







Publication

SN	Title of paper	Name of Author	Department of the Teacher	Name of th Journal/ Magazine/ New Paper	Year of Publication	ISSN No.	
Research Paper							
1	Evaluation of Biofortified wheat varieties in district wheat varieties in district Bijnor (UP) with the special reference to the yield performance, yield gap and their adoption in District	K. K. Singh , P. K. Singh, Shivangi, Pintoo Kumar and Omkar Singh	Directorate of Extension	International Journal of Environment and Climate Change Volume 13, Issue 9, Page 299-304; Article no. IJECC. 102210 (Past name: British Journal of Environment & Climate Change) ISSN No 2581-8627	2023	2581-8627	 <p>International Journal of Environment and Climate Change Volume 13, Issue 9, Page 299-304, 2023, Article no. IJECC.102210 (Past name: British Journal of Environment & Climate Change, Past ISSN: 2331-4164)</p> <p>Evaluation of Biofortified Wheat Varieties in District Bijnor (Uttar Pradesh) with the Special Reference to the Yield Performance, Yield Gap and their Adoption in District K. K. Singh *, P. K. Singh **, Shivangi **, Pintoo Kumar * and Omkar Singh *</p> <p>* Kishu Vigyan Kendra, Bijnor, U.P. -246762, India ** Director Extension, SVPUJA & T. Meerut, U.P., India Department of Soil Science, SVPUJA, Meerut, India.</p> <p>Authors' contributions This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.</p> <p>Article Information DOI: 10.9734/IJECC/2023/1309232 Open Peer Review History This journal follows the Advantech Open Peer Review policy. Identity of the Reviewers, Editor(s) and Additional Reviewer(s) will be revealed only upon request by the author. See readability for more details and/or instructions. https://www.advantechopenpeerreview.com/history/102210</p> <p>Received: 21/04/2023 Accepted: 25/06/2023 Published: 30/06/2023</p> <p>Original Research Article</p> <p>ABSTRACT Four biofortified wheat varieties—WB-02: HBBW-01, DBW-187, DBW-303, and one Non Biofortified (DBW-17)—were evaluated for their yield performance, yield gap, and acceptance in the rice-wheat cropping system from 2019-20 to 2022-23. The analysis of the data indicated that there was considerable yield increase compared to the local variety DBW-17. The yield of the biofortified varieties was 18.42% higher than the local variety DBW-17. The biofortified varieties DBW-187 and DBW-303 showed a yield increase of 17.85% and 18.42%, respectively, over the local variety DBW-17. The biofortified varieties DBW-187 yielded 65.50 q/ha with the net return of Rs. 175825.00 and harvest cost ratio of 3.65.</p> <p>*Corresponding author: E-mail: Kishu.singh1979@gmail.com M. J. Environ. Clim. Change, vol. 13, no. 9, pp. 299-304, 2023</p>
2	Analysis of yield performance and yield gap of biofortified mustard variety Pusa double zero mustard-31 with the special reference to adoption in district Bijnor, UP, India	Singh K.K., Singh P.K., Shiwangi and Singh O.	Directorate of Extension	International Journal of Agriculture Sciences, Volume 14, Issue 10, pp.-11774-11775	2022	--	 <p>International Journal of Agriculture Sciences ISSN: 0975-2710 & E-ISSN: 0975-9107, Volume 14, Issue 10, 2022, pp.-11774-11775 https://www.researchgate.net/publication/362496003</p> <p>Research Article ANALYSIS OF YIELD PERFORMANCE AND YIELD GAP OF BIOFORTIFIED MUSTARD VARIETY PUSA DOUBLE ZERO MUSTARD-31 WITH THE SPECIAL REFERENCE TO ADOPTION IN DISTRICT BIJNOR UTTAR PRADESH, INDIA SINGH K.K.1, SINGH P.K.2, SHIWANGI AND SINGH O.3 1ICAR-Krish Vigyan Kendra, Panna, Bhopal: 468762; 2ICAR-Vallabhbhai Patel University of Agriculture & Technology, Meerut, 200110, Uttar Pradesh, India; 3Department of Extension, Sardar Vallabhbhai Patel University of Agriculture & Technology, Meerut, 200110, Uttar Pradesh, India *Corresponding Author: Email: kishu.singh1979@gmail.com</p> <p>Received: October 10, 2022; Revised: October 26, 2022; Accepted: October 28, 2022; Published: October 30, 2022</p> <p>Abstract: Biofortified Mustard variety Pusa Double Zero Mustard-31 was introduced through Front Line Demonstration at farmer's field in Bijnor District. The demonstration conducted during last three years (2019-19 to 2021-22), were considered for the study. The adoption of Biofortified Mustard variety Pusa Double Zero Mustard-31 was significantly increased in terms of higher productivity, which directly resulted in more net return against existing farming technology.</p> <p>Keywords: Biofortified Mustard variety, Yield gap, Performance and adoption</p> <p>Copyright © 2022 Singh K.K., et al. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited.</p> <p>Academic Editor / Reviewer: Dr. Hiteshprasad Handmaroo, Jamshrukar</p> <p>Introduction Biofortified mustard is an important group of oilseed crops in India. It contributes 24.1% and 20.4%, respectively, to total area and production of oilseeds during 2018-19. Further, considering 30% contribution from secondary sources and 20-22% from (ignised-mustard), the projected demand for this crop would be around 16.4-20.5 m ha by 2039 from the current production of 9.25 mt. from the area of production of 3.33 mt during 2019-20.</p> <p>In India, the major (ignised-mustard) variety earlier was Rajasthan, Uttar Pradesh, Haranath, Madhya Pradesh, West Bengal, Assam, and Odisha and accounts for 82.7% of the area and 92.5% of production during 2017-18 of which Rajasthan alone account for 36.6% and 43.9%, respectively, of the area and production [1].</p> <p>In Bijnor district, Uttar Pradesh, India total area under Mustard is about 4000ha with average cluster yield 15.00 q/ha. The choice of high varieties is one of the crucial aspects determining the yield and quality of Mustard. The yield and productivity of Mustard varieties is less or inferior due to few agronomic traits such as Biofortified and high yielding as compared to the existing varieties showing significantly higher yield as compared to the existing varieties under changing climatic conditions.</p> <p>Pusa Double Zero Mustard-31 is a pure line variety and contains low erucic acid (C/A) to oil and glucosinolate (G/C) ratio in seed meal. It has been released and notified in 2014 for Rajasthan, Uttar Pradesh and Assam. However, Delhi, Madhya Pradesh, Uttar Pradesh, Jammu and Kashmir and Himachal Pradesh. The yield and quality of Pusa Double Zero Mustard-31 was higher in all the states in 142 days and is suitable for early sown irrigated conditions. This biofortified variety has been developed (ICAR IARI, New Delhi) [2].</p> <p>The Kishu Vigyan Kendra, Bijnor (U.P.) were conducted "22 Front Line Demonstration of Mustard variety Pusa Double Zero Mustard-31 during 2018-19 to 2021-22 at farmers field of district Bijnor for the study of the yield performance.</p> <p>Material and Methods The Field trial demonstration were conducted during 2018-19 to 2021-22 in Kishu Vigyan Kendra, Bijnor, Haranath, Shikhar, Shikhar, Shikhar, Haranath, Jajpur, M. Darnal and Nourpur blocks of district Bijnor, at 122 farmers field for evaluation of performance, adherence and adoption of Pusa Double Zero Mustard-31 in comparison to farmer's practice. The yield data from front line demonstration, as well as farmer's practice was recorded by representative farmers from different locations.