

Supplementary Materials: Table S1: Analysis of variance summary of weed characteristics and durum wheat yield and straw across the field experiments in the 2013/2014 and 2014/2015 growing seasons.

Source of variations	<i>d.f.</i>	Weed density (plants m ⁻²)	Weed biomass (g m ⁻²)	Annual weeds (plants m ⁻²)	Perennial weeds (plants m ⁻²)	Monocots weeds (plants m ⁻²)	Dicots weeds (plants m ⁻²)	Grain yield (g m ⁻²)	Wheat straw (g m ⁻²)
Soil tillage (A)	2	0.0167*	0.0224*	0.0464*	0.0380*	0.0306*	<0.001***	0.0407*	0.0084**
Fertilization source (B)	1	<0.0001***	0.0357*	0.1709 ^{ns}	<0.0001***	0.2425 ^{ns}	<0.001***	<0.0001***	<0.0001***
A × B	2	0.0012**	0.0492*	0.5066 ^{ns}	0.0454*	0.8565 ^{ns}	0.0046**	0.0564 ^{ns}	0.4611 ^{ns}
Year (C)	1	0.0152*	0.0602 ^{ns}	0.2336 ^{ns}	0.4991 ^{ns}	0.3362 ^{ns}	0.0460*	0.0515 ^{ns}	0.0598 ^{ns}
A × C	2	0.0834 ^{ns}	0.0350*	0.1884 ^{ns}	0.2837 ^{ns}	0.2960 ^{ns}	0.0527 ^{ns}	0.2729 ^{ns}	0.2214 ^{ns}
B × C	2	0.0647 ^{ns}	0.0693 ^{ns}	0.3615 ^{ns}	0.3150 ^{ns}	0.5924 ^{ns}	0.0759 ^{ns}	0.0094**	0.0160*
A × B × C	2	0.0468*	0.0297*	0.7019 ^{ns}	0.5342 ^{ns}	0.9842 ^{ns}	0.2244 ^{ns}	0.0082**	0.0014**