

A study on knowledge level of farmers about the ginger cultivation practices and constraints in adoption of improved practices

India is the largest grower of Ginger and also large producer of dry Ginger in the world. The other countries cultivating Ginger extensively are West Indies, Brazil, China, Japan and Indonesia. In India Ginger growing states are Kerala, Karnataka, Sikkim, Meghalaya, Himachal Pradesh, Gujarat, Orissa, West Bengal, Uttaranchal, Assam, Arunachal Pradesh, Mizoram and other North Eastern states. With this background the research study on technological gap in Ginger production by the farmers was conducted during the year 2014-2015 in Haveri and Uttara Kannada districts of Karnataka. These districts were purposively selected based on highest area and production under Ginger cultivation in north Karnataka. Then, six villages having maximum area under ginger cultivation were selected from each taluka of respective districts. From each selected villages, 10 farmers growing ginger were selected randomly. Thus, the sample from each taluka was 60 making a total sample size of 120.

It can be observed from Table 1 that, cent per cent of Ginger growers had knowledge about varieties, planting time, type of planting material that is rhizome, planting with raised bed, spacing in the field and seed rate. Further, the table indicated that cent per cent of respondents had a knowledge with respect to average yield, harvesting technology that is manually and for preparation of wet Ginger. The reason being that, as these are the simple traditional practices that are followed by them over the years through experience.

Where as, 93.33 per cent of farmers had a knowledge about rhizome treatment (2 gm bleaching powder + 1 gm Metalaxyl MZ-72 + 1 gm Streptocyclin in 1 lit. of water for 30 min.) and FYM application (92.50%).

While, 92.50 per cent of the farmers had knowledge about chemical fertilizer and about 65.00 per cent of farmers had knowledge regarding bio-fertilizer. In case of method of irrigation cent per cent of farmers had a knowledge about sprinkler irrigation, whereas 96.66 per cent of farmers had knowledge about paddy straw mulching.

While 91.66 per cent of the farmers had knowledge about chemical used in disease control and correct dosage of chemical (70.83%). In case of pest control 85.00 and 56.66 per cent of respondents had knowledge about chemical and their dosage, respectively.

With respect to method of harvesting, 72.50 per cent of respondents had knowledge about preparation of dry Ginger. Regarding storage of rhizome 18.33 per cent of the farmers had knowledge about recommended storage practices. The reasons may be due to the fact that more number of the Ginger growers were having medium level education with medium level of farming experience medium level of extension contact and mass medias which might had this kind of results.

The findings of the present study are in conformity with the findings of Karpagam (2000) and Raut (2006).

Table 1. Knowledge level of ginger growers about individual recommended cultivation practices (n=120)

Name of the practice/s	Frequency	Percentage
Varieties	120	100.00
Planting time		
February - March	120	100.00
May-June		
Type of planting material		
Rhizome used	120	100.00
Method Planting		
a) Raised bed	120	100.00
Spacing in the field		
a) Row to row (30 cm)	120	100.00
b) Plant to plant (20 cm)		
Seed rate (Rhizome)		
1500 kg/ha	120	100.00
Rhizome treatment		
2 gm bleaching powder + 1 gm Metalaxyl MZ-72 + 1 gm Streptocyclin in 1 lit. of water for 30 min.	112	93.33
FYM (t/ha)		
25	111	92.50
Fertilizers (kg/ha)		
N = 100	111	92.50
P = 50		
K = 50		
Bio fertilizer	78	65.00
Method of irrigation		
Sprinkler	120	100.00
Mulching	116	96.66
Plant Protection measures for pest control		
a. Chemical used in pest control	102	85.00
b. Correct dosage of chemical	68	56.66
Disease control		
a. Chemical used in disease control	110	91.66
b. Correct dosage of chemical	85	70.83
Average yield (15-20 t/ha)	120	100.00
Harvesting Technologies		
a) Manually	120	100.00
b) For preparation of wet ginger	120	100.00
harvesting is done after six months		
c) For preparation of dry ginger harvesting	87	72.50
is done after eight months		
Storage of rhizome		
Recommended storage	22	18.33
Overall knowledge level of ginger growers about recommended cultivation practices		
Low (X - 0.425 SD)	24	20.00
Medium (X ± 0.425 SD)	55	45.83
High (X + 0.425 SD)	41	34.17

The Table 2 indicated the constraints in adoption of improved Ginger cultivation practices. In order of priority were majority 90.83 per cent expressed non-availability of pest and disease resistant varieties, followed by non-availability of labour (87.50 %), high cost of labour charges (85.00%) and

Table 2. Constraints faced by ginger growers (n=120)		
Constraints	Respondents	
	Number	Percentage
Non-availability of pest and disease resistant varieties	109	90.83
Non-availability of labour	105	87.50
High cost of labour charges	102	85.00
Non-availability of chemical fertilizers	95	79.17
Lack of storage facilities	92	76.67
High cost of plant protection chemicals	90	75.00
Lack of processing units	89	74.17
Exploitation by middlemen	84	70.00
Low price for the produce	83	69.17
Irregular supply of electricity for irrigation	79	65.83

non-availability of chemical fertilizers (79.17%) as problem faced by them.

It is also found that, 76.67 per cent of farmers expressed lack of storage facilities as the constraint, followed by high cost of plant protection chemicals (75.00%) and lack of processing units (74.17%).

Further, most of the respondents expressed problems like, exploitation by middlemen (70%), followed by low price for produce (69.17%) and irregular supply of electricity for irrigation (65.83%).

This finding is in agreement with the finding of Karpagam (2000), Mutkule *et al.* (2001), Jaitawat *et al.* (2007) and Shilpashree (2011).

Department of Agricultural Extension Education,
College of Agriculture
University of Agriculture Sciences,
Dharwad - 580 005, Karnataka, India
E-mail: dadabhirde@gmail.com

A. B. BHEEMUDADA
K. V. NATIKAR

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