</p> <p>The following four main lines were used for estimation of technology gap, adherence and net return index as per methods of Samra et al., (2005) [2] and Singh and Chandra (2004) [4].</p> <p>Technology gap = (Potential yield) - (Demonstration yield) Extension gap = Demonstration yield - Farmer yield Technology index = (Potential yield) - (Demonstration yield) / (Potential yield) x 100</p> <p>Results and Discussion The field performance and yield gap of the Pusa Double Zero Mustard-31 along with the local check were evaluated and data are given in [Table-1].</p> <p>From the data given in [Table-1] it is well clear that seed yield increased significantly in the range of 14.02 to 19.05 q/ha in different blocks of Bijnor district, as compared to local check, Singh and Bana (2008) [5] reported seed yield was increased up to 20.70 t/ha by Pusa Double Zero Mustard-31 in rice-wheat cropping system. Singh et al., (2016) [6] reported seed yield in Wheat variety IC-2029. The harvest cost ratio of Pusa Double Zero Mustard-31 was also higher in all the blocks in comparison to local check. It varied from 2.026 to 3.45 in 2006. Hedge reported that mustard crop by nature is bulky and moody green under varied condition and can impart stability of production system under harsh condition [7]. The harvest cost ratio of local check was also higher in all the blocks in comparison to local check in district (Singh and Omkar Singh (2019) [8] also reported higher benefit cost ratio in sown Wheat varieties.</p> <p>International Journal of Agriculture Sciences ISSN: 0975-2710 & E-ISSN: 0975-9107, Volume 14, Issue 10, 2022</p> <p>11774</p>



Publication

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3	A study on socio-economic status of bulb crops vegetable growers in Bijnor district of Western Uttar Pradesh	Desh Pal Singh, Satya Prakash, Vikas Malik, Krishna Kumar Singh, Shakuntala Gupta	Directorate of Extension	Prog. Agric. 21 (1) : 143-148	2021	--	<p>Prog. Agric. 21 (1) : 143-148 (2021) DOI : 10.5656/0976-4615.2021.06024.7</p>  <p>Society for Recent Development in Agriculture Website : www.progressiveagriculture.in</p> <p>A STUDY ON SOCIO-ECONOMIC STATUS OF BULB CROPS VEGETABLE GROWERS IN BIJNOR DISTRICT OF WESTERN UTTAR PRADESH Desh Pal Singh*, Satya Prakash*, Vikas Malik*, Krishna Kumar Singh*, Shakuntala Gupta</p> <p>*Krishti Vigyan Kendra, Nagina (Bijnor), Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut, Uttar Pradesh, India. *College of Horticulture, Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut, Uttar Pradesh, India. *Krishti Vigyan Kendra, Shamli, Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut, Uttar Pradesh, India.</p> <p>Abstract Total area under vegetables cultivation in India is 10259 thousand hectares with 184394 thousand metric tons production in 2017-18. Out of total area of land under vegetables, onion occupies 1295 thousand hectares area with 23262 thousand metric tons production in 2017-18. In the Bijnor district of the Uttar Pradesh, bulb crops grown 1.01 thousand hectares area. Bulb crops grown in diverse agro climatic conditions faces differential biotic and abiotic stress limiting the production and productivity of bulb crops that in influenced the economic condition of bulb crops Growers. The purpose of the present study was to examine the socio-economic status of bulb crops growers in Bijnor district of Western Uttar Pradesh. The result of the analysis shows that 37.27 percent of respondent fall within the age range of 46 to 60 years, other backward caste (53.84 percent), education level-literate (80.00 percent), family type-joint family (72.27 percent), family member-4 to 6 members (68.64), land holding size-less than 1 hectare (53.64 percent), irrigation facilities-own (79.09 percent), 72.73 percent of respondents were engaged in farming activities only and 23.00 percent respondent were doing farming with business, 41.82 percent respondent got more than Rs 300000.00 annual income, 32.27 percent respondent have their own pumping set and electric motor and 32.73 percent respondent has not participated in any technical programme.</p> <p>Keywords: Socio-economic status, bulb crops growers, respondent.</p> <p>The group of bulb crops includes onion, garlic, leek, shallot and chive. These belong to the family <i>Amaryllidaceae</i> and genus <i>Allium</i>. They are grown in India as winter vegetables. It is consumed either raw or cooked along with spices and vegetables. Primary the bulbs used as vegetables. The flowering shoot known as Scapes is also used as vegetable. It is rich in minerals like phosphorus and calcium and carbohydrates. It also contains Protein and Vitamin C. Among the <i>Allium</i> cultivated species, onion is an important vegetable crop grown in almost all parts of the world. The major onion growing countries in the world are China, India, USA and Turkey and other important countries are Italy, Egypt, Netherlands, Russia, Thailand, Indonesia, Korea, Japan and Brazil. In India, Maharashtra, Karnataka, Tamil Nadu, Andhra Pradesh, Gujarat, Punjab, Haryana, Rajasthan, Uttar Pradesh, Bihar and Madhya Pradesh are the most important onion growing states. It is valued for its bulbs having characteristic odour, flavour and pungency, which is due to the presence of a volatile oil known as allyl-propyl-disulphide. Pungency is formed by enzymatic reaction when tissues are broken.</p>
4	a study on socio-economic status of Cole Crops vegetable growers in Bijnor district of Western Uttar Pradesh	Desh Pal Singh, Satya Prakash, Vikas Malik, Krishna Kumar Singh, Shakuntala Gupta	Directorate of Extension	Prog. Agric. 21 (1) : 149-154	2021	--	<p>Prog. Agric. 21 (1) : 149-154 (2021) DOI : 10.5656/0976-4615.2021.06025.9</p>  <p>Society for Recent Development in Agriculture Website : www.progressiveagriculture.in</p> <p>A STUDY ON SOCIO-ECONOMIC STATUS OF COLE CROPS VEGETABLE GROWERS IN BIJNOR DISTRICT OF WESTERN UTTAR PRADESH Desh Pal Singh*, Satya Prakash*, Vikas Malik*, Krishna Kumar Singh*, Shakuntala Gupta</p> <p>*Krishti Vigyan Kendra, Nagina (Bijnor), Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut, Uttar Pradesh, India. *College of Horticulture, Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut, Uttar Pradesh, India. *Krishti Vigyan Kendra, Shamli, Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut, Uttar Pradesh, India.</p> <p>Abstract Total area under vegetables cultivation in India is 10259 thousand hectares with 184394 thousand metric tons production in 2017-18. Out of total area of land under vegetables, cauliflower and cabbage occupies 453 and 398 thousand hectares area with 8668 and 9037 thousand metric tons production in 2017-18 respectively. In the Bijnor district of the Uttar Pradesh, cole crops grown 5.41 thousand hectares area. Cole crops grown in diverse agro climatic conditions faces differential biotic and abiotic stress limiting the production and productivity of cole crops that in influenced the economic condition of cole crops Growers. The purpose of the present study was to examine the socio-economic status of cole crops growers in Bijnor district of Western Uttar Pradesh. The result of the analysis shows that 40.00 percent of respondent fall within the age range of 46 to 60 years, other backward caste (55.45 percent), education level-literate (84.09 percent), family type-joint family (73.15 percent), family member-4 to 6 members (65.00), land holding size-less than 1 hectare (52.00 percent), irrigation facilities-own (80.00 percent), 73.64 percent of respondents were engaged in farming activities only and 26.36 percent respondent were doing farming with business, 40.00 percent respondent got more than Rs 300000.00 annual income, 40.45 percent respondent have their own pumping set and electric motor and 55.45 percent respondent has not participated in any technical programme.