



Length of Mating Period Tool

What is this tool?

This is a **gap calculator** tool. It assesses the impact on herd reproductive performance of extending or reducing the length of the mating period.

Why use this tool?

In seasonal and split calving herds, most farmers choose mating periods of at least 6 weeks. The majority of herds continue beyond this point using further AB and/or bull matings. Extending the length of the total mating period (AB period plus bull mating period) beyond 6 weeks will have no effect on the 6-week in-calf rate, but will significantly affect the not-in-calf rate.

This tool predicts your herd's expected not-in-calf rate for the current length of the mating period and compares it with an alternative period. The tool then enables you to assess the \$ benefits of improved herd reproductive performance from changing the length of your mating period.

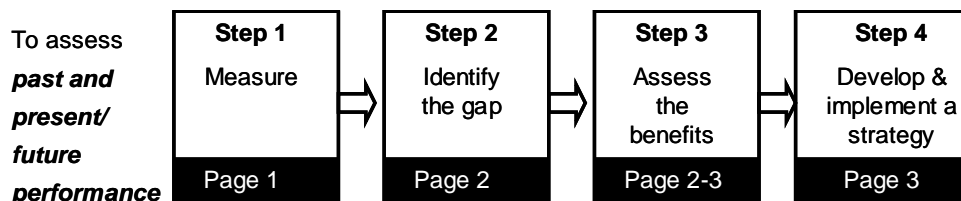
For more information, see *The InCalf Book*, Chapter 10: "Calving pattern" and your *InCalf Fertility Focus report*.




See pages 61-68

How to use this tool

Work through this tool's four basic steps:



When you see this symbol  you need to fill in some information or do some calculations before continuing.

Step 1) Measure

Current length of the mating period is: weeks (A) 

Proceed to page 2 

Step 2) Identify the gap

What alternative length mating period do you wish to consider? weeks (B)

An alternative mating length period (B)	Your herd's current mating length period (A)	Gap (ie. B – A = C)
.....weeks	-weeks	=weeks (C)

Step 3) Assess the benefits

Part 1: Estimate the likely effect of closing the gap on herd reproductive performance

What is your 6-week in-calf rate from your *InCalf Fertility Focus* report, or your estimated 6-week in-calf rate based on historical data? _____ % (D)

(!) Note: If you don't have an *InCalf Fertility Focus* report with an actual 6-week in-calf rate figure or an estimate, select a marginally conservative value such as 65%. The average 6-week in-calf rate from the 2003 Fertility Monitoring report was 68%.

Sliding across the appropriate row for your 6-week in-calf rate (D) in Table 1, below, calculate the effect on expected not-in-calf rate if you moved from your current mating period length to an alternative mating period length.

Expected not-in-calf rate for current mating period of weeks (A):% (E)

Expected not-in-calf rate for an alternative mating period of weeks (B):% (F)

Expected change in not-in-calf rate (F minus E):% (G)

Table 1: Expected not-in-calf rate, given 6-week in-calf rate and length of mating period.

6-week in-calf rate	Total weeks of mating (AB period plus bull mating period)			
	9	10	11	12
50%	34%	30%	27%	24%
55%	30%	26%	24%	23%
60%	26%	23%	21%	19%
65%	22%	19%	17%	16%
70%	19%	17%	15%	14%
75%	17%	15%	13%	12%
80%	13%	12%	11%	10%

Part 2: Determine the likely economic benefits of overall reproductive performance from closing the gap

If a decrease in not-in-calf rate can be achieved by changing the mating length period, this could provide an economic benefit. This can be estimated by considering the \$ value of the likely change in the not-in-calf rate (below).

What is closing your *not-in-calf* rate ‘gap’ worth?

Gap (G) X **\$10 X cows in herd = \$

**This economic multiplier assumes a \$1000 value differential between an empty and in-calf cow.

The benefit needs to be considered in light of generating late and/or late calvers that may: (1) reduce future 6-week in-calf rates; and/or (2) encourage use of inductions. Either will have a negative economic impact in future seasons.

(!) This tool assumes typical performance during the bull mating period. If you are achieving worse results than predicted here, one possible cause is poor bull performance and you should investigate the efficiency of your bull team. Refer to *The InCalf Book*, Chapter 15 on Bull Management starting on page 129, and the Bull Management Practices tool, or consult an adviser. Also use other InCalf tools to assess other possible causes.

Remember that correctly assessing bull management from reproductive information requires some expert interpretation and is best undertaken by an adviser experienced in this field.

Step 4) Develop & implement a strategy

Work closely with your adviser to develop your own farm strategy to achieve these benefits.

If you are considering increasing the length of the mating period, also consider the effects on management of having extra cows due to calve late or very late in the calving period (see page 61 of *The InCalf Book* and the *InCalf Calving Pattern tool*).

Alternatively, if you are considering reducing the length of the mating period, there are likely to be benefits on subsequent 6-week in-calf rate, but consider whether or not the likely increase in not-in-calf rate is an acceptable trade-off.

(!) For example:
 If your 6-week in-calf rate is 60%, your current mating period 12 weeks and you considered an alternative mating period of 12 weeks, the likely effect on not-in-calf rate would be +4% (i.e. an increase in not-in-calf rate from 19% to 23%).

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