6	191/74	155/66	2014	31 Aug 18		19 Sep 18	Metri-Check	Excede LA	At Risk	
17	248/74	171/67	2014	2 Sep 18			Metri-Check	Excede LA	At Risk	
19	183/41	164/59	2016	14 Jul 18		15 Sep 18	Calving Trouble, Calving Trouble	Engemycin 10% (Dd), Metacam 20mg/Ml For Injection	At Risk	
29	140/88	126/68	2012	29 Jul 18			Metri-Check	Metri-Clean	Non-Cycler	
32	239/43	166/63	2016	9 Jul 18			Metri-Check	Metri-Clean	Non-Cycler	
33	102/44	142/65	2016	30 Jun 18		19 Sep 18	Metri-Check	Metri-Clean	At Risk	
41	144/46	169/63	2016	16 Jun 18	AbortedCalf	17 Sep 18			At Risk	
42	17/44	145/59	2016	18 Jun 18	AbortedCalf	20 Sep 18			At Risk	
43	196/41	203/63	2016	26 May 18	AbortedCalf		Retained Membranes	Engemycin 10% (Dd)	Non-Cycler	
44	199/42	185/64	2016	20 Jul 18			Calving Trouble	Metacam 20mg/Ml For Injection	Non-Cycler	
47	156/46	162/65	2016	12 Jun 18	AbortedCalf	19 Sep 18			At Risk	

To hide an animal from appearing in the printed report, select the button. To insert the animal back into the report, select the animal shown in the Hidden filter.

Daily Submission Rates

This graph shows the percentage of eligible cows that have been mated for the first time, to either AB or natural service, for each day of mating (up to six weeks).

You can use the graph to see if there is a period of time where things went well or not so well, to help you identify strategies you used that worked well and those that may need tweaking next mating. For example, if your submission rate significantly drops off on a specific date, take a look at what was happening on-farm around that time to see if improvements could be made.

The table below the graph shows the 3 week submission rate, and a year on year comparison of weekly submission rates (weeks 1-3). The 3 week submission rate is the percentage of eligible cows that have been mated for the first time from Mating Start Date (MSD) to day 21 of mating.

MSD is calculated once there are matings recorded on six consecutive days at the start of the mating period.

If MSD cannot be calculated, a planned start of mating date (PSM) is used. The PSM is estimated based on the previous season's mating start date unless this is the first season since a herd was established. In this instance a default date will be assigned until a Mating Start Date is calculated.

---------- represents the industry target submission rate.

———— shows your herd's daily cumulative submission rate.

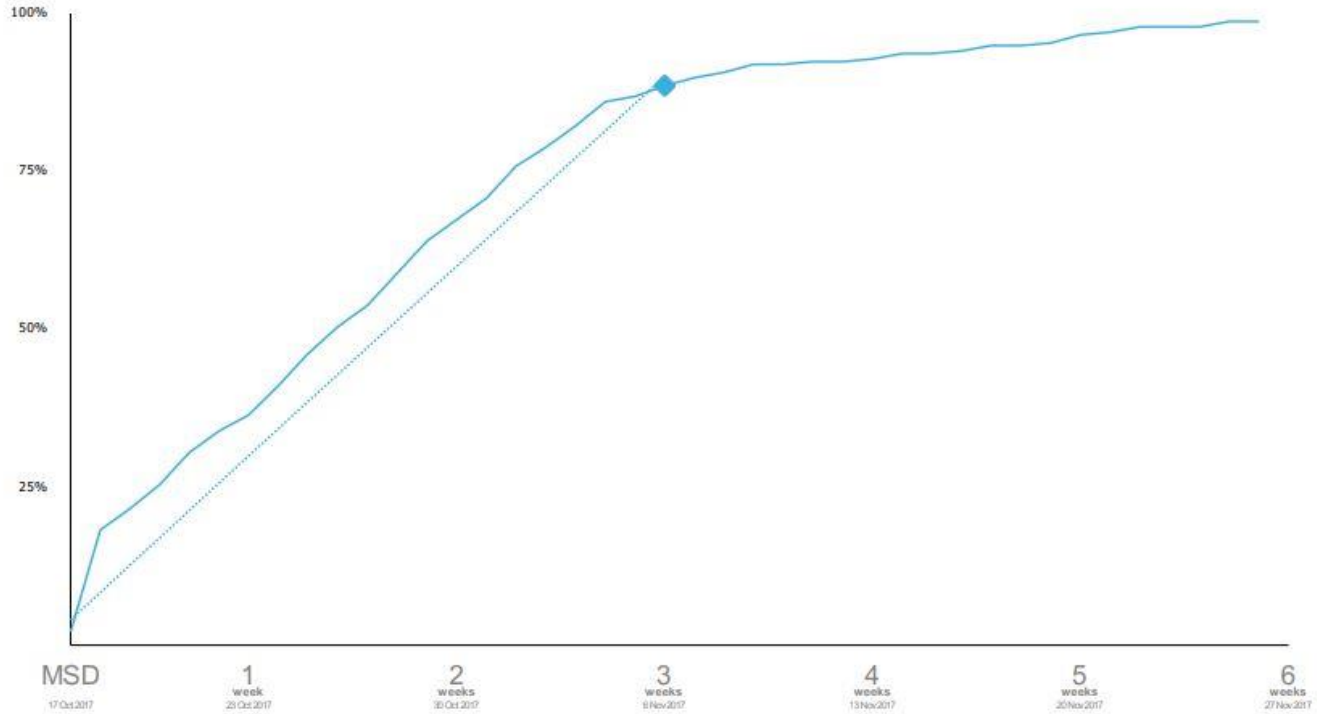
◆ is your 3 week submission rate.

Click anywhere on ———— to see the submission rate and number of cows submitted by that point in time, along with the average submission rate achieved per day and an indication whether you are on track to achieve target or not.

