

## Pasture Types Database

The **Pasture Types** database is one of the key components of the FARMAX pasture model and is one of two factors used to determine changes in average pasture quality (MJME/kgDM) over time. Changes in average pasture quality across the farm can be quantified using the **Quality** report.

The Pasture Type database consists of several pasture types, each of which can be applied to specific blocks. This is the mechanism available to represent various pasture quality characteristics across different areas of a farm. Eg. Low quality pasture on a hill block and high quality pasture on a flats block. Each available pasture type consists of three sections: **Controlled %**, **Uncontrolled %**, and **Energy (MJME/kgDM)**.

Table 1 – Medium quality Sheep & Beef Pasture type

Month	Controlled %			Uncontrolled %			Energy MJME/kgDM		
	Green	Stem	Dead	Green	Stem	Dead	Green	Stem	Dead
Jan	60	10	30	40	35	25	10.9	9.4	7.9
Feb	60	5	35	40	20	40	10.9	9.4	7.9
Mar	65		35	45	10	45	10.7	5.8	6.3
Apr	70		30	55		45	10.7	5.8	6.3
May	75		25	60		40	10.7	5.8	6.3
Jun	80		20	70		30	10.4	5.0	5.4
Jul	85		15	80		20	10.4	5.0	5.4
Aug	85		15	85		15	10.8	5.0	5.4
Sep	85		15	85		15	11.3	10.9	8.1
Oct	85		15	85		15	11.3	10.9	8.1
Nov	75	5	20	75	5	20	11.3	10.9	8.1
Dec	60	20	20	55	20	25	10.9	9.4	7.9

Pasture control status is determined automatically by the average farm pasture cover during the previous spring. Pasture can be fully controlled, fully uncontrolled, or anywhere in between. If average cover is below minimum between the **1<sup>st</sup> September and 15<sup>th</sup> January**, pasture is fully controlled. If cover ever exceeds maximum, pasture is fully uncontrolled. Where maximum cover in the previous spring is within minimum and maximum, control status will be somewhere in the middle.

Table 2 – Pasture control status parameters

	Minimum kgDM/ha	Maximum kgDM/ha
<b>Sheep, Beef &amp; Deer</b>	2400	3000
<b>Dairy</b>	2700	3300

Pasture control status is used to estimate the proportions of green, stem and dead material in the sward. Each of these forms of pasture dry matter have an energy value attributed, which changes slightly throughout the season. The pasture control status combined with metabolisable energy figures can then be used to estimate an average MJME for the farm.

The provided defaults are based on AgResearch data, but are often worth checking, particularly during abnormal seasons. To retain that default data but customise a 'Pasture Type' for your FARMAX file, duplicate the existing before you make edits. Just make sure you remember to apply your customised pasture type to the file at the Block-level.

Sometimes, the file may show as infeasible even when the cover line is above the minimum cover line, this is down to pasture quality. Modelling strategies that will keep quality controlled in the Spring should help this issue. It is also affected by the initial cover recorded at the Block-level in short term files.