Functional genetic diversity and plant growth promoting potential of polyphosphate accumulating bacteria in soil

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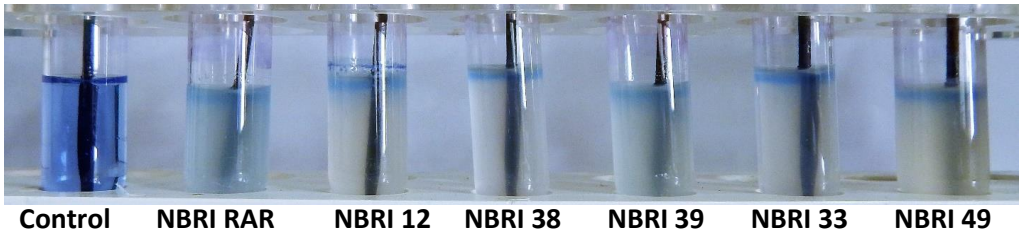
Running title: Diversity of phosphate accumulating bacteria in soil

Supplementary Table 1. Details of isolation site

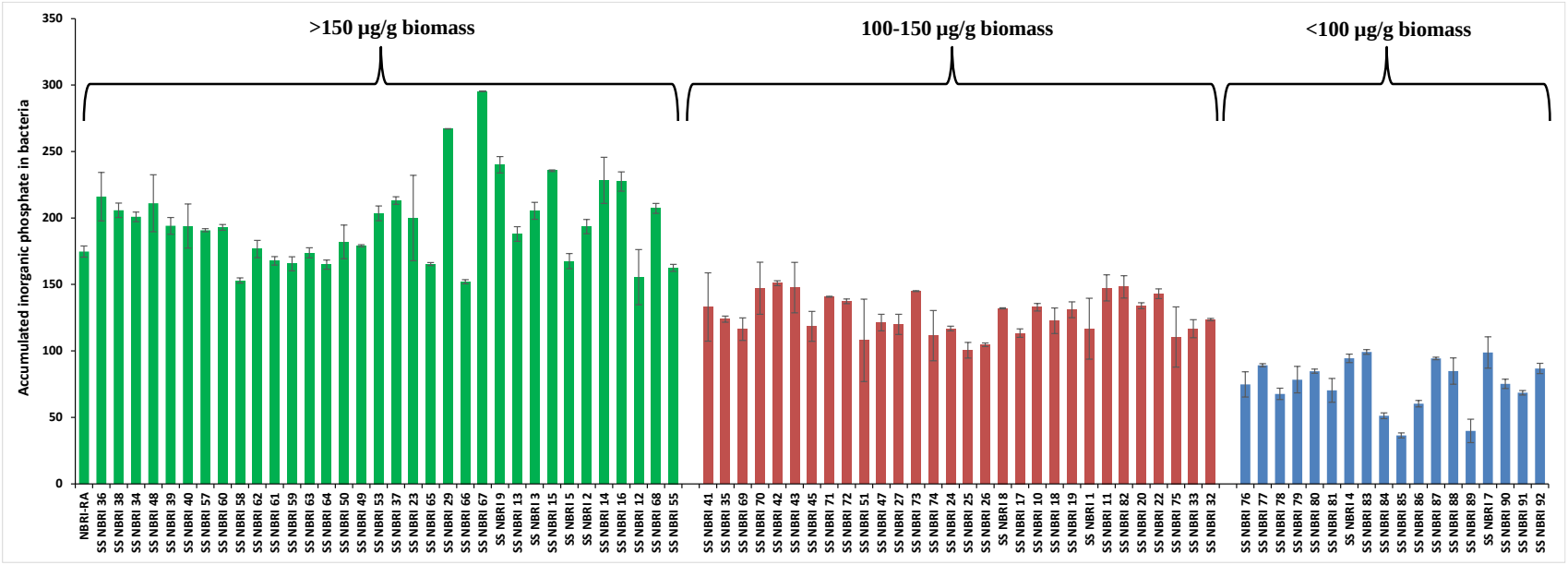
Sequence_ID	Country	Isolation_source	Isolate	Lat_Lon
Seq1	Deokhera, India	Rhizospheric soil	SS_NBRI_1	27.2928° N, 78.2531° E
Seq2	Deokhera, India	Rhizospheric soil	SS_NBRI_2	27.2928° N, 78.2531° E
Seq3	Deokhera, India	Rhizospheric soil	SS_NBRI_3	27.2928° N, 78.2531° E
Seq4	Deokhera, India	Rhizospheric soil	SS_NBRI_4	27.2928° N, 78.2531° E
Seq5	Deokhera, India	Rhizospheric soil	SS_NBRI_5	27.2928° N, 78.2531° E
Seq6	Deokhera, India	Rhizospheric soil	SS_NBRI_7	27.2928° N, 78.2531° E
Seq7	Deokhera, India	Rhizospheric soil	SS_NBRI_8	27.2928° N, 78.2531° E
Seq8	Deokhera, India	Rhizospheric soil	SS_NBRI_9	27.2928° N, 78.2531° E
Seq9	Deokhera, India	Rhizospheric soil	SS_NBRI_10	27.2928° N, 78.2531° E
Seq10	Deokhera, India	Rhizospheric soil	SS_NBRI_11	27.2928° N, 78.2531° E
Seq11	Deokhera, India	Rhizospheric soil	SS_NBRI_12	27.2928° N, 78.2531° E
Seq12	Deokhera, India	Rhizospheric soil	SS_NBRI_13	27.2928° N, 78.2531° E
Seq13	Deokhera, India	Rhizospheric soil	SS_NBRI_14	27.2928° N, 78.2531° E
Seq14	Deokhera, India	Rhizospheric soil	SS_NBRI_15	27.2928° N, 78.2531° E
Seq15	Deokhera, India	Rhizospheric soil	SS_NBRI_16	27.2928° N, 78.2531° E
Seq16	Deokhera, India	Rhizospheric soil	SS_NBRI_17	27.2928° N, 78.2531° E
Seq17	Deokhera, India	Rhizospheric soil	SS_NBRI_18	27.2928° N, 78.2531° E
Seq18	Deokhera, India	Rhizospheric soil	SS_NBRI_19	27.2928° N, 78.2531° E
Seq19	Gujarat, India	Rhizospheric soil	SS_NBRI_20	23.0248° N, 72.2899° E,
Seq20	Gujarat, India	Rhizospheric soil	SS_NBRI_22	23.0248° N, 72.2899° E,
Seq21	Punjab, India	Rhizospheric soil	SS_NBRI_23	30.4036° N, 74.0280° E
