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## Farmer's perception regarding integrated farming system in Haryana

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#### Abstract

All over the world, farmers work hard but do not make money, especially small farmers because there is very little left after they pay for all inputs (seeds, livestock breeds, fertilizers, pesticides, energy, feed, labour, etc.). The emergence of Integrated Farming Systems has enabled us to develop a framework for an alternative development model to improve the feasibility of small sized farming operations in relation to larger ones. Integrated farming systems is a self-absorbed system, in which there is continuous flow of residue, water and nutrients etc., which reduces agricultural costs and increase the income of the farmer and also provides employment. Therefore keeping all this in mind the present study was undertaken with the objectives to study the source of information perception of respondents regarding Integrated Farming System. The study was conducted in two agro climatic (Eastern and Western) zones of Haryana State. Two districts were selected from each zone. Out of each selected district 30 respondents were selected at random thus a total 120 respondents were selected for the purpose of investigation. It was found that In Eastern and Western zone, majority of respondents consulted KVK scientist (88.3% and 78.3%) for getting knowledge about different components of IFS. Regarding perception results revealed that majority of respondents perceived agree with the statement that multi-cropping system in IFS helps to mitigate biotic stress (75.0% and 81.6%) in Western and Eastern zone of Haryana State.

**Keywords:** Integrated farming system, perception

#### Introduction

All over the world, farmers work hard but do not make money, especially small farmers because there is very little left after they pay for all inputs (seeds, livestock breeds, fertilizers, pesticides, energy, feed, labour, etc.). The emergence of Integrated Farming Systems has enabled us to develop a framework for an alternative development model to improve the feasibility of small sized farming operations in relation to larger ones. Integrated farming system is a commonly and broadly used word to explain a more integrated approach to farming as compared to monoculture approaches. It refers to agricultural systems that integrate livestock and crop production or integrate fish and livestock and may sometimes be known as Integrated Bio systems. In this system an inter-related set of enterprises used so that the "waste" from one component becomes an input for another part of the system, which reduces cost and improves production and/or income. IFS ensure that wastes from one form of agriculture become a resource for another form. Since it utilizes wastes as resources, we not only eliminate wastes but we also ensure overall increase in productivity for the whole agricultural systems. Integration of farming system (integrating crop–livestock) as a resource management strategy is essential to meet diverse requirements of farm households and to protect their livelihood. Hence, integrated farming systems are viewed as a sustainable alternative to commercial farming systems particularly on marginal lands with the objective of reversing resource degradation and stabilizing farm incomes (Dadabhau, 2013) <sup>[1]</sup>. Integrated farming systems is a self-absorbed system, in which there is continuous flow of residue, water and nutrients etc., which reduces agricultural costs and increase the income of the farmer and also provides employment. Therefore keeping all this in mind the present study was undertaken with the objectives to study the source of information and perception of respondents regarding Integrated Farming System.

#### Methodology

The study was conducted in two agro climatic (Eastern and Western) zones of Haryana State. Two districts namely Hisar and Bhiwani were selected randomly from Western zone and Kaithal and Jind districts were selected from Eastern Zone.

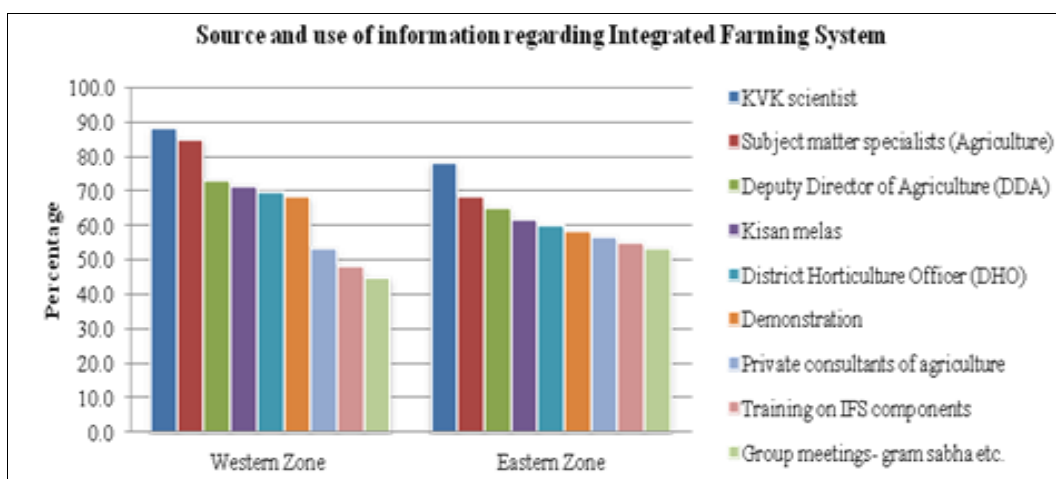
Three villages were selected purposively from each selected district namely Harikot, Mangali, and Kaimri from Hisar district, Bwani Kheda, Prem Nagar and Kungad from Bhiwani district, Peyoda, Songal and Kheri Sheru from Kaithal district and Kaer Kheri, Ahirka and Julna from Jind district and 10 Respondents were selected purposively from each villages. Out of each selected District 30 respondents were selected at random thus a total of 120 respondents were selected for the purpose of investigation. A well-structured interview schedule was prepared to obtain information from farmer respondents. The data were collected personally by the researcher and obtained data were analyzed by using frequency and percentage.

