

Table 6

Treatment means, standard error of the difference in means, and two-sided *p*-values for soil NO₃-N and Potentially Mineralizable N (PMN) content (kg ha⁻¹), measured at LGM termination and wheat seeding for specified soil depths across five sites in north-central Montana.

Sampling Depth	Treatment, Statistics	Site					Mean‡
		Big Sandy	Box Elder	Joplin	Sunburst	Oilmont	
NO₃-N at LGM termination							
0-0.3 m	Fallow	21	15	9	26	8	15
	LGM	5	6	5	6	4	6
	SE difference	4	2	2	3	1	1
	<i>p</i> -value	0.01*	<0.01*	0.07*	<0.01*	<0.01*	<0.01*
0.3-0.6 m	Fallow	10	4	20	17	2	7
	LGM	3	3	5	8	1	4
	SE difference	2	1	4	4	0	1
	<i>p</i> -value	0.01*	0.18	0.13	0.41	0.13	<0.01*
0.6-0.9 m	Fallow	9	14	39	15	2	14
	LGM	4	13	24	13	2	10
	SE difference	3	6	13	8	0	3
	<i>p</i> -value	0.20	0.91	0.25	0.83	0.48	0.26
NO₃-N at wheat seeding†							
0-0.3 m	Fallow	47	29	24	54	16	30
	LGM	26	15	19	23	10	19
	SE difference	6	5	2	9	4	2
	<i>p</i> -value	0.01*	0.02*	0.03*	0.01*	0.18	<0.01*
0.3-0.6 m	Fallow	20	7	11	24	6	13
	LGM	14	5	7	7	4	7
	SE difference	2	1	1	3	1	1
	<i>p</i> -value	0.01*	0.03*	<0.01*	<0.01*	0.08*	<0.01*
0.6-0.9 m	Fallow	10	24	29	15	2	13
	LGM	7	18	13	11	3	10
	SE difference	1	5	9	3	1	1
	<i>p</i> -value	0.13	0.26	0.09*	0.22	0.77	0.02*
PMN at wheat seeding							
0-0.3 m	Fallow	15	12	5	12	7	9
	LGM	5	13	17	46	23	18
	SE difference	6	6	6	10	6	3
	<i>p</i> -value	0.14	0.91	0.07*	0.03*	0.02*	<0.01*

* Treatment differences at individual sites determined by paired t-tests and treatment means across all sites from mixed-effects ANOVA considered significant at $p \leq 0.10$.

† Wheat seeding sampling was in Sept. for Big Sandy, Box Elder and Joplin (winter wheat) and in April for Sunburst and Oilmont (spring wheat).

‡ Treatment means and statistics as calculated across all sites. Note: "Mean" is not the mean of site means.