

AWARENESS OF ARECANUT PRODUCTION TECHNOLOGY BY FARMERS OF PERLA VILLAGE

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The Arecanut palm, *Areca catechu* L. is the only cultivated species in the genera *Areca* and is the source of the common masticator nut popularly known as betelnut or supari. In our country, arecanut is cultivated in about 2,35,500 ha with a production of 2,72,400 tonnes and productivity of 1156 kg/ha during 1994-95. Since knowledge of arecanut production technology is important for increasing the productivity levels, the study was designed with the objectives; to know the levels of knowledge of the farmers about arecanut production technology and to study the relationship of selected independent variables of the arecanut farmers with their knowledge.

The study was conducted by using Ex-post-facto research design duly following the random sampling procedure in Perla village of Kasaragod district in Kerala with a total of 30 respondents chosen from three selected villages (Enmakaje, Pedre and Maira). The dependent variable - Knowledge was operationalised as the ability to recall the production technology of arecanut. To measure the variable, a knowledge schedule was developed for the study which consists of 25 items.

Table 1. Distribution of respondents based on their knowledge scores on arecanut production technology.

| Sl. No. | Category | Respondents (n=30) | |
|---------|------------------|--------------------|------------|
| | | Frequency | Percentage |
| 1. | Low knowledge | 9 | 30.00 |
| 2. | Medium knowledge | 15 | 50.00 |
| 3. | High knowledge | 6 | 20.00 |

The possible score of a respondent could be 0 to 25. Based on scores of knowledge items the respondents were grouped into three categories namely low, medium and high by using mean and standard deviation.

Sixteen independent variables namely age, education, occupation, caste, experience in farming, size of land holding, family type, family size, contact with extension agency, mass media exposure, economic motivation, achievement motivation, scientific orientation, management orientation and innovativeness were selected for the study and their relationship with knowledge was tested by using multiple linear regression analysis.

LEVEL OF KNOWLEDGE OF THE FARMERS ABOUT ARECANUT PRODUCTION TECHNOLOGY

The respondents were categorised into three groups based on the knowledge score they obtained on arecanut production technology as shown in table 1. It is evident that majority (50%) of the respondents had medium level of knowledge about arecanut production technology whereas 30 per cent and 20 per cent had low and high levels of knowledge respectively. This findings are concomitant with findings of Bhatkar *et al*, (1995).

ANALYSIS OF KNOWLEDGE ITEMS ON ARECANUT PRODUCTION TECHNOLOGY

Item analysis was carried out to gain an insight into the knowledge of the respondents on recommended

Table 2. Item analysis of knowledge of respondents on arecanut production technology

| Sl. No. | Item | Possession of knowledge | |
|---------|--|-------------------------|------------|
| | | Frequency | Percentage |
| 1. | Criteria for selection of seednuts | 30 | 100.00 |
| 2. | Recommended quantity of copper sulphate and lime for preparing 1% Bordeaux mixture | 30 | 100.00 |
| 3. | Chemical for Koleroga/Mahali control | 30 | 100.00 |
| 4. | Recommended doses of FYM & green manure | 30 | 100.00 |
| 5. | Recommended cultural operations | 30 | 100.00 |
| 6. | Recommended high yielding varieties | 29 | 96.67 |
| 7. | Germination for arecanut | 29 | 96.67 |
| 8. | Recommended age of seedlings for transplanting to the main field | 29 | 96.67 |
| 9. | Planting time for arecanut | 28 | 93.33 |
| 10. | Criteria for seedlings selection | 27 | 90.00 |
| 11. | Bearing age of Mangala & Mohitnagar | 27 | 90.00 |
| 12. | Optimum dimension of pit | 24 | 80.00 |
| 13. | Recommended irrigation requirement | 21 | 70.00 |
| 14. | Recommended dose of NPK fertilizer | 17 | 56.67 |
| 15. | Chemical for Pentatomid bug control | 5 | 16.67 |
| 16. | Chemical for root grub control | 2 | 6.67 |
| 17. | Chali yield of Mohitnagar (kg/palm) | 1 | 3.33 |
| 18. | Chemical for mites control | 1 | 3.33 |
| 19. | Chemical for inflorescence dieback control | 1 | 3.33 |
| 20. | Recommended spacing | 1 | 3.33 |
| 21. | Growing of cover crops | - | - |
| 22. | Chemical for foot rot/Anabe control | - | - |
| 23. | Chemical for spindle bug control | - | - |
| 24. | Chemical for bud rot control | - | - |
| 25. | Chemical for leaf spot control | - | - |

