

RESEARCH ARTICLE

Weed management strategies in Bt cotton under Humid Southern Plain Zone of Rajasthan

■ HARPHOOL MEENA, P.K.P. MEENA AND B.L. KUMHAR

SUMMARY

A field experiment was conducted during two consecutive years of *Kharif* 2012 and 2013 at Agricultural Research Station, Banswara to find out suitable weed management strategies for Bt cotton. The experiment was laid-out in Randomized Block Design with three replications having nine treatments. Results revealed that, the application of pendimethalin 30% EC @ 0.75 kg a.i. / ha PE *fb* quizalofop-P- ethyl 50 g a.i. / ha at 20-30 DAS + one hoeing gave significantly higher bolls plant⁻¹ (36.30), boll weight (4.22 g), seed cotton yield (2275 kg ha⁻¹), net return (Rs.55581/- ha⁻¹) and B:C (2.70) over rest of treatments, but it was found at par with weed free check and application of pyrithiobac sodium @ 62.5 g a.i./ ha *fb* quizalofop-P- ethyl 50 g a.i./ha at 20-30 DAS + one hoeing bolls plant⁻¹(34.84), boll weight (4.19 g), seed cotton yield (2251 kg ha⁻¹), net return (Rs.54669/- ha⁻¹) and B:C (2.64). The maximum weed control efficiency (60.75%), lowest weed population (12.39 m⁻²) and weed dry matter accumulation (14.63 g m⁻²) at 60 DAS were observed under application of pendimethalin 30% EC @ 0.75 kg a.i. / ha PE *fb* quizalofop-P- ethyl 50 g a.i. / ha at 20-30 DAS + one hoeing over rest of treatments. However, it was found at par with weed free check and application of pyrithiobac sodium @ 62.5 g a.i./ ha *fb* quizalofop-P- ethyl 50 g a.i./ha at 20-30 DAS + one hoeing.

Key Words : Cotton, Pendimathlin, Pyrithiobac sodium, Weed control efficiency

How to cite this article : Meena, Harphool, Meena, P.K.P. and Kumhar, B.L. (2017). Weed management strategies in Bt cotton under Humid Southern Plain Zone of Rajasthan. *Internat. J. Plant Sci.*, 12 (2): 243-248, DOI: 10.15740/HAS/IJPS/12.2/243-248.

Article chronicle : Received : 01.05.2017; Revised : 01.06.2017; Accepted : 18.06.2017

MEMBERS OF THE RESEARCH FORUM

Author to be contacted :

HARPHOOL MEENA, AICRP on Irrigation Water Management, Agricultural Research Station, Agriculture University, KOTA (RAJASTHAN) INDIA
Email : hpagron@rediffmail.com

Address of the Co-authors:

P.K.P. MEENA AND B.L. KUMHAR, AICRP on Irrigation Water Management, Agricultural Research Station, Agriculture University, KOTA (RAJASTHAN) INDIA