Use the group drop-down to select a different group of cows to report on.

Daily Submission Rates

Animals that are removed from the herd in the first 21 days of mating will be excluded from any calculations.



		Submission rate		
	Count	1 Week	2 Weeks	3 Weeks
Spring 2018		*There is insufficient detail in your records for this season*		
Spring 2017	236	36%	67%	89%
Spring 2016	239	40%	68%	92%
Spring 2015	240	40%	73%	92%

Submission Rates by Calving Pattern

Use this graph to compare your 3 week submission rate between calving patterns and assess the effect of calving pattern on your herd's mating performance.

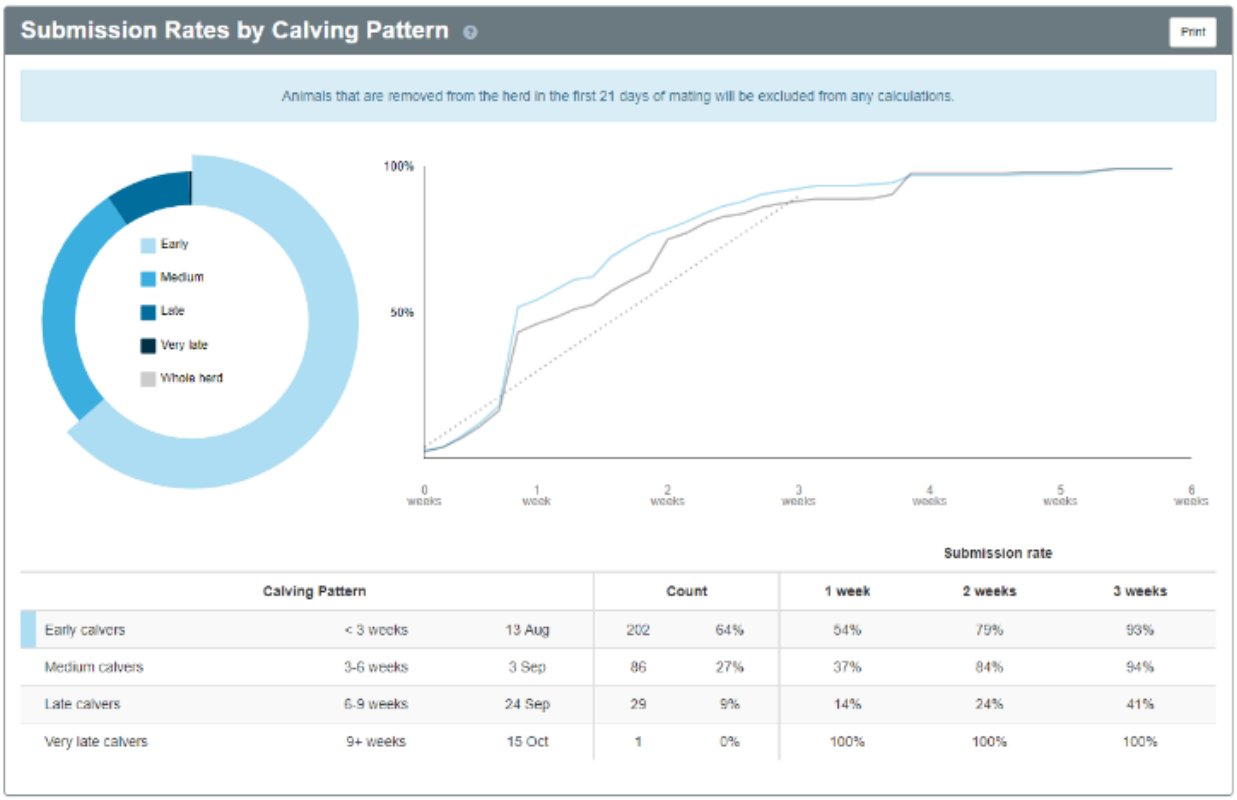
The circle on the left shows the proportion of cows that calved by weeks 3, 6, 9, or after week 9 of the calving period.

The graph on the right shows the cumulative submission rate for one or more calving patterns compared with the overall submission rate for the whole herd.

The table gives you a breakdown of submission rate for each calving pattern through the first three weeks of mating.

Rule of thumb: Medium calvers (calved by week 6 of calving) should have a 3 week submission rate within 8% of the 3 week submission rate of the Early calvers (calved by week 3 of calving). If the gap between Early and Medium calvers is greater than this, think about what are the differences between these two groups of cows, and whether these differences are something you can beneficially influence for next mating.

Click colour blocks on the circle, or click a row in the table to add or remove calving patterns to the line graph.



Calving Pattern			Count		Submission rate 1 week	2 weeks	3 weeks
Early calvers	< 3 weeks	13 Aug	202	64%	54%	79%	93%
Medium calvers	3-6 weeks	3 Sep	86	27%	37%	84%	94%
Late calvers	6-9 weeks	24 Sep	29	9%	14%	24%	41%
Very late calvers	9+ weeks	15 Oct	1	0%	100%	100%	100%

Submission Rates by Age

This graph enables you to compare your 3 week submission rate between the age groups of cows in your herd and assess the effect older cows have had on your overall herd reproductive performance.

