



RESEARCH PAPER

Impact of climate change on production aspects of Gram in Khadin area of arid region of Rajasthan

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Abstract : Agriculture is the backbone of Indian economy and climate change significantly affects agriculture productivity. The present study was conducted in jaisalmer district of Rajasthan state. The study sample comprised 160 farmers out of them 80 small and 80 large farmers selected randomly. The results of the study revealed that Majority of the farmer (88.12%) expressed that germination of seeds was good followed by average (11.88%) before the year 2015. About 65.00 per cent of the farmer expressed that germination of seeds was good, followed by average (25.62%) and poor (9.38%) after the year 2015. Majority of the farmers (66.25%) expressed that the growth of the crop was good followed by average (33.75%) before the year 2015. About 55.00 per cent of the farmer agreed that growth of crop was good, followed by average (30.62%) and poor (14.38%) after the year 2015.

Key Words : Climate change, Impact, Gram

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INTRODUCTION

There is need to understand the climatic changes around us and how it affects agricultural productivity. Climate change and global warming is the current global problem which was facing by many countries. Global warming not only causes a change in average temperature and precipitation but also increases the frequency of floods, droughts, heat waves. This extreme climatic event has led to soil degradation which results in low crop yields. Increased temperatures, changed rainfall patterns and more frequent and intense floods and droughts will impact the food production (Lobell *et al.*, 2012; Schellnhuber *et al.*, 2013 and Rosenzweig *et*

al., 2014). The impacts of climate change on crop yields indicate that yield losses may be up to 60 per cent by the end of the century depending on crop, location, and future climate scenario (Rosenzweig *et al.*, 2014; Challinor *et al.*, 2014 and Asseng *et al.*, 2015). Increasing climatic variability may further complicate agricultural production and food security as almost one-third of yield variability is related to climatic variability (Ray *et al.*, 2016). Decline in agricultural productivity discourages the farmers and may lead to change in livelihood especially in the rural settings. Options range from change in crop management, such as sowing time, stress resistance varieties, change in cropping systems and land use, to adjust to new climates

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