

Awareness of farm women about pesticide residue in different foodstuff

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ABSTRACT

The study was undertaken to know the awareness of farm women about pesticide residues in different foodstuff. A sample of 120 farm women was randomly selected from Nagaon and Jorhat in the State of Assam. North West Jorhat Development Block under Jorhat Sub-Division of Jorhat District and Bortradoba Development Block under Nagaon Sub-Division of Nagaon District were selected purposively for the study owing to their proximity to the researchers. From each block, three villages were selected in consultation with block officials of the respective block. From the selected villages 20 respondents were selected who were engaged in crops and vegetable production. Lists of variables were prepared on the basis of the objectives. Data were collected with the help of interview schedule by personal interview method. Farm women had medium level of awareness about pesticide residues in different foodstuff. The findings has shown that farm women were not fully aware about the pesticide residue, which it might be due to their less contact with extension agent, low educational level, not participated any formal training programme and lack of organizational membership.

KEY WORDS : Awareness, Pesticide residues, Farm women

How to cite this paper: Saikia, Pompei, Baruah, Minerva Saikia and Dutta, Manju Das (2011). Awareness of farm women about pesticide residue in different foodstuff. *Asian J. Home Sci.*, **6**(2) : 220-222.

Article chronicle: Received: 04.07.2011; Revised: 10.09.2011; Accepted: 15.11.2011

India is the second largest producer of vegetables in the world, next only to China. India has produced 93.92 million tones of vegetables from the 6.24 million hectares of land per year (Singh and Singh, 2005). Historian believes that it was woman who first started cultivation of crop and initiated the art and science of farming. In recent times also, the woman is playing a pivotal role in agricultural occupation as a manager, decision maker and skilled farm worker. It is estimated that women are responsible for 70 per cent of actual farm work and constitute up to 60 per cent of the farming population. Now-a-day, people use various types of pesticides for the pest management and pest control. But due to the overdose or misuse of pesticides, the excessive residual levels cause health hazards and many other associated problems. Though people use various types of pesticides majority of them were not aware about pesticide toxicity level. Most of the users of pesticides cannot even understand the colour codes given on the label which represent toxicity level of pesticide. In fact, majority of them use highly toxic pesticides. Consumption of pesticide contaminated vegetables immediately affect our body and cause various fatal diseases. It is therefore essential to make the women aware about the safe use of pesticides in order to avoid causing of health hazards and toxic effects on the users.

RESEARCH METHODS

The study was conducted in the Nagaon and Jorhat districts in the state of Assam. North West Jorhat Development Block under Jorhat Sub -Division of Jorhat District and Bratradoba Development Block under Nagaon Sub- Division of Nagaon District were selected purposively for the study owing to proximity to the researchers. From each block, three villages were selected in consultation with block officials of the respective block. From the selected villages 20 respondents were selected who engaged in crops and vegetable production. Thus, the totals of 120 numbers of respondents were selected randomly for the study. Lists of variables were prepared on the basis of the objectives of the study. Data were collected with the help of interview schedule by personal interview method. Collected data were analyzed by applying frequency and percentage. The fifteen statements were selected related to effect of pesticide residue on foodstuff after discussion with Agricultural scientists, Assam Agricultural University, Jorhat, Assam, progressive farmers and reviewing related literatures to measure the awareness of the respondents in this regards. Necessary modifications in the schedule were made after pre testing with a group of 20 respondents in non-sampling area. Respondents were asked to give their responses in 3 point continuum *i.e.* "fully aware",

“somewhat aware”, and “least aware”. The statements were then scored 3, 2, 1, respectively.

RESEARCH FINDINGS AND DISCUSSION

It is evident from Table 1 that majority of the respondents were fully aware about the statements, avoid harvesting of crops and vegetables from the field immediately after spraying (61.67 per cent), followed by 60 per cent of the respondents aware about that wash leafy vegetables in several times before chopping and 60 percent also aware that soak the vegetables in warm water before cutting, always cook cereals and pulses in open pan instead of cooking in pressure cooker (49.17 per cent), soak the vegetables in salt solution before cooking (45.84 per cent).

Different programmes telecast and broadcast through television and radio time to time on effect of pesticide residues in foodstuff might have helped the respondents to make them aware on effect of pesticide residue in foodstuff.

