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**DOI: 10.15740/HAS/IJPS/11.1/103-108** Visit us - *www.researchjournal.co.in* 

## **R**ESEARCH ARTICLE

## Characteristic of *Jatropha curcas* seeds of different agroclimatic zone of Chhattisgarh state

**BHUPENDRA SINGH PAINKRA AND PRASHANT KUMAR SHARMA** 

## **SUMMARY**

*Jatropha curcas* can help to increase rural incomes, from plantations and agro-industries. *Jatropha curcas* is a valuable multi-purpose crop to alleviate soil degradation and aforestation, which can also of three agro-clamatic zone of chhattisgarh be used for bio-energy to replace petro-diesel production, climatic protection and hence, deserves specific attention. In the present study comparative study of *Jatropha curcas* seeds (*i.e.* northern hilly zones, chhattisgarh plain and bastar plates) were studied. The highest and lowest value of whole seed mass, kernel weight, shell weight, percentage kernel mass of whole seeds and percentage shell mass of whole seeds were 0.74 g (Northern Hilly Zone) and 0.70 g (Chhattisgarh plain), 0.54 (Bastar plates) and 0.49 g (Chhattisgarh plain), 0.23 g (Northern Hilly Zone), 0.18 g (Bastar plates), 71.31 per cent (Chhattisgarh plain), 70.16 per cent (Bastar plates) and 29.84 per cent (Bastar plates) and 29.12 per cent (Northern Hilly Zone), respectively. Chemical composition proved that *Jatropha curcas* seeds are a good source of protein 32.91 per cent (Northern Hilly Zone), oil 26.92 per cent (Bastar plates) and carbohydrates 30.22 per cent (Chhattisgarh plain), respectively. The seeds are rich in various micro-elements, that is manganese (Mn), iron (Fe) and zinc (Zn), respectively as well as macro-elements that is potassium (K), calcium (Ca), sodium (Na), Magnesium (Mg) and phosphorus (P), respectively.

Key Words : Jatropha curcas L., Mineral content, Chhattisgarh

How to cite this article : Parinkra, Bhupendra Singh and Sharma, Prashant Kumar (2016). Characteristic of *Jatropha curcas* seeds of different agro-climatic zone of Chhattisgarh state. *Internat. J. Plant Sci.*, **11** (1): 103-108.

Article chronicle : Received : 06.07.2015; Revised : 04.12.2015; Accepted : 15.12.2015

MEMBERS OF THE RESEARCH FORUM

Author to be contacted : BHUPENDRA SINGH PAINKRA,Department of Life Science, MATS University Pandri, RAIPUR (C.G.) INDIA Email: bhupendra.paikra1990@gmail.com

Address of the Co-authors: PRASHANT KUMAR SHARMA, Biotech Lab Training and Demonstration Centre, AMBIKAPUR (C.G.) INDIA