

NOTE

**TEHCHNICAL, SUPPORTIVE AND
MOTIVATIONAL DIMENSIONS OF WHEAT
IMPROVEMENT PROJECT IN FARS PROVINCE**

M. SHAHVALI¹

Department of Agricultural Extension and Education, College of
Agriculture, Shiraz University, Shiraz, I.R.Iran.

(Received: September 12, 1998)

ABSTRACT

A research project was designed to study agricultural wheat improvement project in Fars province and to find out how its technical, supportive and motivational dimentions have been used to motivate wheat producers to increase wheat production. The research project was implemented in three counties. A survey method was used to collect data. The results showed that wheat improvement project mainly focuses on offering technical assistance to wheat producers through the Rural Services Centers (RSCs). So, in terms of technical dimension, the project for wheat production encouragement is the same as the previous policies. The advantages of the wheat improvement project are its supportive and motivational dimentions. The following recommendations are suggested: provide opportunities so that wheat producers own their cultivation machineries such as seeder, furrower and tiller, accompanied by necessary education and provide more educational motivation program through radio and TV to encourage wheat producers.

Key words: Wheat, education, extension.

1. Assistant Professor.

تحقیقات کشاورزی ایران

۱۹:۷۲-۸۲ (۱۳۷۹)

جنبه های فنی، حمایتی و انگیزشی طرح محوری گندم در استان فارس

منصور شاه ولی

استادیار بخش آموزش و ترویج کشاورزی دانشکده کشاورزی دانشگاه شیراز، شیراز، جمهوری اسلامی ایران.

چکیده

این پژوهش به بررسی طرح محوری گندم می پردازد تا جنبه های سه گانه فنی، حمایتی و انگیزشی آن را از لحاظ ایجاد اطمینان برای تولید گندم معلوم کرده و چگونگی تقویت آنها را تبیین نماید. این پژوهش در سه شهرستان انجام گرفت. برای انجام پژوهش، از روش تحقیق پیمایشی استفاده شد. نتایج نشان می دهند که افزایش تولید گندم در قالب طرح محوری تولید گندم عمدتاً از طریق همکاری های فنی با گندمکاران صورت گرفته است. بنابراین، تداوم موفقیت طرح مذکور به این همکاری ها وابسته است و از این نظر همانند طرح های گذشته است و این احتمال وجود دارد که با قطع این نوع همکاری، تولید گندم دچار وقفه گردد. ولی تفاوت این طرح با انواع مشابه گذشته، جنبه های حمایتی و انگیزشی آن، به انضمام جدیت در همکاری های فنی با گندمکاران است. پیشنهاد می شود ضمن تداوم همکاری های فنی، حمایتی و انگیزشی، اقدامات زیر نیز به عمل آیند: ۱) امکان مالکیت ادوات کاشت، بویژه فارور، بذر کار و

تیلر برای گندمکاران، فراهم آید و ۲) برنامه های گوناگون رادیویی و تلویزیونی برای برانگیختن گندمکاران به تولید گندم، تهیه و پخش گردد.

INTRODUCTION

A specific wheat project was implemented in 1989. This project focussed on increasing wheat production and yield (1). The feature making this project different from the previous ones is its systematic approach. The wheat producers were supported through planting, maintenance and cultivation periods. They also could ask for hybrid seeds, pest and disease control as well as technical consultations (3). Generally speaking, the project was considering technical, supportive and motivational dimensions at the same time, so a different working environment was prepared for wheat producers in order to produce more wheats.

This study was designed to assess the effects of technical, supportive and motivational dimensions of the above mentioned project on wheat producers.

MATERIALS AND METHODS

This research project was carried out in Darab, Marvdasht and Abadeh counties in Fars province. A survey method was used to collect data. A multi-stage random sampling was used in which 3 counties were randomly selected from 14 counties in the province and then in each county 3 Bakhsh(s) were selected randomly; then in each Bakhsh one Dehestan; from each Dehestan 5 villages and finally in each village, 3 persons were interviewed randomly. The total number of completed questionnaires were 135.