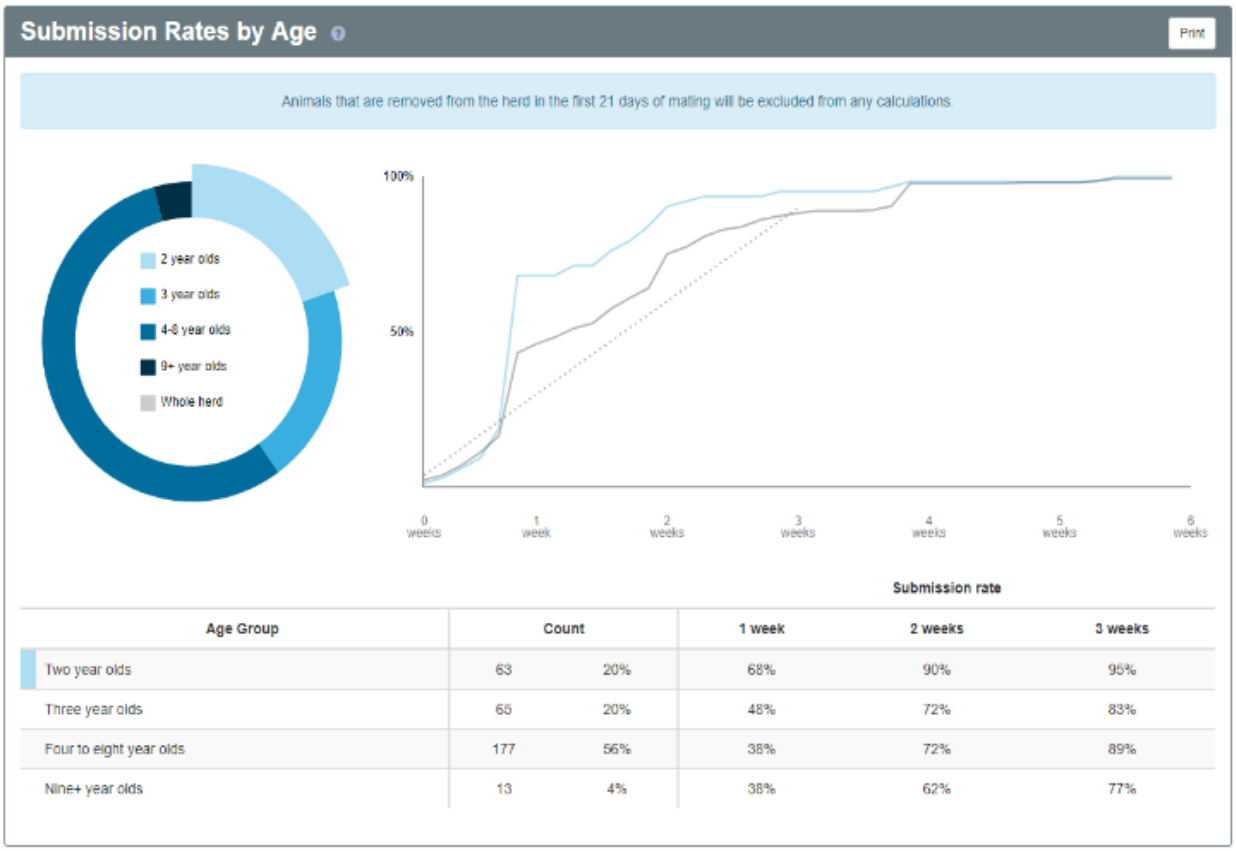
The circle on the left shows the proportion of cows aged 2, 3, 4-8 and 9+ years (at their last calving).

The graph on the right shows the cumulative submission rate for one or more age groups compared with the submission rate for the whole herd.

The table gives you a breakdown of submission rate for each age group through the first three weeks of mating.

Rule of thumb: Younger cows are expected to perform better than older animals. The older a cow is the worse their reproductive performance is as an age group. If your first and second calvers (2 and 3 year olds on the graph) do not have a higher 3 week submission rate than your older cows, look into your young stock management.

Click colour blocks on the circle or rows in the table to add or remove age group submission rates to the graph.



Age Group	Count		1 week	2 weeks	3 weeks
Two year olds	63	20%	68%	90%	95%
Three year olds	65	20%	48%	72%	83%
Four to eight year olds	177	56%	38%	72%	89%
Nine+ year olds	13	4%	38%	62%	77%

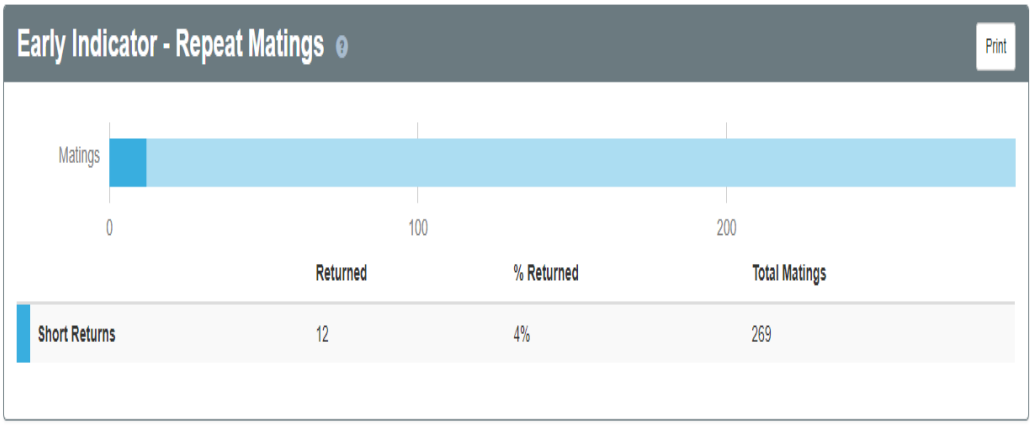
Early Indicator Repeat Matings

Use this indicator to track your heat detection performance during the first 17 days of mating. The aim of this report is to give you the ability to evaluate heat detection performance as soon as there are a few days of mating data recorded. This is based on the fact that cows should not, physiologically speaking, be able to return to heat in 17 days or less. Only a small proportion of short returns is physiologically explainable (8-12 day returns).

The table shows the total number of matings, number of short returns and the percentage of short returns during the first 17 days.

