

## Supplimentary file

**Table S1.** Critical limit of soil available Zn for rice by statistical method.

Sl.No	Soil available Zn ( $\mu\text{g/g}$ ) in population- 1	Bray's per cent yield	Last value in population-1	Mean Bray's per cent yield in popula- tion-1	Correlated SS of devia- tions from mean of popula- tion- 1	Mean Bray's per cent yield in popula- tion-2	Correlated of devia- tions from mean of popula- tion- 2	Postulated critical limit	R <sup>2</sup> for Pos- tulated critical limit
1	0.16	83.97							
2	0.24	84.52	0.24	84.25	0.15	90.82	421.73	0.26	0.185
3	0.28	85.62	0.28	85.07	1.41	90.82	384.50	0.33	0.255
4	0.38	85.69	0.38	85.66	2.14	90.82	343.55	0.39	0.333
5	0.4	86.98	0.4	86.34	5.44	91.18	313.51	0.43	0.384
6	0.46	87.52	0.46	87.25	9.34	91.55	285.43	0.49	0.431
7	0.52	86.79	0.52	87.16	10.33	91.90	243.82	0.55	0.509
8	0.58	86.22	0.58	86.51	10.44	92.29	186.66	0.63	0.619
9	0.68	86.42	0.68	86.32	10.66	92.64	122.50	0.69	0.743
10	0.7	88.07	0.7	87.25	14.63	93.01	72.88	0.73	0.831
11	0.75	90.22	0.75	89.15	29.47	93.48	42.39	0.77	0.861
12	0.79	91.27	0.79	90.75	49.92	94.09	16.79	<b>0.85</b>	<b>0.871</b>
13	0.91	94.54	0.91	92.91	103.22	94.79	11.77	0.93	0.778
14	0.94	95.49	0.94	95.02	162.12	95.46	9.33	1.14	0.669
15	1.34	95.02	1.34	95.26	206.89	96.04	3.75	1.35	0.593
16	1.35	95.99	1.35	95.51	258.70	96.64	0.48	1.80	0.500
17	2.24	97.52	2.24	96.76	326.69	96.94	0.16	2.51	0.369
18	2.78	98	2.78	97.76	394.60	97.18	0.11	2.80	0.238
19	2.81	98.5	2.81	98.25	463.18	97.61			
20	3.17	98.03	3.17	98.27	517.92	98.01			

**Table S2.** Critical limit of plant Zn for rice by statistical method.

Sl. No	Plant Zn ( $\mu\text{g/g}$ ) in population- 1	Bray's per cent yield	Last value in population- 1	Mean Bray's per cent yield in popula- tion-1	Correlated SS of devia- tions from mean of popula- tion-1	Mean Bray's per cent yield in popula- tion-2	Correlated of deviations from mean of popula- tion-2	Postulated critical limit	R <sup>2</sup> for Postu- lated critical limit
1	16.57	83.97							
2	13.53	84.52	13.53	84.25	0.15	90.82	421.73	14.39	0.185
3	15.24	85.62	15.24	85.07	1.41	90.82	384.50	14.88	0.255
4	14.52	85.69	14.52	85.66	2.14	90.82	343.55	16.00	0.333
5	17.48	86.98	17.48	86.34	5.44	91.18	313.51	19.99	0.384
6	22.5	87.52	22.5	87.25	9.34	91.55	285.43	20.79	0.431
7	19.07	86.79	19.07	87.16	10.33	91.90	243.82	20.20	0.509
8	21.32	86.22	21.32	86.51	10.44	92.29	186.66	21.18	0.619
9	21.04	86.42	21.04	86.32	10.66	92.64	122.50	23.52	0.743
10	25.99	88.07	25.99	87.25	14.63	93.01	72.88	25.55	0.831
11	25.1	90.22	25.1	89.15	29.47	93.48	42.39	23.87	0.861
12	22.64	91.27	22.64	90.75	49.92	94.09	16.79	<b>24.32</b>	<b>0.871</b>
13	25.99	94.54	25.99	92.91	103.22	94.79	11.77	26.18	0.778

14	26.36	95.49	26.36	95.02	162.12	95.46	9.33	26.03	0.669
15	25.7	95.02	25.7	95.26	206.89	96.04	3.75	26.50	0.593
16	27.3	95.99	27.3	95.51	258.70	96.64	0.48	27.76	0.500
17	28.21	97.52	28.21	96.76	326.69	96.94	0.16	29.41	0.369
18	30.61	98	30.61	97.76	394.60	97.18	0.11	30.52	0.238
19	30.42	98.5	30.42	98.25	463.18	97.61			
20	31.4	98.03	31.4	98.27	517.92	98.01			