</p> <p>Keywords: Socio-economic status, cole crops growers, respondent.</p> <p>The word "cole" was derived from the word "Caulis" means stem. Cole vegetables are a group of highly differentiated plants originated from a single wild ancestor species <i>Brassica oleracea</i> var. <i>cybotarica</i>, commonly known as wild cliff cabbage known as "Cole worts" or wild cabbage. They belongs to family <i>Cruciferae</i> and genus <i>Brassica</i>. Cole crops are the most popular vegetables grown in India during winter season. The most important six varieties of <i>Brassica</i> species /crops in cole group grown in India are cauliflower (<i>Brassica oleracea</i> var. <i>botrytis</i>), cabbage (<i>Brassica oleracea</i> var. <i>capitata</i>), leafy khal (<i>Brassica oleracea</i> var. <i>gemmatilica</i> or <i>caulorapa</i>), broccolini (<i>Brassica oleracea</i> var. <i>gemmifera</i>), sprouting broccolini (<i>Brassica oleracea</i> var. <i>italica</i>) and kale (<i>Brassica oleracea</i> var. <i>acephala</i>). They are rich sources of vitamin C. Cabbage juices is used as a remedy against poisonous monsoon. Some extract of these cole crops are used to cover wounds and ulcers. They are eaten raw as well as cooked. They have protective property against liver cancer. All <i>Brassica</i> species contain glucosinolates, which is crushed leaves is broken down by the enzyme myrosinase giving a bitter taste.</p>


Publication

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5	Adoption New Improves Technology of Guava (<i>Psidium guajava</i> L.) Cultivation in Bijnor District of Uttar Pradesh of India	Desh Pal Singh, Satya Prakash, Vikas Kumar, Krishna Kumar Singh and Prerna Sharma	Directorate of Extension	International Research Journal of Pure & Applied Chemistry 21(24): 147-153; Article no. IRJPAC. 63229	2020	--	 <p><i>International Research Journal of Pure & Applied Chemistry</i> 21(24): 147-153, 2020; Article no. IRJPAC. 63229 ISSN: 2231-3442, IN 46 02-10167988</p> <p>Adoption New Improves Technology of Guava (<i>Psidium guajava</i> L.) Cultivation in Bijnor District of Uttar Pradesh of India</p> <p>Desh Pal Singh^{1*}, Satya Prakash², Vikas Kumar³, Krishna Kumar Singh¹ and Prerna Sharma¹</p> <p>¹Krishi Vigyan Kendra, Nagnia (Bijnor), India ²College of Horticulture, Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut (UP), India ³Student Rukhsa Prasad, Meerut, India</p> <p>Authors' contributions This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.</p> <p>Article Information DOI: 10.9734/IRJPAC/2020/2124153342 Copyright © 2020, Desh Pal Singh et al. (1) Dr. Hao-Yang Wang, Shanghai Institute of Organic Chemistry, China (2) Anas El-Din Khalil El-Dawal, King Fahd University of Petroleum & Minerals, Saudi Arabia (3) Nur Farhan, Mara Zainal, Universiti Malaysia Terengganu, Malaysia (4) S. S. Ramesh Babu, University of South, Thailand Complete Peer review History: http://dx.doi.org/10.9734/IRJPAC/2020/2124153342</p> <p>Received 01 October 2020 Accepted 07 December 2020 Published 31 December 2020</p> <p>Original Research Article</p> <p>ABSTRACT Guava is one of the most important nutritious and commercially cultivated fruit crop belonging to the family Myrtaceae. Owing to its hard nature, it is grown successfully in tropical and subtropical regions in India over an area of 248.80 thousand hectares with production of 4653.51 thousand metric tons. The total area under guava cultivation in Uttar Pradesh is 49.50 thousand hectares with 5026.44 thousand metric tons production during 2017-18. Guava grown in diverse agro climatic conditions faces different biotic and abiotic stresses during its production and productivity of guava that influence the economic condition of guava growers. Keeping these facts in mind, the present study was conducted in Bijnor district of Western Uttar Pradesh to analyse the socio-economic condition of guava growers. The result indicated that among the all study characteristics majority of the guava growers belonging to the middle ages 46 to 60 years (56.36 percent), general</p> <p>*Corresponding author. E-mail: dpang10107@gmail.com</p>
6	A Study on Socio-Economic Status of Mango Growers in Bijnor District of Western Uttar Pradesh	Desh Pal Singh, Satya Prakash, Vikas Malik, Krishna Kumar Singh, Narendra Singh, Shakuntala Gupta and Prerna Sharma	Directorate of Extension	International Journal of Environment and Climate Change 10 (12): 13-19; Article no. IJECC. 61933 (Past name: British Journal of Environment & Climate Change) ISSN No 2581-8627	2020	2581-8627	 <p><i>International Journal of Environment and Climate Change</i> 10(12): 13-19, 2020; Article no. IJECC. 61933 ISSN: 2581-8627 DOI: 10.9734/IJECC/2020/1012131919</p> <p>A Study on Socio-Economic Status of Mango Growers in Bijnor District of Western Uttar Pradesh</p> <p>Desh Pal Singh^{1*}, Satya Prakash², Vikas Malik³, Krishna Kumar Singh¹, Narendra Singh¹, Shakuntala Gupta¹ and Prerna Sharma¹</p> <p>¹Krishi Vigyan Kendra, Nagnia (Bijnor), Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut, Uttar Pradesh, India ²College of Horticulture, Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut, Uttar Pradesh, India ³Krishi Vigyan Kendra, Shamli, Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut, Uttar Pradesh, India ⁴Department of Home Science (Food & Nutrition), CCS University, Meerut, Uttar Pradesh, India</p> <p>Authors' contributions This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.</p> <p>Article Information DOI: 10.9734/IJECC/2020/1012131919 Copyright © 2020, Desh Pal Singh et al. (1) Dr. Wen-Cheng Liu, National United University, Taiwan (2) Tawo Suleyman Jusuuf, Federal University of Technology Akure (FUTA), Nigeria (3) Md. Zubair Ali, Sooran Poreya University, Bangladesh (4) Geonim Chongwon, Soongsil University, Korea Complete Peer review History: http://dx.doi.org/10.9734/IJECC/2020/1012131919</p> <p>Received 24 August 2020 Accepted 26 October 2020 Published 28 November 2020</p> <p>Original Research Article</p> <p>ABSTRACT Mango is a tropical and subtropical fruit crop grown in India over an area of 2258.13 thousand hectares with production of 21822.32 metric tons. The total area under mango cultivation in Uttar Pradesh is 265.62 thousand hectares with 4551.83 metric tons production 2017-18. In Bijnor district of Uttar Pradesh, mango grows 5.91 thousand hectares with 118.09 metric tons production of mango in the same period. Mango grown in diverse agro climatic conditions faces differential biotic and abiotic stress during the production and productivity of mango that influenced the economic condition of mango growers. The purpose of the present study was to examine the socio-economic status of mango growers in Bijnor district of Western Uttar Pradesh. The result of the analysis shows that 39.09 percent of respondent fall within the age range of 46 to 60 years, general caste (53.65 percent), education level-illiterate (50.81 percent), temp. type-part</p> <p>*Corresponding author. E-mail: dpang10107@gmail.com</p>

