

Energy management and cost of cultivation of wheat crop in dryland condition

J.P. SINGH, VIKAS ABROL AND MAHINDER SINGH

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See end of the Paper for authors' affiliation

Correspondence to :

J.P. SINGH

Division of Agricultural Engineering, Sher-e-Kashmir University of Agricultural Sciences and Technology (J), JAMMU (J&K) INDIA

■ **ABSTRACT** : In case of dryland cultivation practices intelligently on need to minimize cost of production of any crop. Tillage is one of the major operations of the crop production and is an important contributor to the total cost of production. In this regards an experiment has been conducted on two tillage system *i.e.* conventional and reduce tillage system in order to save the energy in production of wheat crop comprising three tillage treatments in combination to three doses of fertilizer application. The data revealed that the highest yield of wheat of 29.33q/ha was recorded in 50% conventional tillage + weedicide + interculture followed by conventional tillage + interculture with a grain yield of 27.87q/ha. With regard to nitrogen application through different sources, the highest average grain yield of 29.00q/ha was recorded with 100%N through inorganic fertilizer followed by 50% N through organic + 50% N through inorganic fertilizers with a grain yield of 28.25q/ha. As for as energy requirement and cost of operation were higher in the conventional tillage system (2907.53MJ and Rs.11347.33) than in reduce tillage *i.e.* 50% CT+ interculture+ weedicide (2227.20MJ and Rs.10335.30) and 50% CT+ interculture (2281.56 MJ and Rs.9948.60), respectively. The benefit cost ratio ranged from 1.08: 1 to 1.41: 1.

■ **KEY WORDS** : Tillage, Wheat, Reduce tillage, Fertilizer, Energy, Conventional tillage

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