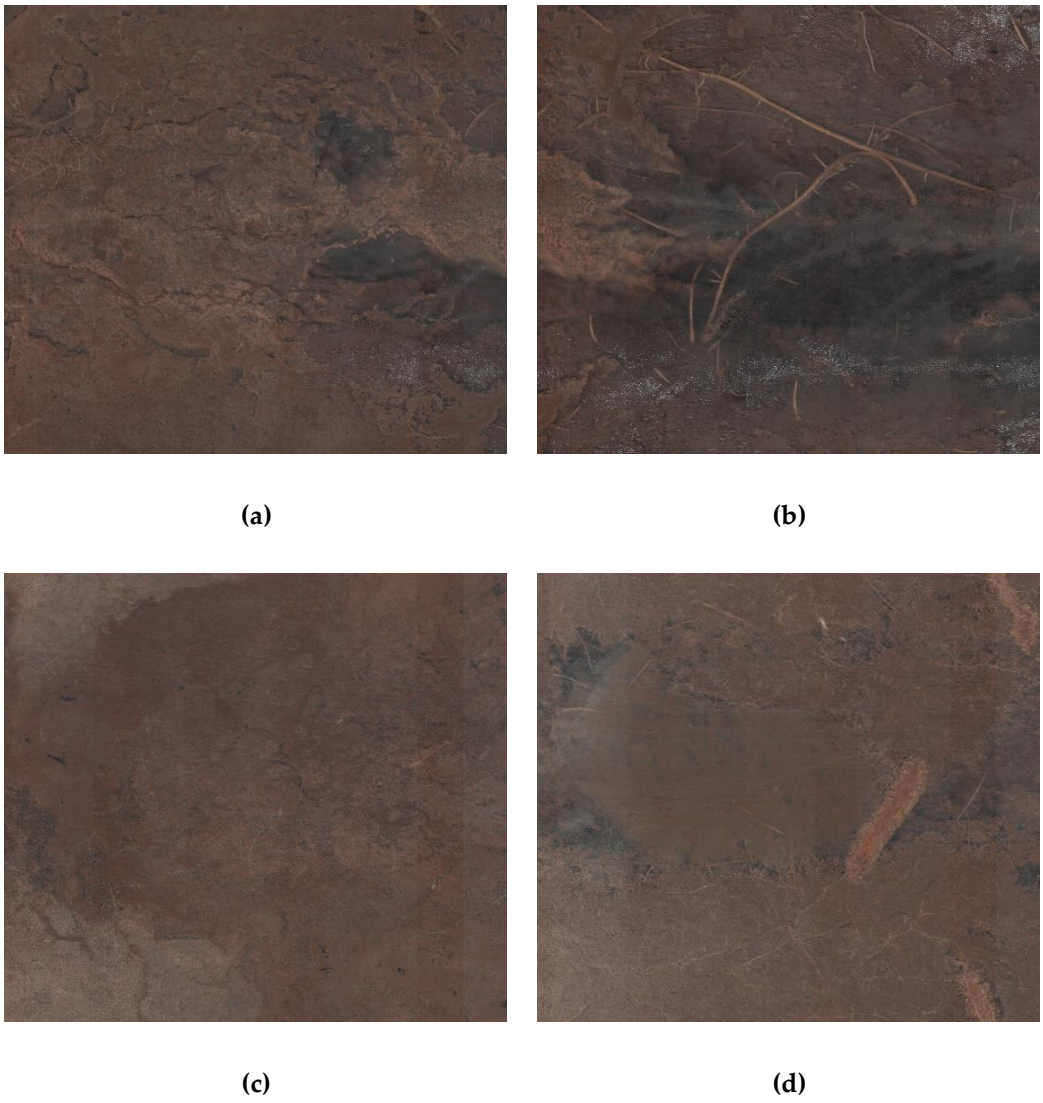


Figure S1. Images generated *in situ* by a root system scanner (CI-600 Growth Monitoring System, CID, USA) with 600 dpi resolution, with an image of the root system 18 months after transplantation (MAT), soil layer 0-0.2 m, submitted to applications of 0 (a) and 40 kg P ha^{-1} (b), and image of the root system 36 months after transplantation (MAT) submitted to applications of 0 (c) and 40 kg P ha^{-1} (d).

