Low cost seed testing method for small-scale farmers

Quality seed of improved varieties is an important basic input for enhancing productivity of any crop species. Existing mechanisms to meet the groundnut seed requirements of small-scale farmers is not adequate and has serious limitations. The baseline studies in the project area (Mahbubnagar district of Andhra Pradesh) identified key problems related to groundnut seed supply system. Lack of timely availability of seed, high cost of seed and poor quality (low germination) were some of the major constraints contributing to stagnated yields of groundnut crop in the project area, where it is grown in post rainy season under irrigated conditions.

A training program on demonstration of innovative low cost seed germination test along with seed treatment was conducted in project villages for lead farmers. The main objective of this test is to recommend quantity of seed per hectare with a proper seed treatment. The germination test demonstrated was simple, inexpensive and reliable. It can be conducted at the farmer level at his/her residence without any additional facilities or equipment. It requires old newspapers and a plate. Four layers of a newspaper are spread on the floor and sprinkled with water to wet the paper. Groundnut seeds are placed on the paper at a spacing of 2 cm seed to seed and 4 centimeter row to row. The newspaper is thoroughly wetted with water and rolled; the rolled newspaper is tied with thread or a rubber band to keep the roll intact and is placed in the plate and incubated at room temperature for 3-5 days. The paper roll should be kept wet every day by pouring adequate water in the plate. Germination count was taken five days after incubation. There was no significant difference in germination percentage between the newspaper method and the paper towel germination method which is expensive and more difficult to get the materials at village level. This method was used to evaluate the seed supplied by various seed agencies, thereby helping village seed bank committee to assess the seed requirement.

For more details, contact Ch Ravinder Reddy, Vilas A Tonapi, SN Nigam, Belum VS Reddy and A Ashok Kumar and P Janila. Email: c.reddy@cgiar.org