



E-ISSN: 2278-4136

P-ISSN: 2349-8234

JPP 2018; 7(4): 1110-1113

Received: 01-05-2018

Accepted: 05-06-2018

Sumit

Department of Agricultural
Economics, CCS Haryana
Agricultural University, Hisar,
Haryana, India

RS Chauhan

Department of Agricultural
Economics, CCS Haryana
Agricultural University, Hisar,
Haryana, India

Raj Kumar

Department of Agricultural
Economics, CCS Haryana
Agricultural University, Hisar,
Haryana, India

Dalip Bishnoi

Department of Agricultural
Economics, CCS Haryana
Agricultural University, Hisar,
Haryana, India

Correspondence**Sumit**

Department of Agricultural
Economics, CCS Haryana
Agricultural University, Hisar,
Haryana, India

Constraints in production and marketing of honey in Haryana

Sumit, RS Chauhan, Raj Kumar and Dalip Bishnoi

Abstract

Beekeeping plays an important role in the sustainable agriculture as it contributes significantly for diversification of agriculture. Beekeeping is an interesting hobby, an ideal agro-based subsidiary enterprise, providing supplementary and sometimes major source of income to the farmers, especially to the small farmers. The present study aims to deal with the constraints related to production and marketing of honey. For the present study, Haryana state was divided into two zones i.e. eastern and western zone. From eastern and western zone a random sample of 60 beekeepers was selected which constituted a total sample of 120 beekeepers. The beekeepers were categorized into small, medium and large categories by cumulative total method on the basis of number of boxes, i.e., small (up to 120), medium (121-250) and large (more than 250). As far as the constraints in production and marketing of honey are concerned, beekeepers were unaware about social, environmental, physical, economical and technological constraints in production. Low selling price of honey, higher expenditure on transportation and delay in payment were the major constraints in marketing of honey in both the zones.

Keywords: beekeeping, sustainable, diversification, constraints, production, marketing

Introduction

Beekeeping offers an immense potential for providing employment to rural folk in India where many evergreen and moist deciduous forests, orchards etc. constitute good beekeeping areas. The unique feature of beekeeping is that the capital investment required is small and unlike many other industries, it does not need raw material in usual sense as nature offers the same in the form of nectar and pollen. Beekeeping is a very fascinating occupation. It can be practiced equally by men, women, grown up children and even by physically handicapped and old persons. Its required low investment and the economic returns are comparatively very high. Beekeeping does not bring any pressure on agricultural land. It produces honey, beeswax, pollen, propolis from the flowers which otherwise dry up in nature and go waste. Beekeeping is an agricultural and forest based decentralized industry and does not displace persons from their villages. If conditions are favourable, level of beekeeping can be increased to semi-commercial or commercial level. Beekeeping improves the economic condition of the farmers; restrict the migration of rural youth to urban areas and helps in holistic development of rural society. It is a subsidiary, complementary, supplementary and a family business enterprise which is pollution free.

Apiculture and agriculture/horticulture are interdependent and cannot develop in isolation. Integration of apiculture and agriculture is necessary for mutual benefits of both beekeepers as well as farmers. Ninety percent pollination in agricultural crops in the world is being carried out by the bees only, and in its absence, the total production in agricultural crops and fruits will be reduced to one fourth. (Jain *et al.*, 1987 and Vaidya *et al.*, 1993) ^[1, 2]. Honey bees through pollination increase agricultural production and enhance sustainability of agriculture. Honey bees during foraging for pollen and nectar from flowers of different plant species enhance agricultural productivity to the tune of 30–80% annually through cross-pollination (Singh 2000) ^[8]. Notwithstanding the fact that honey is economically very important substance and it has the potential to reduce unemployment and can be developed as a supplementary source of income to the farmers of the state at almost no extra expenses and possesses nutritive and medicinal properties,

Methodology

For study purpose state of Haryana was divided into two zones i.e. eastern and western zone. From eastern and western zones a random sample of 60 beekeepers were selected which constituted a total sample of 120 beekeepers. The beekeepers were categorized as small, medium and large categories by cumulative total method on the basis of number of boxes, i.e.,

small (up to 120), medium (121-250) and large (more than 250) boxes. In eastern zone category comprised of 32, 14 and 14 from small, medium and large category, respectively.

Similarly, in western zone category comprised of 27, 14 and 19 from small, medium and large category as given in Table 1.

Table 1: Classification of selected beekeepers from eastern and western zone of Haryana

Size of Category (Colonies)	Number of beekeepers selected from Eastern zone	Number of beekeepers selected from Western zone
Small (Up to 120)	32	27
Medium (121-250)	14	14
Large (More than 250)	14	19
Total	60	60

Categories selected by cumulative total method

A questionnaire was prepared to identify the constraints perceived by Beekeepers. Data were collected from the selected respondents by using distributed questionnaire approach. Data were analyzed using appropriate statistical tools such as; percentage, and average percentage mean score. The average percentage mean scores were calculated by summing all the observations and divided by the number of observations.