When the number of short returns gets above 13% the indicator will change from blue to red.

Rule of thumb: If your percentage of short returns starts to get into double figures don't panic, but it is a good time to review your heat detection practices and make changes to reduce the number of short returns.



Return Interval Analysis

This report helps to assess heat detection accuracy on farm to help you assess if there are too many invented or missed heats. This graph is based on returns, and the returns are classified into three categories:

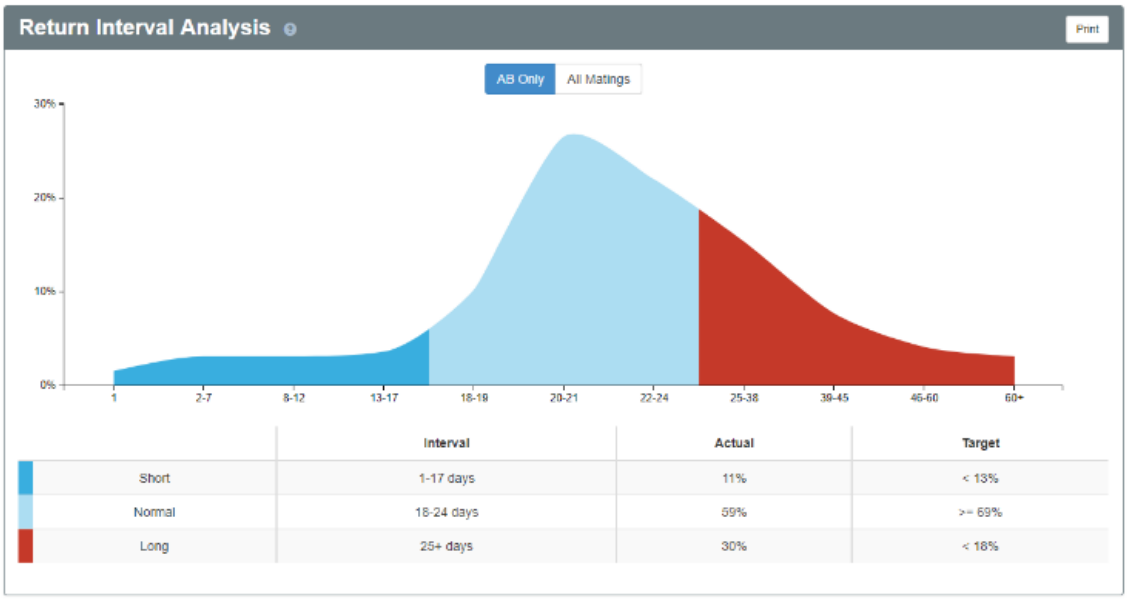
1. Short - the return occurred between 1 to 17 days after the previous mating
2. Normal - the return occurred between 18 to 24 days after the previous mating
3. Long - the return occurred more than 25 days after the previous mating

The graph calculates the distribution of the returns and shows what percentage of all of the returns were short, normal, and long. The target is to have less than 13% short returns and less than 18% long returns. Any more than this, and the graph will change from blue to red.

The longer the mating period the more accurate this report is. It is best to wait until day 30 or more of mating before looking at this graph.

If there are less than 50 returns recorded the reliability and accuracy of this report may be compromised and a yellow banner will be displayed above the graph

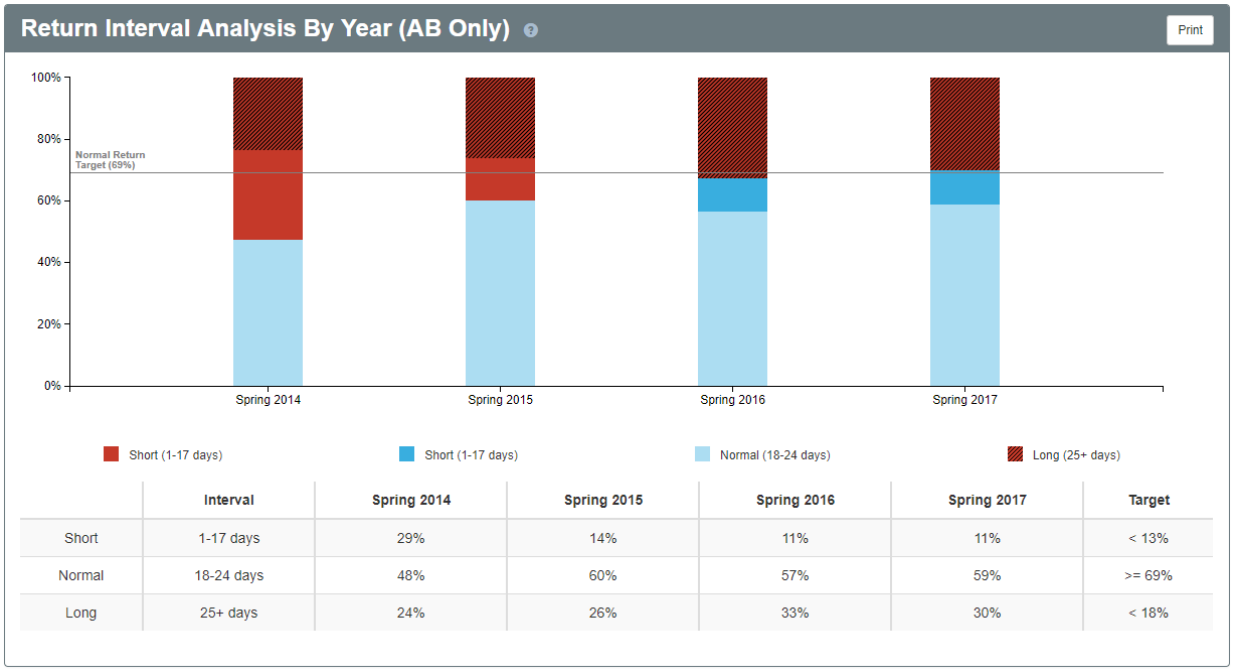
Use the AB only/all matings button to include natural mating information recorded on the database in the report.



