New Agriculturist, **27**(2) : 415–418, 2016 http://biovedjournal.org/

Studies on biochemical and anti-nutritional traits of sulphur applicated chickpea (*Cicer arietinum* L.*)* varieties grown under rainfed condition

Alka Katiyar and S.P. Mishra

Received May 2, 2016 and Accepted August 15, 2016

ABSTRACT : The biochemical and anti-nutritional composition of Chickpea varieties vary significantly across varieties and environment. The biochemical and anti-nutritional parameters were carried out in five varieties and three doses of sulphur during *Rabi* 2014 and 2015 under rainfed condition. The five varieties of Chickpea viz- JG-11, JG-315, DCP 92-3, PUSA-1103 and KGD-1168 along with 0, 15 and 30 kg S/ha were studied for their biochemical and anti-nutritional parameters. The fat (%), free fatty acid (mg KOH/g), Methionine content (g/16N), polyphenol (mg 100/g) and tannin (%) in Chickpea were ranged from 4.30 to 6.37%, 2.15 to 2.71(mg KOH/g), 2.45 to 4.10%, 1.12 to 1.65(g/16N), 94.03 to 220.43 (mg100/g) and 0.17 to 0.20% to enhance the application of 30 kg S/ha, respectively. The range of ash per cent were found 2.45 to 4.10% and its per cent was enhancing due to the application of 0 kg S/ha. The results of the present study revealed that Chickpea varieties are a potential sources of biochemical and important constituent, all of which nutrients are related to boost up human health. It is also helpful to find out suitable variety with application of 30 kg S/ha in this rainfed area in terms of their biochemical as well as Anti-nutritional parameters to reflect quality of Chickpea varieties.

Key Words : Anti-nutritional, ash, biochemical, fat, methionine and sulphur.