Results and Discussion

Constraints in the production of honey in eastern and western zones of Haryana

Data presented in Table 2 and Table 3 indicated various problems perceived by Beekeepers in eastern and western zones of Haryana. The data revealed that with respect to production problems, the major constraints in the production of honey were environmental, economical, physical, social and technical constraints. In eastern zone the environmental related problem reported by 50.56 percent respondents as management of bee colonies in extreme weather (66.67%), lack of flora and crop (43.33%) and lack of available land (36.67%). A probe into the technological problems revealed that majority (45.48%) of the respondents reported identification of disease (75.00%), migration of bee colonies (68.33%), poisoning of bee due to pesticides (46.67%), lack of knowledge (25.00%) and lack of technology (20.00%) in beekeeping as the most serious technological problem faced by them. 30.56 percent of the respondents perceived economic constraints as lack of knowledge of about facilities of loan for purchasing raw materials (41.67%), lack of

subsidy (31.67%) and combersom of loan (18.33%). Around thirty percent of respondents also reported that they faced the physical problems as requires more physical work (80.00%) and fear of bee stings (21.67%). The social constraints reported by 21.67 percent respondents as lack of family support (41.67%), interference of neighbours (28.33%) and no interest in beekeeping (11.67%).

In western zone the technological problems revealed that (47.86%) of the respondents reported identification of disease (81.67%), migration of bee colonies (70.00%), poisoning of bee due to pesticides (48.33%), lack of knowledge (16.67%) and lack of technology (26.67%) in beekeeping as the most serious technological problem faced by them. the environmental related problem reported by 46.67 percent respondents as management of bee colonies in extreme weather (53.33%), lack of flora and crop (41.67%) and lack of available land (45.00%). 46.11 percent of the respondents perceived economic constraints as lack of knowledge of about facilities of loan for purchasing raw materials (56.67%), lack of subsidy (43.33%) and combersom of loan (38.33%). 25.67 percent of respondents also reported that they faced the physical problems as requires more physical work (76.67%) and fear of bee stings (21.67%). The social constraints reported by 19.58 percent respondents as lack of family support (31.67%), interference of neighbours (26.67%) and no interest in beekeeping (10.00%). Asrani *et al.* (2007) also reported that most important enablers perceived by respondents about beekeeping were economic enablers, followed by physical, health related and agricultural. Technical constraints were the most important constraints faced by respondents.

Table 2: Constraints in the production of honey in eastern zone of Haryana (No. of beekeepers = 60)

Sr. No.	Particulars	Small (32)	Medium (14)	Large (14)	Overall percentage
A.	Environmental constraints				
1.	Lack of available land	17	4	1	36.67
2.	Lack of flora and crop	20	7	2	48.33
3.	Management of bee colonies in extreme weather	28	11	1	66.67
	Mean percentage				50.56
B.	Technical constraints				
1.	Technology is difficult/ complex	10	1	1	20.00
2.	Identification of disease	33	9	3	75.00
3.	Migration of bee colonies	28	10	3	68.33
4.	Management of food for colonies in off seasons	17	11	-	46.67
5.	Fear of diseases and enemies	12	7	3	36.67
6.	Poisoning of bee due to pesticides etc.	18	8	2	46.67
7.	Lack of knowledge	12	2	1	25.00
	Mean percentage				45.48
C.	Economic constraints				
1.	Lack of subsidy	11	6	2	31.67
2.	Lack of knowledge about facilities of loan for purchasing raw materials	17	7	1	41.67
3.	Cumbersom loan procedures	7	2	2	18.33
	Mean percentage				30.56
D.	Physical constraints				

1.	Fear of bee stings	11	2	-	21.67
2.	Headache during routine investigation of bee colonies	7	2	1	16.67
3.	Skin irritation and allergies	9	1	-	16.67
4.	Eyes irritation	5	-	-	8.33
5.	Requires more physical work	33	12	3	80.00
	Mean percentage				28.67
E.	Social constraints				
1.	Interference of neighbours	13	3	1	28.33
2.	Lack of family support	22	3	-	41.67
3.	No interest in beekeeping	6	1	-	11.67
4.	Negligence about benefit of honey	3	-	-	5.00
	Mean percentage				21.67

Table 3: Constraints in the production of honey in western zone of Haryana (No. of beekeepers = 60)

