

Research
Paper

The quality of groundnut seeds used for sowing by farmers of Saurashtra and Kutch regions of Gujarat

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ABSTRACT

The present study was aimed at testing the quality of seeds of groundnut used for sowing by farmers of Saurashtra and Kutch regions of Gujarat. Fifty six seed samples of farmers saved seeds of groundnut were collected from farmers of eight villages of Jamnagar, Rajkot and Kutch districts of Gujarat. The study revealed that 92.86 per cent farmers' saved seed samples of groundnut was confirmed to the required seed standards for germination, moisture content, physical purity and seed health with respect to insect infestation, while, 82.14 per cent seed samples of groundnut had recorded higher than 70 per cent field emergence. These suggested that the quality of groundnut seed used for sowing by farmers was satisfactory in Saurashtra and Kutch regions of Gujarat. Even though, seed quality was reflected in the yield performance of the crop. Hence, the farmers need to be more educated about the importance and advantages of using good quality seeds and be trained for maintaining the seed quality by adopting pre and post harvest measures so as to harvest good yields of the desired varieties.

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Key words : Groundnut, Seed quality, Germination, Moisture, Physical purity

INTRODUCTION

Gujarat is one of the main groundnut (*Arachis hypogaea* L.) producing state of India, with an area of 20 lakh hector which is mostly grown under *Kharif* and confined to Saurashtra and Kutch regions. Being a self pollinated crop, groundnut seeds can be maintained for several generations without losing its genetic purity. In practice, however, progressive deterioration of original stock occurs through admixture with other varieties and species in cultivars' fields and in the threshing and processing yards. A small percentage of cross-pollination with other varieties cannot be ruled out. Farmers of Gujarat state generally use their own seeds for sowing of groundnut, harvested in the last season, which are stored in gunny bags and kept in common residential room, a traditional method of storage in the region. There is no special facility developed for seed storage. Some farmers do not follow proper methods to maintain the purity of the seeds. Deterioration of seed quality takes place due to minor residual segregation, chance mutation, natural cross

pollination and variety admixtures (Dahiya *et al.*, 1997). Therefore, a study was made to determine the quality of groundnut seeds used for sowing by farmers of Saurashtra and Kutch regions of Gujarat.

MATERIALS AND METHODS

Fifty six seed samples *viz.*, 8, 3, 4, 1, 3, 10, 16 and 11 samples of different varieties of groundnut were collected from farmers of Bhadra, Beru, Gunatitpur, Nakhatrana, Amardi, Kalyanpur, Jivapar and Ganeshapar villages, respectively, of different talukas of Jamnagar, Kutch and Rajkot districts before sowing of *Kharif* season of 2009 (Table 1). The number of seed samples were comprising three, thirty two and twenty one varieties of spreading (GG-13, Samudri and Western); semi-spreading (GG-20, Akshay-20); and bunch type groundnut (GG-2, GG-5, TG-26, TG-37 and Local varieties), respectively. The collected seed samples of groundnut were first tested for insect infestation (% seed infested) by visual counting and later on for physical purity as per method used by Kant, (2001)