	Interval	Actual	Target
Short	1-17 days	11%	< 13%
Normal	18-24 days	59%	>= 69%
Long	25+ days	30%	< 18%

Return Interval Analysis by Year (AB Only)

This report helps to assess heat detection accuracy on farm by comparing year on year performance. The report is based on the return interval analysis for each season and compares the percentage of short, normal and long returns for each year's eligible cows group.



	Interval	Spring 2014	Spring 2015	Spring 2016	Spring 2017	Target
Short	1-17 days	29%	14%	11%	11%	< 13%
Normal	18-24 days	48%	60%	57%	59%	>= 69%
Long	25+ days	24%	26%	33%	30%	< 18%

MINDA® Reports

LIC®

Fertility Focus Report

The InCalf Fertility Focus Report is a DairyNZ report designed to assess herd reproductive performance.

This report uses existing herd data to calculate and present the most important measures of herd reproductive performance, in a standard format. It then compares your herd's performance against industry targets.

The Fertility Focus Report for your herd can be detailed, intermediate or basic depending on the quality and amount of records you have recorded on the database. You should be able to produce reports for up to three years, to monitor performance over successive seasons.

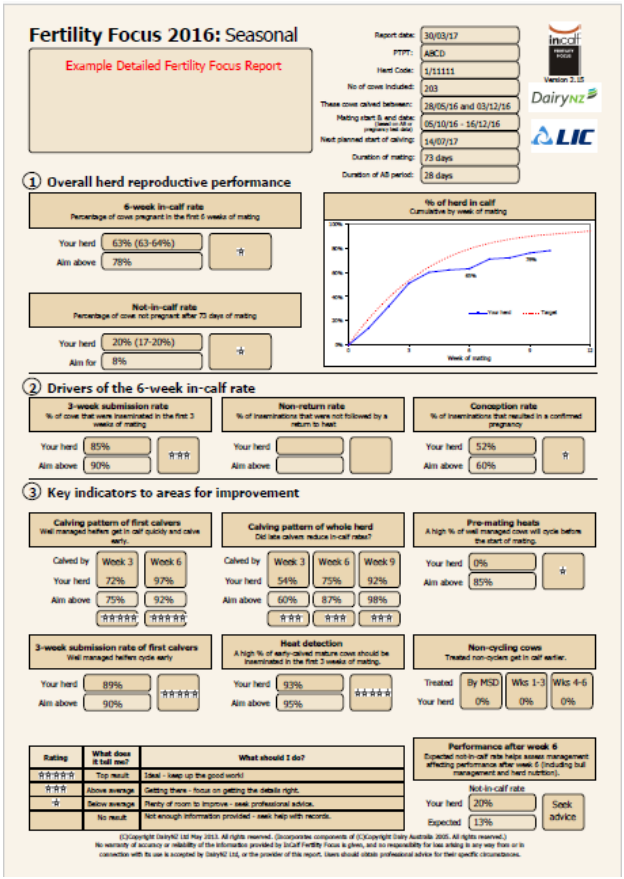
Calving systems

The DairyNZ InCalf Fertility Focus Report supports Seasonal and Split calving herds and is also available to Year-round calving herds (herds that take more than 25 weeks for 80% of the herd to calve), but has not been validated against this Calving system.

Dates

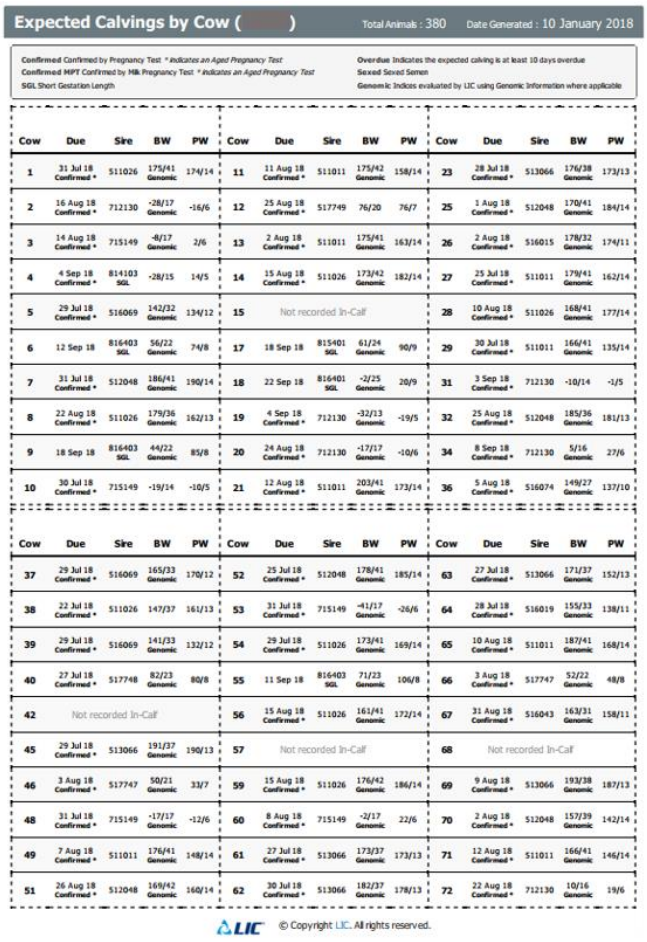
The dates set to run your Fertility Focus Report were based on the earliest mating start date for both Autumn (1st April) and Spring (21st August) throughout New Zealand dairy herds.

By defaulting to these dates we ensure that you will run a Fertility Focus Report that reflects the appropriate season of interest for your herd.



