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# Impact of Training Programmes on Knowledge & Adoption of Organic Farming Practices

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*Abstract-* Organic farming is a production system which avoids or largely excludes the use of synthetic compounded fertilizers, pesticides, growth regulators and livestock feed additives. This study was conducted purposively in Bhanjanagar and Jagannathprasad blocks of Ganjam district due to maximum number of trained farmers in organic farming. The total 120 trained farmers were selected for the study. Only 7.50 per cent of the respondents had high knowledge in organic farming before participation in training and after the participation in training this figure increased up to the 26.67 per cent. All the selected attributes of the trained farmers, except age, caste and size of family were found having significant relationship with their knowledge level on organic farming. High cost of inputs & difficult methods for preparation were major constraints experienced by the farmers.

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# Impact of Training Programmes on Knowledge & Adoption of Organic Farming Practices

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## I. Introduction

Organic farming is a production system which avoids or largely excludes the use of synthetic compounded fertilizers, pesticides, growth regulators and livestock feed additives. Organic farming does not imply the simple replacement of synthetic fertilizers and other chemical inputs with organic inputs and biologically active formulations. Instead, it envisages a comprehensive management approach to improve the health of underlying productivity of the soil air and water exist in a stage of dynamic equilibrium and regulate the ecosystem processes in mutual harmony by complementing and supplementing each other. Organic farming does not totally exclude the elements of modern agriculture.

The various extension agencies are continuously making efforts to create awareness among the farmers about organic farming. Govt. Institutes, KVKs, Non Govt. Organizations, Private agencies are playing major role for promoting the organic farming and conducting Training Programmes, Exhibition, Kisan Melas, and other programmes for dissemination of information about organic farming with low cost and environmentally safe condition. The success of any training programme depends greatly on the knowledge of the trainees towards it.

Hence it is worthwhile to assess the impact of organic farming training programmes in term of trainee's knowledge and perception so that the farmers may adopt these technologies and enhance their production with low cost and environmentally safe condition. Keeping the above fact in to consideration the study is designed with the following specific objectives:

- To assess the knowledge of trained farmers with regards to organic farming practices
- To analyze the relationship between attributes of the trained farmers and their knowledge about organic farming practices and
- To study the constraints perceived by the farmers during adoption of organic farming practices

## II. Methodology

The district comprises 22 blocks, out of which Bhanjanagar and Jagannathprasad block of Ganjam district purposively selected for the study due to maximum number of trained farmers in organic farming. In these blocks, maximum number of training programmes (off campus as well as on campus) was organized on organic farming amongst the other blocks by the KVK and Agriculture Department.

A list of trained farmers was prepared and a total of 120 (60 farmers from each block) trained farmers were selected as respondents for the study. The collected data were analyzed with help of suitable statistical test like percentage and correlation coefficient.

## III. Results & Discussion

*Knowledge of trained farmers with regards to organic farming practices*

The data presented in Table 1 revealed that in case of application of FYM majority of the trained farmers (66.67%) had high knowledge in application of FYM, followed by 28.33 per cent of trained farmers had medium and only 5.00 per cent trained farmers had low knowledge on application of FYM. Regarding green manure, most of the trained farmers (48.33%) had medium knowledge about green manure, followed by 26.67 per cent of trained farmers had high and 25.00 per cent trained farmers had low knowledge about green manure.

With regards to vermi-compost majority of the trained farmers (51.67%) had medium knowledge about vermi-compost, followed by 25.00 per cent of trained farmers had high and 23.33 per cent trained farmers had

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low knowledge about vermi-compost. In case of biogas slurry majority of the trained farmers (53.33%) had medium knowledge about biogas slurry, followed by 30.00 per cent of trained farmers had low and 16.67per cent trained farmers had high knowledge about biogas slurry.

In case of Pot compost, majority of the trained farmers (57.50%) had medium knowledge about Pot compost, followed by 22.50 per cent of trained farmers had low and 20.00 per cent trained farmers had high knowledge about Pot compost.

Regarding azola and blue green algea, majority of the trained farmers (62.50%) had medium knowledge about azola and blue green algea, followed by 26.67 per cent of trained farmers had low and 19.17 per cent trained farmers had high knowledge about azola and blue green algea.

With Regards to use of neem oil, majority of the trained farmers (52.50%) had medium knowledge about use of neem oil, followed by 25.83 per cent of trained farmers had high and 21.67 per cent trained farmers had low knowledge about use of neem oil.

In case of use of cow urine, majority of the trained farmers (50.83%) had medium knowledge about use of cow urine, followed by 26.67 per cent of trained farmers had high and 22.50per cent trained farmers had low knowledge about use of cow urine.

