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Utilization of coarse wool in agriculture for soil moisture conservation

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Abstract

Coarse wool in the form of dust, fibrous waste (loose wool mat) and designed felt was buried into soil at 15 and 30 cm depth as a geo-textile to study its effect on soil moisture conservation. The experiment was laid in a factorial randomized block design with 3 replications of each form of wool used. There were three kinds of wool forms (wool dust, wool mat and wool felt) at two different depth levels (15 and 30 cm). No wool was applied to the control plot. Barley (*Hordeum vulgare* L.) crop was sown and irrigated uniformly at regular intervals. Soil moisture retention was significantly (P<0.05) higher in different forms of wool used than the control. Green fodder and grain yield were significantly (P<0.05) improved over the control. The improvement was maximum in wool felt at 30 cm depth than other wool forms and depths. Soil pH, electrical conductivity and micronutrients were not increased significantly; however, available NPK was improved significantly (P<0.05) for all the wool forms over the control.

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Keywords

Coarse wool, Geotextile, Moisture, Plant Growth, Soil properties.

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