Expected Calvings by Cow

This report gives you a list of cows with their expected calving information. This can be printed for use in your yellow notebook.



Expected Calvings by Cow ( ) Total Animals : 380 Date Generated : 10 January 2018

Confirmed Confirmed by Pregnancy Test * Indicates an Aged Pregnancy Test
Confirmed MPT Confirmed by Milk Pregnancy Test * Indicates an Aged Pregnancy Test
SGL Short Gestation Length

Overdue Indicates the expected calving is at least 10 days overdue
Sexed Sexed Semen
Genomic Indices evaluated by LIC using Genomic Information where applicable

Cow	Due	Sire	BW	PW	Cow	Due	Sire	BW	PW	Cow	Due	Sire	BW	PW
1	31 Jul 18 Confirmed *	511026	175/41 Genomic	174/14	11	11 Aug 18 Confirmed *	511011	175/42 Genomic	158/14	23	28 Jul 18 Confirmed *	513066	176/38 Genomic	173/13
2	16 Aug 18 Confirmed *	712130	-28/17 Genomic	-16/6	12	25 Aug 18 Confirmed *	517749	76/20	76/7	25	1 Aug 18 Confirmed *	512048	170/41 Genomic	184/14
3	14 Aug 18 Confirmed *	715149	-8/17 Genomic	2/6	13	2 Aug 18 Confirmed *	511011	175/41 Genomic	163/14	26	2 Aug 18 Confirmed *	516015	178/32 Genomic	174/11
4	4 Sep 18 Confirmed *	814103 SGL	-28/15	14/5	14	15 Aug 18 Confirmed *	511026	173/42 Genomic	182/14	27	25 Jul 18 Confirmed *	511011	179/41 Genomic	162/14
5	29 Jul 18 Confirmed *	516069	142/32 Genomic	134/12	15	Not recorded In-Calf				28	10 Aug 18 Confirmed *	511026	168/41 Genomic	177/14
6	12 Sep 18	816403 SGL	56/22 Genomic	74/8	17	18 Sep 18	815401 SGL	61/24 Genomic	90/9	29	30 Jul 18 Confirmed *	511011	166/41 Genomic	135/14
7	31 Jul 18 Confirmed *	512048	186/41 Genomic	190/14	18	22 Sep 18	816401 SGL	-2/25 Genomic	20/9	31	3 Sep 18 Confirmed *	712130	-10/14	-1/5
8	22 Aug 18 Confirmed *	511026	179/36 Genomic	162/13	19	4 Sep 18 Confirmed *	712130	-32/13 Genomic	-19/5	32	25 Aug 18 Confirmed *	512048	185/36 Genomic	181/13
9	18 Sep 18	816403 SGL	44/22 Genomic	85/8	20	24 Aug 18 Confirmed *	712130	-17/17 Genomic	-10/6	34	8 Sep 18 Confirmed *	712130	5/16 Genomic	27/6
10	30 Jul 18 Confirmed *	715149	-19/14	-10/5	21	12 Aug 18 Confirmed *	511011	203/41 Genomic	173/14	36	5 Aug 18 Confirmed *	516074	149/27 Genomic	137/10
Cow	**Due**	**Sire**	**BW**	**PW**	**Cow**	**Due**	**Sire**	**BW**	**PW**	**Cow**	**Due**	**Sire**	**BW**	**PW**
37	29 Jul 18 Confirmed *	516069	165/33 Genomic	170/12	52	25 Jul 18 Confirmed *	512048	178/41 Genomic	185/14	63	27 Jul 18 Confirmed *	513066	171/37 Genomic	152/13
38	22 Jul 18 Confirmed *	511026	147/37	161/13	53	31 Jul 18 Confirmed *	715149	-41/17 Genomic	-26/6	64	28 Jul 18 Confirmed *	516019	155/33 Genomic	138/11
39	29 Jul 18 Confirmed *	516069	141/33 Genomic	132/12	54	29 Jul 18 Confirmed *	511026	173/41 Genomic	169/14	65	10 Aug 18 Confirmed *	511011	187/41 Genomic	168/14
40	27 Jul 18 Confirmed *	517748	82/23 Genomic	80/8	55	11 Sep 18	816403 SGL	71/23 Genomic	106/8	66	3 Aug 18 Confirmed *	517747	52/22 Genomic	48/8
42	Not recorded In-Calf				56	15 Aug 18 Confirmed *	511026	161/41 Genomic	172/14	67	31 Aug 18 Confirmed *	516043	163/31 Genomic	158/11
45	29 Jul 18 Confirmed *	513066	191/37 Genomic	190/13	57	Not recorded In-Calf				68	Not recorded In-Calf			
46	3 Aug 18 Confirmed *	517747	50/21 Genomic	33/7	59	15 Aug 18 Confirmed *	511026	176/42 Genomic	186/14	69	9 Aug 18 Confirmed *	513066	193/38 Genomic	187/13
48	31 Jul 18 Confirmed *	715149	-17/17 Genomic	-12/6	60	8 Aug 18 Confirmed *	715149	-2/17 Genomic	22/6	70	2 Aug 18 Confirmed *	512048	157/39 Genomic	142/14
49	7 Aug 18 Confirmed *	511011	176/41 Genomic	148/14	61	27 Jul 18 Confirmed *	513066	173/37 Genomic	173/13	71	12 Aug 18 Confirmed *	511011	166/41 Genomic	146/14
51	26 Aug 18 Confirmed *	512048	169/42 Genomic	160/14	62	30 Jul 18 Confirmed *	513066	182/37 Genomic	178/13	72	22 Aug 18 Confirmed *	712130	10/16 Genomic	19/6