**Results and Discussions**

**Source and use of information regarding Integrated**

**Farming System**

Table 1 shows that 88.3 per cent respondent of Western Zone consulted KVK scientist followed by Subject Matter Specialist (85.0%), Deputy Director of Agriculture (73.3%), Kisan mela (71.7) District Horticulture Officer (70.0%), demonstration (68.3%), Private consultants of Agriculture (53.3%), training on IFS components (48.3%), and group meeting (45.0%) were the main source for getting knowledge about different components of IFS. Whereas in Eastern zone majority of respondents reported that they consulted KVK scientist (78.3%), Subject Matter Specialist (68.3%), Deputy Director of Agriculture (65.0%), Kisan mela (61.7%), District Horticulture Officer (60.0%), demonstration (58.3%), Private consultants of Agriculture (56.7%), training on IFS components (55.0%), and group meeting (53.3%) for getting information and knowledge about IFS. (Fig.)



**Fig 1:** Source and use of information regarding Integrated arming System

**Table 1:** Source and use of information regarding Integrated Farming System

Sr. No.	Sources	Western Zone F (%) N=60	Eastern Zone F (%) N=60
1	Private consultants of agriculture	32 (53.3)	34 (56.7)
2	Subject Matter Specialists (Agriculture)	51 (85.0)	41 (68.3)
3	District Horticulture Officer (DHO)	42 (70.0)	36 (60.0)
4	Deputy Director of Agriculture (DDA)	44 (73.3)	39 (65.0)
6	KVK scientist	53 (88.3)	47 (78.3)
7	Demonstration	41 (68.3)	35 (58.3)
8	Training on IFS components	29 (48.3)	33 (55.0)
9	Group meetings- gram sabha etc.	27 (45.0)	32 (53.3)
10	Kisan melas	43 (71.7)	37 (61.7)

Figures in parenthesis indicate percentages

**Respondent’s perception regarding Integrated Farming System (IFS)**

Data regarding perception of respondents regarding Integrated Farming System in Table 2 reveals that in Western zone perception of majority of respondents agree with the statement that multi-cropping system in IFS helps to mitigate biotic stress (75.0%), big investment is required in IFS (73.3%) and IFS becomes the source of income for farmers throughout the year (71.6%). Whereas in Eastern zone majority of respondents agree perception that multi-cropping system in IFS helps to mitigate biotic stress (81.6%), IFS maintains soil health and soil fertility (78.0%) and marketing is difficult for different products produced in IFS (76.6%). Results are inconsonance with Khan *et al.* (2015) [2] suggested that Integrated Farming systems can be proved as viable approach represents an appropriate combination of farm

enterprises, viz. crop production, horticulture, livestock, fishery, forestry, poultry and goatry etc. in specific farming situation to address the problems of sustainable economic growth of Indian farming communities. These approaches not only increase income and employment opportunity farm household but protect the environment through recycling of the crop and animal wastes within the farm itself. Ponnusamy and Devi (2017) [4] also inferred that adoption of multiple farm enterprises in an integrated manner can ensure a substantial income generation to sustain the livelihood of farmers over the meagre income from self-standing enterprises. Whereas Paramesh *et al.* (2019) [3] revealed that integration of dairy, fishery, poultry components with diversified cropping in coastal lowland ecosystem is essential to offset the ecological imbalances arising due to continuous cultivation of rice crop.

