

National First – Plant Variety

Sitara Sringar – an improved mustard variety

Hukam Singh Lodha
Bharatpur, Rajasthan

Scout: Direct

Sixty two years old Hukam Singh, a progressive farmer from Bharatpur, has developed a high yielding improved variety of mustard through natural hybridization. The variety has high oil content as well.

Background

After completing his class 10th studies, Hukam Singh started traditional farming using bullocks and conventional farming tools in his father's farm. After a few years, when he trained at the Farmers' training Center, Bharatpur, his interest in modern agricultural techniques and tools started to grow. He then started visiting various exhibitions, agricultural fairs and training centers. His interest in developing an improved variety of mustard developed after one such visit to Mustard Research Center, Bharatpur. He is known as an innovative and progressive farmer in his village and near about. Apart from his wife and two daughters, he has four sons in his family and earns his livelihood primarily through agricultural work.

Genesis

Hukam Singh was growing locally popular mustard (*Brassica juncea*) variety in his field, which had small seeds, yellow flowers and jointed siliqua. He was also growing *sengri* (*Raphanus sativus*), which had bold seeds, robust stem and siliqua. The mustard variety was tolerant to water logging and had good plant height with appressed siliqua angle.

In 2005, he sowed the seeds of both the crops in alternate rows. He then harvested seeds from plants selected on the basis of plant height, tolerance to water logging, pod shattering and alternaria leaf blight disease for the next sowing. He continued the process for three years. In 2010, he found that the desirable characters were stable. *Sitara Sringar* thus got developed as a result of natural hybridization. Hukam Singh started multiplying the seeds in sufficient quantity thereafter. He has now distributed the seeds to a number of farmers of Bharatpur, Dholpur, Alwar and Dausa districts of Rajasthan. The variety is well known for its performance in Bharatpur and surrounding region.

Improved Mustard Variety

Sitara Sringar is an improved variety developed through natural hybridization from *Sengri* (*Raphanus sativus*) and local variety of *Sarso* (*Brassica juncea*) followed by selection.

The salient feature of the variety are high yield (30 - 35q/ha), high oil content (42%), tolerance to pods shattering, water logging and *Alternaria* leaf blight. The variety takes about 120-130 days to mature. It also performs well in saline water.

The verification of the variety was conducted at Rajasthan Agricultural Research Institute, Jaipur where Sitara Sringar was found significantly superior over all check varieties in terms of seeds yield, primary and secondary branches and highest test weight. The variety has been registered under PPV&FR Act 2001.

Recognition, Other Interests and Plan Ahead

For his efforts Hukam Singh received an award from Maharana Pratap University of Agriculture and Technology, Udaipur at the hands of the President of India and during Kisan Divas celebration at Haryana Agriculture University, Hissar, both in 2010.

He has been harvesting rain water for the last thirty years and trains people in doing so as well. He also undertakes social activities like building/ repairing bore wells, building underground tanks for rain water harvesting. He has also adopted 20 malnourished children from disadvantageous background and is taking care of their dietary and other needs. He also provides mineral mixture, dewormer, and topical medicines for ectoparasite to livestock owners at subsidized rates.

Hukam Singh plans to increase the oil content of the variety to 50 per cent from the present range of 40-42 per cent.