A large percentage of the respondents were somewhat aware about that raw vegetable which are purchased from market and used as salad should be kept in salt solution after washing thoroughly in water (66.67 per cent) followed by 64.17 per cent of respondents were also aware that soak brinjal in water after cutting, 62.50 percent of respondents were aware about that take out

the foam of the pulses while boiling or cooking also helps to reduce pesticide residue from food. Sixty per cent of the respondents were aware about that outer leaves of the cabbage should not use due to high pesticide use and 56.67 per cent of the respondents were aware about that store raw vegetables at least 3-7 days after harvesting from field and wash pulses properly before and after soak also helps in reduced pesticide residue from the food.

The finding shows that 50.00 per cent of respondents were least aware about washing and soaking cowpea properly before cooking and do not include continuously in several meals. 33.33 per cent of the respondents were least aware about that avoid purchase of off season vegetables due to the application of high doses of pesticide and 28.33 per cent of respondents were also least aware about the statement that always cook cereals and pulses in open pan instead of cooking in pressure cooker.

It is evident from the above findings that farm women were not fully aware about the pesticide residue, which might be due to their less contact with extension agent, low educational level, not participated any formal training programme and lack of organizational membership. Rao and Rao (2000) and Mahindra and Kaur (2003) have also conducted the studied in the past on awareness of pesticide residues.

Table 1: Distribution of the respondents according to their awareness about pesticide residue on foodstuff

Sr. No.	Statement	Fully aware	Somewhat aware	Least aware
1.	Pesticide residue affects human body.	37.50	45.83	16.67
2.	Always cook cereals and pulses in open pan instead of cooking in pressure cooker	49.17	22.50	28.33
3.	Take out the foam of the pulses while boiling /cooking	28.33	62.50	9.17
4.	Wash leafy vegetables several times before chopping.	60.00	32.50	7.50
5.	Soak the vegetables in salt solution before cooking.	45.84	38.33	15.83
6.	Grains should be sun dried before storage.	39.17	41.67	19.16
7.	Avoid harvesting of crops and vegetables from the field immediately after spraying.	61.67	15.83	22.50
8.	Avoid purchases of off season vegetables due to the application of high doses of pesticides.	19.17	47.50	33.33
9.	Soak vegetables in warm water before cutting.	60.00	23.33	16.67
10.	Soak brinjal in water after cutting.	20.83	64.17	15.00
11.	Wash and soak cowpea properly before cooking and do not include continuously in several meals.	31.67	18.33	50.00
12.	Store raw vegetables at least 3-7 days after harvesting from field.	25.00	56.67	18.33
13.	Wash pulses properly before and after soak.	20.83	56.67	22.50
14.	Avoid use of outer leaves of the cabbage due to high pesticide use.	23.33	60.00	16.67
15.	Raw vegetables which are purchased from market and used as salad should be kept in salt solution after washing thoroughly in water.	18.33	66.67	15.00

Conclusion:

It can be concluded that most of the farm women were not fully aware about the pesticide residues. To make the farm women fully aware about pesticide residue in foodstuff, vigorous publicity is essential through electronic media such as radio, television. Extension agents should draw special attention in organizing training regarding safe use of pesticides on crops and vegetables at the door step of the farmers.

The concern authority may also take appropriate steps to educate the farm women with the Integrated Pest Management (IPM) techniques for the purpose of reducing pesticide residue in foodstuff for development of quality life of the people. Awareness workshop/camp/campaign can be organized for creating awareness towards safe use of pesticide also help people to aware about pesticide residue.

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REFERENCES

- Mahindra, R.** and Kaur, N. (2003). Extent of awareness of farm women regarding pesticide residues in cereals, vegetables, milk and milk products. *Agric. Extn. Review*, **15**(4): 16-21.
- Rao, A.S.** and Rao, P.R. (2000). Study on pesticide residues in vegetables. *Indian J. Environ. Sci.*, **19**(4): 661-664.
- Singh, S.S.** and Singh, U.S. (2005). Integrated pest management in vegetable crops. *Kurukshetra*, **53**(7): 38-42.
- Vani, S.,** Srilatha and Malik, B.S. (2005). Problem faced by farmers in optimum utilization pesticides. *Agric. Extn. Review*, **17**(6): 18-19.

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