*Table 1 :* Extent of knowledge regarding organic farming practices among the trained farmers

| S. No. | Organic farming practices | Extent of knowledge | | |
|---|---|---|---|---|
| | | Low | Medium | High |
| 1. | Application of FYM | 06 (05.00) | 34 (28.33) | 80 (66.67) |
| 2. | Green manure | 30 (25.00) | 58 (48.33) | 32 (26.67) |
| 3. | Vermi compost | 28 (23.33) | 62 (51.67) | 30 (25.00) |
| 4. | Biogas slurry | 36 (30.00) | 64 (53.33) | 20 (16.67) |
| 5. | Pot compost | 27 (22.50) | 69 (57.50) | 24 (20.00) |
| 6. | Azola and blue green algea | 32 (26.67) | 75 (62.50) | 23 (19.17) |
| 7. | Use of neem oil | 28 (23.33) | 59 (49.17) | 33 (27.50) |
| 8. | Use of cow urine | 26 (21.67) | 63 (52.50) | 31 (25.83) |
| | **Total** | **27 (22.50)** | **61 (50.83)** | **32 (26.67)** |

*Assessment of training programmes as perceived by trained farmers with regards to organic farming practices*

The data presented in Table 2 revealed that in case of before participation in training programme, most of the beneficiaries (50.83%) belonged to low knowledge category in relation to organic farming, followed by 41.67 per cent of them medium knowledge category in relation to organic farming and only 7.50 per cent of them high knowledge category in relation to organic farming. Whereas, after participation in training programme, maximum number of respondents (50.83 %) belonged to medium category of knowledge about organic farming, followed by low category (26.67%) and 22.50 per cent of the respondents had high category of knowledge in relation to organic farming practices.

*Table 2 :* Distribution of respondents according to their knowledge in relation to organic farming practices before and after participating in training programme

| S. No. | Categories | Respondents (n=120) | | | |
|---|---|---|---|---|---|
| | | Before | | After | |
| | | No. | % | No. | % |
| | Low | 61 | 50.83 | 27 | 22.50 |
| | Medium | 50 | 41.67 | 61 | 50.83 |
| | High | 09 | 7.50 | 32 | 26.67 |
| | **Total** | **120** | **100.00** | **120** | **100.00** |

Thus, it may be referred that after participation of training programme, most of the respondents had medium to high knowledge about organic farming. This finding is in conformity with the finding of *Saxena & Singh (2000).*

*Table 3 :* Relationship between attributes of trained farmers and their knowledge about organic farming practices

| Sl.no | Particulars | Correlation coeficient |
|---|---|---|
| 1 | Age (X1) | 0.034 NS |
| 2 | Education (X2) | 0.468** |
| 3 | Caste (X3) | 0.067 NS |
| 4 | Size of family (X4) | 0.033 NS |
| 5 | Social participation (X5) | 0.357** |
| 6 | Size of holding (X6) | 0.217* |
| 7 | Credit availability (X7) | 0.367** |
| 8 | Annual income (X8) | 0.296* |
| 9 | Source of information (X9) | 0.354** |
| 10 | Contact with extension personnel (X10) | 0.373** |
| 11 | Innovative ness (X11) | 0.361** |
| 12 | Cosmopoliteness (X12) | 0.221 * |
| 13 | Knowledge about organic farming (X13) | 0.416 ** |

** Significant at 1 % level of probability*
*** Significant at 5 % level of probability*
*NS = non significant*

*Relationship between attributes of the trained farmers and their knowledge about organic farming practices*

The zero order correlation coefficient of attributes of trained farmers with their knowledge about organic farming practices is furnished in Table 3. It can be observed from the Table that correlation coefficients in respect of education (0.468), social participation (0.357), credit availability (0.367), annual income (0.296), source of information (0.354), contact with extension personnel (0.373), innovativeness (0.361), and knowledge about organic farming (0.416) were found positive and significant relationship with knowledge of trained farmers about organic farming practices at 1% level of probability, whereas size of land holding (0.217) and cosmopoliteness (0.221) also found significant relationship with knowledge of trained farmers about organic farming practice at 5% probability level, while age (0.034), caste(0.067) and size of family (0.033) were found no significant relationship with the knowledge of trained farmers about organic farming. This finding supports the view expressed by *Badodiya et al (2009)* and *Borkar et al (2000).*

*Table 4 :* Distribution of respondents according to various constraints faced by them in using organic farming Practices

| Sl.no | Particulars | Beneficiaries | | Rank |
|---|---|---|---|---|
| | | No | % | |
| 1 | High cost of inputs | 92 | 76.67 | I |
| 2 | Difficult methods for preparation | 81 | 67.50 | II |
| 3 | Lack of inputs and raw materials | 72 | 60.00 | III |
| 4 | Poor financial condition | 70 | 58.33 | IV |
| 5 | Non-availability of loans in time | 69 | 57.50 | V |
| 6 | Lack of proper training at grass root level | 55 | 45.83 | VI |
| 7 | Non availability of appropriate literature | 54 | 45.00 | VII |

*Constraints perceived by farmers during adoption of organic farming practices*

The data presented in Table 4 indicates that in the study area, high cost of inputs was major problem as experience by the farmers (76.67%) and was ranked first, 'Difficult methods for preparation' reported by 67.50 per cent respondents. Lack of input & raw materials was reported by 60.00 per cent respondents. 'Poor financial condition' and Non-availability of loans in time were most serious problems as experience by the beneficiaries (58.33% & 57.50%) and were ranked fourth and fifth. The problem was logically true that the 45.83 per cent of the respondents reported 'lack of proper training at grass root level'. The other constraints in the descending order of seriousness were as non availability of appropriate literature (45.00%) ranked seventh.

## IV. Conclusion

This study concluded that only 7.50 per cent of the respondents had high knowledge on organic farming before participation of training and after the participation of training programme this figure is increased up to 26.67per cent. Out of 13 independent variables 9 variables namely education, size of land holding, social participation, credit availability, annual income, source of information, contact with extension personnel, innovativeness, cosmopoliteness & knowledge about organic farming were found having significant association with dependent variable-knowledge of trained farmers about organic farming. In this study high cost of inputs & difficult methods of preparation of organic farming were major problems experienced by the farmers during adoption of organic farming practices.

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