RESPONSE OF RAINFED MAIZE TO INTEGRATED NUTRIENT MANAGEMENT AND WATER CONSERVATION

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ABSTRACT

According to an estimate, barani tract is spread over an area of 4.70 Mha in the country. The yields of various crops in barani areas are low, which may be attributed to soil moisture stress at critical plant growth stages and low soil fertility. No doubt agriculture in this situation is mainly dependent on moisture availability through rainfall, but management of soil and moisture at proper time plays a key role in crop production. The present study was conducted to evaluate the effect of fertilization and water conservation on maize crop production. The experimental year received 454 mm rainfall in 20 rainfall events. Grain yield under fertilization and water conservation was 125 percent greater than control. The highest water use efficiency of 114 percent was achieved under fertilization and water conservation treatment. Under nutrient deficient soil, simple water conservation practices can not increase crop growth and yields significantly.