Seq22	Punjab, India	Rhizospheric soil	SS_NBRI_24	30.4036° N, 74.0280° E
Seq23	Punjab, India	Rhizospheric soil	SS_NBRI_25	30.4036° N, 74.0280° E
Seq24	Punjab, India	Rhizospheric soil	SS_NBRI_26	30.4036° N, 74.0280° E
Seq25	Punjab, India	Rhizospheric soil	SS_NBRI_27	30.4036° N, 74.0280° E
Seq26	Punjab, India	Rhizospheric soil	SS_NBRI_29	30.4036° N, 74.0280° E
Seq27	Punjab, India	Rhizospheric soil	SS_NBRI_32	30.4036° N, 74.0280° E
Seq28	Punjab, India	Rhizospheric soil	SS_NBRI_33	30.4036° N, 74.0280° E
Seq29	Bulandshahr, India	Rhizospheric soil	SS_NBRI_34	28.4171° N, 77.8250° E
Seq30	Bulandshahr, India	Rhizospheric soil	SS_NBRI_35	28.4171° N, 77.8250° E
Seq31	Bulandshahr, India	Rhizospheric soil	SS_NBRI_36	28.4171° N, 77.8250° E
Seq32	Bulandshahr, India	Rhizospheric soil	SS_NBRI_37	28.4171° N, 77.8250° E
Seq33	Bulandshahr, India	Rhizospheric soil	SS_NBRI_38	28.4171° N, 77.8250° E
Seq34	Bulandshahr, India	Rhizospheric soil	SS_NBRI_39	28.4171° N, 77.8250° E
Seq35	Bulandshahr, India	Rhizospheric soil	SS_NBRI_40	28.4171° N, 77.8250° E
Seq36	Bulandshahr, India	Rhizospheric soil	SS_NBRI_41	28.4171° N, 77.8250° E
Seq37	Bulandshahr, India	Rhizospheric soil	SS_NBRI_42	28.4171° N, 77.8250° E
Seq38	Bulandshahr, India	Rhizospheric soil	SS_NBRI_43	28.4171° N, 77.8250° E
Seq39	Bulandshahr, India	Rhizospheric soil	SS_NBRI_45	28.4171° N, 77.8250° E
Seq40	Bulandshahr, India	Rhizospheric soil	SS_NBRI_47	28.4171° N, 77.8250° E
Seq41	Bulandshahr, India	Rhizospheric soil	SS_NBRI_48	28.4171° N, 77.8250° E
Seq42	Bulandshahr, India	Rhizospheric soil	SS_NBRI_49	28.4171° N, 77.8250° E
Seq43	Bulandshahr, India	Rhizospheric soil	SS_NBRI_50	28.4171° N, 77.8250° E
Seq44	Bulandshahr, India	Rhizospheric soil	SS_NBRI_51	28.4171° N, 77.8250° E
Seq45	Punjab, India	Rhizospheric soil	SS_NBRI_53	30.4036° N, 74.0280° E
Seq46	Shillong, India	Rhizospheric soil	SS_NBRI_55	
Seq47	India	Rhizospheric soil	NBRI-RA	

