

**Table S1.** ANOVA Effect of treatments on FHB severity in durum wheat evaluated in three-year-study.

variables	DF	Mean squares
Treatments (T)	5	2143.7***
Year (Y)	2	1335.0***
T X Y	10	90.7***

The mean squares are shown, and the symbols indicate statistical significance ( $p \leq 0.1$ ; \*\*\*,  $p \leq 0.001$ ).

**Table S2.** ANOVA Effect of treatments on yield components of durum wheat evaluated in three-year-study.

traits		Grain yield (Mg/ha)	Thousand Kernels weigh (TKW) (g)
variables	DF	Mean squares	
Treatments (T)	5	14.885***	22.2***
Year (Y)	2	14.731***	666.5***
T X Y	10	2.565***	8.3***

The mean squares are shown, and the symbols indicate statistical significance ( $p \leq 0.1$ ; \*\*\*,  $p \leq 0.001$ ).

**Table S3.** ANOVA Effect of the biostimulants on the physiological traits and carbon and nitrogen isotope discrimination in the 2018 cropping season.

	Mean squares							
Traits	GY (Mg/ha)	TKW (g)		FHB (%)	NDVI	SPAD	CT (°C)	SC (mmol.m <sup>-2</sup> .s <sup>-1</sup> )
Treatments (T) (Df=5)	7.511***	18.379**		728.6***	0.009430***	24.580***	6.796***	2229.9*
Traits	C <sub>leaf</sub> (%, g DW)	δ <sup>13</sup> C <sub>leaf</sub> (‰)	N <sub>leaf</sub> (%, g DW)	δ <sup>15</sup> N <sub>leaf</sub> (‰)	C <sub>grain</sub> (%, g DW)	δ <sup>13</sup> C <sub>grain</sub> (‰)	N <sub>grain</sub> (%, g DW)	δ <sup>15</sup> N <sub>grain</sub> (‰)
Treatments (T) (Df=5)	4.910***	1.0093***	1.5433***	2.5780***	3.809***	0.11692***	0.06099***	1.4316***

The mean squares are shown, and the symbols indicate statistical significance (\*, p≤0.5; \*\*, p≤0.01; \*\*\*, p≤0.001).