



Full Length Research Article

**ASSESSMENT OF INTERVENTION NEEDS FOR ENHANCING GINGER PRODUCTION IN SOME
SELECTED AREAS OF DARJEELING DISTRICT, WEST BENGAL**

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ABSTRACT

The study was conducted during the year 2013 with a specific objective i.e., to study the selected agro-economic, socio-psychological and communicational variables for identifying the areas requiring necessary interventions for enhancing ginger production within the study area. For the assessment of facts, 100 ginger growers i.e. marginal and small farmers have been randomly selected from five gram panchayats of Pulbazar-Bijanbari block of Dist.-Darjeeling, West Bengal. Pearson's correlation co-efficient have been used as a statistical tool for analysis of the data. The intervention needs have been taken as a dependent variable (Y1) to be correlated with 12 variables (X1X12) grouped under three categories viz. Agro-economic (X1-X3), socio-psychological (X4-X10) and communicational (X11-X12) were the independent variables. The study revealed that an intervention need with respect to market orientation was positively and significantly correlated. For marginal farmers, the variables recorded positive relations with intervention needs (may not be significant at 1% and 5% level) are farm size, cropping intensity, family size, family type and economic motivation. The small farmers showed a negative correlation regarding intervention needs in case of family size and family type. Both marginal and small farmers have recorded negative co-relation with intervention needs on the following areas. i.e. education, utilization of mass media. Economic motivation has also shown significant correlation with interventions needs at the field level. As the study is conducted to outline relevant lacunas in policy making, such investigations can be replicated on other crops to ensure better livelihood to the farmers through various crop production.

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INTRODUCTION

Ginger (*Zingiber officinale* Rose.), an important commercial spice crop grown for its aromatic rhizomes which are used both as spice and a medicine, plays a vital role in the livelihood of the farming communities of the hilly regions of Darjeeling district. Being one of the main cash crops along with cardamom and tea, ginger is grown intensively in the Darjeeling and Kalimpong sub-division of Darjeeling district. However, due to widespread occurrence of bacterial and fungal diseases (rhizomes rot and wilt disease), farmers are facing huge losses due to low productivity of ginger and are slowly shifting their focus to other remunerative crops i.e. chillies and vegetables. The occurrence of such diseases may be due to the lack of adoption of scientific cultivation practices in traditional and non-traditional ginger growing areas. Usually, the dissemination and effective implementation of technical solutions for such problems are hindered due to a technological gap between institutions and

farmers, which at a later stage affects the productivity of agricultural crops and also the livelihood of farmers. So, for considering a holistic and integrated approach of agricultural and rural development right from production end to users end, a technology driven, science based and industry linked production base hastening the much needed breakthrough needed for enhancing the productivity of crops is a need of the hour.

MATERIALS AND METHODS

Interventions on social and technological fronts are essential to ensure sustainable agricultural growth in the present scenario. Considering the lacunas on such fronts for ensuring livelihood initiatives to the farmers, the investigation has been carried out with a specific objective i.e. to study the selected agro-economic, socio-psychological and communicational variables for identifying the areas requiring intervention needs for enhancing ginger production within the study area. 100 farmers have been randomly selected from 10 villages taken at random from five gram panchayats where ginger intensively cultivated. The farmers selected were stratified into two

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Table 1. Coefficient of correlations between Intervention Need(Y) and 12 casual variables (Xi)

Variables	Correlation for marginal farmers	Correlation for small farmers	Correlation for pooled farmers
Agro-Economic			
Farm size	0.024	0.154	0.198
Cropping intensity	0.191	0.253	0.194
Technological gap	-0.150	-0.100	-0.136
Socio-Psychological			
Age	0.018	0.106	0.038
Education	-0.103	-0.138	-0.103
Family size	0.152	-0.143	0.045
Family type	0.225	-0.072	0.111
Risk orientation	-0.077	0.215	0.062
Economic motivation	0.108	0.101	0.089
Market orientation	0.933*	0.884*	0.905*
Communicational			
Utilization of mass media	-0.110	-0.129	-0.043
Utilization of personal cosmopolite	-0.033	-0.063	-0.086
Table value	$r \geq 0.318, r \geq 0.245$	$r \geq 0.410, r \geq 0.318$	$r \geq 0.254, r \geq 0.195$

*Significance at 1%

**Significance at 5%

categories on the basis of their size of holdings viz. marginal (below one acre) and small (one to two and half acres). The farmers having holding size of two and half to five acres, considered as medium farmers was excluded from the list because of their least and insignificant presence in the hilly areas. A correlation of the dependable variable. i.e. 'intervention needs' with the 12 independent variables X1, X2, X12, grouped under three categories viz. agro-economic (X1-X3), socio-psychological (X4-X10) and communicational (X11-X12) variables have been done by using Pearson's correlation coefficient as a statistical tool.

RESULTS AND DISCUSSION

The intervention need in ginger production may be affected by various agro-economic, socio-psychological and communicational variables of the respondent. Table 1 reveals the nature and extent of association of the independent variables with the need perception on intervention in ginger production. The variable market orientation has gone positively significant for both the marginal and small farmers in ushering a significant relation with training need. Market orientation unleashes a desire for changing productivity by up scaling his/her proficiency level. This is a common desire expressed by both the marginal and small ginger cultivators vis- a- vis ginger entrepreneurs. For marginal farmers, the variables which recorded positive relations with training needs (may not be significant at .01 and .05 levels) are farm size, cropping intensity, family size, family type and economic motivation. On the contrary, the small farmers show a negative dent of co- relation in case of family size and family type. The reason maybe family factors which may have a chance of becoming a determinant factor for both marginal and small farmers in the future course of time. On the other hand, both marginal and small farmers have recorded negative dents of co- relation with intervention needs with the following relations vis- a- vis technology gap, education, utilization of mass media. This may draw upon a new kind of insight wherein the technology needs can better be predicted without considering these variables in the entire ambit of variable interactions. Economic motivation has contributed significantly for necessitating a rethink on policy reforms to promote ginger production. Economic motivation always ushers an entrepreneur desire amongst farmers because there is a need to excel in the production stage to get better return of their produce.

Summary and Conclusion

The findings of the study reveal that intervention needs with respect to market orientation was positively and significantly correlated and other variables like farm size, cropping intensity, technological gap, age, family size, family type, economic motivation, market orientation, and risk orientation, utilization of mass media and utilization of personal cosmopolite were not significantly related. For marginal farmers, the variables which recorded positive relations with intervention needs (though not significant at .01 and .05 levels) are farm size, cropping intensity, family size, family type and economic motivation. The small farmers showed a negative co- relation in case of family size and family type whereas on the other hand, both marginal and small farmers have recorded negative dents of co- relation with intervention needs with the following relations vis- a- vis technology gap, education, utilization of mass media. So, as the technological interventions on social interventions it may be felt that similar investigations would be useful to reveal different perception of farmers on policy matters relating to cultivation and marketing of agricultural produce.

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