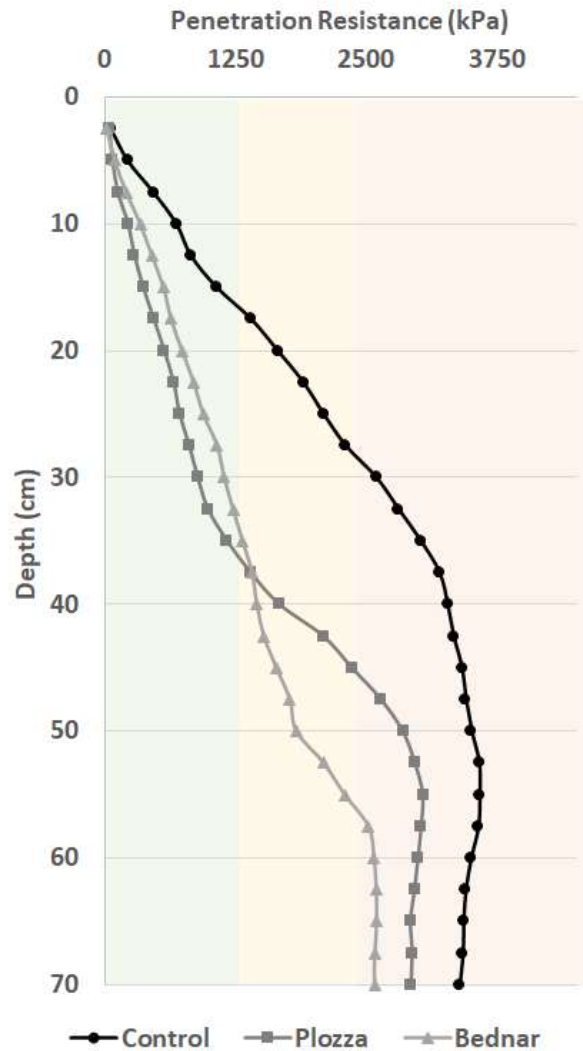


SUMMARY DATA – COOMANDOOK PIT

Depth cm	pH _{Ca}	Avg PR	MinN (mg/kg)	MinN (kg/ha)	CoIP	PBI	DGT P	Ex.K	S	B	Clay%	OC%	CEC	ESP	EC _{1:5}
0-10	6.17	355	21.2	32	27	11	239	85	5.5	0.62	5.3	1.26	4.57	1.4	0.09
10-20	5.28	1230	8.9	13	13	8	112	55	2.7	0.32	6	0.52	2.13	2.3	0.04
20-40	4.9	2640	5.3	16	9	9	74	36	<2.5	0.15	5.8	0.19	1.02	2.9	0.02
40-60	5.24	3485	3.6	11	7	5	30	35	<2.5	0.2	7.3	0.15	0.9	4.3	0.03
60-90	5.74	3400	4.6	21	<5	8	6	43	3.1	0.16	7	0.14	1.19	3.6	0.03
90-120	6.53	NA	2.7	12 =105	<5	16	<4	68	<2.5	0.38	9.8	0.27	3.28	4.7	0.05

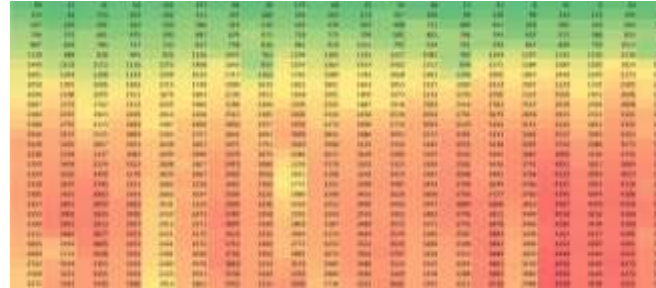


- Repellence - Moderate (5% clay in surface) MED = 1.5 in top 10cm
- pH extremes - Moderate to severe acidity below 15cm (see additional data below), extending to 90 cm – Ex Al > 5% in 20-40 cm layer
- Soil strength - Bleached A2 is compacted: PR>2,500 at 27.5 cm and remains high below
- High OC and CEC for a sandy topsoil – CEC driven by the OC%
- Nutrients - Sufficient P, K and S; Sufficient Cu (0.22) and luxury Zn (2.1)
- Subsoil hostilities - acidity and high PR – EC, ESP and B all below problem thresholds
- Clay lamellae at 60, 70 and 95 cm – clay content only increases from 5 to 10% throughout

