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## Studies on Growth, Yield and Yield Attributes of Wheat-Mentha Intercropping System in Relation to Planting Methods and Nitrogen Levels

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**Abstract:** A field experiment was conducted during winter to summer seasons of 2006-07 and 2007-08 at Gurdaspur (Punjab) on silty clay loam soil to assess the response of intercropping of wheat and mentha to planting methods and nitrogen levels. The experiment was laid out in randomized block design having two planting methods viz. two rows of wheat (November sown) with 20 cm row spacing and two rows of mentha (February sown) on outer side of wheat rows under flat and bed (37.5 cm top + 30 cm furrow) method covering a total width of 67.5 cm and five levels of nitrogen i.e., 0+0, 90+75, 120+75, 150+75 and 180+75 kg N ha<sup>-1</sup> to wheat and mentha, respectively. Bed was significantly higher over flat in yield attributes and grain yield of wheat. Interaction on grain yield of wheat showed the response of flat and bed to 150 and 120 Kg N ha<sup>-1</sup>, respectively. Both the planting methods were on par in growth, herbage and essential oil yield of mentha during 2006-07 but bed was significantly higher over flat during 2007-08 due to higher rainfall. Bed planting gave significantly higher wheat grain equivalent yield of intercropping system over flat and it increased significantly upto 120 + 75 Kg N ha<sup>-1</sup> for wheat and mentha.

Key Words: Wheat-mentha intercropping, Planting method, Flat bed, Nitrogen