



Enhancing mustard production for livelihood security through varietal replacement of HYV Giriraj (DRMRIJ 31)



Mr. Avanish Kumar Singh

SMS- Agronomy, Mahayogi Gorakhnath Krishi Vigyan Kendra, Chaukmafi, Pippiganj, Gorakhpur-273165

Situation analysis/ Problem statements: - Gorakhpur district is a part of the North Eastern Plain Zone of Uttar Pradesh. The soils of district are alluvial, calcareous and salt affected. The district has a large number of streams, ponds and rivers, which brings tremendous flood during the rainy season and miseries to the human and animal population. The average annual rainfall is about 132.09 mm but it varies in various part of the district. The maximum and minimum temperature varies from 48 to 04 °C. This makes agriculture the most important profession of people. One day a progressive farmer Shri Balwant Singh village Usari, Post: Pali block: Pali, came in contact with the scientists of the KVK. He said that “we grow 1-2 acre of mustard crop but getting yield of mustard approximately 10-14 q/ha”. Thereafter KVK’s Scientists have analyzed the main cause of low production of mustard viz. use of non-descriptive old mixed variety varuna and undescriptive variety, continuously use imbalanced use of fertilizer, improper weed management technique, late sowing, broadcasting method, no seed treatment, higher seed rate, indiscriminate use of insecticide. To combat the causes of yield erosion in mustard, MGKVK Gorakhpur selected to Mr. Balwant Singh for frontline demonstration (FLD) programmes under technology demonstration for harnessing oilseed productivity of Mustard through varietal replacement of HYV Giriraj with good agronomical practices under real farmer’s conditions.



Plan, Implement and Support: - MGKVK Gorakhpur tries to make them aware regarding scientific cultivation of mustard. That starts from land preparation to harvesting. This KVK has encouraged the farmer for soil testing and on the basis of that farmer was advised for balanced dose of chemical fertilizer with high yielding varieties Giriraj. That was sown on 28-10-2017 with line sowing and fertilizer application was done with basal application in which half dose of nitrogen full dose of SSP and full dose of MOP as recommended. Rest nitrogen used after first irrigation. Regular field visits were also made by the Subject Matter Specialists under the leadership of Senior Scientist and Head of KVK. Field days and Kisan gosthi were also organized at his field.



Output: - Mr. Balwant Singh adopted the balanced dose of chemical, fertilizer (N:P:K:S::150:40:40:30) kg/ha in mustard crop as per suggestion of KVK’s scientist for his one acre land. His local yield was 5.60 qt with recommended technology. His yield increased by 53.57% with yield 8.60 qt. The economic gain in terms of per unit expenditure gross income, net return and BCR are recorded. Rs 8640, Rs. 34400, Rs. 25760 and 3.98 correspondingly.

Outcome: - Mustard crop is the major oilseed crop of the district. This variety has been disseminated in 09 villages of the district in area of approximately 10 ha. The outcome of this demonstration motivated the farming communities to replace their old varieties, non-descriptive varieties. Mr. Balwant Singh is very happy on improvement in their income, livelihood and set forth example for others.

Impact: - Mr. Balwant Singh is becoming one of the progressive and learned farmers for others with regards to popularization of Giriraj. This technology helps him for livelihood, empowerment and make him enthusiastic regards oilseed production. He is one of the progressive farmers after a becoming a part of KVK activities and get their effectiveness for his own development. Mr. Singh is very happy with this improved production and management technology and set forth example for other farmers of the district.