

Effect of irrigation, mulches and antitranspirant on yield, quality and economics of summer pearl millet

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ABSTRACT

An experiment was conducted during the summer season of the year 2007 and 2008 to study the “effect of irrigation, mulches and antitranspirant on yield, quality and economics of summer pearl millet (*Pennisetum glaucum* L.) under south saurashtra condition”. Treatment I_3 (1.0 IW : CPE ratio) registered significantly highest values of grain and dry fodder yields as well as protein content, but it was remained statistically at par with the treatment I_2 (0.8 IW : CPE ratio) in case of grain and dry fodder yields. With respect to different mulches, treatment M_2 (groundnut shell mulch) resulted significantly higher grain and dry fodder yields as compared to control treatment (M_0). While, treatment M_1 (Wheat cut straw mulch) remained next to treatment M_2 by exerting its significant influence on control treatment (M_0). Likewise, treatment AT1 (6 % kaolin spray) also produced significantly higher grain and dry fodder yields over control treatment. Application of different mulches as well as antitranspirants failed to extract its significant effect over control for protein content. The highest net return worth Rs. 33691 ha⁻¹ was secured under treatment combination $I_3M_2AT_0$ (1.0 IW : CPE ratio + groundnut shell mulch + water spray) with CBR and net CBR values of 1 : 3.18 and 1 : 2.18, respectively. The treatment combination $I_3M_2AT_1$ (1.0 IW : CPE ratio + groundnut shell mulch + 6 % kaolin spray) was found the next best treatment combination with respect to net profit of Rs. 32464 Rs. ha⁻¹ and CBR as well as net CBR values of 1 : 2.82 and 1:1.82, respectively.

Key words : Irrigations, Mulches, Antitranspirant, Pearlmillet

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