Supplementary Table 2. Total fungal and bacterial population in soil samples

	Total population (cfu Log_{10}/ml)	
	Fungi	**Bacteria**
Bulandshahr	2.11	6.048701
Bulandshahr	1.98	5.732394
Bulandshahr	1.81	5.738781
Bulandshahr	2.00	5.634141
Bulandshahr	1.79	5.718225
Bulandshahr	1.75	5.658965
Bulandshahr	1.47	5.634141
Bulandshahr	2.20	5.818666
Raebareli	1.53	5.754348
Deokhera 1	1.46	5.84427
Deokhera 2	1.76	5.795185
Punjab 1	1.25	5.892836
Punjab 2	1.48	5.839268
Gujarat	1.78	5.707002
Shillong	1.10	5.841776



Supplementary Fig. 1. Quanlitative screening of phosphate accumulating bacteria



Supplementary Fig. 2. Range of accumulated phosphate estimated as Pi in different bacterial isolates.

Supplementary Table 3. GenBank accession number of phosphate accumulating bacteria

S.N.	Strains	Identification	Accession number			
			16S rRNA	***rpoB***	***ppk***	***ppx***
1	SS NBRI 1	*Pseudomonas* sp.	MT629836	MT947903	MT947952	MT948001
2	SS NBRI 2	*Pseudomonas* sp.	MT629837	MT947904	MT947953	MT948002
3	SS NBRI 3	*Pseudomonas koreensis*	MT629838	MT947905	MT947954	MT948003
4	SS NBRI 4	*Pseudomonas koreensis*	MT629839	MT947906	MT947955	MT948004
5	SS NBRI 5	*Pseudomonas* sp.	MT629840	MT947907	MT947956	MT948005
6	SS NBRI 6	*Pseudomonas* sp.	MT629841	MT947908	MT947957	MT948006
7	SS NBRI 7	*Pseudomonas* sp.	MT629842	MT947909	MT947958	MT948007
8	SS NBRI 8	*Pseudomonas koreensis*	MT629843	MT947910	MT947959	MT948008
9	SS NBRI 9	*Pseudomonas* sp.	MT629844	MT947911	MT947960	MT948009
10	SS NBRI 10	*Pseudomonas* sp.	MT629845	MT947912	MT947961	MT948010
11	SS NBRI 11	*Pseudomonas* sp.	MT629846	MT947913	MT947962	MT948011
12	SS NBRI 12	*Pseudomonas koreensis*	MT629847	MT947914	MT947963	MT948012
13	SS NBRI 13	*Pseudomonas* sp.	MT629848	MT947915	MT947964	MT948013
14	SS NBRI 14	*Pseudomonas koreensis*	MT629849	MT947916	MT947965	MT948014
15	SS NBRI 15	*Pseudomonas* sp.	MT629850	MT947917	MT947966	MT948015
16	SS NBRI 16	*Pseudomonas koreensis*	MT629851	MT947918	MT947967	MT948016
17	SS NBRI 17	*Pseudomonas koreensis*	MT629852	MT947919	MT947968	MT948017
18	SS NBRI 18	*Pseudomonas* sp.	MT629853	MT947920	MT947969	MT948018
19	SS NBRI 19	*Pseudomonas koreensis*	MT629854	MT947921	MT947970	MT948019
20	SS NBRI 20	*Pseudomonas stutzeri*	MT629855	MT947922	MT947971	MT948020
21	SS NBRI 22	*Pseudomonas stutzeri*	MT629856	MT947923	MT947972	MT948021
22	SS NBRI 23	*Pseudomonas alcaliphila*	MT629857	MT947924	MT947973	MT948022
23	SS NBRI 24	*Pseudomonas mendocina*	MT629858	MT947925	MT947974	MT948023
24	SS NBRI 25	*Pseudomonas alcaliphila*	MT629859	MT947926	MT947975	MT948024
25	SS NBRI 26	*Pseudomonas* sp.	MT629860	MT947927	MT947976	MT948025
26	SS NBRI 27	*Pseudomonas stutzeri*	MT629861	MT947928	MT947977	MT948026
27	SS NBRI 29	*Pseudomonas alcaliphila*	MT629862	MT947929	MT947978	MT948027
28	SS NBRI 32	*Pseudomonas* sp.	MT629863	MT947930	MT947979	MT948028
29	SS NBRI 33	*Pseudomonas alcaliphila*	MT629864	MT947931	MT947980	MT948029
30	SS NBRI 34	*Pseudomonas mendocina*	MT629865	MT947932	MT947981	MT948030
31	SS NBRI 35	*Pseudomonas alcaliphila*	MT629866	MT947933	MT947982	MT948031
32	SS NBRI 36	*Pseudomonas alcaliphila*	MT629867	MT947934	MT947983	MT948032
33	SS NBRI 37	*Pseudomonas mendocina*	MT629868	MT947935	MT947984	MT948033
34	SS NBRI 38	*Pseudomonas alcaliphila*	MT629869	MT947936	MT947985	MT948034
35	SS NBRI 39	*Pseudomonas mendocina*	MT629870	MT947937	MT947986	MT948035
36	SS NBRI 40	*Pseudomonas alcaliphila*	MT629871	MT947938	MT947987	MT948036
37	SS NBRI 41	*Pseudomonas alcaliphila*	MT629872	MT947939	MT947988	MT948037
38	SS NBRI 42	*Pseudomonas alcaliphila*	MT629873	MT947940	MT947989	MT948038
39	SS NBRI 43	*Pseudomonas alcaliphila*	MT629874	MT947941	MT947990	MT948039
40	SS NBRI 45	*Pseudomonas alcaliphila*	MT629875	MT947942	MT947991	MT948040
41	SS NBRI 47	*Pseudomonas mendocina*	MT629876	MT947943	MT947992	MT948041
42	SS NBRI 48	*Pseudomonas mendocina*	MT629877	MT947944	MT947993	MT948042
43	SS NBRI 49	*Pseudomonas* sp.	MT629878	MT947945	MT947994	MT948043
44	SS NBRI 50	*Pseudomonas mendocina*	MT629879	MT947946	MT947995	MT948044
45	SS NBRI 51	*Pseudomonas mendocina*	MT629880	MT947947	MT947996	MT948045
46	SS NBRI 52	*Pseudomonas* sp.	MT629881	MT947948	MT947997	MT948046
47	SS NBRI 53	*Pseudomonas alcaliphila*	MT629882	MT947949	MT947998	MT948047

48	SS NBRI 54	*Pseudomonas* sp.	MT629883	MT947950	MT947999	MT948048
49	SS NBRI 55	*Enterobacter cloacace*	MT629884	MT947951	MT948000	MT948049
50	NBRIRA	*Pseudomonas putida*	MTCC5279	MT982439	MT982437	MT982438

Supplemenatry Table 4. Plant growth promotary traits in phosphate accumulating bacterial isolates

