

Supplementary Table S1 – Nutrient concentrations in cover crop shoots at termination at field trial 2 (2018-19)

		Macronutrient (%)							Micronutrient (mg kg ⁻¹)				
	Nitrogen	Phosphorus	Potassium	Sulfur	Calcium	Magnesium	Carbon		Copper	Zinc	Manganese	Iron	Boron
Soybean (cv. Leichardt)	2.5 ± 0.3	0.3 ± 0.04	2.5 ± 0.1	0.2 ± 0.02	1.1 ± 0.13	0.3 ± 0.03	42 ± 1.1		8.1 ± 0.6	34 ± 3.2	167 ± 32	413 ± 94	23 ± 1.8
Cowpea Ebony	2.3 ± 0.1	0.3 ± 0.01	2.5 ± 0.1	0.2 ± 0.01	1.0 ± 0.02	0.3 ± 0.00	41 ± 1.4		5.4 ± 0.3	40 ± 4.6	218 ± 46	449 ± 141	19 ± 1.2
Lablab	2.5 ± 0.1	0.4 ± 0.04	2.9 ± 0.2	0.2 ± 0.00	1.3 ± 0.05	0.2 ± 0.01	40 ± 1.2		8.7 ± 0.3	40 ± 5.2	227 ± 28	787 ± 120	24 ± 1.3
Jap Millet	0.6 ± 0.0	0.1 ± 0.00	1.4 ± 0.1	0.2 ± 0.01	0.2 ± 0.01	0.2 ± 0.01	38 ± 2.0		6.2 ± 0.4	37 ± 6.5	325 ± 25	1384 ± 317	4 ± 0.2
Sunn hemp	1.5 ± 0.1	0.2 ± 0.01	2.3 ± 0.2	0.2 ± 0.02	0.8 ± 0.12	0.3 ± 0.03	41 ± 1.7		6.3 ± 0.6	23 ± 4.2	156 ± 46	279 ± 79	20 ± 2.5
Sunflower	1.2 ± 0.1	0.5 ± 0.03	4.0 ± 0.2	0.2 ± 0.01	1.7 ± 0.21	0.3 ± 0.02	37 ± 2.3		19 ± 1.1	73 ± 4.4	296 ± 35	720 ± 301	23 ± 0.9
Velvet bean	2.6 ± 0.3	0.3 ± 0.02	2.4 ± 0.2	0.2 ± 0.01	0.9 ± 0.10	0.2 ± 0.02	40 ± 1.8		13 ± 1.2	35 ± 0.5	260 ± 38	622 ± 73	19 ± 1.3
Burgundy bean	2.1 ± 0.1	0.3 ± 0.01	2.4 ± 0.1	0.2 ± 0.00	1.2 ± 0.10	0.3 ± 0.02	37 ± 0.8		10 ± 0.6	38 ± 12	290 ± 52	1109 ± 372	17 ± 0.6
Pigeon Pea	2.4 ± 0.3	0.3 ± 0.02	1.9 ± 0.2	0.2 ± 0.01	0.7 ± 0.08	0.2 ± 0.02	42 ± 0.7		9.4 ± 0.7	33 ± 5.8	158 ± 15	588 ± 165	16 ± 1.8
Tillage Radish	1.6 ± 0.2	0.5 ± 0.10	3.5 ± 0.5	0.3 ± 0.04	1.7 ± 0.26	0.3 ± 0.04	31 ± 3.2		5.9 ± 0.7	41 ± 3.3	141 ± 11	1999 ± 700	20 ± 1.7
Rice	0.9 ± 0.1	0.3 ± 0.03	1.9 ± 0.1	0.2 ± 0.00	0.3 ± 0.03	0.2 ± 0.01	34± 1.0		7.1 ± 0.4	44 ± 7.3	759 ± 40	963 ± 316	5 ± 0.3
Soybean (cv. Mossman)	2.8 ± 0.0	0.4 ± 0.01	2.7 ± 0.1	0.2 ± 0.01	0.9 ± 0.04	0.3 ± 0.01	40 ± 1.1		7.9 ± 0.1	36 ± 4.1	105 ± 13	390 ± 94	23 ± 1.7
Soybean (cv. Kuranda)	2.3 ± 0.3	0.3 ± 0.04	2.5 ± 0.3	0.2 ± 0.01	1.3 ± 0.13	0.4 ± 0.03	41 ± 1.3		7.5 ± 0.5	33 ± 2.3	190 ± 40	388 ± 74	25 ± 2.0
mix 1	2.2 ± 0.1	0.3 ± 0.02	2.7 ± 0.1	0.2 ± 0.01	1.0 ± 0.03	0.3 ± 0.02	40 ± 1.8		6.7 ± 0.4	34 ± 0.5	314 ± 34	348 ± 89	24 ± 0.9
mix 2	2.4 ± 0.1	0.3 ± 0.01	2.9 ± 0.1	0.2 ± 0.01	1.1 ± 0.05	0.3 ± 0.01	40 ± 1.6		7.2 ± 0.1	40 ± 1.3	281 ± 49	311 ± 53	26 ± 0.5
mix 3	2.5 ± 0.1	0.3 ± 0.02	3.2 ± 0.3	0.2 ± 0.01	1.2 ± 0.04	0.3 ± 0.02	40 ± 1.5		6.5 ± 0.7	40 ± 0.3	356 ± 38	293 ± 75	24 ± 2.3

Supplementary Figure S1 – Radish plants under monoculture (top panel) and in a mixed species plot (bottom panel). Note yellowing of leaves consistent with nitrogen deficiency in plants grown as a monoculture.



