FARMERS’ PROBLEMS ASSOCIATED WITH QUALITY WHEAT SEED PRODUCTION: A CASE STUDY OF DISTRICT NAROWAL

Asif Yaqoob, Sher Muhammad, Khalid Mehmood Chodhary* and Ehsanullah**

ABSTRACT

Present study was conducted at Institute of Agricultural Extension and Rural Development, University of Agriculture Faisalabad, Pakistan, during 2014 in order to explore problems faced by the farmers of District Narowal regarding quality wheat seed production. Seed has matchless position among various agricultural inputs as the efficiency of all other inputs mainly depends on the production prospective of seed. The sustainability of any crop depends upon seed quality. Multistage random sampling technique was used for the selection of sample of 360 respondents. The data were collected through a reliable and validated interview schedule and were analyzed using statistical package for social sciences (SPSS). Descriptive and inferential statistical techniques were used for data analysis. Results indicate that more than half of the respondents reported that quality wheat seed was not available. The lack of proper marketing, proper storage, quality seed and irrigation water were problems ranked higher affecting quality seed production with mean values of 4.05, 3.97, 3.82 and 3.77.

KEYWORDS: Wheat; farmers’ problems; quality seed production; Narowal; Pakistan

INTRODUCTION

Wheat (Triticum aestivum) is high volume low profit seed crop and private companies pay less attention to quality seed production. Wheat seed growers face various problems in the production of quality wheat seed. Almekinders and Hardon (3) reported that wheat is an important crop and every farmer wants to attain maximum yield. However, timely application of inputs can enhance its production. Moreover, productivity can be increased through the usage of high quality seeds of high yielding varieties. Pakistan’s

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The national average yield of wheat is about 2.7 t/ha. The well-to-do farmers of canal irrigated areas are getting 6 to 7 t/ha wheat yield. However, average farmers’ yield varies in between 0.5 to 1.3 t/ha which depends on the amount of rainfall in dry land areas and in irrigated areas it varies from 2.5 to 3 t/ha depending upon the amount of irrigation water and other farm inputs especially seed (10). With the utilization of quality seed, yield of wheat could be increased to about 15-20 percent (4). Production losses i.e. more than one million ton of wheat are attributed to the use of varietal mixture and diseased seed (11). The improved seeds are mostly available to the influential farmers through their public relationing with the government sector (2). Agrawal and Ostrom (1) reported that there are several problems in between the market from supplier to seller. These constraints put problems to the farmers such as they are forced to get adulterated seeds and fertilizers in black marketing. They suggested that proper and effective monitoring by extension field staff and quality assurance departments can overcome these problems and also can create possibilities to make pure and good quality seeds and fertilizers on less expensive rates.

In order to investigate the problems associated with seed availability and production problems faced by the wheat growers, the present research was designed with hope that the outcome of the study would be helpful for Punjab Agriculture Extension Department to establish and launch quality wheat seed production programs for the farming community.

MATERIALS AND METHODS

The study was conducted in Narowal district of Punjab Pakistan, which consists of three tehsils. Narowal was selected due to its low acreage and rice and wheat crops are the main crops of this district. Using multistage random sampling technique, one markaz from each tehsil was selected at random. From each selected markaz, 3 union councils were selected and from each selected union council, 2 villages were chosen randomly. Twenty wheat growers from each village were selected at random, thus making a sample size of 360 respondents from the entire population of 2527 growers which are wheat grower generally (6). Keeping in view the objectives of the study, an interview schedule was developed for data collection. Considering, the suitability of Likert scale for assessing the effectiveness of problems, a five point Likert scale (1= Very Low, 2= Low, 3= Medium, 4= High, 5= Very High) was used. Descriptive statistics and inferential statistic such as frequencies, means, standard deviations and rank orders were used for interpretation of data.
RESULTS AND DISCUSSION

Availability of quality wheat seed

The availability of quality seed is necessary for quality wheat seed production. Gastel (7) argued that the seed must be made available at right time, at the right price, at the right place, in proper amount and at highest quality for quality wheat seed production. Planting of poor seed quality results in poor crop stand and becomes a significant factor affecting wheat seed productivity at farmers’ level, which can be determined by standard germination test (5). The respondents were enquired about availability of quality wheat seed and their responses in this regard are given in Table 1.

Table 1. Distribution of the respondents according to availability of quality wheat seed.

<table>
<thead>
<tr>
<th>Availability of quality wheat seed</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>174</td>
<td>48.3</td>
</tr>
<tr>
<td>No</td>
<td>186</td>
<td>51.7</td>
</tr>
<tr>
<td>Total</td>
<td>360</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The data given in Table 1 indicate that less than half (48.3%) of the respondents reported that quality wheat seed was available. While, more than half (51.7%) of the respondents reported that quality wheat seed was not available. The results are in agreement with those of Shah et al. (12) who stated that majority of farmers used their own stored seed having no availability of quality wheat seed.