The research questionnaire consisted of four parts as follows: measuring wheat producers' views toward technical supportive and motivational aspects of the project and the last part measured the socio-economic characteristics of farmers.

RESULTS

Impact of Producers' Socio-economic Characteristics

Analysis of data indicated that there is no significant difference in total wheat production and yield of wheat of farmers with regard to owning or renting means of transportation and agricultural machineries as well as residential status.

As Table 1 shows, the wheat producers who use personal vehicle ($P < 0.01$) have a more stable income through wheat production. Those who use personal disk ($P < 0.05$), seeder ($P < 0.01$) and furrower ($P < 0.02$) have a better working environment. Generally speaking, those with personal vehicle and planting machineries (i.e., disk, seeder, and furrower) were more satisfied with supportive dimensions.

From all motivational aspects above mentioned, only two of them have been significantly different with respect to wheat producers' socio-economic characteristics. These aspects are considering the wheat product as a strategic crop and wheat practices improvement.

As Table 2 shows, the wheat producers who use personal machineries such as seeder ($P < 0.01$) and furrower ($P < 0.01$) have improved their practices significantly. Those who use rented tiller more often consider wheat as a strategic crop ($P < 0.05$). Generally speaking, those who use personal agricultural machineries (e.g., seeder and furrower) are more motivated to produce wheat.

In a separate analysis, the motivational and supportive dimensions were analyzed with extension and educational programs used by wheat producers such as direct contact with extension agents, educational movies, farm visits, radio programs, TV programs, and educational printed materials, using a Kruskal-Wallis one-way ANOVA test (Tables 3 and 4).

Table 1. Comparison of mean ranks of supportive dimensions with respect to transportation and agricultural machineries ownership. Agricultural machineries ownership

Supportive Dimensions	Vehicle		Disk		Seeder		Furrower					
	Personal	Rental	U†	Personal	Rental	U	Personal	Rental				
Income stability	119.1	66.3	41.3**	67.2	57.4	775.0	43.3	34.3	158.5	41.7	36.8	278.0
Working environment	72.3	62.7	155.0	155.0	72.3	62.7*	69.6	53.3	592.0**	48.6	33.6	178.3*

* Supportive response differ significantly at 5% level.
 ** Supportive response differ significantly at 1% level.
 † Mann-Whitney U test.

Table 2. Comparison of mean ranks of motivational dimensions with respect to agricultural machineries ownership. Agricultural machineries ownership

Factors Motivational dimensions	Seeder		Tiller		Furrower	
	Personal	Rental	U†	Personal	Rental	U
Strategic product	37.1	34.7	202.0	9.1	14.3	31.5*
Practice improvement	54.2	32.2	75.5**	10.9	12.0	45.0

* Motivational response differ significantly at 5% level.
 ** Motivational response differ significantly at 1% level.
 † Mann-Whitney U test.

Table 3: Comparison of mean ranks of responses to extension and educational program usage with respect to supportive dimensions.