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7	Constraints Faced by Guava Growers in Adoption of Guava Production Technology and Suggestions for Suitable Extension Strategies to Overcome the Problem in Bijnor District of UP	Desh Pal Singh, Satya Prakash, Vikas Kumar, Krishna Kumar Singh and Prerna Sharma	Directorate of Extension	International Research Journal of Pure & Applied Chemistry 21(22): 41-47; Article no. IRJPAC .62230. NLM ID: 101647669, ISSN No 2231-3443	2020	2231-3443	 <p>International Research Journal of Pure & Applied Chemistry 21(22): 41-47, 2020; Article no. IRJPAC.62230 ISSN: 2231-3443, NLM ID: 101647669</p> <p>Constraints Faced by Guava Growers in Adoption of Guava Production Technology and Suggestions for Suitable Extension Strategies to Overcome the Problem in Bijnor District of UP</p> <p>Desh Pal Singh^{1*}, Satya Prakash², Vikas Kumar³, Krishna Kumar Singh⁴ and Prerna Sharma⁵</p> <p>¹Krishni Vigyan Kendra, Nagina (Bijnor), Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut, Uttar Pradesh, India ²College of Horticulture, Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut, Uttar Pradesh, India ³Krishni Vigyan Kendra, Shamli, Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut, Uttar Pradesh, India ⁴Department of Home Science (Food & Nutrition), CCS University, Meerut, Uttar Pradesh, India.</p> <p>Authors' contributions This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.</p> <p>Article Information DOI: 10.9734/IRJPAC/2020/62230 E-ISSN: 2231-3443 (1) Dr. Farazneh Mohammadpour, University of Sistan and Baluchistan, Iran. (2) Anzel Mehm, University of Agricultural Sciences & Veterinary Medicine Cluj Napoca, Romania (3) Dr. Arvind Singh, Palla Gandhi Krishi Vigyan Kendra, Meerut University, India (4) Ekiner, Corneelia Michael, Ahmadu Bello University, Nigeria (5) Complete Peer Review History: https://www.scitecresearch.com/doi/10.9734/IRJPAC/2020/62230</p> <p>Received 22 August 2020 Accepted 29 October 2020 Published 30 November 2020</p> <p>Original Research Article</p> <p>ABSTRACT Guava grown in diverse agro-climatic conditions faces differential biotic and abiotic stress that limiting the production and productivity of guava and consequently influenced the economic condition of its growers. Keeping these facts in mind, the present study was conducted in Bijnor district of UP to find out the constraints faced by guava growers in adoption of production technology and suggest suitable extension strategies to overcome the problems. Two villages from 11 blocks were selected randomly on the basis of orchard availability. Four guava growers were selected from</p> <p>*Corresponding author. E-mail: dpasing6107@gmail.com.</p>
8	Constraints Faced by Mango Growers in Adoption of Mango Production Technology and Suggestions for Suitable Extension Strategies to Overcome the Problem in Bijnor District of UP	Desh Pal Singh, Satya Prakash, Vikas Kumar, Krishna Kumar Singh and Prerna Sharma	Directorate of Extension	Int. J. Curr. Microbiol. App. Sci Special Issue-10: 605-611	2020	--	 <p>Int. J. Curr. Microbiol. App. Sci (2020) Special Issue-10: 605-611</p> <p>International Journal of Current Microbiology and Applied Sciences ISSN: 2319-7706 Special Issue-10 pp: 605-611 Journal homepage: http://www.ijcmass.com</p> <p>Original Research Article</p> <p>Constraints Faced by Mango Growers in Adoption of Mango Production Technology and Suggestions for Suitable Extension Strategies to Overcome the Problem in Bijnor District of UP</p> <p>Desh Pal Singh^{1*}, Satya Prakash², Vikas Kumar³, Krishna Kumar Singh⁴ and Prerna Sharma⁵</p> <p>¹Krishni Vigyan Kendra, Nagina (Bijnor), ²College of Horticulture, ³Krishni Vigyan Kendra, Shamli, Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut (UP) ⁴M. Sc. Student Roha Road, Meerut</p> <p>*Corresponding author</p> <p>ABSTRACT Mango grows in diverse agro climatic condition faces differential biotic and abiotic stress limiting the production and productivity of mango that influenced the economic condition of mango growers. Keeping these facts in mind, the present study was conducted in Bijnor district of UP to find out the constraints faced by mango growers in adoption of mango production technology and suggest suitable extension strategies to overcome the problem. Two villages from 11 blocks were selected randomly on the basis of Orchard availability. 10 mango respondents for the investigation. The mango respondents faced the constraints in adoption of mango production technology. Total constraints mainly divided into five groups. Among the input constraints, unavailability of quality chemicals like plant growth regulator, water soluble fertilizer and plant protection chemicals at government sale centre got first rank with 78.18 percent respondent followed by unavailability of quality sapling of mango at Government nursery (75.90 percent). Among the technological constraints, lack of knowledge about organic farming of mango got first rank with 93.18 percent respondents followed by lack of knowledge about drip irrigation schedules (91.82 percent). Among the socio-psychological constraints, lack of awareness among the beneficiaries and disinterest in horticulture department got the first rank with 90.90 percent respondents followed by inadequate extension activities were conducted by state district horticulture department (80.90 percent). Among the marketing constraints, exploitation of mango growers by middle men got first rank with 91.50 percent respondents followed by lack of quality storage facility (89.91 percent). Among the financial constraints, lack of government initiative in funding of loan and granting of subsidies got first rank with 94.55 percent followed by high labour charges (91.82 percent). Lack of knowledge about organic farming of mango was identified as major constraints in qualitative mango production. It is therefore, suggested the extension workers should organize mango growers in different groups of region farming. They should plan knowledgeable programs for the respondents so they can be motivated to what the organic farming of mango and can increase their knowledge about quality mango production practices through extension work like group discussion, training demonstrations, exhibition etc. The growers therefore are required to be educated to follow up all the recommended production practices for mango use of timely sprays, nutrients and plant protection management practices which will help in increasing the production and productivity.</p> <p>Keywords: Mango growers, Production Extension strategies</p>