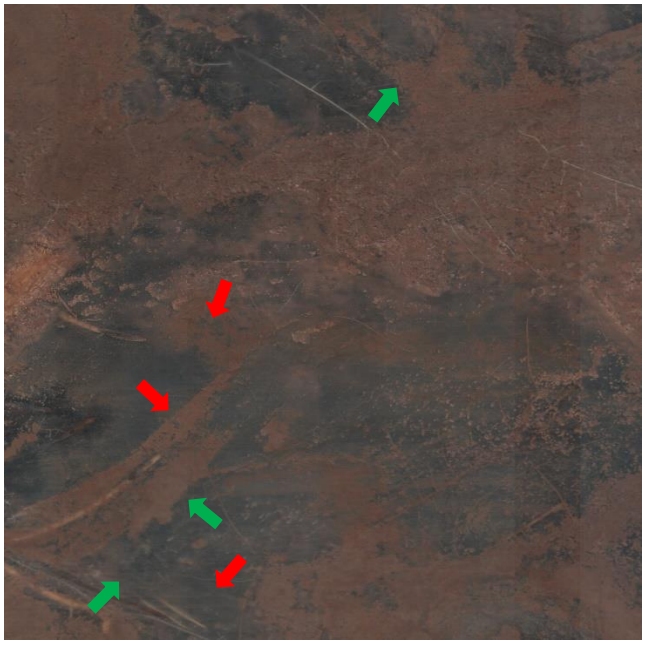


Figure S2. Image generated *in situ* by a root system scanner (CI-600 Growth Monitoring System, CID, USA) with 600 dpi resolution, which exemplifies the difference between root survival. Green arrows show examples of live roots and red arrows show examples of dead roots.

Table S1. Database that supported this research.

MAT	Dose	Rep	LengthP1	LengthP2	LengthP3	LengthP4	DiameterP1	DiameterP2	DiameterP3	DiameterP4	VolumeP1	VolumeP2	VolumeP3	VolumeP4	P in soil	P in leves	Height
18	0	1	1176.86	478.14	304	478	0.44	0.32	0.39	0.4	252.91	159.79	411.32	150.17	2.63	3.45	83.63
18	0	2	1033.87	478	261.77	433.92	0.33	0.29	0.24	0.43	235.51	179.63	481	126	2.6	3.02	88.13
18	0	3	889.5	434.44	348.1	522.24	0.4	0.35	0.31	0.45	218.66	129.52	551.48	103.08	2.62	3.52	88.75
18	40	1	4433.23	1467.89	1685.99	739.43	0.43	0.27	0.54	0.41	410.32	315	1458.23	191.9	26.31	2.89	115.17
18	40	2	4315.54	2114.14	1551.18	855.71	0.38	0.38	0.52	0.48	517	263	1458.78	202.16	20	3.86	120
18	40	3	4552.05	3247.8	1223.97	631.75	0.34	0.28	0.53	0.45	624.46	367.28	1458	197	22.89	3.5	119.57
36	0	1	1485.62	1116.81	1074.05	595.14	0.29	0.29	0.39	0.41	144.38	266.38	323.56	93.5	2.19	1.02	142.88
36	0	2	1519.31	1199	3495.04	524	0.31	0.3	0.29	0.38	189.21	235	407.71	81	2.09	1.06	142
36	0	3	1625.73	1282.08	1529.75	453.2	0.36	0.28	0.33	0.34	268.63	204.51	299.64	69.89	1.86	0.96	163.14
36	40	1	4925.4	3257	1477.52	764.16	0.38	0.39	0.53	0.47	624.59	168.62	823.17	197.32	18.84	1.66	208.63
36	40	2	5695.66	3494.78	2417.44	636	0.44	0.41	0.53	0.48	700.61	372.23	811.72	161.74	15.82	1.07	239.17
36	40	3	4155.12	3020.22	1613.75	509.74	0.36	0.32	0.42	0.49	776.79	572.46	811.4	179	19.31	1.68	212