→Factors ↓ Programs	Guaranteed price	Working environment	Available consultation	Income stability	Wheat dependency	Government agents
Extension agents	0/09[†]	5.94	30.40^{***}	5.77	0.52	5.58
very little	39.42	32.06	21.50	32.10	39.62	43.24
little	38.32	44.26	45.71	45.65	39.71	43.56
much	40.41	37.88	48.18	43.04	42.27	34.73
very much	39.63	45.70	56.27	45.43	40.33	33.60
Films	2.96	3.49	5.53	0.51	0.16	2.85
very little	18.05	19.59	13.68	18.45	18.86	22.23
little	15.40	14.60	19.15	17.50	19.20	15.65
much	20.67	19.63	20.61	20.17	19.61	18.06
very much	23.50	23.29	25.07	20.50	18.14	19.93
Farm visits	4.01	6.29	10.25^{**}	2.56	9.68[*]	3.46
very little	19.21	21.42	15.14	21.14	17.93	18.92
little	23.86	21.57	25.86	25.71	19.36	17.64
much	17.15	14.62	18.62	18.54	19.58	19.35
very much	26.83	26.75	30.83	17.17	29.83	26.50
Radios	1.64	10.11^{**}	6.74	14.87^{***}	4.73	6.86
very little	65.36	45.50	62.13	44.34	57.34	60.76
little	52.92	39.88	47.28	53.25	71.25	65.50
much	58.26	56.00	63.00	59.88	60.78	49.78
very much	59.86	65.50	64.90	73.26	54.47	51.89
TV	1.47	6.85	15.38^{***}	14.22^{***}	2.76	3.61
very little	45.78	35.40	31.28	21.5	53.17	52.50
little	56.83	72.00	43.00	34.76	44.28	46.57
much	46.30	44.27	54.47	49.22	49.38	38.90
very much	41.28	46.52	52.11	56.98	43.06	44.29
Printed material	1.52	3.93	5.27	5.73	3.14	5.88
very little	16.94	19.67	15.35	17.94	19.24	21.78
little	22.21	15.00	22.50	27.29	17.00	16.00
much	18.92	14.42	20.92	14.17	23.33	13.90
very much	20.38	22.44	24.63	20.00	19.38	14.29

* Supportive responses differ significantly at 5% level.

** Supportive responses differ significantly at 1% level.

*** Supportive responses differ significantly at 0.01% level.

† Kruskal-Wallis one-way ANOVA test.

Technical, supportive and motivational dimensions...

Comparison of different educational programs showed that four of them, i.e., extension agents, farm visits, radio and TV programs, have significantly affected supportive dimensions. For example, those who have more contact with extension agents ($P < 0.001$) and have participated in more farm visits ($P < 0.01$) have received more consultation and are more dependent on wheat production ($P < 0.005$); those who have listened to radio more often have had better working environment ($P < 0.001$) and more income stability ($P < 0.001$); finally, those who have watched TV programs "much" and "very much" have had more consultation ($P < 0.001$) and income stability ($P < 0.001$), respectively.

As Table 4 shows those who listen more to educational programs in radio consider wheat as a strategic crop ($P < 0.001$), express that people and policy-makers acknowledge their efforts for wheat production ($P < 0.001$), consider their own efforts more important for wheat production ($P < 0.001$), their practices ($P < 0.01$) and skills ($P < 0.01$) have improved; and those who listen to the radio programs "very little" put more relative importance on wheat than other crops ($P < 0.001$).

Those who watch more TV educational programs, consider wheat as a strategic crop ($P < 0.001$) and put more relative importance on wheat than other crop ($P < 0.001$); finally, those who watch TV programs "very little", believe that people and policy-makers show less concern to wheat producers' efforts for wheat production ($P < 0.001$).

Also those who have more contact with extension agents believe that people and policy-makers acknowledge their efforts for wheat production ($P < 0.01$).

DISCUSSION

Technical dimension of the project has encouraged wheat producers by: first, the inputs provided by the RSCs such as agricultural machineries, and the second, owned planting machineries such as seeder, furrower and tiller which have led to total production and yield increase. Similar findings were reported by Ranjbar (2). Also

producers expect that the RSCs continues inputs preparation because they consider them very important for wheat production. The same results are obtained by Najafi (1).

Table 4: Comparison of mean ranks of responses to extension and educational program usage with respect to motivational dimensions.