	Auxin production (µg/ml)	**Phosphate solubilisation (µg/ml)**	**Siderophore Production (zone in cm)**	**Alkaline Phosphatase (µM of pNP produced)**	**Acidic Phosphatase (µM of pNP produced)**	**Biofilm production**
NBRI RA	55.68±0.10	41.50±3.34	0±0.00	5.53±0.42	10.53±1.27	1.30±0.10
SS NBRI 1	39.55±1.11	22.00±0.09	0.4±0.002	4.30±0.47	7.71±0.26	0.94±0.06
SS NBRI 2	47.74±0.14	15.89±0.55	1.1±0.004	7.76±0.31	17.07±3.88	2.30±0.28
SS NBRI 3	50.33±0.14	11.53±0.42	0.5±0.01	1.91±0.42	8.77±0.37	1.95±0.08
SS NBRI 4	44.34±0.45	26.42±3.08	0±0.00	4.84±2.07	15.10±0.46	2.35±0.17
SS NBRI 5	49.56±0.14	17.77±0.03	0.7±0.002	1.06±0.42	6.86±.26	2.37±0.10
SS NBRI 7	43.43±0.66	15.21±1.04	0.7±0.002	25.69±3.14	5.16±0.15	2.05±0.12
SS NBRI 8	56.52±0.45	15.99±0.00	0.8±0.006	6.65±3.56	15.53±1.50	1.64±0.21
SS NBRI 9	48.19±0.03	10.36±0.09	1±0.00	9.25±3.93	6.75±1.75	1.53±0.62
SS NBRI 10	45.04±0.52	11.79±0.16	1±0.00	3.13±0.05	7.34±0.10	3.23±0.18
SS NBRI 11	46.69±0.91	13.42±0.87	0.6±0.001	2.23±0.10	7.44±0.00	1.22±0.06
SS NBRI 12	49.56±0.14	17.06±0.29	0.8±0.005	7.66±1.27	26.28±4.36	1.12±0.12
SS NBRI 13	52.92±0.35	17.58±4.97	0.7±0.003	0.15±0.05	6.43±0.37	0.85±0.09
SS NBRI 14	57.15±0.59	16.34±0.74	1±0.00	1.43±0.26	6.06±0.10	2.05±0.06
SS NBRI 15	45.81±0.45	2.27±0.19	0.7±0.003	4.46±0	5.69±0.69	2.20±0.18
SS NBRI 16	51.34±0.17	15.86±0.78	0.8±0.005	3.45±0.69	4.68±0.10	2.14±0.17

SS NBRI 17	51.38±0.14	12.64±0.09	0.9±0.001	1.91±0.63	19.57±2.02	1.26±0.09
SS NBRI 18	41.54±0.73	3.47±0.22	0.7±0.007	4.41±0.05	13.77±1.01	2.75±0.05
SS NBRI 19	59.92±0.98	17.42±0.39	0.5±0.003	8.45±0.37	46.70±1.17	1.63±0.19
SS NBRI 20	33.53±0.35	42.86±0.09	0.3±0.004	3.67±0.05	3.51±0.63	0.98±0.22
SS NBRI 22	30.87±0.21	4.06±0.03	0.3±0.004	3.08±0.10	4.46±0.10	1.10±0.21
SS NBRI 23	43.54±0.14	10.40±0.32	0±0.00	9.46±0.53	41.81±0.63	2.13±0.26
SS NBRI 24	52.18±0.38	3.41±0.290.	0±0.00	7.92±0.05	38.83±0.00	1.98±0.13
SS NBRI 25	38.88±0.38	2.66±0.39	0±0.00	4.52±0.05	21.12±0.15	1.38±0.11
SS NBRI 26	33.88±0.98	3.64±0.06	0±0.00	7.71±0.05	22.66±0.53	2.34±0.17
SS NBRI 27	43.54±0.14	4.68±0.19	0±0.00	6.96±0.26	20.16±0.79	1.99±0.29
SS NBRI 29	47.32±0.00	3.31±0.19	0.5±0.00	4.57±0.21	13.72±0.10	1.47±0.38
SS NBRI 32	33.46±0.28	27.235±0.19	0.5±0.00	1.06±0.00	7.34±0.00	1.37±0.068
SS NBRI 33	29.96±0.14	18.85±0.06	0±0.00	31.70±0.63	38.78±0.58	1.13±0.056
SS NBRI 34	21.21±0.14	11.765±0.65	1±0.00	39.84±0.37	40.32±2.12	1.05±0.089
SS NBRI 35	21±0.28	3.86±0.55	0±0.00	15.21±0.31	91.82±3.61	1.26±0.17
SS NBRI 36	31.36±0.07	21.61±0.22	0.4±0.00	37.45±1.70	273.07±3.03	2.08±0.12
SS NBRI 37	20.23±0.14	18.26±0.97	0.6±0.00	10.69±0.05	58.41±3.08	1.53±0.13
SS NBRI 38	31.99±1.05	17.25±0.29	0.4±0.00	46.55±3.99	69.90±0.74	1.64±0.086
SS NBRI 39	21.21±0.14	17.84±0.35	1±0.006	38.78±.05	38.67±0.58	1.017±0.17
SS NBRI 40	26.74±0.21	6.63±3.9	0.1±0.00	7.71±0.26	27.82±3.67	2.29±0.18
SS NBRI 41	27.825±0.38	4.12±0.61	0±0.00	9.15±0.63	57.61±1.11	0.81±0.05

SS NBRI 42	31.92±1.54	4.35±0.39	0±0.00	9.20±0.47	62.08±0.58	2.87±0.19
SS NBRI 43	28.805±0.24	3.70±0.06	0.2±0.00	15.21±0.31	50.00±1.48	1.57±0.05
SS NBRI 45	36.89±4.27	3.99±0.13	0.3±0.001	8.88±0.15	27.23±1.80	2.17±0.04
SS NBRI 47	21.245±0.24	3.18±0.06	0±0.00	17.76±0.10	43.51±4.25	1.49±0.07
SS NBRI 48	19.005±0.59	2.47±0.35	0.8±0.004	27.66±1.48	65.91±1.22	1.26±0.11
SS NBRI 49	35.385±0.10	3.47±0.29	0.5±0.00	18.62±0.10	45.75±1.48	1.18±0.23
SS NBRI 50	27.23±0.49	5.88±0.0	0.8±0.003	14.09±1.33	65.38±2.07	1.31±0.05
SS NBRI 51	26.14±0.73	0.71±0.74	0±0.00	4.68±.042	40.21±2.13	0.73±0.04
SS NBRI 53	56.73±0.03	3.80±0.91	0.2±0.00	16.91±0.10	29.20±3.88	1.15±0.006
SS NBRI 55	40.04±0.00	30.48±0.34	0±0.00	5.21±0.53	17.60±1.86	0.31±0.041

