

Supplementary Materials:

Table S1. Symbiotic efficiency of the isolates on the three Moroccan lentil varieties (Bakria, Chakkouf, and Zaria). The values are the mean of three replicates \pm standard deviation; *represents significant difference compared to the not inoculated control using ANOVA at P-value < 0.05.

Lentil variety	Isolates	Average number of the root nodules (SD)	Mean plant dry weight (g)	Average plant height (cm)	Average total N in leave (PPM)
Bakria	Control	0	0.01 \pm 0	5.33 \pm 0.58	6.27 \pm 0.3
	318N211	26.33* (\pm 0.58)	*0.15 \pm 0.01	*26.33 \pm 2.31	*21.42 \pm 0.6
	686N5	*4.33 \pm 0.58	0.05 \pm 0.02	14.33 \pm 4.51	*18.23 \pm 0.2
	115N2	*14 \pm 1	0.1 \pm 0.02	*19.33 \pm 3.06	6.82 \pm 4
	1574N4	*15 \pm 1	0.12 \pm 0.07	*17.67 \pm 11.06	*20.61 \pm 0.6
	318N2111	*32.33 \pm 2.52	*0.25 \pm 0.02	*32 \pm 3	*20.68 \pm 0.3
	996N2	*21 \pm 1	*0.35 \pm 0.03	*31.33 \pm 2.31	6.33 \pm 0.1
	322N32	*36 \pm 1	*0.52 \pm 0.03	*34 \pm 2	*20.74 \pm 0.3
	1145N5	*32 \pm 1	*0.39 \pm 0.04	*32.67 \pm 3.06	*21.05 \pm 0.6
	1159N32	*30.33 \pm 1.53	*0.37 \pm 0.08	*34.33 \pm 7.37	*21.07 \pm 0.1
	938N3	*27 \pm 1	*0.17 \pm 0.01	*28 \pm 1.73	*15.65 \pm 0.2
	1159N24	*24.33 \pm 1.15	*0.28 \pm 0.06	*31.67 \pm 7.23	7.22 \pm 2
	996N5	*31 \pm 1	*0.24 \pm 0.01	*31 \pm 1	*20.51 \pm 0.1
	1159N52	*4 \pm 1	0.11 \pm 0.03	19 \pm 4.36	*21.34 \pm 0.4
1145N1	*16 \pm 1	*0.14 \pm 0.01	*24.33 \pm 2.08	*20.79 \pm 0.2	
Chakkouf	Control	0	0.02 \pm 0.02	5.67 \pm 2.52	5.5 \pm 0.5
	318N211	*37 \pm 1	*0.3 \pm 0.05	26.33 \pm 3.06	*6.43 \pm 2.3
	686N5	*22 \pm 1	*0.32 \pm 0.09	*29 \pm 7.94	*16.98 \pm 0.2
	115N2	*14.33 \pm 0.58	*0.23 \pm 0.06	*28.33 \pm 7.09	*20.55 \pm 1
	1574N4	*22 \pm 1	0.19 \pm 0.06	25.33 \pm 8.14	*20.85 \pm 0.2
	318N2111	*30 \pm 1	*0.24 \pm 0.01	*31.67 \pm 1.53	13.55 \pm 0.6
	996N2	*22.67 \pm 0.58	0.13 \pm 0.05	22 \pm 8.89	*20.74 \pm 0.3
	322N32	*9 \pm 1	0.04 \pm 0.01	14.67 \pm 4.04	*19.66 \pm 1.5
	1145N5	*15.67 \pm 0.58	0.18 \pm 0.11	24 \pm 6.56	*18.32 \pm 0.4
	1159N32	*29.33 \pm 1.15	0.15 \pm 0.02	*28 \pm 3.61	*20.87 \pm 0.3
	938N3	*21 \pm 1	0.15 \pm 0.04	19.67 \pm 5.03	*21.27 \pm 0.5
	1159N24	*29 \pm 1	0.15 \pm 0.03	*25.67 \pm 5.51	*12.64 \pm 0.3
	996N5	*18 \pm 2	0.08 \pm 0.02	17.33 \pm 1.15	*20.48 \pm 0.1
	1159N52	*7 \pm 1	*0.21 \pm 0.1	21 \pm 10.15	*13.27 \pm 2

	1145N1	*15.33±0.58	*0.3±0.11	* 33.3±10.58	*20.57±0.1
	Control	0	0.06±0.04	5.8 ±1.04	5.35±0.7
	318N211	*13.33±0.58	0.21±0.07	*27.7 ±2.52	*16.42±0.9
	686N5	*5.33±1.53	0.03±0.02	8.33±1.53	7.42±1
	115N2	*8±1	0.08±0.07	13±10.58	*10.59±1.4
	1574N4	*12.67±0.58	0.1±0.03	21.33±6.35	*14.68±1.2
	318N2111	*15.33±0.58	*0.39±0.09	*27.33±6.35	*20.6±0.8
	996N2	*29.33±0.58	*0.26±0.01	*31.33±1.15	*20.48±0.6
Zaria	322N32	*16.67±0.58	0.09±0.03	21.67±8.74	7.29±0.8
	1145N5	*15.67±1.53	0.18±0.11	*28.67±0.58	*20.68±0.6
	1159N32	*26.67±1.53	0.13±0.01	*28±1	*21.82±1
	938N3	*23.33±1.53	0.15±0.03	25±5.29	7.54±0.9
	1159N24	*34.67±1.53	0.14±0.02	*26.67±2.89	6.29±0.5
	996N5	*33.33±1.53	*0.24±0.05	*27±6.08	*21.81±1.1
	1159N52	*13.67±1.53	0.15±0.09	21.33±12.5	*18.85±1.7
	1145N1	*13.67±0.58	0.12±0.08	22±13.53	*21.33±0.8