

## **Information needs of young farmers regarding new agricultural technology**

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**ABSTRACT:** *The study was conducted in two blocks of Kandhamal district of Odisha to investigate the socio-personal characteristics of the young farmers and to know the information needs of the young farmers related to agriculture. The study revealed that majority of the young farmers needed information regarding different aspects of cultivation of paddy, turmeric, potato, mustard and vegetables. Majority of the young farmers needed information regarding selection of recommended varieties of different crops, interpretation of soil & water testing reports, water logging problems & drainage techniques, soil and water testing and management, use of different weedicides for the control of specific weeds and time & method of application of weedicides, causes of spread of insect pests & diseases, time and methods of the control of insect, pests & diseases in plant protection aspect.*

**Keywords:** *Agriculture, Farmer, Information, Need, Technology.*

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### **I. Introduction**

India may be the major global power in the overall agricultural development and exports provided it modernizes agriculture for becoming internationally productive in production. This is due to the result of use of various educational approaches which have been used for the purpose of the training the farmers. Mass media has played a significant role in the transfer of appropriate technology to the farmers for such purposes. Since high tech. agriculture is more risky so the young farmers need to be educated for the adoption of latest technology. Thus the main thrust area is the development of training programmes on the basis of needs of the young farmers in agriculture. After knowing the information or training needs of the farmers the training programmes can be planned and conducted successfully which will be helpful in improving the quality and increasing the production potential in agriculture through better training system. Thus it becomes very important to know the information needs or training needs of the young farmers so that they can be trained accordingly by using different methods. For developing a multimedia integrated system it becomes necessary to know the information or the training needs of young farmers so that the media could be developed and finalized accordingly for the purpose of training the young farmers in the villages. Therefore, in this paper an emphasis has been made to study “Information needs of the young farmers in the field of agriculture with the following objectives: To study the socio-personal characteristics of the young farmers and to know the information needs of the young farmers related to agriculture.

### **II. Research Methodology**

The study was conducted in Kandhamal district of Odisha. Kandhamal district comprises of 12 blocks. Out of these, two blocks namely G Udaygiri and K. Nuagaon were selected, purposively. Five villages were selected from each block. Thus, a total of ten villages were selected for the study. From each village, twenty two farmers were selected randomly. Thus a total of 220 farmers were considered as the sample volume for the study. Range method was used for making different categories of socio-personal characteristics i.e. age, occupation, land holding and farming experience.

### **III. Result And Discussion**

#### **Social-personal characteristics**

Age of the respondents was classified into three categories i.e. 18-25, 25-32 and 32-39 years. The age of the respondents ranged between 18-39 years. The data in Table 1 depicts that majority of the respondents (59.55%) were in the 25-32 age group, 25.45 per cent were in 18-25 age group and 15.00 per cent of the respondents were in 32-39 years of age group category.

#### **Education**

It is clear from the data in table 1 that the educational level of the respondents ranged from primary to graduation. It was found that 15.46 per cent of the respondents were up to primary level of education, 25.46 per

cent had middle level school education, 40.00 per cent had education level of high school. About 12.72 per cent of the respondents were of intermediate level and only 06.36 per cent of the respondents were graduate.

**Table 1:** Distribution of the respondents according to their socio-personal characteristics. (N=220)

Characteristics	Categories	Frequency	Percentage
Age (Years)	18-25	56	25.45
	25-32	131	59.55
	32-39	33	15.00
Education	Primary	34	15.46
	Middle	56	25.46
	High School	88	40.00
	Intermediate	28	12.72
	Graduate	14	06.36
Operational Land Holding (in-acres)	Up to 05	151	68.64
	05-10	50	22.73
	10-15	19	08.63
Farming Experience (In Years)	2-6	123	55.91
	7-11	71	32.27
	12-16	26	11.82
Extension Contacts	Always	25	11.36
	Sometimes	79	35.91
	Never	116	52.73

### Operational Land Holding

The operational land holding was categorized into three categories by using range method. The study revealed that maximum operational land holding of the respondents were up to 30 acres. Majority of the respondents (68.64%) had up to 05 acres of operational land holding, whereas 22.73 per cent respondents had 05-10 acres of land under different crops. Only 08.63 per cent of respondents had 10-15 acres of operational land holding.

### Farming Experience

The data in table 1 depicts that farming experience of the respondents varied from 2-16 years. Majority of the respondents 55.91 per cent had farming experience of 2-6 years, while 32.27 per cent respondents had 07-11 years of farming experience and 11.82 per cent of the respondents were found to have 12-16 years of farming experience.

### Extension Contacts

Data in table 1 depicts that 52.73 per cent of the respondents had no contacts with the extension workers. Only 11.36 per cent of respondents used to contact the extension workers always and 35.91 per cent of young farmers had contacted the extension workers sometimes for seeking information or advice regarding the agriculture.

