# All AB statistics

#### All AB herds

The number of herds doing All AB has been increasing over time. Across the 2014 to 2017 seasons, there were 290 - 417 farmers doing All AB\* (this includes herds with either a Detailed or an Intermediate Fertility Focus report).

Number of herds	2014	2015	2016	2017
First year of All AB		245	169	130
All AB that season	290	393	400	417

# Performance of All AB herds compared with AB + Bull herds

Combining the four seasons worth of data together, and just looking at herds with a Detailed Fertility Focus report (FFR), we looked at the performance of All AB herds compared to the AB + Bull herds.

Average	AB + Bull herds	All AB herds	Difference
6-week in-calf rate	66.2%	67.7%	+1.4%
Not-in-calf rate	16.6%	17.1%	+0.6%
Total mating length (days)	76.0	76.4	+0.3
Herd 3-week submission rate	79.0%	83.6%	+4.6%
First calver 3-week submission rate	80.6%	85.3%	+4.7%
Conception rate	52.6%	51.3%	-1.3%
AB Mating Length (days)	45.3	76.4	+31.1
Number of herds	13996	878	

The results indicate that the All AB herds tend to have similar/slightly better reproductive performance than the AB + Bull herds.

- The All AB herds have better 6-week in-calf rates and submission rates, but lower conception rates and higher not-in-calf rates.
- The lower conception rate can be explained by the fact that the All AB herds do AB, on average, for 31 days longer than the AB + Bull herds, meaning it's not surprising the All AB herd's conception rate is slightly lower.
  - o National statistics show that as mating length increases, conception rate decreases
  - o On average, every round of mating (3 weeks) the conception rate drops by 5%:
    - Conception rate for the 1<sup>st</sup> 3 weeks of AB = 54%
    - Conception rate for the  $2^{nd}$  3 weeks of AB = 49%

### All AB herds repro performance before going All AB

For these stats, the year before a herd switched to doing all AB has been labelled as the "Pre All AB year".

Combining the 2014 to 2017 season's data, and using only Detailed FFR's, we compared the reproductive performance of the All AB herds the year before they switched to All AB with the performance of herds that were always AB + Bull.

Average	Pre All AB year	Always All + Bull	Difference
Herd size (cows)	634	527	+107
6-week in-calf rate	67.8%	66.1%	+1.7%
Not-in-calf rate	15.8%	16.3%	-0.6%
Total mating length (days)	76.1	76.5	-0.44
AB Mating Length (days)	58.5	44.2	+14.3
Number of herds	289	9524	

In the year before switching to All AB, these herds had a higher 6-week in-calf rate, a lower not-in-calf rate (for a similar mating length), had more cows, and did AB for longer than AB + Bull herds. This



indicates that the herds that have gone All AB in the past have been herds that are higher performing, larger, and already doing around 8 weeks of AB.

#### Results when herds switch to All AB

The year that herds switch to All AB, there is a slight drop in reproductive performance, <u>but</u> in the second and third years of being All AB, performance lifts to be similar or better than it was before the switch.

	6-week in-calf rate	Not-in-calf rate	
	(compared to Pre All AB year)	(compared to Pre All AB year)	
First year doing All AB	-1.0%	+1.4%	
Second year doing All AB	+0.7%	+0.7%	
Third year doing All AB	+1.9%	+0.5%	

We do seem to be getting better at switching to All AB though. When we look at the results for the herds that go All AB on an individual season basis (e.g. just looking at herds that went All AB in 2015 vs those who went All AB in 2016), we see that any detrimental impact of switching to All AB has been reducing.

	6-week in-calf rate	Not-in-calf rate	
	(compared to Pre All AB year)	(compared to Pre All AB year)	
First year doing All AB - 2015	-0.2%	+2.3%	
First year doing All AB - 2016	+0.5%	0.0%	
First year doing All AB - 2017	+0.8%	+0.1%	

## Do farmers who go All AB stay with it?

Looking at herds that had an FFR (Detailed or Intermediate) for every year (2014 to 2017 seasons), we calculated the percentage of herds that went All AB and stayed with it.

The results indicate that a bit over half of the herds that go All AB continue to do all AB for a second season, but only around a third go on to do a third or fourth All AB season. Interestingly, 11% of the All AB herds return to being All AB again after switching to AB + Bull for a season or two. E.g. a herd is All AB in 2014 and 2015, they switch back to AB + Bull in 2016, then return to All AB in the 2017 season.

All AB	Percentage of herds still doing All AB
For 2 consecutive years	57%
For 3 consecutive years	36%
For 4 consecutive years	33%
Returned to All AB	11%

# What happens to the results of the herds that don't stick with All AB?

Using only herds with a Detailed FFR, we looked at what happened to reproductive performance when herds changed back to AB + Bulls after doing a season or two of All AB.

The year that herds changed back to AB + Bull, their 6-week in-calf rate and not-in-calf rates returned to, or were better than, the performance they had before going All AB. Those that changed back tended to have a greater drop in performance in their first year of All AB than those who stayed with it.

Compared to Pre All AB year	Stayed with All AB	Switched back to AB + Bull
6-week in-calf rate	-1.1%	-1.4%
Not-in-calf rate	+1.3%	+2.4%

Together, these two results highlight the fact that going All AB is not for everyone.

\*Herds included in the analysis for this article were spring calving seasonal herds that had a Detailed InCalf Fertility Focus Report. The seasons analysed were the 2014 to 2017 spring matings. The reproduction measures analysed were generated from data and information entered by herd owners and collected by LIC and DairyNZ. Accuracy of the results reported here is subject to the accuracy of the data entered.

