

Sustainable Production of Sesamum through Legume Intercropping: A Review

Dinesh Kumar, R.B. Ardeshna¹, Magan Singh, Govind Makarana², R.K. Meena, Sanjeev Kumar, Rakesh Kumar and B.S. Prajapat³

ICAR – National Dairy Research Institute, Karnal-132 001, India ¹Cotton Research Sub-station, NAU, Achhalia-393 120, India ²Division of Crop Research, ICAR-Research Complex for Eastern Region, Patna-800 014, India ³Department of Agronomy, Rajasthan College of Agriculture, MPUAT, Udaipur-313 001, India *E-mail: sirvidkagro@gmail.com*

Abstract: Due to burgeoning human population and utilization of land for non-agricultural purpose, the demand for food crops is being increased day by day. To meet the growing food demand, we need to raise the production of all the food crops like cereals, pulses, oilseeds, etc. Under this situation, any strategy to boost agricultural production (especially oilseeds and legumes) is the expansion of an appropriate production-oriented multi-cropping system like intercropping system. Legumes intercropped with sesamum upsurges in productivity through better utilization of resources to stabilize the yield. To find out the advantages (yield, biological feasibility and economic) of any intercropping system, in general, the land equivalent ratio, area time equivalent ratio, relative crowding coefficient, aggressivity, competition ratio, net returns, benefit cost ratio, income equivalent ratio and monetary advantages are used. In this review article, the work on different sesamum based intercropping system carried out by researchers is discussed. Based on this review article, it is concluded that intercropping has beneficial effect on sesamum equivalent yield over sole sesamum, if desired short duration legumes be intercropped with it at an appropriate row ratio.

Keywords: Intercropping, Land equivalent ratio, Legumes, Profitability, Sesamum equivalent yield