**Table 2:** Respondent's perception regarding Integrated Farming System (IFS)

N-120

Sr. No.	Statements	Western Zone F (%) N=60			Eastern zone F (%) N=60		
		Agree	Neutral	Disagree	Agree	Neutral	Disagree
1.	IFS becomes the source of income for the farmers throughout year	43 (71.7)	5 (8.3)	12 (20.0)	37 (61.7)	14 (23.3)	9 (15.0)
2.	IFS maintain soil health and improve soil fertility	42 (70.0)	11 (18.3)	7 (11.7)	47 (78.3)	10 (16.7)	3 (5.0)
3.	IFS adopting farmers covers risk in comparison to conventional farming	39 (65.0)	9 (15.0)	12 (20.0)	44 (73.4)	5 (8.3)	11 (18.3)
4.	IFS reduces vulnerability due to vagaries of climatic Condition	41 (68.3)	9 (15.0)	10 (16.7)	39 (65.0)	17 (28.3)	4 (6.7)
5.	Multi-cropping system in IFS helps to mitigate biotic stresses	45 (75.0)	4 (6.7)	11 (18.3)	49 (81.7)	9 (15.0)	2 (3.3)
6.	Chemical fertilizer requirement are drastically reduced in IFS farm	33 (55.0)	12 (20.0)	15 (25.0)	38 (63.3)	13 (21.7)	9 (15.0)
7.	Diversified products can be attained in IFS	37 (61.7)	18 (30.0)	5 (8.3)	41 (68.3)	11 (18.4)	8 (13.3)
8.	Eco- system is maintained through IFS	38 (63.3)	15 (25.0)	7 (11.7)	45 (75.0)	12 (20.0)	3 (5.0)
9.	Very difficult to achieve optimum production through integration	17 (28.3)	13 (21.7)	30 (50.0)	10 (16.7)	9 (15.0)	41 (68.3)
10.	Big investment is required in IFS	44 (73.3)	7 (11.7)	9 (15.0)	40 (66.7)	14 (23.3)	6 (10.0)
11.	Difficulty to manage weed, pest and disease Problem	36 (60.0)	9 (15.0)	15 (25.0)	41 (68.3)	6 (10.0)	13 (21.7)
12.	All family members round the year get the work in IFS	14 (23.3)	13 (21.7)	33 (55.0)	19 (31.7)	11 (18.3)	30 (50.0)
13.	Marketing is very difficult for different products produced in IFS	39 (65.0)	10 (16.7)	11 (18.3)	46 (76.7)	5 (8.3)	9 (15.0)
14.	IFS exert stress for farmers	34 (56.7)	23 (38.3)	3 (5.0)	29 (48.3)	17 (28.4)	14 (23.3)
15.	Management of IFS farm is more difficult than conventional farm	18 (30.0)	15 (25.0)	27 (45.0)	22 (36.7)	7 (11.6)	31 (51.7)

Figures in parenthesis indicate percentages

### Conclusion

It was found that majority of farmers consulted KVK scientist, Subject Matter Specialist and Deputy Director of Agriculture for getting knowledge about different components of Integrated farming system. Majority of respondents perceived that multi-cropping system in IFS helps to mitigate biotic stress and IFS becomes the source of income for farmers throughout the year. This might be due to the reason that in situation of failure of one component, farmers can compensate the loss through another component.

### Reference

1. Dadabhau AS, Kisan WS. Sustainable Rural Livelihood Security through Integrated Farming Systems- A Review. *Agri. Reviews*. 2013;34(3):207-215.
2. Khan N, Dubey M, Tiwari US. Integrated Farming System: An Approach for Livelihood Security of Small and Marginal Farmers. *International Journal of Science and Nature*. 2015;6(3):519.
3. Paramesh V, Parajuli R, Chakurkar EB, Sreekanth GB, Kumar HBC, Gokuldas PP *et al.* Sustainability, Energy Budgeting, and Life Cycle Assessment of Crop-Dairy-Fish-Poultry Mixed Farming System for Coastal Lowlands Under Humid Tropic Condition of India. *Energy*. 2019;188:1-13.
4. Ponnusamy K, Devi MK. Impact of Integrated Farming System Approach on Doubling Farmers' Income. *Agricultural Economics Research Review*. 2017;30:233-240.