Table S1. Soil type. soil fertility. forecrop. average annual temperatures[ºC] and average precipitation [mm] in sites used in the organic trials preformed in the years 2020-2022.

Specification	Osiny	Grabów	Szepietowo	Tarnów	Węgrzce	Skołoszów	Przecław	Radostowo	Śrem
Agricultural suitability complex of	rye very good	rye very good	rye very good	wheat good	wheat very good	wheat very good	wheat very good	wheat good	rye very good
Soil type	grey-brown podsolic	black earths	grey-brown podsolic	grey-brown podsolic	brown soil	chornozem soil	alluwial medium soil	brown soil	podsolic soil
Soil species	loamy sand	loamy sand	loamy sand	loamy sand	dust silit loam	loess	dust silit loam	heavy loam	light loamy sand
Soil fertility:									
- humus (%)	1.4	1.5	1.4	2.2	-	-	-	-	–
- P2O5 (mg/100g of	8.6	6.8	25.9	16.4	very high	10.8	midium	very high	high
- K2O (mg/100g of	10.0	7.1	23.1	28.0	high	20.0	midium	very high	low
- Mg (mg/100g of soil)	9.1	5.8	7.6	14.4	high	10.3	very high	high	midium
pH w KCl	5.9	5.8	6.3	6.0	6.3	6.0	6.1	6.7	5.6
Forecrop	winter cereals	cereals and legume mixture	mixture of melliferous plants	winter rape + catch crop	pea	spring cereals and lupine mixture	spring cereals	winter rape	winter cereals
Average annual temp. [ºC][a]	7.6	7.6	7.6	9.1	9.1	8.4	8.8	8.3	9.8
Precipitation [mm][a]	587	655	548	614	684	624	687	555	514

[a] Average for the years 1996-2022.