

Wheat Production and Marketing: A Comparative Study of Traditional and Progressive Farmers in Faisalabad (Pakistan)

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ABSTRACT

This study was conducted in the Faisalabad district to compare wheat production and marketing of traditional and progressive farmers. Data revealed that progressive farmers sowed wheat in time and applied better seed rate. The use of seed drill was also found more prevalent among the progressive farmers and the application of fertilizer and irrigation was also better than traditional farmers. High price of fertilizers particularly of DAP, delayed payments and low price of wheat were the main marketing related grievances expressed both by the progressive and traditional farmers.

Key Words: Wheat production; Marketing; Farmers; Yield gap; Low price

INTRODUCTION

Wheat is the main staple food of the country's population and contributes 13.8% to the value added in agriculture and 3.4% to GDP (Economic Survey, 2003-04). Wheat being the staple diet of the people occupies a central position in agricultural policies and assumes strategic importance from food security perspective. A large portion of the food requirement of the population is met through this crop. Better wheat production and proper management for supplying to the consumers at reasonable rate has attained high priority of the Federal Government in general and provincial governments in particular (Abbas, 2003).

Wheat is grown over an area of more than 8 million hectares in the country, which contributes 66% of the area under food grains and 37% of the total cropped area. It contributes about 74% of the total production of food grains (Gill, 2002). In Pakistan, production of wheat has experienced sharp fluctuations with periods of self-sufficiency in wheat followed by periods of stark deficiency. These fluctuations have been mainly caused by the vagaries of weather, which in spite of a highly developed irrigation network in the Indus basin casts a long shadow on the fortunes of the wheat sector. Pakistan made an important breakthrough in the year 2000 by not only achieving self-sufficiency in wheat production, but also by becoming a wheat exporting country. With bumper wheat crop during the last three years, Pakistan besides meeting the domestic needs exported the surplus stocks to many countries as well. But from the previous year Pakistan is again facing the problem of wheat shortage. For a predominantly agricultural country the reversal of the situation is really a matter of anxiety for whole the nation (Kabir, 2003).

In spite of being 9th in terms of area and 10th in production, our country stands much lower i.e. 60th among the wheat producing countries. This is indicative of the vast

scope for increasing production through improvement in crop production technology (Gill, 2002). In Pakistan the yield of wheat during 2002-03 was 2384 kg ha⁻¹, which is far below many countries of the world including India. Even it is much lower than average yield of 2700 kg ha⁻¹ of the world (FAO, 2002). More than one factor can be cited for the low yield. Impure seed, late sowing, traditional method of cultivation, non-availability of water for irrigation, pests and weeds are some of the most important factors responsible for the situation.

In addition to the aforementioned factors, yield gaps between progressive and traditional farmers also contribute significantly in overall low production, which points out a great scope for enhanced wheat production through better farm management and agronomic practices. In view of the importance of wheat, it is imperative that its growing, harvesting, procurement, marketing and consumption is properly managed and watched throughout the country so that there is no deficiency in supplying the wheat grains and wheat flour to the public occurs. Keeping in view the above mentioned significance of this staple food, the present study was planned with the objective to compare production and marketing of wheat by progressive and traditional farmers of Faisalabad district to figure out the problems faced by them.

METHODOLOGY

The present study was confined to Faisalabad district and was based on the primary data. Along with the main six roads going outside the city of Faisalabad i.e. Jhang road, Summundari road, Satiana road, Sheikupura road, Sargodha road, and Narwala road, five progressive and 10 traditional farmers were randomly selected. Total of 90 farmers (60 traditional and 30 progressive) were thus interviewed. Data were collected through the questionnaires which included questions relating to production and marketing practices

followed by the farmers. The data were then analyzed by employing simple statistical techniques like averages, percentages and frequency distribution by using statistical package SPSS.

RESULTS AND DISCUSSION

Total area and area under wheat crop. The progressive farmers are generally characterized by their large land ownerships in comparison to the traditional farmers. In the study area, progressive farmers on an average possessed 112.5 acres of land whereas traditional farmer's land holding averaged at 13.83 acres. About 36% of the total area was allocated for wheat crop by progressive farmers and 44% by traditional farmers (Table I). More area allocation to wheat by traditional farmers was due to the fact that their land holdings are less and they have to meet their domestic wheat requirements from their own produce. Therefore, traditional farmers allocated more area to wheat in order to ensure domestic food security.

Sowing time, method of sowing and seed rate. Timing and method of sowing and seed rate play a vital role in enhancing the yield of wheat crop. Delay in sowing, inappropriate sowing method and less than recommended seed rate results in low yield of the crop. In the study area, seed rate of wheat in case of traditional farmers ranged from 25 to 75 kg per acre depending upon the time of sowing. The early growers generally used less seed per acre and late planters had to increase per acre seed in order to compensate the loss due to delayed sowing. The average seed rate in the study area for traditional farmers was calculated as 50 kg per acre. On an average, progressive farmers were found to sow 40-70 kg per acre of seed depending on the time of sowing. Average seed rate for progressive farmers was calculated as 53 kg per acre. Comparatively progressive farmers used more seed rate due to their financial affordability and access to good quality seed.

