

Table S1. Grain yield (14 % moisture) for the different N fertilization treatments in site 1 (Villanueva de Sigena) and site 2 (Grañén).

Site 1		Site 2	
	Grain yield		Grain yield
	kg ha ⁻¹		kg ha ⁻¹
Treatments (T)	**	Treatments (T)	**
Control (C)	2220 b	Control (C)	5766 ab
M120M60	5241 a	M170M0	4554 b
PS120M60	5187 a	PS170M0	7012 a
PS170M0	5705 a		

** p<0.01

Different letters in the same column indicate significant differences between treatments.

Table S2. N, P₂O₅ (Olsen) and K₂O (ammonium acetate) amounts in the 0–0.3 m soil depth at the beginning of each experiment and the nutrient amounts applied with the fertilizers (PS or mineral).

Site	Treatments	Soil			Fertilizer		
		Mineral N (NH ₄ ⁺ +NO ₃ ⁻) (kg ha ⁻¹)	P ₂ O ₅	K ₂ O	NH ₄ ⁺ -N	P ₂ O ₅	K ₂ O
1	Control (C)	37	58	396	0	100	100
	M120M60	37	58	396	180	100	100
	PS120M60	37	58	396	169	146	127
	PS170M0	37	58	396	165	222	194
2	Control (C)	60	367	1094	0	100	100
	M170M0	60	367	1094	170	100	100
	PS170M0	60	367	1094	171	27	177