

Effect of conjunctive use of bio-organics and inorganic fertilizers on growth, yield and economics of *Rabi* fennel (*Foeniculum vulgare* Mill.) under south Gujarat conditions

V.I. PATEL*, S.N. SARAVAIYA, M.K. ARVADIA, J.H. CHAUDHARI, M.P. AHIR AND
R.R. BHALERAO

Department of Agronomy, N.M.College of Agriculture, Navsari Agricultural University, NAVSARI (GUJARAT)
INDIA

ABSTRACT

Field experiment was conducted during *Rabi* season with cv. Gujarat Fennel -11, at college farm, N.M. College of Agriculture, N.A.U., Navsari to study the effect of conjunctive use of bio-organics and inorganic fertilizers on growth, yield and economics of *Rabi* fennel under vertisol of South Gujarat. Five treatment of bio-organics (B_1 : Castor cake @ 0.5 t ha⁻¹, B_2 : Neem cake @ 0.5 t ha⁻¹, B_3 : bio-fertilizer seed inoculation, B_4 : Castor cake @ 0.5t ha⁻¹ + bio-fertilizer seed inoculation and B_5 : Neemcake @ 0.5 t ha⁻¹ + bio-fertilizer seed inoculation) and three levels of inorganic fertilizer (F_1 : 100 per cent RDF (90:30:00 NPK kg ha⁻¹), F_2 : 75 per cent RDF and F_3 : 50 per cent RDF) were evaluated in factorial randomized block design with three replications. Result revealed that higher and profitable yield of *Rabi* fennel can be secured by application of either castor cake @ 0.5 t ha⁻¹+ bio- fertilizer seed inoculation or neem cake @0.05 t ha⁻¹+ bio- fertilizer seed inoculation along with 100 per cent RDF (*i.e.* 90:30:00 NPK kg ha⁻¹) under South Gujarat conditions.

Key words : *Rabi* fennel (Drilled), Bio-organics, Bio- fertilizers, Inorganic fertilizers, Growth, Yield, Economics

* Author for correspondence. R.K.V.Y. Krishi Vigyan Kendra, N.A.U., Waghai, DANGS (GUJARAT) INDIA