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Enhancing Chickpea Productivity for Livelihood Security: A Success Story of Farmers

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Introduction

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 ^{0}C. This makes agriculture the most important profession of people. One day a progressive farmer Shri Baburam Yadav S/O shri Ramdhani Yadav, village Baijnathpur, Post: Netwal bazar, block: Campierganj, came in contact with the scientists of the KVK. He said that "we grow 1 to 1.15 acre of Chickpea crop but getting yield of chickpea approximately 10-12 q/ha". Scientists of KVK have analyzed the main cause of low production potential of the chickpea crop.

KVK Interventions

Mahayogi Goranath Krishi Vigyan Kendra's (MGKVK) scientists have critically observed their problems of low production of chickpea viz. use of non-descriptive old mixed variety 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 chickpea, MGKVK Gorakhpur selected to Mr. Baburam Yadav for Cluster frontline demonstration (FLD) programmes under technology demonstration for harnessing pulse productivity of chickpea through varietal replacement of HYV GNG 1581 with other crop management practices i.e. fertilizer (N:P:K:S::20:40:20:20 kg/ha) + boron

@ 10 kg/ha + pod borer management by application of Emamectin benzoate 5% SG @ 0.4 g/liter of water at 50% flowering and at 50% pod filling stage under real farming conditions.

Plan, Implement and Support

MGKVK Gorakhpur tries to make them aware regarding scientific cultivation of Chickpea. 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 GNG 1581. They sow their crop in the second fortnight of October during crop season of 2018-19 with seed cum ferti-drill and fertilizer application was done with basal application as recommended. Regular field visits were also made by the Subject Matter Specialists-Agronomy under the leadership of Senior Scientist and Head of KVK. Field days and Kisan gosthi were also organized at his field.

Output

Mr. Baburam Yadav adopted the balanced dose of fertilizer (N:P:K:S: B: 20:40:20: 20:10) kg/ha in chickpea crop as per suggestion of scientist for his one-acre land. His local yield was 4.5 qt per acre with recommended technology. His yield increased by 102.66% with yield 9.12 qt per acre. The economic gain in terms of per unit expenditure gross income, net return and BCR are recorded. Rs 9624, Rs. 36480, Rs. 26856 and 3.79 correspondingly.

Outcome

Chickpea crop is the major pulse crop of the district. This variety has been disseminated in 20 villages of the district in area of approximately 80 ha. The outcome of this demonstration motivated the farming communities to replace their old & mixed variety varieties, non-descriptive varieties. Mr. Baburam Ram is very happy on improvement in their income, livelihood and set forth example for others.

Impact

Mr. Baburam Ram is becoming one of the progressive and learned farmers for others with regards to popularization of GNG 1581. This technology helps him for livelihood, empowerment and make him enthusiastic regards pulse production. He is one of the progressive farmers after a becoming a part

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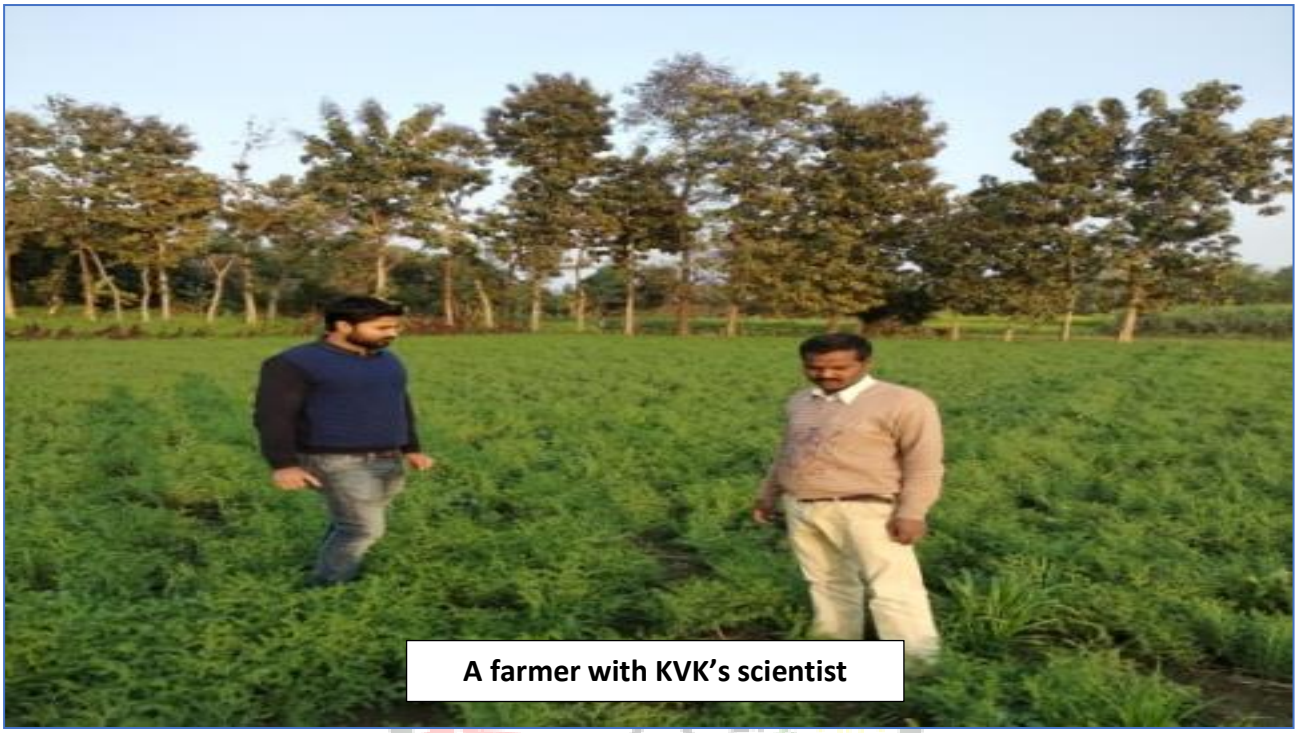
of KVK activities and get their effectiveness for his own development. Mr. Baburam is very happy with this improved production and management technology and set forth example for other farmers of the district.



A farmer with KVK's scientist

A view of chickpea crop var. GNG 1581

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A view of field day program