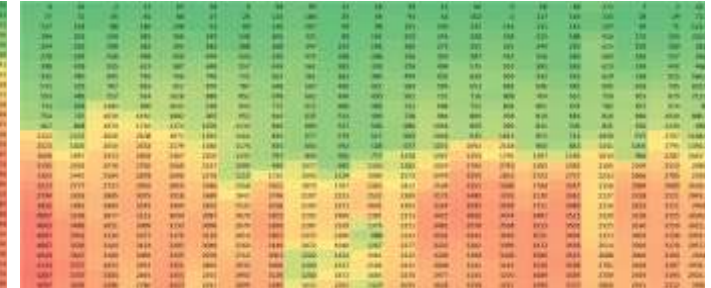


- PR collected for Control as 20 inserts in a straight transect N-S in the mid row (30 cm intervals) behind the pit.
 - Avg Control – PR >2,500 kPa at 27.5 cm
- PR collected in treatment plots – 20 readings in a straight transect as above:
 - Plozza (Inversion) – PR >2,500 kPa at 45 cm
 - Bednar (Rip+Mix) PR >2,500 kPa at 55 cm
- PR never maxed out at this site
- Some variability longitudinally across the plots (see below), particularly for the Bednar – On rip versus off rip evident

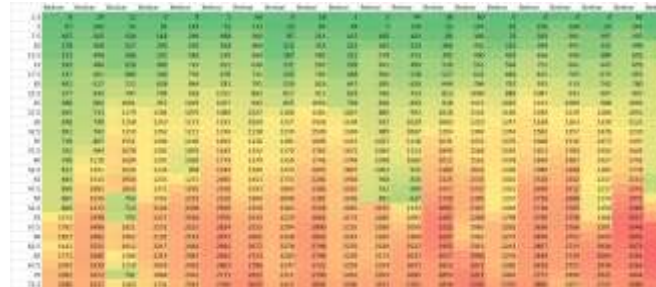
Control



Plozza



Bednar



Soil chemistry was measured from a composite of 20 samples collected in a N-S transect in each plot, from the midrow (same as PR positions). Results show redistribution of pH, nutrients and OC. Implications for N management, as well as P, K and Cu, particularly for the Plozza.

Control



	MED	pH	OC%	N	P	K	S	ECEC
0-5 cm	1.5	5.53	1.3	14.7	24	128	3.8	4.01
5-10 cm	1.5	5.52	1.3	8.7	29	98	3.6	3.45
10-15 cm	0	5.06	0.8	4.1	20	59	3	2.38
15-20 cm	0	4.76	0.4	1.9	18	44	<2.5	1.28
20-25 cm	0	4.67	0.4	2.6	18	41	<2.5	1.19
25-30 cm	0	4.67	0.2	2.5	13	36	<2.5	1.02

Plozza



	MED	pH	OC%	N	P	K	S	ECEC
0-5 cm	0	5.20	0.60	5.5	17	54	3	2.17
5-10 cm	0	5.24	0.61	4.3	15	59	3.3	2.39
10-15 cm	0	5.31	0.56	2.8	15	47	3.5	2.14
15-20 cm	0	5.35	0.55	1	12	32	3.5	1.7
20-25 cm	0	5.03	0.28	1	10	29	<2.5	1.08
25-30 cm	0	5.25	0.41	1	12	24	3.4	1.43

Bednar



	MED	pH	OC%	N	P	K	S	ECEC
0-5 cm	0	5.45	0.87	9.9	18	68	3.7	2.29
5-10 cm	0.5	5.56	0.99	6.4	22	71	4.3	2.86
10-15 cm	0.5	5.35	0.83	2.7	17	49	4.8	2.63
15-20 cm	0	4.87	0.41	0	19	35	4.5	1.46
20-25 cm	0	4.64	0.26	0	11	32	3.0	1.25
25-30 cm	0	4.66	0.23	0	11	31	2.9	1.20