Supplementary Table 5. Growth of phosphate accumulating bacteria in 1M salt

S.No.	Strains	1 Day	2 Day	3 Day	5 Day	7 Day	10 Day
1	SSNBRI 1	+++	+++	+++	+++	+++	+++
2	SSNBRI 2	+++	+++	+++	+++	+++	+++
3	SSNBRI 3	+++	+++	+++	+++	+++	+++
4	SSNBRI 4	+++	+++	+++	+++	+++	+++
5	SSNBRI 5	+++	+++	+++	+++	+++	+++
6	SSNBRI 6	+++	+++	+++	+++	+++	+++
7	SSNBRI 7	+++	+++	+++	+++	+++	+++
8	SSNBRI 8	+++	+++	+++	+++	+++	+++
9	SSNBRI 9	+++	+++	+++	+++	+++	+++
10	SSNBRI 10	+++	+++	+++	+++	+++	+++
11	SSNBRI 11	+++	+++	+++	+++	+++	+++
12	SSNBRI 12	+++	+++	+++	+++	+++	+++
13	SSNBRI 13	+++	+++	+++	+++	+++	+++
14	SSNBRI 14	+++	+++	+++	+++	+++	+++
15	SSNBRI 15	+++	+++	+++	+++	+++	+++
16	SSNBRI 16	+++	+++	+++	+++	+++	+++
17	SSNBRI 17	+++	+++	+++	+++	+++	+++
18	SSNBRI 18	+++	+++	+++	+++	+++	+++
19	SSNBRI 19	+++	+++	+++	+++	+++	+++
20	SSNBRI 20	+++	+++	+++	+++	+++	+++
21	SSNBRI 22	+++	+++	+++	+++	+++	+++
22	SSNBRI 23	+++	+++	+++	+++	+++	+++
23	SSNBRI 24	+++	+++	+++	+++	+++	+++
24	SSNBRI 25	+++	+++	+++	+++	+++	+++
25	SSNBRI 26	+++	+++	+++	+++	+++	+++
26	SSNBRI 27	+++	+++	+++	+++	+++	+++
27	SSNBRI 29	+++	+++	+++	+++	+++	+++

28	SSNBRI 32	+++	+++	+++	+++	+++	+++
29	SSNBRI 33	+++	+++	+++	+++	+++	+++
30	SSNBRI 34	+++	+++	+++	+++	+++	+++
31	SSNBRI 35	+++	+++	+++	+++	+++	+++
32	SSNBRI 36	+++	+++	+++	+++	+++	+++
33	SSNBRI 37	+++	+++	+++	+++	+++	++
34	SSNBRI 38	+++	+++	+++	+++	+++	+++
35	SSNBRI 39	+++	+++	+++	+++	+++	++
36	SSNBRI 40	+++	+++	+++	+++	+++	+++
37	SSNBRI 42	+++	+++	+++	+++	+++	+++
38	SSNBRI 43	+++	+++	+++	+++	+++	+++
39	SSNBRI 45	+++	+++	+++	+++	+++	+++
40	SSNBRI 47	+++	+++	+++	+++	+++	+++
41	SSNBRI 48	+++	+++	+++	+++	+++	+++
42	SSNBRI 49	+++	+++	+++	+++	+++	+++
43	SSNBRI 50	+++	+++	+++	+++	++	+++
44	SSNBRI 51	+++	+++	+++	+++	+++	+++
45	SSNBRI 53	+++	+++	+++	+++	+++	+++
46	SSNBRI 55	+++	+++	+++	+++	+++	+++

+++: Excellent growth; ++: Good growth; +: Fair growth

Supplementary Table 6. Growth of phosphate accumulating bacteria at 45 °C temperature

S.No.	Strains	1 Day	2 Day	3 Day	5 Day	7 Day	10 Day
1	SSNBRI 1	+++	+++	+++	+++	+++	+++
2	SSNBRI 2	+++	+++	+++	+++	+++	+++
3	SSNBRI 3	+++	+++	+++	+++	+++	+++
4	SSNBRI 4	+++	+++	+++	+++	+++	+++
5	SSNBRI 5	+++	+++	+++	+++	+++	+++
6	SSNBRI 6	+++	+++	+++	+++	+++	+++
7	SSNBRI 7	+++	+++	+++	+++	+++	+++
8	SSNBRI 8	+++	+++	+++	+++	+++	+++
9	SSNBRI 9	+++	+++	+++	+++	+++	+++
10	SSNBRI 10	+++	+++	+++	+++	+++	+++
11	SSNBRI 11	+++	+++	+++	+++	+++	+++
12	SSNBRI 12	+++	+++	+++	+++	+++	+++
13	SSNBRI 13	+++	+++	+++	+++	+++	+++
14	SSNBRI 14	+++	+++	+++	+++	+++	+++
15	SSNBRI 15	+++	+++	+++	+++	+++	+++
16	SSNBRI 16	+++	+++	+++	+++	+++	+++
17	SSNBRI 17	+++	+++	+++	+++	+++	+++
18	SSNBRI 18	+++	+++	+++	+++	+++	+++
19	SSNBRI 19	+++	+++	+++	+++	+++	+++
20	SSNBRI 20	+++	+++	+++	+++	+++	+++
21	SSNBRI 22	+++	+++	+++	+++	+++	+++
22	SSNBRI 23	+++	+++	+++	+++	+++	+++
23	SSNBRI 24	+++	+++	+++	+++	+++	+++
24	SSNBRI 25	+++	+++	+++	+++	+++	+++
25	SSNBRI 26	+++	+++	+++	+++	+++	+++
26	SSNBRI 27	+++	+++	+++	+++	+++	+++
27	SSNBRI 29	+++	+++	+++	+++	+++	+++