**Table 2:** Distribution of respondents according to their information needs regarding seed rate and method of sowing of various crops (paddy, turmeric, potato, mustard and vegetables) (N=220)

Information needs on seed rate & sowing method	Yes		No	
	Frequency	Percentage	Frequency	Percentage
Selection of recommended Varieties of different crops	204	92.73	16	07.27
Seed treatment before sowing	183	83.18	37	16.82
Seed rate & method of sowing	162	73.64	58	26.36
Time & method of sowing & spacing	178	80.91	42	19.09

### Information needs on seed rate and sowing methods

It is revealed from the table 2 that out of total respondents 92.73 per cent needed information for the selection of recommended varieties of different crops, 83.18 per cent needed information for seed treatment before sowing, 73.64 per cent of the respondents needed information to know the seed rate and method of sowing the different crops and 80.91 per cent of the respondents needed information about time of sowing and spacing.

**Table 3:** Distribution of respondents according to their information needs about soil and water management in various crops (paddy, turmeric, potato, mustard and vegetables). (N=220)

Information needs on soil & water management	Yes		No	
	Frequency	Percentage	Frequency	Percentage
Importance of soil & Water testing	193	87.73	27	12.27
Interpretation of soil & Water testing reports	209	95.00	11	05.00

Soil conservation, Reclamation of acid soils	203	92.27	17	07.73
Time, dose & method of N.P.K.,fertilizers application	185	84.09	35	15.91
Irrigation schedule of different crops	198	90.00	22	10.00
Moisture excess like cracking, splitting etc.	63	28.64	157	71.36
Water logging problems & drainage techniques	205	93.18	15	06.82

### Information needs on soil and water management

The data in table 3 depicts that 87.73 per cent of the respondents needed information about importance of soil and water testing and 95.00 per cent of the respondents needed information about interpretation of soil and water testing report. The table depicts that 92.27 per cent farmers needed information for soil conservation, reclamation of acid soils, 84.09 per cent of the respondents needed information for time, amount and method of N.P.K. fertilizers application, 90.00 per cent needed information for irrigation schedule for different crops. Only 28.64 per cent of the respondents needed information for moisture excess, cracking, splitting etc. and 93.18 per cent needed information for water logging problems and drainage techniques.

**Table 4:** Distribution of the respondents according to their information needs for weed control for various crops (paddy, turmeric, potato, mustard and vegetables) (N=220)

Information needs on weed control	Yes		No	
	Frequency	Percentage	Frequency	Percentage
Identification of deferent weeds	181	82.27	39	17.73
Use of different weedicides for the control of specific weeds	204	92.73	16	07.27
Mechanical weed control	121	55.00	99	45.00
Time & Method of application of weedicides.	201	91.36	19	08.64

### Information needs for weed control in various crops

Data in table 4 reveals that out of total respondents, 82.27 per cent respondents needed information about identification of different weeds, 92.73 per cent needed information for the use of different weedicides for the control of specific weeds, 55.00 per cent of the respondents needed information for mechanical weed control and 91.36 per cent needed information for knowing the time and methods of application of weedicides.

**Table 5:** Distribution of the respondents according to their information needs regarding plant protection for various crops (paddy, turmeric, potato, mustard and vegetables). (N=220)

Information needs on plant protection	Yes		No	
	Frequency	Percentage	Frequency	Percentage
Identification of symptoms of insect pests & diseases.	201	91.36	19	08.64
Causes of spread of insect pests & diseases.	209	95.00	11	05.00
Time and Methods of the control of insect, pests & diseases.	205	93.18	15	06.82
Application of particular Pesticide for the control of specific insect, pest & diseases.	197	89.54	23	10.46

### Information needs on plant protection

Data in table 5 shows that, 91.36 per cent of the respondents expressed that they needed information for the identification and symptoms of insect pests and diseases of different crops. 95.00 per cent of the respondents needed information for causes of spread of insect pests and diseases and 93.18 per cent of respondents needed information about time and method of controlling insects pests and diseases, 89.54 per cent of the respondents needed information regarding method of application of various pesticides for the control of specific insect, pest and diseases.

**Table 6:** Distribution of respondents according to their information needs for harvesting, storage and marketing of various crops. (N=220)

Information needs on harvesting, storage & marketing	Yes		No	
	Frequency	Percentage	Frequency	Percentage
Stage & method Harvesting the crops	142	64.55	78	35.45
Use of harvesting & threshing machines	19	08.64	201	91.36

Factors and conditions for successful storage	187	85.00	33	15.00
Awareness about market Places of different farm products	35	15.91	185	84.09

#### Information needs on harvesting, storage and marketing

Data in table 6 depicts that 64.55 per cent of the respondents needed information for stage and method of harvesting various crops, 08.64 per cent needed information for the use of harvesting and threshing machines, 85.00 per cent needed information about the factors and conditions for successful storage and only 15.91 per cent needed information for awareness about market places of different farm products.

#### IV. Conclusion

It can be concluded from the above findings that majority of the young farmers needed information regarding different aspects of cultivation of wheat, potato, mustard, bajara and vegetables. Majority of the young farmers needed information regarding selection of recommended varieties of different crops, interpretation of soil & water testing reports, water logging problems & drainage techniques, soil and water testing and management, use of different weedicides for the control of specific weeds and time & method of application of weedicides, causes of spread of insect pests & diseases, time and methods of the control of insect, pests & diseases in plant protection aspect.

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