arecanut production technology. The data presented in Table 2 indicate that all the respondents had knowledge in respect of criteria for selection of seednuts, recommended quantity of copper sulphate and lime for preparing 1 per cent Bordeaux mixture, chemical for Koleroga/Mahali control, recommended doses of FYM and green manure and recommended cultural operations. More than 70 per cent of the respondents had knowledge on recommended high yielding varieties, germination time for arecanut, recommended age of seedlings for transplanting, planting time for arecanut, criteria for selection of

seedlings, bearing age of Mangala and Mohitnagar, optimum dimension of pit and recommended irrigation requirement, whereas 56.67 per cent of the respondents had knowledge on recommended dose of NPK fertilizer and 16.67 per cent respondents had knowledge on chemical control of pentatomid bug. Further, it was observed that less than 10 per cent of the respondents had knowledge on chemical control of root grub, chali yield of Mohitnagar, chemical control of mites, inflorescence dieback and recommended spacing. While none of the respondents had knowledge about growing of cover crops, chemical control

Table 3. Relationship between knowledge and independent variables of respondents.

| Sl. No. | Independent variables | 'r' value | 'T' value |
|---------|------------------------|-----------|-----------|
| 1. | Age | 0.132 | 0.109 |
| 2. | Education | 0.298 | -0.030 |
| 3. | Caste | 0.133 | -1.719 |
| 4. | Occupation | -0.246 | -2.285* |
| 5. | Experience in farming | 0.320 | 2.732* |
| 6. | Family type | -0.258 | -2.943* |
| 7. | Family size | -0.205 | 2.771* |
| 8. | Social participation | 0.372* | 2.717* |
| 9. | Size of land holding | 0.251 | 2.470* |
| 10. | Extension contact | 0.134 | 1.673 |
| 11. | Mass media exposure | 0.285 | 2.086 |
| 12. | Economic motivation | -0.219 | -1.245 |
| 13. | Achievement motivation | 0.244 | -0.204 |
| 14. | Scientific orientation | 0.331 | 5.253** |
| 15. | Management orientation | -0.120 | -0.572 |
| 16. | Innovativeness | 0.407* | 2.122* |

 $R^2=0.937$
 $F=10.48^{**}$
****** Significant at 0.01 level of probability

***** Significant at 0.05 level of probability

of foot rot/Anabe, spindle bug, bud rot and leaf spot. These findings are similar with findings reported by Sudarshan Reddy and Bhagawath Swaroop (1995) on Sunflower technology.

RATIONAL ANALYSIS: The relationship between knowledge and selected independent variables shown in table-3 reveals that social participation and innovativeness had positive and significant relationship with knowledge of the farmers. The multiple regression analysis also indicated that experience in farming, family type, family size, social participation, size of land holding, extension contact and innovativeness were significant at 0.05 level of probability and scientific orientation was significant at 0.01 level of probability. The value of R^2 (coefficient of multiple determination) was 0.937 indicating the fact that all the

independent variables could explain about the variation in dependent variable to the extent of 93.70 per cent. This result is similar with findings reported by Rani Kumari and Nilu Sinha (1995).

IMPLICATIONS: The study clearly indicated that majority of the areca nut farmers belonged to medium knowledge group and lack detailed knowledge about certain important practices like recommended dose of NPK fertilizer and chemical control of pests and diseases. Since knowledge is important for adoption of any practice and getting higher yields, the extension agency should put forth its efforts to educate the farmers by organising training programmes and demonstrations about areca nut production technology keeping in view the positive and significant relationship of the personal, socio-economic and psychological variables and knowledge.

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