28	SSNBRI 32	+++	+++	+++	+++	+++	+++
29	SSNBRI 33	+++	+++	+++	+++	+++	+++
30	SSNBRI 34	+++	+++	+++	+++	+++	+++
31	SSNBRI 35	+++	+++	+++	+++	+++	+++
32	SSNBRI 36	+++	+++	+++	+++	+++	+++
33	SSNBRI 37	+++	+++	+++	+++	+++	++
34	SSNBRI 38	+++	+++	+++	+++	+++	+++
35	SSNBRI 39	+++	+++	+++	+++	+++	++
36	SSNBRI 40	+++	+++	+++	+++	+++	+++
37	SSNBRI 42	+++	+++	+++	+++	+++	+++
38	SSNBRI 43	+++	+++	+++	+++	+++	+++
39	SSNBRI 45	+++	+++	+++	+++	+++	+++
40	SSNBRI 47	+++	+++	+++	+++	+++	+++
41	SSNBRI 48	+++	+++	+++	+++	+++	+++
42	SSNBRI 49	+++	+++	+++	+++	+++	+++
43	SSNBRI 50	+++	+++	+++	+++	++	+++
44	SSNBRI 51	+++	+++	+++	+++	+++	+++
45	SSNBRI 53	+++	+++	+++	+++	+++	+++
46	SSNBRI 55	+++	+++	+++	+++	+++	+++

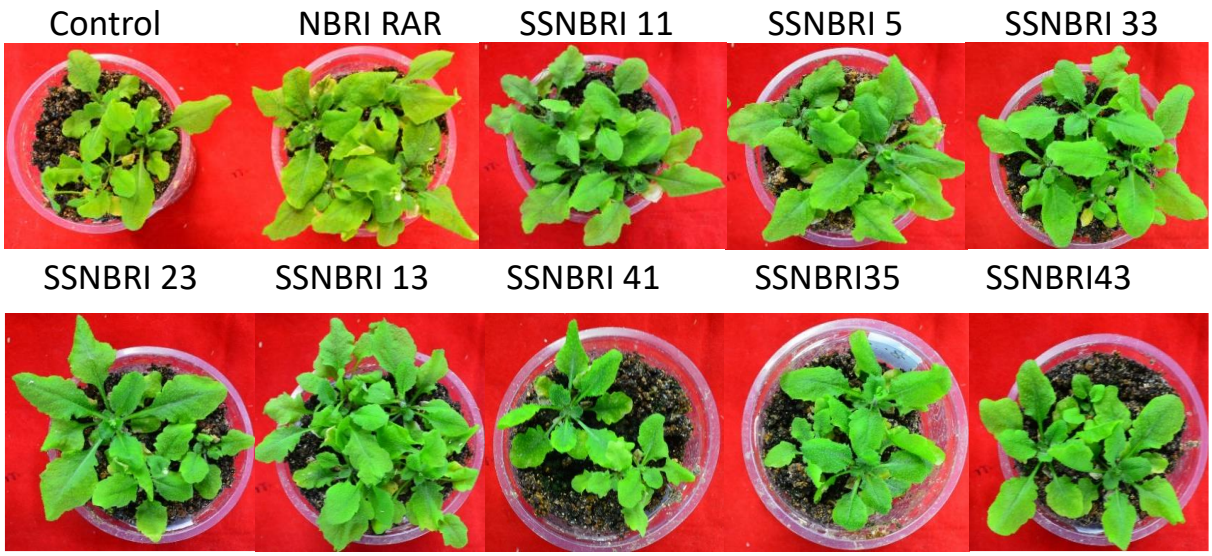
+++: Excellent growth; ++: Good growth; +: Fair growth

Supplementary Table 7. Growth of phosphate accumulating bacteria under 45% PEG simulated drought stress