In case of traditional farmers, almost half of them had sown their crop from 15th to 30th November whereas only 3% grew before 15th November. The percentage of farmers who planted their crop in the first two weeks of December was 29, while the remaining 18% farmers started sowing their crop after the mid of December. In case of progressive farmers, around 57% had sown their crop in the month of November. The percentage of the farmers who had sown their crop from 1st December to 15th December was around 33 whereas 10% of them planted their crop after 15th December (Table II). The results of the study showed that progressive farmers were more careful in timely sowing of wheat.

Broadcast (Chatta) method of sowing was found widely prevalent among the traditional growers of wheat in the vicinity of Faisalabad district. Almost three fourth i.e. 73% tradition farmers used Chatta for sowing their wheat fields. The seed drill was used by 15% farmers whereas 12%

opted for Kera method to sow wheat crop. Even 70% of the progressive farmers used Chatta (broadcast) method for sowing of wheat crop. However, the use of seed drill by the progressive farmers was more compared to traditional farmers. Only 27% progressive farmers were found planting seed by using seed drill (Table III).

Around 85% of the traditional farmers and 87% of progressive farmers had sown Inqlab variety of wheat in the study area. In addition to Inqlab, some other varieties like Uqbab, Watan, MH-97, Pasban-90, Iqbal, and Faisalabad-85 were also grown by both progressive and traditional farmers but on a very limited area (Table IV).

Irrigation. Number of irrigations applied to the wheat crop ranged from 3 to 6. Both the traditional and progressive farmers on an average applied four irrigations to their wheat fields. Regarding the source of irrigation, the respondents who relied solely on canal water and tube well water were 10 and 13% in case of traditional farmers and 7 and 27% respectively in case of progressive farmers (Table V). This indicated relatively better access of progressive farmers to tube well water. About 77% of the sampled traditional farmers used canal water supplemented with tube well water whereas 67% progressive farmers used tube wells to supplement canal water (Table V).

Fertilizer. The traditional farmers on an average used 1.73 bags of urea and 1.04 bags of DAP bags in the study area. The progressive farmers used 2 bags of urea and 1.5 bags of DAP (Table VI). Traditional farmers reported high price of fertilizers as the main reason for less use of fertilizers.

Farm machinery used. Farm machinery used by traditional farmers was the tractor, cultivator, seed drill, thresher, harvester, and desi plough etc. The farmers, who did not own farm machinery particularly the tractor, cultivated the soil either by traditional methods or by hiring tractor and other allied machinery. As compared to the traditional farmers, majority of the progressive farmers had owned almost all types of farm machinery required for cultivation of wheat. The farm implements owned by the progressive farmers included tractor, cultivator, ridger, rotavator, seed drill, thresher, harvester and disc plough etc.

Expected yield. As the survey was conducted a few days prior to wheat harvesting therefore farmers were inquired about expected yield from their fields. The expectations of traditional farmers regarding per acre yield of wheat crop in the study area varied from 25 to 55 monds¹ per acre with an average 40.35 monds per acre. The expected yield of progressive farmers was slightly high due to better input use and management and ranged from 30-55 monds per acre with an average yield of 41.03 monds (Table VII).

¹ A mond is of 40 kg

Table I. Total area and area under wheat crop

Area (Acres)	Traditional Farmers	Progressive Farmers
Total Area	13.83	112.50
Area Under Wheat Crop	6.10	40.23
Wheat area as of total area	44.00	36.00

Table II. Time of sowing of wheat crop by the farmers

Time of Sowing	Traditional Farmers	Progressive Farmers
Before 15 November	02 (03)	01 (03)
15-30 November	30 (50)	16 (54)
01-15 December	17 (29)	10 (33)
After 15 December	11 (18)	03 (10)

Figures in parenthesis indicate percentage

Table III. Wheat sowing method used by the farmers

Sowing Method	Traditional Farmers	Progressive Farmers
Broadcast (Chatta)	44 (73)	21 (70)
Kera	07 (12)	01 (03)
Seed Drill	09 (15)	08 (27)

Figures in parenthesis indicate percentage

Table IV. Wheat varieties sown by the farmers

Seed Variety	Traditional Farmers	Progressive Farmers
Inqlab	51 (85)	26 (87)
Uqab	05 (08)	03 (10)
Watan	10 (17)	06 (20)
MH-97	-	03 (10)
Others	04 (07)	07 (23)

Figures in parenthesis indicate percentage

Table V. Source of irrigation used by farmers

Irrigation Source	Traditional Farmers	Progressive Farmers
Tube well	08 (13)	08 (27)
Canal Water	06 (10)	02 (07)
Canal Water Supplemented by Tube well	46 (77)	20 (66)