**Table S3.** Critical limit of soil available Zn for potato by statistical method.

Sl.No	Soil available Zn ( $\mu\text{g/g}$ ) in population-1	Bray's per cent yield	Last value in population-1	Mean Bray's per cent yield in population-1	Correlated SS of deviations from mean of population-1	Mean Bray's per cent yield in population-2	Correlated of deviations from mean of population-2	Postulated critical limit	R <sup>2</sup> for Postulated critical limit
1	0.16	72.22							
2	0.24	75.26	0.24	73.74	4.62	87.09	621.16	0.26	0.388
3	0.28	77.08	0.28	76.17	12.06	87.09	481.17	0.33	0.517
4	0.38	81.08	0.38	79.08	41.14	87.09	410.16	0.39	0.558
5	0.4	81.94	0.4	81.51	65.60	87.88	344.84	0.43	0.598
6	0.46	83.41	0.46	82.68	94.55	88.58	294.17	0.49	0.620
7	0.52	83.33	0.52	83.37	114.56	89.25	234.42	0.55	0.659
8	0.58	83.23	0.58	83.28	128.85	89.77	162.96	0.63	0.714
9	0.68	86.13	0.68	84.68	165.67	90.29	125.01	0.69	0.716
10	0.7	85.92	0.7	86.03	193.01	90.78	76.44	<b>0.73</b>	<b>0.736</b>
11	0.75	87.87	0.75	86.90	236.42	91.35	44.53	0.79	0.725
12	0.79	88.91	0.79	88.39	285.56	92.03	17.36	0.83	0.704
13	0.91	92.31	0.91	90.61	379.94	92.56	12.18	0.89	0.616
14	0.94	92.65	0.94	92.48	466.84	93.23	7.07	1.14	0.536
15	1.34	93.82	1.34	93.24	563.05	93.82	5.13	1.35	0.444
16	1.35	93.91	1.35	93.87	648.84	94.44	2.55	1.80	0.363
17	2.24	96.01	2.24	94.96	764.13	94.74	2.43	2.51	0.250
18	2.78	96.1	2.78	96.06	868.40	95.09	2.06	2.80	0.148
19	2.81	94.34	2.81	95.22	931.53	95.35			
20	3.17	96.37	3.17	95.36	1022.09	95.71			

**Table S4.** Critical limit of plant' Zn for potato by statistical method.

Sl.No	Plant Zn ( $\mu\text{g/g}$ ) in population-1	Bray's per cent yield	Last value in population-1	Mean Bray's per cent yield in population-1	Correlated SS of deviations from mean of population-1	Mean Bray's per cent yield in population-2	Correlated of deviations from mean of population-2	Postulated critical limit	R <sup>2</sup> for Postulated critical limit
1	17.76	72.22							
2	21.53	75.26	21.53	73.74	4.62	87.09	621.16	20.11	0.388
3	18.68	77.08	18.68	74.85	12.06	87.09	481.17	18.96	0.517
4	19.23	81.08	19.23	76.41	41.14	87.09	410.16	21.23	0.558
5	23.23	81.94	23.23	77.52	65.60	87.88	344.84	22.90	0.598
6	22.56	83.41	22.56	78.50	94.55	88.58	294.17	23.10	0.620
7	23.63	83.33	23.63	79.19	114.56	89.25	234.42	23.98	0.659

8	24.32	83.23	24.32	79.69	128.85	89.77	162.96	24.69	0.714
9	25.06	86.13	25.06	80.41	165.67	90.29	125.01	26.14	0.716
10	27.21	85.92	27.21	80.96	193.01	90.78	76.44	<b>26.61</b>	<b>0.736</b>
11	26	87.87	26	81.59	236.42	91.35	44.53	27.97	0.725
12	29.93	88.91	29.93	82.20	285.56	92.03	17.36	30.36	0.704
13	30.79	92.31	30.79	82.98	379.94	92.56	12.18	31.60	0.616
14	32.4	92.65	32.4	83.67	466.84	93.23	7.07	35.12	0.536
15	37.84	93.82	37.84	84.34	563.05	93.82	5.13	37.34	0.444
16	36.84	93.91	36.84	84.94	648.84	94.44	2.55	38.96	0.363
17	41.07	96.01	41.07	85.59	764.13	94.74	2.43	43.13	0.250
18	45.19	96.1	45.19	86.18	868.40	95.09	2.06	46.24	0.148
19	47.28	94.34	47.28	87.41	931.53	95.35			
20	47.81	96.37	47.81	88.58	1022.09	95.71			