

**Research Article**

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# Effect of different dose of fertilizer on yield and quality of chilli and soil biological properties available nutrients after harvest of the crop

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**Summary**

A field experiment was conducted during *Kharif* 2011 at a farmer's field in Koliwad (Hubli taluk) village in Northern transitional Zone of Karnataka which is located between 15°21' N latitude and 75°24' E longitudes and at an altitude of 629 m above mean sea level (MSL). In the STCR dose of NPK (T<sub>2</sub>: 216:116:166, N: P<sub>2</sub>O<sub>5</sub>: K<sub>2</sub>O kg ha<sup>-1</sup>, respectively) treatment, higher dry fruit yield of chilli was obtained. Yield increased from 763 (T<sub>1</sub>: 100:50:50 kg N: P<sub>2</sub>O<sub>5</sub>: K<sub>2</sub>O) to 1257 (T<sub>2</sub>) kg ha<sup>-1</sup> in soil test based fertilizer application by registering an increase of 39 per cent. This was due to considerably higher level of fertilizer application compared to other treatments. The highest ascorbic acid content of 151.3 mg 100 g<sup>-1</sup> was recorded in the STCR dose of NPK (T<sub>2</sub>) and it was at par with soil test based N and K ± 50% and P ± 25% (T<sub>5</sub>) (149.5 mg 100 g<sup>-1</sup>). Phosphatase activity (14.12 µg g<sup>-1</sup> h<sup>-1</sup>) was significantly higher in PSB treated plot (T<sub>6</sub>) which also received N and K as per STL + 75% of RDP under medium level of P test values compared to untreated plots.

**Key words :** Biological properties, Soil fertility status, Chilli, Soil organic carbon, Quality parameter

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