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9	Evaluation of wheat varieties for timely sown condition in district Bijnor (Uttar Pradesh) with the special reference to the yield gap and their adoption in district.	K.K. Singh and D.P. Singh	Directorate of Extension	Journal of Community Mobilization and Sustainable Development. Vol. 14 (3), 435-438, Sept.-Dec., 2019	2019	--	<p><i>Journal of Community Mobilization and Sustainable Development</i> Vol. 14(3), 435-438, September-December, 2019</p> <p>Evaluation of Wheat Varieties for Timely Sown Condition in District Bijnor (Uttar Pradesh) with Special Reference to the Yield Gap and their Adoption in District</p> <p>K.K. Singh* and D.P. Singh Kishan Vigyan Kendra, Bijpur-246762, Uttar Pradesh</p> <p>ABSTRACT</p> <p>A study was undertaken to assess the yield performance, yield gap and adoption of six timely sown wheat varieties viz. HD-2967, DBW-58, HD-3058, PBW-550, DBW-17 and PBW-343, under zero-wheat cropping system during 2014-15 to 2016-17. The analysis of the data indicated that there was considerable yield increase ranging from 8.17 to 29.81 percent between various zero-furrows practices. Variety HD-2967 yielded 54.54 q/ha with the net return of Rs. 76505.77/ha and benefit cost ratio of 1.82.</p> <p>Keywords: Timely sown wheat varieties, Yield gap analysis and adoption.</p> <p>INTRODUCTION</p> <p>Wheat is the pre-eminent among the world's crops with regard to its antiquity and its importance as a staple food of mankind. There wheat plays an important role in food security and poverty alleviation as a strategic crop and has an important role in economic. (Anon., Cereals Annual Report, 1998, ICARDA, Aleppo, Syria). Blinn (1988) suggested that breeding for tolerance to drought involves combining good yield potential and the selection of traits that provide drought stress tolerance. India, one of the greatest success stories of green revolution, is the second largest producer of wheat in the world after china and contributes more than 12% to the global wheat basket. In India wheat is grown on about 34.45 lakh ha area with an average productivity of 2750 kg/ha (2014-15), according to Annual Report of Department of Agriculture, Cooperation & Farmers Welfare, Ministry of Agriculture, Government of Uttar Pradesh, India-2016-17. One of which annual area (31.00 lakh ha) was under wheat in Uttar Pradesh alone. The productivity of the state is close to the national average as the major constraints are cultivation of old low yielding and disease susceptible varieties, and adoption of green wheat production technologies. In Bijpur district total area under wheat is about 1,15,000 to 1,18,000 ha. The choice of right varieties under timely sown condition is one of the critical process.</p> <p>*Corresponding author email id: kishan.singh1979@gmail.com</p> <p>MATERIALS AND METHODS</p> <p>The trial was conducted at farmers' field during rd/2014-15 to 2016-17. These six eleven blocks in Bijpur district, 45 of the eleven blocks were selected randomly. From the 22 villages were selected for the study. A village-wise list wheat growers, was prepared and from that list 44 farmers were selected randomly. Six timely sown wheat varieties including farmers' practice, namely HD-2967, DBW-58, HD-3058, PBW-550, DBW-17 and PBW-343 were used for evaluation. The wheat variety PBW-343 is selected as local check. These varieties were selected due their higher yield potential and suitability for the district. The source of technology is HD-2967 and HD-3058 from IARI, New Delhi, PBW-550 and PBW-343 from IARI, Ludhiana and DBW-17 from IITRR, Kanpur. The total 44 farmers were selected with the 1:1 ha total land area (each demonstration).</p>
10	Adoption of wheat variety HD-3059 in district Bijnor with the special reference to analysis of yield gap and their performance	Singh K.K., Singh D.P., Singh Narendra, Singh A.V., Yadav S. K., Singh Balraj, Yadav Vivek and Singh Rajendra	Directorate of Extension	International Journal of Agriculture Sciences, Volume 10, Issue 7, pp.-5663-5664	2018	--	<p> International Journal of Agriculture Sciences ISSN: 0975-3710E-ISSN: 0975-9107, Volume 10, Issue 7, 2018, pp. 5663-5664 Website: http://www.iajagroup.org/abstract.php?journal=iajagroup</p> <p>Research Article ADOPTION OF WHEAT VARIETY HD-3059 IN DISTRICT BIJNOR WITH THE SPECIAL REFERENCE TO ANALYSIS OF YIELD GAP AND THEIR PERFORMANCE</p> <p>SINGH K.K.1*, SINGH D.P.1, SINGH NARENDRA1, SINGH A.V.1, YADAV S. K.1, SINGH BALRAJ1, YADAV VIVEK1 AND SINGH RAJENDRA1</p> <p>¹ICAR-Bihar Region Kandra, Hajipur, Bihar, 246762, S. V. Patel University of Agriculture and Technology, Meerut, 200110, Uttar Pradesh ²ICAR-Rice Research Station, Nagpur, Bihar, 246762, S. V. Patel University of Agriculture and Technology, Meerut, 200110, Uttar Pradesh *Corresponding Author: Email: kishan.singh1979@gmail.com</p> <p>Received: March 29, 2018; Revised: April 04, 2018; Accepted: April 05, 2018; Published: April 15, 2018</p> <p>Abstract: Wheat variety HD-3059 was demonstrated through on farm testing and front-line demonstrations at farmer's field in Bijpur district. The demonstration conducted during last three years (2014 & 2015), were considered for the study. The result indicated that average yield of wheat variety HD-3059 in IP practices ranged between 42.20 to 47.20 q/ha in different blocks of district Bijpur. The adoption of wheat variety HD-3059 was significantly increased in farmers due to higher profit, which ultimately resulted in more net return.</p> <p>Keywords: HD-3059, yield gap, performance and adoption.</p> <p>Citation: Singh K. K., et al. (2018) Adoption of Wheat Variety HD-3059 in District Bijpur with the Special Reference to Analysis of Yield Gap and their Performance. <i>International Journal of Agriculture Sciences</i>, 10(7): 5663-5664. doi:10.5897/IJAAS18054</p> <p>Copyright: ©Copyright©2018 Singh K. K., et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited.</p> <p>Academic Editor / Reviewer: Dr Amit Kumar</p> <p>Introduction</p> <p>Wheat is the pre-eminent among the world's crops with regards to its antiquity and its importance as a staple food of mankind. India one of the greatest success stories of green revolution is the second largest producer of wheat in the world after china and contributes more than 12% to the global wheat basket. Wheat is the second most important crop after rice in India. In India wheat is grown on about 31 m. ha area with an average productivity of 2,293 kg/ha, out of which around one-third (11.00 lakh ha) was under wheat in Uttar Pradesh alone. The productivity of the state is close to the national average as the major constraints are cultivation of old low yielding and disease susceptible varieties, and adoption of green wheat production technologies. In Bijpur district, total area under wheat is about 1,15,000 to 1,18,000 ha. The choice of right varieties under timely sown condition is one of the critical process. Sugarcane-wheat is the most common rotation in the district, which leads to late sowing of wheat. The choice of right varieties under late sown condition is one of the critical process. There wheat plays an important role in food security and poverty alleviation as a strategic crop and has an important role in economic. (Anon., Cereals Annual Report, 1998, ICARDA, Aleppo, Syria). Blinn (1988) suggested that breeding for tolerance to drought involves combining