Figures in parenthesis indicate percentage

Table VI. No. of bags of fertilizers used by farmers

Fertilizer	Traditional Farmers	Progressive Farmers
Urea	1.73	02
DAP	1.04	1.5

Table VII. Expected wheat yield of farmers

Expected Yield	Traditional Farmers	Progressive Farmers
Range	25-55	30-55
Average	40.35	41.03

Table VIII. Mode of disposal of wheat used by farmers

Agency	Traditional Farmers	Progressive Farmers
Food Department	04 (07)	08 (27)
Village Dealer	30 (50)	14 (46)
Others	19 (32)	08 (27)

Figures in parenthesis indicate percentage

year, almost 50% of the traditional farmers sold their wheat produce to village dealers. Only 7% respondents sold their produce to the Food Department. There were only eleven procurement centers established in whole of Faisalabad district. As these centers were at long distances, a very few farmers could sell their produce directly at these centers. Many of the traditional farmers consumed all the wheat domestically and did not sell. The percentage of farmers who sold to others like nearby urban consumers, local village fellows and relatives was 32%.

The progressive farmers mainly disposed off their produce to village dealers and Food Department and the percentage of farmers sold to these sources was 46 and 27%, respectively. Around 27% sold to nearby consumers and local village fellows etc. (Table VIII).

General production and marketing problems. Water shortage and late sowing due to late sugarcane harvesting were the two main problems which both the traditional and progressive farmers faced in the study area. They pointed out that sugar mills started crushing of sugarcane very late due to which sowing of wheat crop was delayed resulting in less per acre yield of crop. Non availability of good quality seed, weed problem and high diesel rate were some other problems relating to production mentioned by the traditional farmers (Table IX).

Table IX. General wheat production and marketing problems of farmers

Problem	Traditional Farmers	Progressive Farmers
General Production Problems		
Water Shortage	20 (33)	04 (13)
Late Sowing due to late sugarcane harvesting	05 (08)	06 (20)
Non-availability of good quality seed	07 (12)	01 (03)
Weed problem	02 (03)	03 (10)
High diesel rate	02 (03)	01 (03)
General Marketing Problems		
Costly fertilizer	31 (52)	09 (30)
Adulterated fertilizer	19 (32)	10 (33)
Adulterated Weedicides	09 (15)	05 (17)
Delayed payments	02 (03)	02 (03)
Less price	07 (12)	03 (10)

Figures in parenthesis indicate percentage

High price of fertilizers particularly of DAP, their shortage and adulteration were the major difficulties faced by both progressive and traditional farmers in the study area. In addition delayed payments and low price of wheat were the other main grievances expressed by some farmers.

CONCLUSION AND SUGGESTIONS

The study of traditional and progressive farmers regarding production and marketing of wheat in Faisalabad revealed that majority of the progressive farmers had sown wheat at appropriate time. They used seed drill and applied fertilizer and irrigation water in better proportions compared to traditional farmers. Progressive farmers having economic volume and own transport had access to sell wheat at

procurement centers of Food Department. General production and marketing problems faced both by progressive and traditional farmers in the study area, were found more or less similar. These included water shortage, late sowing, non-availability of quality seed, costly and adulterated fertilizers etc. For the enhancement of wheat yield following suggestion are made.

1. The critical factor in the enhancement of wheat yield is time of sowing. In the study area most of the farmers were found sowing the crop late. The delay in sowing was caused by shortage of water and late start of crushing by the sugarcane mills. Government should force the sugar mills to start timely crushing of sugarcane so that wheat crop may be sown at proper time.
2. Timely and adequate supply of fertilizer should be ensured. In addition, the prices of fertilizers should not be too high so that farmer could apply these in adequate quantity.
3. Strengthening the Wheat Research Program for evolution of new high yielding drought resistant varieties through genetic engineering should be strengthened.
4. Agricultural centers play a very significant role in the production of crops. These centers will provide machinery, farm inputs, credit facilities and technical know-how to the farmers of area at one place. The idea of "Agro-mall" if implemented will help the farmers to get all the necessary inputs, credit and extension services at one place. These centers should be established at the earliest.
5. The farmer's news bulletin to guide them to chalk-out their farm operations depending upon the weather conditions should be displayed on television and telecasted on radio regularly.

6. Pakistan is on its way to achieve self-sufficiency. Taking into account this fact and obligations due to WTO, the level of procurement of wheat should be deescalated. The procurement activity at government level should be reduced gradually. Let the private sector and flour mills handle large marketable surplus and solve credit, storage and marketing problems

7. The Directorate of Agriculture (E&M) should collect information at farm level and wholesale level, relate the price to variety/quality and disseminate/publicize through media, particularly T.V. for the use of producers and consumers.

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