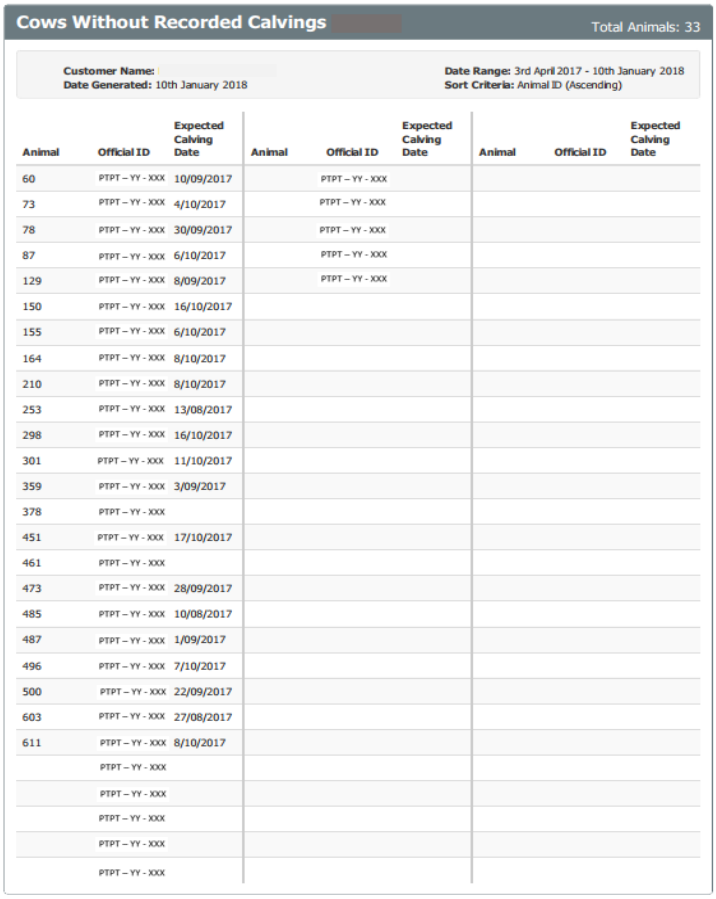
LIC

Please note: If you use this report in your yellow notebook this new MINDA Live version will take up more lines/pages than the previous MINDA Pro version. If you fill your existing notebook and require an additional one please contact the Customer Experience Centre on 0800 264 632.

Cows Without Recorded Calvings

The Cows Without Recorded Calvings report displays all animals current in the herd without a calving recorded for the specified time period. Use this report to identify the animals who need to have their calving activity recorded.

This report will display cows without calvings recorded between the current date and 282 days ago. Use the date picker if you wish to extend the exclusion period for more than 282 days to suit your herd.



Cows Without Recorded Calvings Total Animals: 33

Customer Name:
Date Generated: 10th January 2018

Date Range: 3rd April 2017 - 10th January 2018
Sort Criteria: Animal ID (Ascending)

Animal	Official ID	Expected Calving Date	Animal	Official ID	Expected Calving Date	Animal	Official ID	Expected Calving Date
60	PTPT – YY - XXX	10/09/2017		PTPT – YY - XXX				
73	PTPT – YY - XXX	4/10/2017		PTPT – YY - XXX				
78	PTPT – YY - XXX	30/09/2017		PTPT – YY - XXX				
87	PTPT – YY - XXX	6/10/2017		PTPT – YY - XXX				
129	PTPT – YY - XXX	8/09/2017		PTPT – YY - XXX				
150	PTPT – YY - XXX	16/10/2017						
155	PTPT – YY - XXX	6/10/2017						
164	PTPT – YY - XXX	8/10/2017						
210	PTPT – YY - XXX	8/10/2017						
253	PTPT – YY - XXX	13/08/2017						
298	PTPT – YY - XXX	16/10/2017						
301	PTPT – YY - XXX	11/10/2017						
359	PTPT – YY - XXX	3/09/2017						
378	PTPT – YY - XXX							
451	PTPT – YY - XXX	17/10/2017						
461	PTPT – YY - XXX							
473	PTPT – YY - XXX	28/09/2017						
485	PTPT – YY - XXX	10/08/2017						
487	PTPT – YY - XXX	1/09/2017						
496	PTPT – YY - XXX	7/10/2017						
500	PTPT – YY - XXX	22/09/2017						
603	PTPT – YY - XXX	27/08/2017						
611	PTPT – YY - XXX	8/10/2017						
	PTPT – YY - XXX							
	PTPT – YY - XXX							
	PTPT – YY - XXX							
	PTPT – YY - XXX							
	PTPT – YY - XXX							

Pregnancy Test Worksheet

The Pregnancy Test Worksheet displays all animals in the group selected along with their most recent matings.

