

Why change to PUP?

What is PUP grazing?

PUP is the measure of the Proportion of Un-grazed Pasture remaining following grazing. It is a quick and simple way to assess if we have allocated enough pasture to fully feed cows.

In 2017 editions of Northern Horizons, there was a series of articles on a new grazing strategy called PUP grazing (Proportion of Un-grazed Pasture). This article continues the discussion about the fundamentals of PUP grazing describing how it is different from current grazing strategies and the benefits you will likely achieve by adopting PUP.

What is different about PUP grazing versus existing grazing management strategies?

The table to the right shows the fundamentals of traditional grazing management strategies as compared to PUP.

PUP focuses on changing two aspects of grazing management, the first being the pasture allocation and the second being the resulting post grazing residues.

Table 1. Comparison of traditional vs. PUP grazing management strategies.

	Strategy	Kikuyu	Ryegrass
Stage of grazing	Traditional	4.5 leaf stage	2 to 3 leaf stage
	PUP	4.5 leaf stage	2 to 3 leaf stage
Pasture allocation	Traditional	66% of the total pasture on offer	80% of the total pasture on offer
	PUP	100% of the top leafy stratum on offer excluding faecal contamination	
Target post grazing residues	Traditional	5 cm	5 cm
	PUP	100% of the pasture area grazed except around the faecal patches	
Grazing intervals	Traditional	Longer	Longer
	PUP	Shorter	Shorter

Data collected on the Lockyer ground-truthing farm supports that these larger residuals lead to higher pasture growth rates, faster rotations and more pasture consumed off the set grazing area.

Pasture allocation using PUP

The principles are: Allocating feed using the PUP method is based on achieving 100% of your target intake at every grazing, whereas under the traditional grazing system, this is likely to be hit and miss with cows being fully fed on a rare occasion. When allocating feed using the PUP system, you assess and account for the urine and faeces patches before allocating the feed. If you assess that there is 10% of the grazing area spoiled, then you offer 110% to ensure the 100% intake. This approach is not used in traditional pasture allocation approaches. Traditional is based around assessing the total amount of pasture, aiming for a post grazing height which is affected by contamination. The absolute pasture intake by cows could be less than you expect due to contamination alone.

Post grazing residues

The principles are: Traditional grazing strategies rely on defined post grazing heights. To achieve these post grazing heights, the cows are forced to consume all material irrespective of whether it is excellent or poor quality.

PUP post grazing heights are defined by the farmer to ensure the maximum intake is achieved. The pasture consumed by cows under this strategy will always be of the highest possible quality.

Under PUP grazing strategies, the residuals can be larger, meaning slightly more pasture leaf left behind. The residual leaf material will die and rot away, but not before something quite important occurs. The additional leaf residual intercepts light, producing significantly more energy to boost pasture recovery (regrowth).

Ground truthing PUP

DAF is currently ground-truthing PUP grazing on a dairy farm in the Lockyer Valley. The Moreton and Lockyer- Brisbane Valley discussion groups visited the ground-truth demonstration in November 2017. The feedback we have received is encouraging.

Data collected on the Lockyer ground-truthing farm supports that these larger residuals lead to higher pasture growth rates, faster rotations and more pasture consumed off the set grazing area. This is another big positive for implementation of the PUP grazing strategy.

The benefits of PUP over traditional.

The PUP system allows a farmer several options:

1. To drive increased pasture intake reducing purchased feed reliance and expense.
2. To drive a higher pasture intake with current levels of supplements, achieving higher milk production than previously achieved.
3. To grow more pasture, produce more milk from pasture, achieve more frequent rotations resulting in more total milk on the same grazing area.

This is a quantum step forward for the northern dairy industry and therefore PUP should be considered by farmers. ■ ■

Targeting 100% horizontal utilisation of a pasture strip, excluding contaminated pasture clumps, consistently allows the milking cows to graze the top leafy stratum of a pasture, ensuring higher diet quality and larger pasture intakes. This is the basis of our new grazing strategy called PUP.