→Factors↓ Programs	Strategic crop	People and policy-makers' acknowledgment	Personal efforts	Practice improvement	Skills improvement	Relative importance
Extension agents	5.94[†]	12.97^{**}	4.62	8.30	3.92	5.52
very little	32.58	27.44	35.23	32.88	37.71	34.04
little	42.94	43.00	37.42	37.68	47.50	40.78
much	44.95	39.38	47.73	41.12	63.05	40.14
very much	44.93	51.79	42.47	50.33	41.77	49.30
Films	5.59	2.97	3.63	1.98	4.83	5.90
very little	22.45	21.32	22.68	18.41	20.82	22.32
little	14.45	16.31	16.20	17.00	16.55	14.35
much	17.83	14.28	16.22	18.56	15.11	17.00
very much	21.57	19.50	20.79	23.36	24.64	23.00
Farm visits	3.78	3.66	3.31	4.03	6.96	1.39
very little	20.86	20.93	22.21	19.32	23.32	19.29
little	18.43	20.64	23.43	21.64	17.64	19.86
much	18.23	14.59	16.19	17.92	15.85	20.15
very much	27.00	23.83	22.42	27.50	27.33	24.83
Radios	14.42^{***}	14.12^{***}	16.77^{***}	12.65^{**}	13.42^{**}	15.75^{***}
very little	63.50	42.67	52.89	53.45	52.36	70.50
little	49.85	50.94	82.69	43.06	60.00	43.95
much	52.32	57.14	47.07	50.16	50.36	57.71
very much	72.86	70.21	70.66	71.62	73.01	70.29
TV	15.55^{***}	16.02^{***}	3.89	2.86	2.77	15.35^{***}
very little	42.67	77.56	47.67	56.83	49.17	44.17
little	36.62	30.32	43.98	41.90	43.22	31.71
much	43.80	46.47	41.41	43.72	43.23	52.45
very much	59.06	51.86	53.43	50.40	51.91	52.48
Printed material	3.76	2.40	5.05	1.66	2.49	1.17
very little	19.59	18.18	18.85	17.74	18.74	18.41
little	18.71	19.21	21.50	18.71	24.00	22.29
much	14.00	16.83	12.42	21.42	16.50	17.58
very much	24.13	24.56	24.44	22.50	19.44	20.81

* Motivational response differ significantly at 5% level.

** Motivational response differ significantly at 1% level.

*** Motivational response differ significantly at 0.01% level.

Technical, supportive and motivational dimensions...

† Kruskal - Wallis one-way ANOVA test.

Considering the supportive dimension, the preparation of a better working environment by RSCs' cooperation should be continued.

As for motivational dimension, the wheat producers expect that their production practices be improved through RSCs' cooperation.

CONCLUSIONS

The wheat improvement project that started in 1989 to increase wheat production in the Fars province, is almost similar to projects implemented during the last two decades, in terms of technical dimensions such as production inputs provided by government departments engaged in wheat production. So without government engagement, it is not easy to increase wheat production. However, the most important priorities of the project are supportive and motivational dimensions which have led to wheat production increases in Fars province during the seven years ended in 1995. The priorities of the project are: preparation of a better working environment, wheat producers' income dependency on wheat, wheat producers' preference for wheat production, and production practice improvements. To make the wheat project more successful in future, the policy-makers should put more emphasis on motivational and supportive dimensions through the following steps:

To provide opportunities so that wheat producers own their cultivation machineries such as seeder, furrower and tiller, accompanied by necessary education.

To provide more educational motivation program through radio and TV to encourage wheat producers.

ACKNOWLEDGMENT

The author wishes to thank Dr. G. Zamani for his assistance during the study. He is, also, thankful to Dr. E. Karami and Dr. B. Najafi for their comments on a draft of the manuscript. This study was supported by a grant from the Research Council of Shiraz University.

LITERATURE CITED

1. Najafi, B. 1996. Study of wheat project in Fars province: A case study. Quart. J. Agric. Econ. Stud. 1:27-41 (in Farsi).
2. Ranjbar, B. 1994. Evaluation of wheat improvement project in north of Fars province (Abadeh and Eghlid counties). M.S. thesis, Azad Islamic University, Shiraz, I.R. Iran (in Farsi).
3. Sader, S.K. and S.R. Karami. 1999. Economic evaluation of wheat project, In: A.P.E.R.I. (ed.). Economics of Wheat: Production and Consumption, A.P.E.R.I., Tehran. 97-119 (in Farsi).

ACKNOWLEDGMENT

The author wishes to thank Dr. H. Karami for his valuable comments and suggestions during the preparation of this manuscript. The author also wishes to thank Dr. B. Ranjbar for their comments on a draft of the manuscript. This study was supported by a grant from the Research Council of Azad Islamic University.