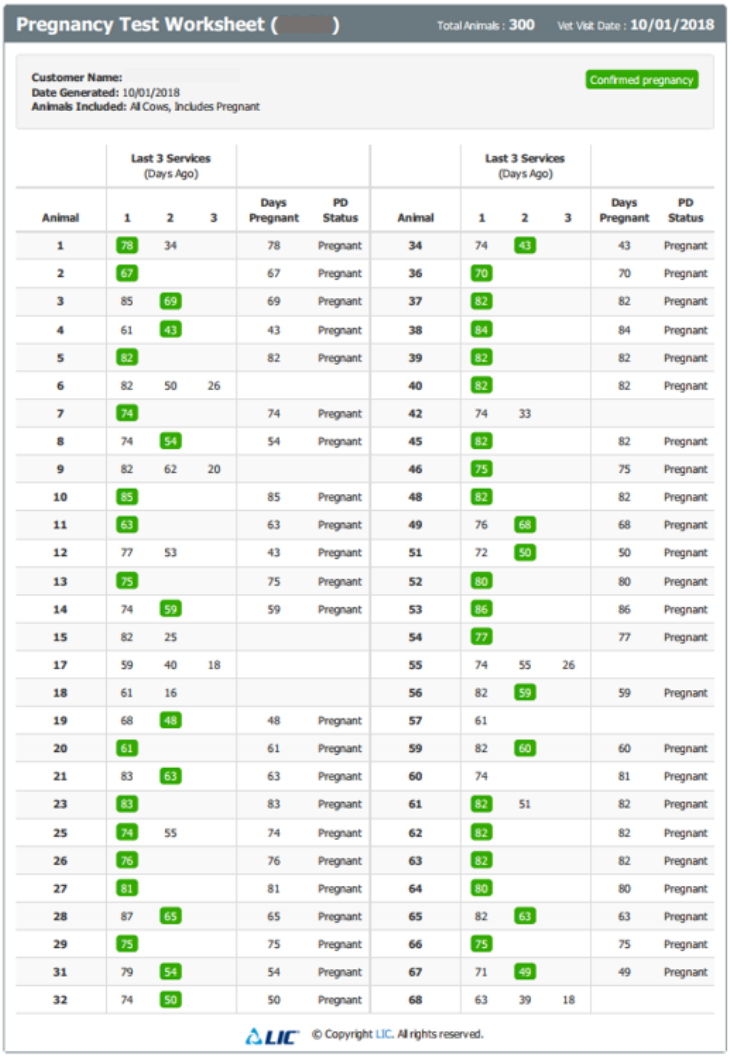
Use this report to identify the Pregnancy Status of your animals.

This page (based on the selected criteria) will display animals and their last 3 matings (where recorded), along with the results of their last pregnancy test (if recorded).

The number of days pregnant is calculated by subtracting the Mating Date from the Vet Visit Date.

The default sort for the table is by Animal ID.

Animals highlighted with a green box indicate they already have a confirmed pregnancy record.



Pregnancy Test Worksheet ( ) Total Animals : **300** Vet Visit Date : **10/01/2018**

Customer Name:
Date Generated: 10/01/2018
Animals Included: All Cows, Includes Pregnant

Confirmed pregnancy

Animal	Last 3 Services (Days Ago) 1	2	3	Days Pregnant	PD Status	Animal	Last 3 Services (Days Ago) 1	2	3	Days Pregnant	PD Status
1	78	34		78	Pregnant	34	74	43		43	Pregnant
2	67			67	Pregnant	36	70			70	Pregnant
3	85	69		69	Pregnant	37	82			82	Pregnant
4	61	43		43	Pregnant	38	84			84	Pregnant
5	82			82	Pregnant	39	82			82	Pregnant
6	82	50	26			40	82			82	Pregnant
7	74			74	Pregnant	42	74	33			
8	74	54		54	Pregnant	45	82			82	Pregnant
9	82	62	20			46	75			75	Pregnant
10	85			85	Pregnant	48	82			82	Pregnant
11	63			63	Pregnant	49	76	68		68	Pregnant
12	77	53		43	Pregnant	51	72	50		50	Pregnant
13	75			75	Pregnant	52	80			80	Pregnant
14	74	59		59	Pregnant	53	86			86	Pregnant
15	82	25				54	77			77	Pregnant
17	59	40	18			55	74	55	26		
18	61	16				56	82	59		59	Pregnant
19	68	48		48	Pregnant	57	61				
20	61			61	Pregnant	59	82	60		60	Pregnant
21	83	63		63	Pregnant	60	74			81	Pregnant
23	83			83	Pregnant	61	82	51		82	Pregnant
25	74	55		74	Pregnant	62	82			82	Pregnant
26	76			76	Pregnant	63	82			82	Pregnant
27	81			81	Pregnant	64	80			80	Pregnant
28	87	65		65	Pregnant	65	82	63		63	Pregnant
29	75			75	Pregnant	66	75			75	Pregnant
31	79	54		54	Pregnant	67	71	49		49	Pregnant
32	74	50		50	Pregnant	68	63	39	18		

In-Calf Rates by Calving Pattern

Medium calvers (calved by week 6 of calving) should have a 6-week in-calf rate within 8% of the 6-week in-calf rate of the Early calvers (calved by week 3 of calving). If the gap between Early and Medium calvers is greater than this, think about what the differences are between these two groups of cows, and whether these differences are something you can beneficially influence for next mating.

In-Calf Rates by Age

Younger cows are expected to perform better than older animals. The older a cow is the worse their reproductive performance is as an age group. If your first and second calvers (2 and 3 year olds on the graph) do not have a higher 6-week in-calf rate than your older cows, look into your young stock management.

In-Calf Rates by Diagnosis

If the 6-week in-calf rate of your affected cows is significantly lower than your Not Affected cows, check to see what percentage of the herd was affected. If it is only a small number, e.g. 2% of the herd, don't lose any sleep over it. For mastitis and lameness, the DairyNZ InCalf industry targets are to have no more than 5% of the herd with mastitis, and no more than 5% lame between calving and the end of mating. If the incidence of mastitis or lameness is higher than 5% in your herd, have a look at ways to improve cow health through this time period.

Submission Rates by Calving Pattern

Medium calvers (calved by week 6 of calving) should have a 3 week submission rate within 8% of the 3 week submission rate of the Early calvers (calved by week 3 of calving). If the gap between Early and Medium calvers is greater than this, think about what are the differences between these two groups of cows, and whether these differences are something you can beneficially influence for next mating.

Submission Rates by Age

Younger cows are expected to perform better than older animals. The older a cow is the worse their reproductive performance is as an age group. If your first and second calvers (2 and 3 year olds on the graph) do not have a higher 3 week submission rate than your older cows, look into your young stock management.

Early Indicator Repeat Matings

If your percentage of short returns starts to get into double figures don't panic, but it is a good time to review your heat detection practices and make changes to reduce the number of short returns.