

عنوان مقاله:

(Influence of inter and intra row spacing on growth and yield of Vernonia (Vernonia galamensis Cass

محل انتشار:

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خلاصه مقاله:

Vernonia galamensis Cass is a huge potential industrial crop with very high content of vernolic acid in the seed oil. The experiment was carried out to determine the effect of inter- and intra- row spacing on the yield and yield related traits of Vernonia galamensis Cas. The experiment was conducted for two years during 2014-2015 on experimental field of Wondo Genet Agricultural research center, Southern Ethiopia. The factorial combinations of five intra-rows (30, 40, 50, 60 and 70cm) and three inter-row plant spacing (60, 80, 100cm) were laid out in a randomized complete block design with three replications. Data on yield and yield related traits including plant height (cm), number of branch/plant, number of pods /plant, Seed yield kg/ha, oil yield kg/ha, Oleoresin % and 1000 seed weight (gm) were recorded. The combined analysis of the two years trial showed that the interaction effect of Inter and Intra row spacing treatments significantly influenced all parameters measured except thousand seed weight and oil content. Inter and Intra row spacing interaction effect was highly significant ($P < 0.0001$) on number of branches per plant, seed yield and oil yield. The maximum seed yield of 2491.3 kg/ha, Oil yield 932.2kg/ha were obtained from a spacing combination of 60cm intra-row and 60cm inter-rows. Therefore, the inter and intra row spacing combination of 60 x 60cm is a recommendable optimum spacing for Vernonia galamensis (Cass.) production to attain maximum yield under the conditions of Wondo genet and similar locations. © 2016 Published by CASRP publishing company Ltd. UK. Selection and/or peer-review under responsibility of Center of Advanced Scientific Research and Publications Ltd. UK

کلمات کلیدی:

Vernonia galamensis, Inter and intra row, Spacing, Plant population, Seed yield

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