

## PERFORMANCE OF DIFFERENT MUNGBEAN VARIETIES ON PRODUCTIVITY POTENTIAL AND NODULATION PATTERN IN *VERTISOLS* OF CHHATTISGARH PLAINS

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### ABSTRACT

The present investigation entitled “Performance of different mungbean varieties on productivity potential and nodulation pattern in Vertisols of Chhattisgarh plains” was carried out at Instructional Farm, IGAU, Raipur during kharif season of 2004. The soil of the experimental field was clayey in texture (Vertisols) locally known as “Bharri”. The soil was neutral in pH and had low nitrogen and medium phosphorus and high in potassium content. The experiment was laid out in split plot design with three replications. The treatments consisted of four dates of sowing viz. 10<sup>th</sup> July (D<sub>1</sub>), 25<sup>th</sup> July (D<sub>2</sub>), 09 August (D<sub>3</sub>) and 24<sup>th</sup> August (D<sub>4</sub>) as main-plot treatment and twelve varieties viz., V<sub>1</sub> : TM-99-2, V<sub>2</sub> : Malviya Jyoti, V<sub>3</sub> : ML-5, V<sub>4</sub> : RM-03-71, V<sub>5</sub> : Pragya, V<sub>6</sub> : RM-06-08, V<sub>7</sub> : BM-4, V<sub>8</sub> : TM-2002-4, V<sub>9</sub> : ML-131, V<sub>10</sub> : Pusa Vishal, V<sub>11</sub> : TM-2000-1 and V<sub>12</sub> : HUM-12 as sub-plot treatment..

Results revealed that growth parameters viz. number and dry weight of nodules and yield attributes were the highest under earliest date of sowing i.e. 10<sup>th</sup> July which ultimately gave the highest yield. Though, a slight reduction in yield was observed till 25<sup>th</sup> July sowing but drastic reduction in yield occurred if the sowing is delayed further.

Variety BM-4 was found to be best yielder (472 kg ha<sup>-1</sup>) closely followed by HUM-12 (469 kg ha<sup>-1</sup>). The economic returns from these varieties were also higher than others. Though, they had a lower test weight than Pragya, Malviya Jyoti and ML-5. Their more number of nodulation and dry weight have attributed for their supremacy over other varieties. Interaction between variety BM-4 and 10<sup>th</sup> July sowing outyielded amongst the other treatment combinations.

**KEYWORDS:** Fertilizer Contents, Mungbean Varieties and Nodulation Pattern