

Effect of Intercrops on the Relative Incidence of Insect Pests of Castor, *Ricinus communis* L.

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ABSTRACT

The effect of intercrops viz., blackgram, greengram, cowpea, redgram, sorghum and pearl millet with castor was studied at Agricultural Research Station, Darsi to identify the appropriate combination of castor (*Ricinus communis* L.) and intercropping in relation to pest incidence. The diversity created by introducing sorghum or pearl millet as intercrops in castor (1:2 ratio proportions) resulted in reduction of incidence of insect pests, namely semilooper, *Achaea janata* L. (1.42 and 1.27 larvae per plant), leaf hopper, *Empoasca flavescens* Fabricius (7.25 and 7.70 per leaf), Tobacco caterpillar, *Spodoptera litura* (0.27 and 1.35 larvae per plant), Bihar hairy caterpillar, *Spilosoma obliqua* (0.07 and 0.17 larvae per plant) and shoot and capsule borer, *Conogethes punctiferalis* Guenee (8.00 and 12.65 % damage) compared to a castor monocrop (2.57, 15.62, 1.00, 0.07 and 16.03 %, respectively). The buildup of natural enemies, *Microplitis*, coccinellids, and spiders of the major pests of castor was also observed in these intercropping systems and resulted in the reduction of insect pests. Further, these systems were more efficient in terms of castor equivalent yields (1446 and 1331 Kg/ha) and economically (36,150 and 33,275 Rs/ha), and were thus more profitable than a castor monocrop (985 Kg/ha and 24,625 Rs/ha).

Key words : Castor, intercrops, Economics, Equivalent yields, Insect pests, Natural enemies.