

Supplementary Information

Synthesis and applications of  $\text{MnO}_2$ -enriched urea nanofertilizer on chili  
*Capsicum annuum L.* plant

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Fig. S1 — Photographs of (a) precursor ( $\text{KMnO}_4$ ), (b) during autoclave (hydrothermal process), (c) washed and filtered, (d) vacuum-dried sample and (e)  $\text{MnO}_2$ -enriched urea nano fertilizer

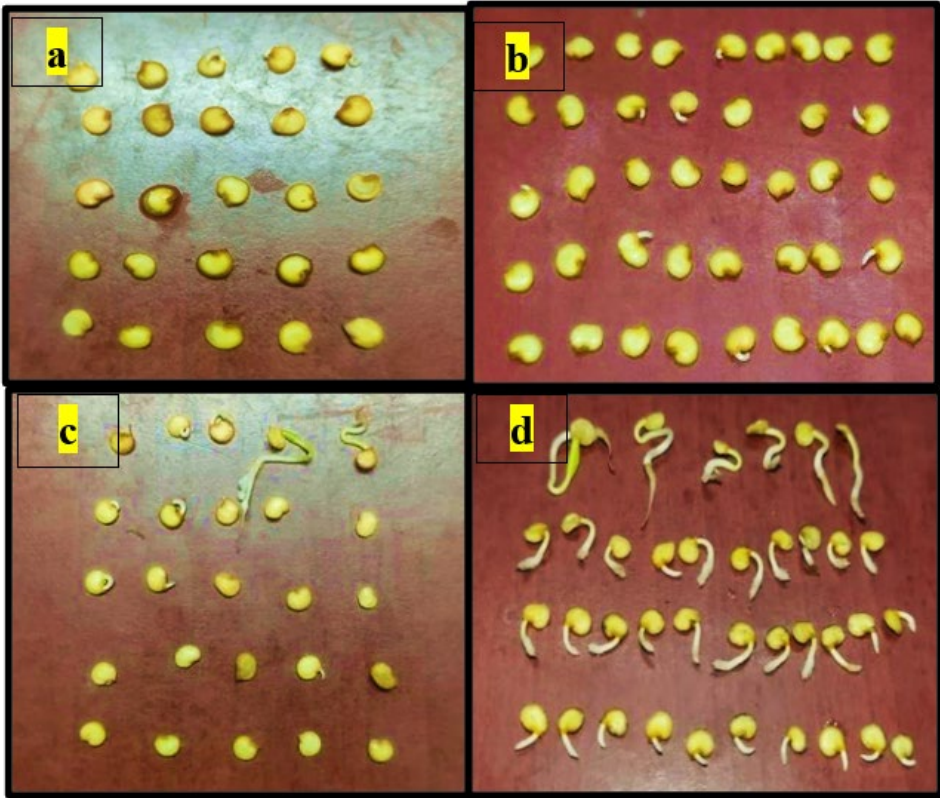


Fig. S2 — Germination of seeds



Fig. S3 — Photographs represent the plant growth after Day 120 (i.e.) growth of plant with different ratios & concentrations of Nano Fertilizer. Fig. 10 indicates the different ratios from a to c, where a is the Control, b is the  $MnO_2$  control (3:0), and c is urea control (0:3). Fig. d to g represents the use of synthesized  $MnO_2$ -enriched urea nano fertilizer in different concentrations where d is 10 ppm, e is 20 ppm, f is 30 ppm and g is 40 ppm Concentration in the ratio (3:1).



Fig. S4 — Flowering observation at 10, 20, 30 and 40 ppm