



# Influence of Chemical Weed Control on Weed Intensity in Summer Finger Millet (*Eleusine coracana* L. Gaertn.) Under Irrigated

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## ABSTRACTS

A field experiment was conducted in summer season of 2020 to investigate the, "Influence of application of chemical weed control on weed intensity in summer finger millet under irrigated conditions at Bagusala farm, MS Swaminathan School of agriculture, Gajapati dist. Odisha. The treatments comprised of Oxadiargyl 80WP @ 80 g ai ha<sup>-1</sup> (PE), Pendimethalin 30EC @ 500 g ai ha<sup>-1</sup> (PE), Bispyribac Sodium 10% EC @ 20 g ai ha<sup>-1</sup> (POE), Ethoxy Sulfuron 50 WG @ 12 g ai ha<sup>-1</sup> (POE), Oxadiargyl 80WP @ 80 g ai ha<sup>-1</sup> (PE) followed by Bispyribac Sodium 10% EC @ 20 g ai ha<sup>-1</sup> (POE), Oxadiargyl 80WP @ 80 g ai ha<sup>-1</sup> (PE) followed by Ethoxy Sulfuron 50 WG @ 12 g ai ha<sup>-1</sup> (POE), Pendimethalin 30EC @ 500 g ai ha<sup>-1</sup> (PE) followed by Bispyribac Sodium 10% EC @ 20 g ai ha<sup>-1</sup> (POE), Pendimethalin 30EC @ 500 g ai ha<sup>-1</sup> (PE) followed by Ethoxy Sulfuron 50 WG @ 12 g ai ha<sup>-1</sup> (POE), Hand Weeding @ 20 followed by 40 DAT, and Control (No weeding).

At 20 DAT, the weed number observed in the hand weeded plot was comparable with that of plots received Oxadiargyl applied alone or Oxadiargyl applied in combinations with post emergence herbicides Bispyribac Sodium or Ethoxy Sulfuron and significantly lower than other herbicide treatments, Pendimethalin, Bispyribac Sodium, Ethoxy Sulfuron, Pendimethalin followed by Bispyribac Sodium, Pendimethalin followed by Ethoxy Sulfuron. Weed number in Pendimethalin applied plot was significantly lower at 40 DAT as compared to post emergence herbicide application of Bispyribac Sodium, Ethoxy Sulfuron and pendimethalin, Bispyribac Sodium and Ethoxy Sulfuron application.

**Keywords:** Finger millet, Chemical weed control, Weed density, Summer season

Finger millet (*Eleusine coracana* L. Gaertn.) is an annual crop and is popularly known as Ragi in Telugu, Rajika in Sanskrit and in Odia it is known as Mandia. In India, finger millet is cultivated over an area of 1.19 million hectares with a production of 1.98 million tonnes giving an average productivity of 1661 kg ha<sup>-1</sup> (Anonymous, 2013). Finger millet is grown both for grain and fodder purposes and cultivated as an altitude of 3000 metres above MSL. The crop is mainly cultivated in Karnataka, Maharashtra, Uttarakhand,

Tamil Nadu, Andhra Pradesh, Jharkhand, Odisha, Chhattisgarh and Gujarat. In Odisha it is cultivated in an area of 45.7 ha with a production of 23.3 lakh tonnes and productivity of 620 Kg ha<sup>-1</sup> (AICRP on small millets 2015-16).

**How to cite this article:** Mohanty, L.K., Roja, M., Devender Reddy, M. and Bera, M. (2020). Influence of Chemical Weed Control on Weed Intensity in Summer Finger Millet (*Eleusine coracana* L. Gaertn.) Under Irrigated. *Agro Economist - An International Journal*, 7(2): 61-67 (Special Issue), November 2020.

**Source of Support:** None; **Conflict of Interest:** None