good yield potential and the selection of traits that provide drought stress tolerance. India, one of the greatest success stories of green revolution, is the second largest producer of wheat in the world after china and contributes more than 12% to the global wheat basket. In India wheat is grown on about 34.45 lakh ha area with an average productivity of 2750 kg/ha (2014-15), according to Annual Report of Department of Agriculture, Cooperation & Farmers Welfare, Ministry of Agriculture, Government of Uttar Pradesh, India-2016-17. One of which annual area (31.00 lakh ha) was under wheat in Uttar Pradesh alone. The productivity of the state is close to the national average as the major constraints are cultivation of old low yielding and disease susceptible varieties, and adoption of green wheat production technologies. In Bijpur district, total area under wheat is about 1,15,000 to 1,18,000 ha. The choice of right varieties under timely sown condition is one of the critical process. Sugarcane-wheat is the most common rotation in the district, which leads to late sowing of wheat. The choice of right varieties under late sown condition is one of the critical process. There wheat plays an important role in food security and poverty alleviation as a strategic crop and has an important role in economic. (Anon., Cereals Annual Report, 1998, ICARDA, Aleppo, Syria). Blinn (1988) suggested that breeding for tolerance to drought involves combining good yield potential and the selection of traits that provide drought stress tolerance. India, one of the greatest success stories of green revolution, is the second largest producer of wheat in the world after china and contributes more than 12% to the global wheat basket. In India wheat is grown on about 34.45 lakh ha area with an average productivity of 2750 kg/ha (2014-15), according to Annual Report of Department of Agriculture, Cooperation & Farmers Welfare, Ministry of Agriculture, Government of Uttar Pradesh, India-2016-17. One of which annual area (31.00 lakh ha) was under wheat in Uttar Pradesh alone. The productivity of the state is close to the national average as the major constraints are cultivation of old low yielding and disease susceptible varieties, and adoption of green wheat production technologies. In Bijpur district, total area under wheat is about 1,15,000 to 1,18,000 ha. The choice of right varieties under timely sown condition is one of the critical process.</p> <p>Materials and Methods</p> <p>The on farm testing and front line demonstrations were conducted during 2014, 2015 and 2016 in Kishan Vigyan Kendra, Bijpur, Hajipur, Meerut, Uttar Pradesh.</p> <p>Results and Discussion</p> <p>The trial was conducted at farmers' field during rd/2014-15 to 2016-17. These six eleven blocks in Bijpur district, 45 of the eleven blocks were selected randomly. From the 22 villages were selected for the study. A village-wise list wheat growers, was prepared and from that list 44 farmers were selected randomly. Six timely sown wheat varieties including farmers' practice, namely HD-2967, DBW-58, HD-3058, PBW-550, DBW-17 and PBW-343 were used for evaluation. The wheat variety PBW-343 is selected as local check. These varieties were selected due their higher yield potential and suitability for the district. The source of technology is HD-2967 and HD-3058 from IARI, New Delhi, PBW-550 and PBW-343 from IARI, Ludhiana and DBW-17 from IITRR, Kanpur. The total 44 farmers were selected with the 1:1 ha total land area (each demonstration).</p> <p>Conclusion</p> <p>The analysis of the data indicated that there was considerable yield increase ranging from 8.17 to 29.81 percent between various zero-furrows practices. Variety HD-2967 yielded 54.54 q/ha with the net return of Rs. 76505.77/ha and benefit cost ratio of 1.82.</p> <p>Keywords: Timely sown wheat varieties, Yield gap analysis and adoption.</p>

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11	Assessment of yield Performance and Adoption of Basmati variety Pusa Basmati-1509 in district Bijnor of Uttar Pradesh, India.	K.K. Singh, D.P. Singh and A. V. Singh	Directorate of Extension	Multilogic in Science, VOL. VIII, Issue XXV, April 2018, Pp-290-292.	2018	--	<p>VOL. VIII, ISSUE XXV, APRIL 2018 MULTILOGIC IN SCIENCE ISSN 2277-7601 An International Refereed, Peer Reviewed & Indexed Quarterly Journal in Science, Agriculture & Engineering ASSESSMENT OF YIELD PERFORMANCE AND ADOPTION OF BASMATI VARIETY PUSA BASMATI-1509 IN DISTRICT BIJNOR OF UTTAR PRADESH, INDIA.</p> <p>K.K. Singh, D.P. Singh, and A. V. Singh Kishori Vigyan Kendra, Bijnor (U.P.), India -246762 Received: 05.04.2018; Revised: 06.06.2018; Accepted: 10.04.2018</p> <p>(RESEARCH PAPER IN AGRICULTURAL ECONOMICS)</p> <p>The rice variety Pusa Basmati-1509 was disseminated through Farm Line Demonstrations at farmer's field in Bijnor district of Uttar Pradesh. The demonstrations conducted during last four years (2014 to 2017), were considered for the study. The results indicated that adoption of this variety significantly increased due to higher productivity and higher market demand, which ultimately resulted in more net return.</p> <p>Key Words: Pusa Basmati-1509, yield gap, performance and adoption.</p> <p>Introduction: The economics of demonstration shown in Table 1, indicated that the additional return of basmati variety Pusa Basmati-1509 over farmers practice, ranged from 3067.2 to 11786.67 Rs/ha in different blocks of Bijnor district. The mean of high level check (H-11786.67). In 2006, Singh and Rama reported seed yield increase up to 20.70 q/ha by Pusa Basmati-1509 of irrigated crop under irrigation condition. Earlier Biswas <i>et al.</i> (1998) also reported variation of grain yield in second rice in 2011 Singh <i>et al.</i> also reported increasing seed yield in basmati rice variety Pusa Basmati-1509.</p> <p>The benefit cost ratio of Pusa Basmati-1509 was also higher in all the blocks in comparison to local check. It varied from 1.24 to 4.41 in 2006. Higher reported net margin due to higher net return and mostly grown under irrigated condition and soil impact stability of production system under harsh condition (Gupta and Sharma, 2005; Hegde, 2006). The benefit cost ratio of HD-2967 was also higher in all the blocks in comparison to local check in district Shimoga of Uttar Pradesh (K.K. Singh and P.K. Singh, 2013).</p> <p>Technology gap (Table 3) ranged from 4.4 to 20.10 q/ha per ha, with an overall mean difference 8.42 q/ha per ha. The gap minimum in block Bhat (4.84) and maximum in block Naarbal (12.00) was noticed under study. The gap between potential and actual line demonstration is due to climatic, relative socio-economic and management practices. Verma <i>et al.</i> (2017) reported that technology gap ranged from 5.2 to 7.40 q/ha, with an overall mean difference 6.4 q/ha in basmati rice. Kadian <i>et al.