

## Resident hill country pasture production in response to temperature and soil moisture over 20 years in Central Hawke's Bay

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### Additional File 1: Table A1.

**Table A1** Mean daily growth rates for each calendar month (kg DM/ha/d) of three dryland, grass-based hill country pastures between 1999 and 2019 at Poukawa Research Farm, Hawke's Bay. SEM and means separation are for the main effect of Time from the repeated measures analysis in each allocated month.

Year	Month											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1999		16.0	41.5	32.5	23.7	15.2	13.2	22.7	46.7	82.0	52.5	54.5
2000	20.9	0.0	20.2	39.2	26.9	14.9	20.6	32.4	46.8	61.8	67.5	25.2
2001	9.8	18.4	12.7	12.3	28.3	14.7	12.7	28.6	36.6	73.8	38.4	38.7
2002	57.2	44.2	17.4	21.1	17.2	18.3	18.4	30.9	63.6	67.7	37.1	7.8
2003	7.8	7.8	59.6	33.9	28.3	22.3	16.3	33.7	64.9	73.3	36.7	20.5
2004	35.6	29.6	27.9	12.2	12.8	9.3	6.9	39.1	62.4	60.6	41.9	21.8
2005	0.0	0.0	40.0	37.0	27.9	27.9	36.5	36.5	54.4	54.4	37.0	30.6
2006	20.0	16.1	15.4	19.5	15.9	14.7	31.2	31.2	45.1	45.1	38.5	2.4
2007	2.4	2.4	2.4	9.3	4.2	4.2	19.8	19.8	65.5	65.5	65.5	34.1
2008	3.7	3.7	3.7	15.2	9.6	6.9	8.3	22.3	67.7	67.7	12.1	12.1
2009	5.1	5.1	8.7	3.4	3.4	3.3	12.6	32.2	57.5	57.5	56.6	29.6
2010	29.6	37.9	2.5	2.5	7.0	5.0	18.0	18.0	53.1	67.5	41.8	13.6
2011	13.6	49.7	19.1	19.7	24.6	18.6	24.7	15.5	38.2	77.2	43.7	23.3
2012	39.9	59.4	24.1	25.2	15.3	5.4	10.4	23.7	30.6	32.4	4.5	4.5
2013	4.5	2.1	2.1	2.1	13.4	21.0	11.8	42.0	<sup>2</sup>	72.9	32.0	22.8
2014	22.8	17.8	18.8	18.8	18.7	17.3	12.0	12.0	54.9	54.9	69.6	11.4
2015	11.4	11.2	11.0	25.7	28.3	5.2	15.2	23.5	45.1	84.7	22.9	22.9
2016	4.7	4.7	4.7	6.6	6.6	6.6	8.8	8.8	38.4	81.1	16.6	16.6
2017	16.6	16.6	45.9	45.9	16.1	13.9	13.9	13.9	59.0	30.5	30.5	30.5
2018	10.6	10.6	10.6	15.5	17.3	24.5	24.5	24.5	36.7	55.1	28.9	37.9
2019	37.9	11.6	11.0	12.8	2.8	2.8	7.2	18.3	38.0	41.7	35.7	-
Grand Mean	17.7	17.4	19.1	19.5	16.6	12.9	16.3	25.2	50.2	62.3	38.6	23.0
SEM (Time)	3.54	3.35	2.86	2.93	2.45	2.38	2.55	3.43	4.92	6.73	6.18	3.89
Significance <sup>1</sup>	**	**	***	***	***	*	*	*	ns	ns	*	*

<sup>1</sup>significance levels are \* = P<0.05; \*\* = P<0.01, \*\*\* = P<0.001 and ns = non-significant (P>0.05). <sup>2</sup>dashes (-) indicate missing values.