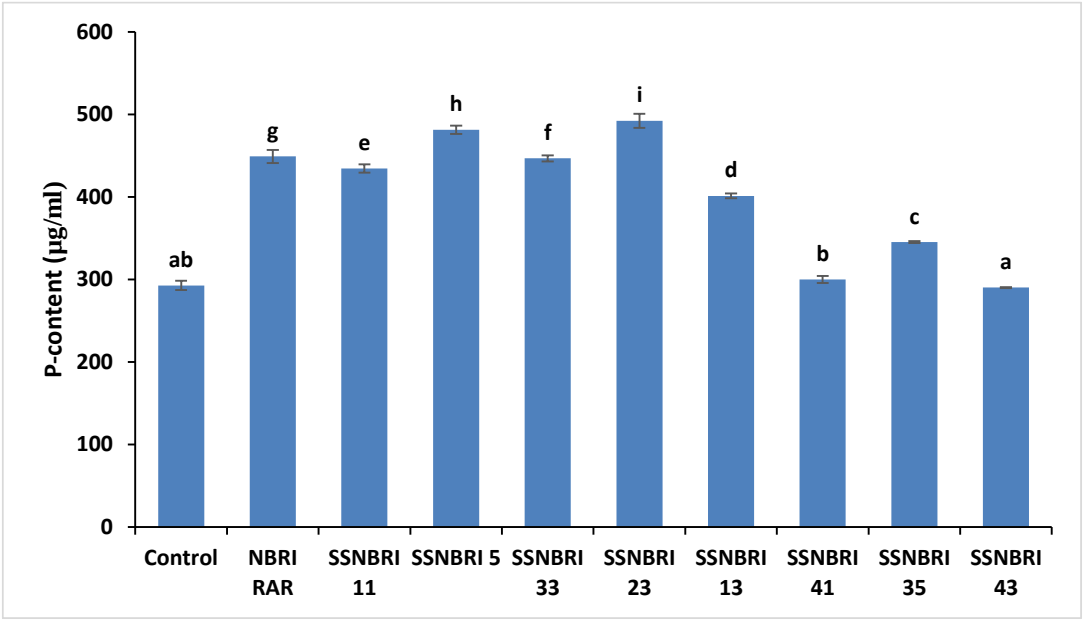
S.No.	Strains	1 Day	2 Day	3 Day	5 Day	7 Day	10 Day
1	SSNBRI 1	+	+	-	-	-	-
2	SSNBRI 2	+	-	-	-	-	-
3	SSNBRI 3	-	-	-	-	-	-
4	SSNBRI 4	-	-	-	-	-	-
5	SSNBRI 5	+++	+++	+++	+++	++	++
6	SSNBRI 6	+	-	-	-	-	-
7	SSNBRI 7	-	-	-	-	-	-
8	SSNBRI 8	-	-	-	-	-	-
9	SSNBRI 9	+	-	-	-	-	-
10	SSNBRI 10	-	-	-	-	-	-
11	SSNBRI 11	+++	+++	+++	+++	++	+++
12	SSNBRI 12	-	-	-	-	-	-
13	SSNBRI 13	+++	+++	+++	++	++	++
14	SSNBRI 14	-	-	-	-	-	-
15	SSNBRI 15	-	-	-	-	-	-
16	SSNBRI 16	-	-	-	-	-	-
17	SSNBRI 17	-	-	-	-	-	-
18	SSNBRI 18	-	-	-	-	-	-
19	SSNBRI 19	-	-	-	-	-	-
20	SSNBRI 20	-	-	-	-	-	-
21	SSNBRI 22	-	-	-	-	-	-
22	SSNBRI 23	+++	+++	+++	++	++	++
23	SSNBRI 24	+	-	-	-	-	-
24	SSNBRI 25	+	-	-	-	-	-
25	SSNBRI 26	+	-	-	-	-	-
26	SSNBRI 27	+	-	-	-	-	-

27	SSNBRI 29	-	-	-	-	-	-
28	SSNBRI 32	-	-	-	-	-	-
29	SSNBRI 33	+++	+++	+++	+++	++	++
30	SSNBRI 34	-	-	-	-	-	-
31	SSNBRI 35	-	-	-	-	-	-
32	SSNBRI 36	-	-	-	-	-	-
33	SSNBRI 37	-	-	-	-	-	-
34	SSNBRI 38	-	-	-	-	-	-
35	SSNBRI 39	-	-	-	-	-	-
36	SSNBRI 40	-	-	-	-	-	-
37	SSNBRI 42	-	-	-	-	-	-
38	SSNBRI 43	-	-	-	-	-	-
39	SSNBRI 45	-	-	-	-	-	-
40	SSNBRI 47	-	-	-	-	-	-
41	SSNBRI 48	-	-	-	-	-	-
42	SSNBRI 49	-	-	-	-	-	-
43	SSNBRI 50	-	-	-	-	-	-
44	SSNBRI 51	-	-	-	-	-	-
45	SSNBRI 53	-	-	-	-	-	-
46	SSNBRI 55	-	-	-	-	-	-
47	NBRI RAR						

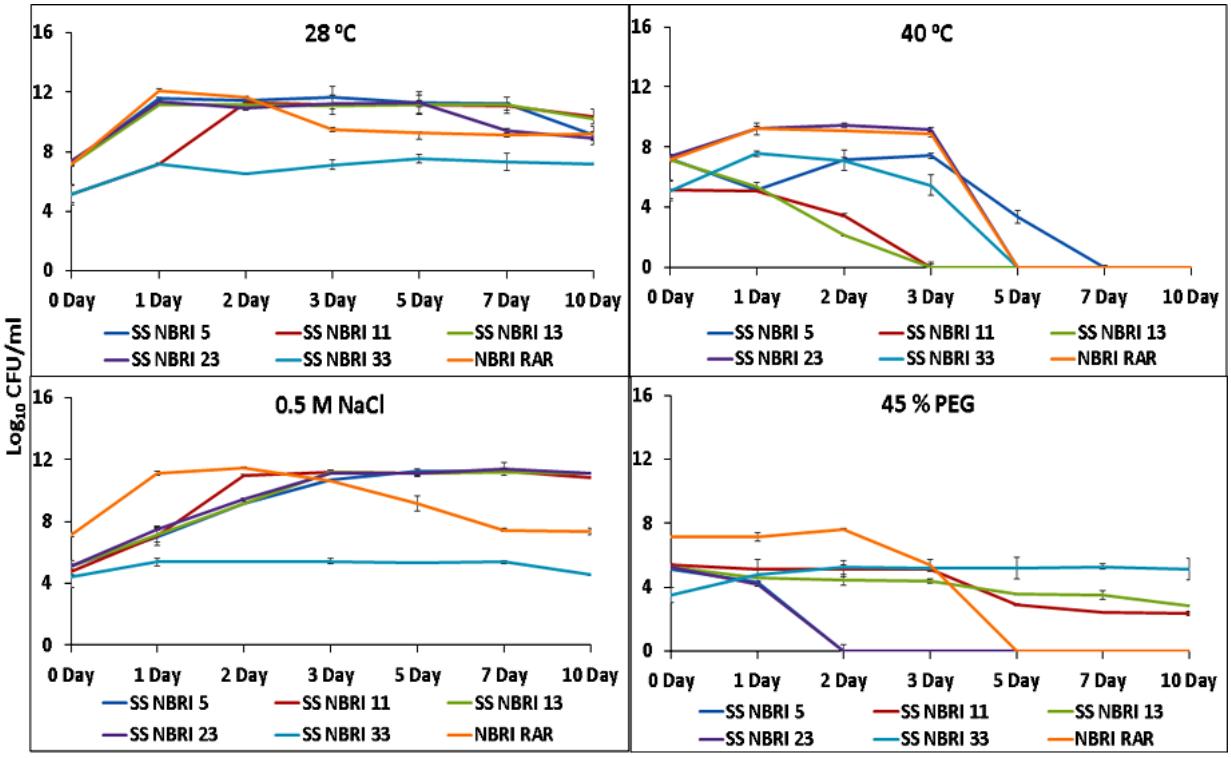
+++: Excellent growth; ++: Good growth; +: Fair growth; -: no growth