</i> (1997) reported that technology gap can be narrowed down only by location specific production based recommendation. The gap ranged from 6.46 to 15.78 q/ha per ha, with an overall mean difference 11.42 q/ha per ha. High extension gap (5.75 q/ha per ha) was recorded from block Phangur, followed by minimum extension gap of block Deval (5.66). This indicates that there is need to enhance the farmers through various extension tools. Gupta and Sharma (2005) also confirmed these results. K.K. Singh and P.K. Singh reported increasing gap in basmati rice varieties. Hence, clear and significant yield gap between farmers practice and demonstration field. The choice of rice variety is also an important factor leading to additional net return. The extension and technology gap can be bridged by increased effort of extension agencies and by adopting location specific technologies. The demand of quality seeds of timely sown variety is also increasing which has led to participatory quality seed production at farmer's field.</p> <p>Conclusion: It is concluded that the adoption of yield gap in demonstration field due to adoption of newly released variety Pusa Basmati-1509 ranged between 4.19 to 32.46 in different blocks of district with a mean percent increase of 12.3 to 38.5 as compare to local check. Rama <i>et al.</i> (2002) reported that the demonstration is quite successful in farmer practice. Rice in 2011 Singh <i>et al.</i> also reported adoption percentages of basmati rice variety Pusa Basmati-1509 increased in district.</p>
12	Varietal screening of wheat varieties for yield performance against disease resistance for the farmers of district Bijnor (U.P.)	K.K. Singh	Directorate of Extension	New Agriculturist. 29(2): 1-2	2018	--	<p>krishna.singh1976@gmail.com http://biowebjournal.org/</p> <p>New Agriculturist. 29(2): 1-2, 2018</p> <p>Varietal screening of wheat varieties for yield performance against disease resistance for the farmers of district Bijnor (U.P.)</p> <p>K.K. Singh Kishori Vigyan Kendra, Bijnor (U.P.)-246 762 Received and Accepted</p> <p>ABSTRACT: A study was undertaken to evaluate the resistance of wheat varieties HD-3059, DHW-90, DHW-71, DHW-16, and PBW-373 against rust disease and their effect on yield, during Rabi-2013-14. Among varieties HD-3059 and DHW-90 were produced significantly higher yield of 47.75 q/ha and 46.50 q/ha, respectively, than the local variety PBW-373 and DHW-16 produced 46.50 q/ha and 46.63 q/ha with higher susceptibility against rust disease.</p> <p>Key Words: Wheat (<i>Triticum aestivum</i>) varieties, HD-3059 and DHW-90, screening, yield performance, stripe rust disease resistance.</p> <p>Wheat is the pre-eminent among the world's crops with regards to its antiquity and its importance as a staple food of mankind. Thus wheat plays an important role in food security and poverty alleviation as a strategic crop and has an important role in economy (Anonymous, 1999-Cereal Annual Report) ICARDA Aleppo, Syria. Blum (1988) suggested that breeding for tolerance to drought involves combining good yield potential and the selection of traits that provide drought stress tolerance. India one of the greatest success stories of green revolution is the second largest producer of wheat in the world after china and contributes more than 12% to the global wheat basket. Wheat is the second most important crop after rice in India. In India wheat is grown in about 314.65 lakh ha area with an average productivity of 2750 kg/ha (2014-15), according to Annual Report of Department of Agriculture, Cooperation & Farmers Welfare, Ministry of Agriculture & Farmers Welfare Government of India-2016-17. Out of which around one-third (about 11.0 ha) lies in the state of Uttar Pradesh alone. The productivity of the state is close to the national average as the major constraints are cultivation of old low yielding and disease susceptible varieties, and adoption of poor wheat production technologies. In Bijnor district total area under wheat is about 11500 to 11800 ha. The choice of right varieties under late sown condition is one of the crucial points determining the yield of wheat. The yield and productivity of late sown wheat varieties is less or stagnant due to farmers' unawareness about high yielding and disease resistant varieties.</p> <p>Materials and Methods The trial was conducted at the Technology Park of Kishori Vigyan Kendra Bijnor, during Rabi 2013-14 to investigate the relative resistance of different wheat varieties against rust disease. In present study six varieties of wheat namely, HD-3059, DHW-90, DHW-71, DHW-16, and PBW-373 were assessed under un sprayed conditions for their resistance-tolerance against rust disease. Sown seed was sown with a standard plant to plant 20 cm and row to row distance of 18 cm. All the other standard agronomic practices were applied uniformly to each plot. Observations data was recorded according to per norms.</p> <p>Results and Discussion Disease reaction One of the major objectives of this study is to select the suitable wheat varieties which are resistant to stripe rust and other diseases for the district Bijnor. Selected varieties in this study showed different level of susceptibility and resistance to stripe rust (Table 1). Variety HD-3059 and DHW-90 showed high resistance to stripe rust. Variety DHW-16 (8-10% infested to rust) and PBW-373 (14-18% infested to rust) showed low resistance to stripe rust. Disease reaction is the second most important reason after grain yield. Variety HD-3059 and DHW-90 perform outstandingly in terms of disease resistance and better grain yield, so that these varieties will be multiplied and disperse the maximum area in district Bijnor for better yield.</p> <p>Yield and Economic of wheat varieties From the data in Table 1 it is quite clear that the per cent increase in the yield over local check (P (DHW-343)) 34.10, 31.17, 13.25, and 10.71 for HD-3059, DHW-90, DHW-16, and DHW-71, respectively. The seed yield increased significantly in the range of 39.25 to 47.75 q/ha in wheat varieties as compared to farmer practice (34.8 q/ha). This indicates that field demonstrations are quite successful in bridging up yield gaps between improved and farmer practices (Rama <i>et al.</i>, 2002). Singh and Rama (2006) reported that seed yield increased up to 20.70 q/ha by Pusa Basmati variety of inbred crop. Singh <i>et al.</i> (2013) reported varietal differ-</p>

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13	Participatory quality seed production: An innovative farming technology for rural development and rural entrepreneurship.	K.K. Singh and P.K. Singh	Directorate of Extension	Bioved, 28 (2): 299–302	2017	--	<p>Bioved, 28(2) : 299–302, 2017 http://biovedjournal.org/</p> <p>Participatory quality seed production : An innovative farming technology for rural development and rural entrepreneurship K.K. Singh and P.K. Singh</p> <p>Krishji Vagyan Kendra, Directorate of Extension, SVPU/A&I, Meerut, U.P.