

Table 1. Stoichiometry balance between, ammonium sulfate and urea for each treatment.

Treatment	Se (g ha⁻¹)	Sulfur (kg ha⁻¹)	Ammonium sulfate + Urea (g plot⁻¹)	N supply as ammonium sulfate (g plot⁻¹)*	N supply as urea (g plot⁻¹)**
T1	0	0	0.00 + 53.36	0	23.48
T2	10	0	0.00 + 53.36	0	23.48
T3	25	0	0.00 + 53.36	0	23.48
T4	50	0	0.00 + 53.36	0	23.48
T5	0	15	29.35 + 40.02	5.87	16.71
T6	10	15	29.35 + 40.02	5.87	16.71
T7	25	15	29.35 + 40.02	5.87	16.71
T8	50	15	29.35 + 40.02	5.87	16.71
T9	0	30	58.7 + 26.68	11.74	11.74
T10	10	30	58.7 + 26.68	11.74	11.74
T11	25	30	58.7 + 26.68	11.74	11.74
T12	50	30	58.7 + 26.68	11.74	11.74
T13	0	60	117.39 + 0	23.48	0
T14	10	60	117.39 + 0	23.48	0
T15	25	60	117.39 + 0	23.48	0
T16	50	60	117.39 + 0	23.48	0

* N concentration in the ammonium sulfate fertilizer used in the experiment: 20%. *** N concentration in the urea fertilizer used in the experiment: 44%.

Table 2. P values of analysis of Variance (ANOVA). Sources of variation: S application rates, Se application rates and the interaction between the factors regarding cowpea yield, plant height, leaf and seed Se concentration, leaf and seed S concentration in the first (2016) and second (2017) year.

Source of Variation	2016	2017
Cowpea Yield		
S application rates (A)	0.948 ^{NS}	0.473 ^{NS}
Se application rates (B)	0.060 ^{NS}	0.217 ^{NS}
A*B interaction	0.937 ^{NS}	0.039*
Plant Height		
S application rates (A)	0.713 ^{NS}	0.588 ^{NS}
Se application rates (B)	0.863 ^{NS}	0.466 ^{NS}
A*B interaction	0.193 ^{NS}	0.880 ^{NS}
Leaf Se Concentration		
S application rates (A)	0.148 ^{NS}	0.0001**
Se application rates (B)	0.0001**	0.0001**
A*B interaction	0.885 ^{NS}	0.0001**
Seed Se Concentration		
S application rates (A)	0.133 ^{NS}	0.0001**
Se application rates (B)	0.0001**	0.0001**
A*B interaction	0.334 ^{NS}	0.0007**
Leaf S Concentration		
S application rates (A)	0.0001**	0.003**
Se application rates (B)	0.849 ^{NS}	0.196 ^{NS}
A*B interaction	0.208 ^{NS}	0.312 ^{NS}
Seed S concentration		
S application rates (A)	0.0001**	0.0001**
Se application rates (B)	0.293 ^{NS}	0.038*
A*B interaction	0.0005**	0.083 ^{NS}

Table 3. P values of analysis of Variance (ANOVA). Sources of variation: S application rates, Se application rates and the interaction between the factors regarding total sugar, sucrose, total free amino acids, albumin, globulin, prolamin and glutelin concentration in seeds of cowpea for the first (2016) and second (2017) year.

Source of Variation	2016	2017
Total sugars		
S application rates (A)	0.001 **	0.291 ^{NS}
Se application rates (B)	0.0001 **	0.0001 **
A*B interaction	0.0003 **	0.0001 **
Sucrose		
S application rates (A)	0.0001 **	0.0001 **
Se application rates (B)	0.0001 **	0.0001 **
A*B interaction	0.0001 **	0.0001 **
Total free amino acids		
S application rates (A)	0.0001 **	0.0001 **
Se application rates (B)	0.0001 **	0.0001 **
A*B interaction	0.0001 **	0.0001 **
Albumin		
S application rates (A)	0.0001 **	0.025 *
Se application rates (B)	0.0001 **	0.0001 **
A*B interaction	0.0001 **	0.0001 **
Globulin		
S application rates (A)	0.0001 **	0.0001 **
Se application rates (B)	0.003 **	0.0001 **
A*B interaction	0.0001 **	0.0001 **
Prolamin		
S application rates (A)	0.0001 **	0.0001 **
Se application rates (B)	0.0001 **	0.0001 **
A*B interaction	0.0001 **	0.0001 **
Glutelin		
S application rates (A)	0.0001 **	0.0001 **
Se application rates (B)	0.0001 **	0.0001 **
A*B interaction	0.0001 **	0.0001 **