Ranking of various problems faced by farmers in quality wheat seed production

The data about problems faced by respondents in quality wheat seed production as presented in Table 2 were used to determine ranking of various problems. In order to know the relative ranking of problems in quality wheat seed production, the respondents were asked to rate different problems and the weighted scores were calculated by multiplying the score value allotted to each category of the scale with frequency count. Mean values were calculated as sum of values divided by the number of values. Table 2 indicates the ranking of the problems faced by wheat growers in seed production. The marketing problem was ranked highest with mean value of 4.05, which fell in between high and very high tending towards high. The marketing problem in seed was studied by Islam et al. (9) who ranked...
seed marketing in case of wheat seed as 2\textsuperscript{nd} while in case of rice they ranked seed marketing problem as 1\textsuperscript{st}. From the above discussion it is clear that marketing problem affects seed production to a high level. The 2\textsuperscript{nd} severest problem in seed production was lack of proper storage with mean value of 3.97 which fell between medium and high level tending towards high. Islam \textit{et al.}, (9) ranked storage problem at 4\textsuperscript{th}.

Table 2. Mean, standard deviation and rank order of problems faced by respondents in quality wheat seed production.

<table>
<thead>
<tr>
<th>Problems</th>
<th>Weighted score</th>
<th>Mean</th>
<th>SD.</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proper marketing</td>
<td>1458</td>
<td>4.05</td>
<td>0.97</td>
<td>1</td>
</tr>
<tr>
<td>Proper storage</td>
<td>1428</td>
<td>3.97</td>
<td>0.63</td>
<td>2</td>
</tr>
<tr>
<td>Quality seed</td>
<td>1374</td>
<td>3.82</td>
<td>0.53</td>
<td>3</td>
</tr>
<tr>
<td>Irrigation water</td>
<td>1356</td>
<td>3.77</td>
<td>0.56</td>
<td>4</td>
</tr>
<tr>
<td>Technical competency</td>
<td>1314</td>
<td>3.65</td>
<td>0.68</td>
<td>5</td>
</tr>
<tr>
<td>Farm machinery</td>
<td>1308</td>
<td>3.63</td>
<td>0.68</td>
<td>6</td>
</tr>
<tr>
<td>Credit</td>
<td>1278</td>
<td>3.55</td>
<td>0.72</td>
<td>7</td>
</tr>
<tr>
<td>Interest</td>
<td>1272</td>
<td>3.53</td>
<td>0.67</td>
<td>8</td>
</tr>
<tr>
<td>Fertilizer</td>
<td>1248</td>
<td>3.47</td>
<td>0.50</td>
<td>9</td>
</tr>
<tr>
<td>Effective extension services</td>
<td>1242</td>
<td>3.45</td>
<td>0.69</td>
<td>10</td>
</tr>
<tr>
<td>Pesticide</td>
<td>1224</td>
<td>3.40</td>
<td>0.61</td>
<td>11</td>
</tr>
</tbody>
</table>

The lack of quality seed, irrigation water, technical competencies, farm machinery, credit and interest were ranked 3\textsuperscript{rd}, 4\textsuperscript{th}, 5\textsuperscript{th}, 6\textsuperscript{th}, 7\textsuperscript{th} and 8\textsuperscript{th} with mean values of 3.82, 3.77, 3.65, 3.63, 3.55 and 3.53, which fell in between medium and high categories tending towards high category.

The lack of fertilizer, effective extension services and pesticides were ranked 9\textsuperscript{th}, 10\textsuperscript{th} and 11\textsuperscript{th} with mean values of 3.47, 3.45 and 3.40, which fell in between medium and high categories tending towards medium category.

So it is clear from the above discussion that lack of proper marketing of produce, proper storage, quality seed, irrigation water availability, technical competencies, farm machinery, credit, interest, fertilizer, effective extension services and availability of pesticides were major problems faced by the wheat seed growers in the study area.

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CONCLUSIONS

The department should arrange training courses for wheat seed growers to enhance their competency in the identified areas. The department should also arrange seminars, workshops etc. regarding wheat seed growing practices especially before the start of sowing season.

The Govt. should be involved in proper storage of wheat seed for the purpose of stabilizing prices and provision of quality seed to the farmers. The role of intermediate beneficiaries should be reduced by linking the farmers with the seed marketing companies by the government.

Quality seed production should be initiated at farming community level under close supervision and guidance of some seed certification agency/ extension organization which would make the quality seed more affordable to the farmers.

The lack of irrigation water was affecting the quality wheat seed production to high extent. Therefore, Agriculture Department Punjab should train the farmers for proper utilization of available irrigation water through introducing improved water management and water saving technologies.

REFERENCES


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CONTRIBUTION OF AUTHORS:

Asif Yaqoob : Conducted research in the field and finalization of the manuscript
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