</p> <p>Received March 21, 2017 and Accepted June 15 2017</p> <p>ABSTRACT : Agriculture in the lifetime of India and seed is the lifeline of any crop production system. In all agricultural inputs only seed had untapped potential, whereas other agricultural inputs i.e. nutrients, irrigation, and plant protection chemicals only contributes to the production potential of seed. If potential of seed is poor, optimum yield is not possible of judicious use of inputs. Many research results indicate that the 10-15 per cent increase in yield is attributed to good potential quality seed. The main reasons for low productivity of field crops are unavailability of reliable quality seeds in the local markets at the time of sowing. To increase productivity, seed should be of high quality, which will express full potential yield of the genotype under farmers' farming environments. Therefore, there is basic need to establish quality seed sources at village level. For meeting this need, the Krishi Vigyan Kendra Saharanpur introduced an innovative farming technology "Participatory Quality Seed Production" at farmer's field during Rabi 2008 in Saharanpur district for production of good quality seeds of Paddy and Wheat. After implementation, this innovative farming technology the average seed replacement rate increased by 38.0 – 58.0 per cent in wheat and 38.0 – 54.0 percent in paddy, in operational area. Yield increased in wheat up to 42.0 – 59.0 q/ha and in paddy 47.0 – 60.0 q/ha in operational area. Adoption level of improved varieties by the farmers had increased. Informal seed production programme had emerged as an income generating enterprise.</p> <p>Key Words: Participatory quality seed production, field crops.</p> <p>The major field crops of district Saharanpur are wheat and rice. The seed replacement rate (SRR) of these two crops is not better, for example, SRR of rice and wheat is about 11-15% in district. The present level of SRR for field crops in India is just 5-70% (Roy, 2011). Farmers Participatory Seed Production in India is one of the few countries (Chowdhury <i>et al.</i>, 2010) where the seed sector has advanced in parallel with the agricultural productivity. However, availability of quality seed of improved varieties and hybrids is grossly inadequate and is one of the major constraints for enhancing production. For the supply of such seeds, the informal seed sector (namely, farmer managed seed seed village programmes, Farmers' Participatory Seed Production and farmer seed distribution system systems) and the formal seed system (seed enterprises) have a great role to play. Farmers can produce quality seeds of some self-pollinated crops, such as, rice, wheat, mustard, and vegetative propagated crops, namely, potato seed tuber, elephant foot yam, Arachis pintoi (Neeff <i>et al.</i>, 2004) etc. at their own farm for 2-3 generations, provided they are trained the package of practices to maintain genetic purity.</p> <p>Materials and Methods (A) Innovative farming technology (IFT) disseminated The KVK initiated Participatory Quality Seed Production programme of Wheat and Paddy in its operational area during 2008-09 to 2012-13, based on the location specific newly released Wheat and Paddy varieties, seeds were provided to selected farmers as major component of Front Line Demonstration. 60-80 farmers were selected each year for Participatory Quality Seed Production in operational area. The identified farmers of different villages were trained on different aspects of seed production.</p> <p>(B) Farming practice before IFT The farmers used to grow grain from their own</p>
14	Varietal screening of Basmati rice varieties against rice stem borer and leaf folder.	K.K. Singh, A.V. Singh, Narendra Singh, D.P. Singh, Vivek Yadav, Balraj Singh and Rajendra Singh	Directorate of Extension	New Agriculturist. 28 (2): 469–471.	2017	--	<p>New Agriculturist, 28(2) : 469–471, 2017 http://biovedjournal.org/</p> <p>Varietal screening of Basmati rice varieties against rice stem borer and leaf folder K.K. Singh¹, A.V. Singh¹, Narendra Singh¹, D.P. Singh¹, Vivek Yadav², Balraj Singh¹ and Rajendra Singh¹</p> <p>1. Krishi Vigyan Kendra, Nagina (Bijnor) 2. Rice Research Station Nagina (Bijnor)</p> <p>Received June 22, 2017 and Accepted September 18, 2017</p> <p>ABSTRACT : A study was undertaken to assess the resistance of rice varieties Pusa Basmati-1509, Pusa Basmati-1460, Pusa Basmati-1121, Pusa Basmati-1, T-3 and Basmati-370, against rice stem borer and rice leaf folder and their effect on yield, under rice cropping system during Kharif 2015. Rice varieties Pusa Basmati-1509 and Pusa Basmati-1460 were the most resistant varieties against rice stem borer as 6.57% and 19.25% dead heads, and 5.75% and 6.26% white heads lower than the other tested basmati varieties. Similarly T-3 and Basmati 370 was the most susceptible variety against leaf folder. Pusa Basmati-1460 resulted in to highest (56.55 q/ha) yield, whereas Basmati-370 resulted into lowest (16.45 q/ha) yield.</p> <p>Key Words: Rice varieties, rice stem borer, leaf folder and yield.</p> <p>The Basmati are known for their typical fragrance when cooked. They also fetch a premium price in the local and regional market, besides having considerable export potential. The Basmati is promising foreign exchange earner (Singh <i>et al.</i>, 1997). The fine grain, soft texture and extra elongation with least breadth-wise swelling on cooking endow "Basmati" rice a special place in the domestic and international markets (Siddiq, 1990). The Indian subcontinent basmati rice is high priced in the international market for its unique quality.</p> <p>Rice is the second most important cereal crop of India after wheat and plays multifarious role in its economy. The average yield is low against potential yield. This low yield is ascribed to many factors such as limited adoption of scientific cultivation, improper management of pest, insects and diseases (Ifran <i>et al.</i>, 2003). Rice crop is affected by several insect pests' right from nursery to harvest. Rice stem borer (<i>Chrysodeixis insectatus</i>) and rice leaf folder (<i>Cnaphalocrocis medinalis</i>) are of prime importance insect pests among these. Rice plants result into dead hearts and white heads, when attacked by rice stem borers at early age and panicle initiation stage respectively. Behman <i>et al.</i> (2002) reported that rice stem borer <i>Scirpophaga incertulas</i> and <i>S. innotata</i> are serious insect pests of rice in south and south-east Asia resulting into huge crop losses. Bashir <i>et al.</i>, 2004 reported that Rice leaf folder damages the crop in its larval stage by scraping the open as well as rolled leaves and a single larva can damage a number of leaves. This activity disturbs the photosynthetic activities of the plant resulting into drastic yield losses (Alvi <i>et al.</i>, 2003). Second instar larvae of rice <i>C. medinalis</i> pluck the growing paddy leaves longitudinally and feeds voraciously on green leaves (Khan <i>et al.</i>, 1989). The leaves of rice plants infested by Rice leaf folder are predisposed to bacterial and fungal infection (Bashir <i>et al.</i>, 2004).</p> <p>Knowledge of resistance level of a certain variety is also very important for planning good management practices. Certain varieties of crops are less attacked by insect pests of that crop than others because of their natural resistance (Awwal, 1994). Akram <i>et al.</i> (1994) reported that rice variety Phakal was resistant to <i>Chilo suppressalis</i> and <i>Cnaphalocrocis medinalis</i>. Khan <i>et al.</i> (2003) found that variety KSK-282 was resistant while Gomali-6 and Gomali-7 were moderately resistance against rice stem borer. Khan <i>et al.</i> (2005) noted that rice stem borer infestation varied significantly among different</p>