



Article

The reaction of winter oilseed rape to different foliar fertilization with macro- and micronutrients

Wacław Jarecki

Table S1. Yield components and seed yield, mean values for interaction foliar fertilization x years.

Foliar fertilization	Years	Plant density before harvest (pcs.·m ⁻²)	Number of silicles per plant	Number of seeds per silicle	Thousand seed weight (g)	Seed yield (t·ha ⁻¹)
A	2018	41.4	61.0	21.2	6.4 ^d	3.40 ⁱ
	2019	29.0	102.5	21.1	7.3 ^{abc}	4.50 ^{fgh}
	2020	33.5	117.1	23.3	5.4 ^e	4.89 ^{bcd}
B	2018	42.5	70.9	22.6	6.6 ^{bcd}	4.38 ^{gh}
	2019	29.8	99.9	22.1	7.3 ^{abc}	4.76 ^{cdef}
	2020	26.0	146.1	24.1	5.1 ^{ef}	4.61 ^{defg}
C	2018	47.8	64.4	22.6	6.4 ^d	4.36 ^{gh}
	2019	31.5	94.8	22.1	7.6 ^a	4.91 ^{bc}
	2020	30.8	148.4	24.1	4.5 ^f	4.91 ^{bc}
D	2018	44.5	81.3	22.8	6.3 ^d	5.12 ^{ab}
	2019	30.3	106.5	22.6	6.8 ^{abcd}	4.79 ^{cde}
	2020	28.3	143.2	24.4	4.6 ^{ef}	4.51 ^{efgh}
E	2018	37.1	91.1	22.4	6.5 ^{cd}	4.80 ^{cde}
	2019	30.5	95.7	21.7	7.6 ^a	4.77 ^{cdef}
	2020	28.5	150.0	23.7	5.2 ^{ef}	5.25 ^a
F	2018	45.3	66.1	22.4	6.5 ^{cd}	4.26 ^h
	2019	30.5	95.3	21.0	7.3 ^{abc}	4.38 ^{gh}
	2020	27.8	141.2	23.3	4.8 ^{ef}	4.41 ^{gh}
Foliar fertilization x years		n.s.	n.s.	n.s.	*	***

Table S2. Chemical composition of seeds and yield of fat and protein, mean values for interaction foliar fertilization x years.

Foliar fertilization	Years	Fat content (%)	Fat yield (t·ha ⁻¹)	Protein content (%)	Protein yield (t·ha ⁻¹)
A	2018	45.1 ^h	1.53 ⁱ	22.2 ^a	0.75 ^t
	2019	49.6 ^{ab}	2.23 ^{bcdef}	18.5 ^{def}	0.83 ^{def}
	2020	47.5 ^{cdef}	2.32 ^{abcde}	19.5 ^{cdef}	0.95 ^{abcd}
B	2018	46.6 ^{efgh}	2.06 ^{gh}	20.1 ^{bcde}	0.90 ^{bcde}
	2019	50.3 ^a	2.39 ^{abc}	18.1 ^{ef}	0.83 ^{def}
	2020	47.0 ^{defg}	2.12 ^{fgh}	19.1 ^{cdef}	0.90 ^{bcde}
C	2018	47.0 ^{defg}	1.98 ^h	20.2 ^{abcde}	0.98 ^{abc}
	2019	50.3 ^a	2.42 ^a	18.7 ^{cdef}	0.89 ^{cde}
	2020	46.1 ^{fgh}	2.36 ^{abc}	20.0 ^{bcde}	0.92 ^{bcd}
D	2018	46.2 ^{fgh}	2.36 ^{abc}	20.4 ^{abcd}	1.04 ^a
	2019	50.4 ^a	2.41 ^a	18.4 ^{def}	0.88 ^{cde}
	2020	48.7 ^{abcd}	2.20 ^{defg}	17.5 ^f	0.79 ^{ef}
E	2018	45.5 ^{gh}	2.23 ^{bcdef}	20.6 ^{abc}	0.96 ^{abc}
	2019	49.2 ^{abc}	2.40 ^{ab}	18.9 ^{cdef}	0.86 ^{cdef}
	2020	48.1 ^{bcde}	2.47 ^a	18.3 ^{ef}	1.00 ^{ab}
F	2018	46.0 ^{fgh}	1.96 ^h	21.6 ^{ab}	0.92 ^{bcd}
	2019	50.0 ^a	2.19 ^{efg}	19.1 ^{cdef}	0.84 ^{def}
	2020	47.9 ^{bcdef}	2.11 ^{fgh}	18.1 ^{ef}	0.80 ^{ef}
Foliar fertilization x years		***	***	***	***

Table S3. Field measurements of SPAD, LAI and Gs indices, mean values for interaction foliar fertilization x years.

Foliar fertilization	Years	SPAD	LAI	Gs (mmol m ⁻² s ⁻¹)
A	2018	58.5	4.2 ^{ab}	377.7 ^a
	2019	47.7	2.4 ^{gh}	306.4 ^{abc}
	2020	63.8	3.2 ^{def}	301.2 ^{abc}
B	2018	55.9	4.4 ^{ab}	347.6 ^{ab}
	2019	51.0	2.6 ^{fgh}	329.0 ^{ab}
	2020	64.2	3.4 ^{cde}	326.0 ^{ab}
C	2018	56.1	4.5 ^{ab}	381.8 ^a
	2019	49.7	2.4 ^{gh}	223.1 ^{bc}
	2020	66.7	3.6 ^{cde}	227.3 ^{bc}
D	2018	60.9	4.8 ^a	305.1 ^{abc}
	2019	51.4	2.2 ^h	402.6 ^a
	2020	62.8	3.8 ^{bcd}	398.6 ^a
E	2018	59.1	4.9 ^a	331.9 ^{ab}
	2019	51.7	2.2 ^h	334.3 ^{ab}
	2020	66.0	3.9 ^{bcd}	337.3 ^{av}
F	2018	58.7	4.2 ^{ab}	172.2 ^c
	2019	50.1	2.3 ^{gh}	310.8 ^{abc}
	2020	62.4	3.1 ^{efg}	312.8 ^{abc}
Foliar fertilization x years		n.s.	**	***