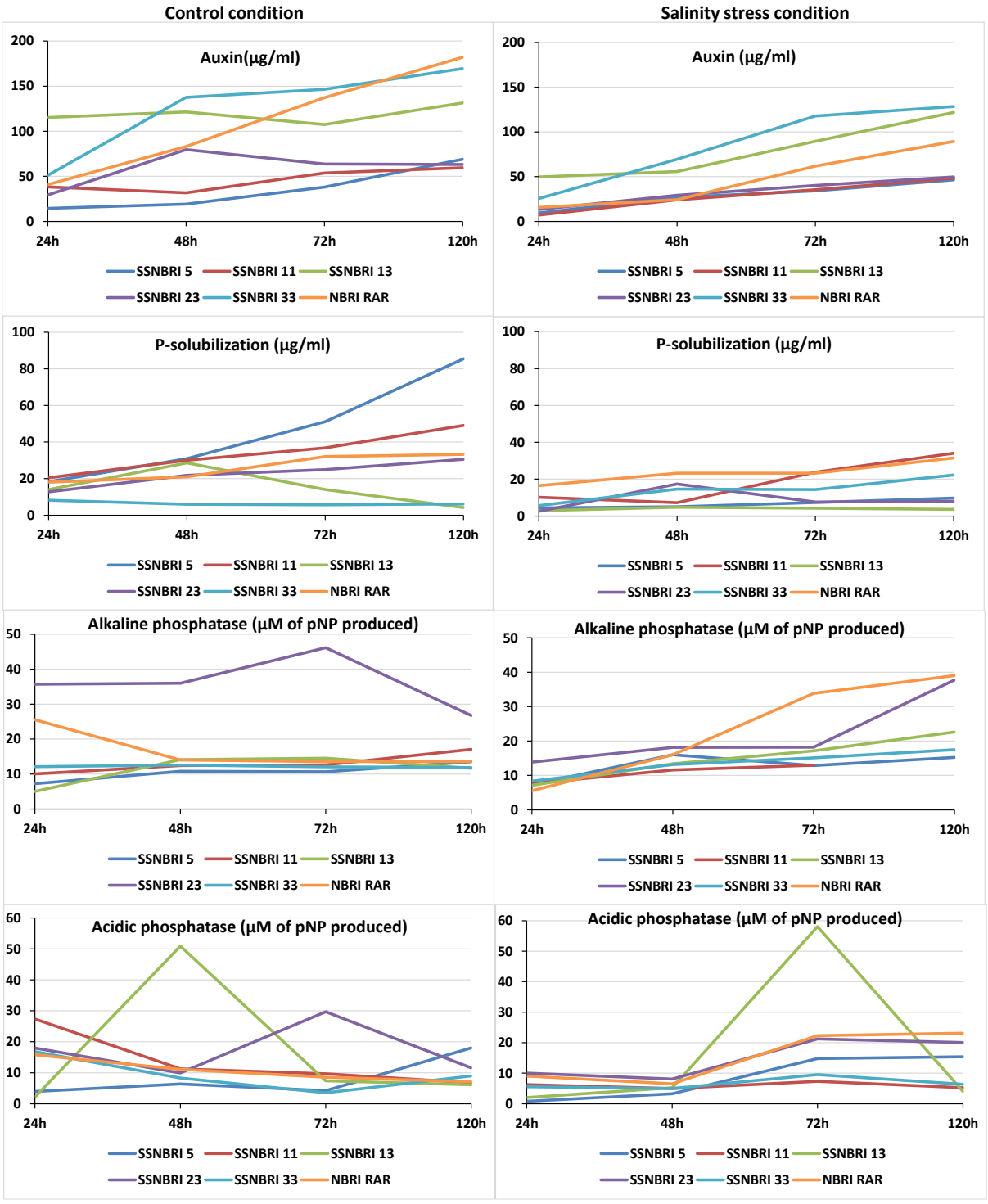
Supplementary Fig. 3. Growth of *A. thaliana* in presence of phosphate accumulating bacteria



Supplementary Fig. 4. Effect of phosphate accumulating bacteria inoculation on phosphate status of *A. thaliana*



Supplementary Fig. 5. Growth of phosphate accumulating bacteria under abiotic stress conditions of temperature (40 °C), salinity (0.5 M NaCl) and drought (45% PEG).



Supplementary Fig. 6. Plant growth promotary traits in phosphate accumulating bacteria under saline stress condition