Sr. No.	Particulars	Small (27)	Medium (14)	Large (19)	Overall percentage
A.	Technical constraints				
1.	Technology is difficult/ complex	12	2	2	26.67
2.	Identification of disease	29	12	8	81.67
3.	Migration of bee colonies	25	10	7	70.00
4.	Management of food for colonies in off seasons	18	8	6	53.33
5.	Fear of diseases and enemies	8	7	8	38.33
6.	Poisoning of bee due to pesticides etc.	13	11	5	48.33
7.	Lack of knowledge	8	1	1	16.67
	Mean percentage				47.86
B.	Environmental constraints				
1.	Lack of available land	19	6	2	45.00
2.	Lack of flora and crop	15	5	5	41.67
3.	Management of bee colonies in extreme weather	22	4	6	53.33
	Mean percentage				46.67
C.	Economic constraints				
1.	Lack of subsidy	12	8	6	43.33
2.	Lack of knowledge about facilities of loan for purchasing raw materials	22	9	3	56.67
3.	Cumbersome loan procedures	14	5	4	38.33
	Mean percentage				46.11
D.	Physical constraints				
1.	Fear of bee stings	8	3	2	21.67
2.	Headache during routine investigation of bee colonies	4	2	1	11.67
3.	Skin irritation and allergies	6	2	-	13.33
4.	Eyes irritation	3	-	-	5.00
5.	Requires more physical work	28	10	8	76.67
	Mean percentage				25.67
E.	Social constraints				
1.	Interference of neighbours	9	4	3	26.67
2.	Lack of family support	16	2	1	31.67
3.	No interest in beekeeping	4	2	-	10.00
4.	Negligence about benefit of honey	5	1	-	10.00
	Mean percentage				19.58

Constraints in the marketing of honey in eastern and western zone of Haryana

Table 4 and Table 5 revealed that in eastern zone the results of the study revealed that low selling price (83.33%), higher expenditure in transportation (76.67%), delay in payment (76.67%) inability to compete with big companies (71.67%) and problems in sale of honey (60.00). Similarly, in western zone the low selling price of honey and higher expenditure in transfer was the most important problem in the perception of the beekeepers (85.00%), marketing of their produce by the producers was delay in payment (75.00%), inability to companies was (68.33%), and problem in sale of honey was (58.33%). The findings of the study had close resemblance with the findings of Baite *et al.* (2015) [4] who reported that

marketing problems with the average percentage mean score of 74.28 were reckoned as the most serious problems perceived by the beekeepers followed by technological (63.67%), financial (50.70%), institutional (32.50%), communication (24.00%) and production problems (18.25%). Lack of various provisions such as support price of honey bee products (100%), latest technology in beekeeping (78.50%), adequate credit facilities (79%), maintaining partnership with various agencies (56.50%), commitment from group members (44%) and procurement of inputs (22.50%) were perceived as the most serious problems related to marketing, technological, financial, institutional, communication and production aspects, respectively.

Table 4: Constraints in the marketing of honey in eastern zone of Haryana (No. of beekeepers = 60)

Sr. No.	Particulars	Small (32)	Medium (14)	Large (14)	Overall percentage
1.	Low selling price of honey	34	13	3	83.33
2.	Higher expenditure in transport	32	10	4	76.67
3.	Delay in payment	31	12	3	76.67
4.	Inability to compete with big companies	29	12	2	71.67
5.	Problems in sale of honey	28	7	1	60.00
Mean percentage					73.67

Table 5: Constraints in the marketing of honey in western zone of Haryana (No. of beekeepers = 60)

Sr. No.	Particulars	Small (36)	Medium (14)	Large (10)	Overall percentage
1.	Low selling price of honey	30	12	9	85.00
2.	Higher expenditure in transport	33	11	7	85.00
3.	Delay in payment	28	9	8	75.00
4.	Inability to compete with big companies	25	10	6	68.33
5.	Problems in sale of honey	22	8	5	58.33
Mean percentage					74.33

Conclusion

Beekeeping plays an important role in the sustainable agriculture as it contributes significantly as an allied industry. Bee farming provides supplementary and sometimes major source of income to the farmers, especially to the small farmers. Enterprises like poultry, piggery, dairy, mushroom growing etc., require higher initial costs than beekeeping. Due to its low cost farmers prefer beekeeping as an important subsidiary occupation, which provide high returns as various honey products. Beekeeping production is affected by indiscriminate use of pesticides, bee diseases and enemies, adverse effects of weather, low price of products, etc. The susceptibility of honey bees to different diseases, pesticide hazards and marketing of bee products were found to be major limiting factors in the prospects of beekeeping. Majority of the beekeepers wanted to increase their level of business. Government authorities should possess serious concern to the problems faced by bee keepers and promote small land holder farmers for honey bee farming, so that they can fetch maximum return from apiculture.

References

- Jain KL, Sihag RC. Supplement your income by adopting beekeeping in Haryana. *Haryana farming*. 1987; 16(7):18-19.
- Vaidya DN, Mehta PK. Honey bees as valuable pollinators. *Farmer and Parliament*. 1993; 28:10-12.
- Asrani S, Kaushik S, Sharma SK, Kaushik HD. Prospects of beekeeping in Haryana: Perceived needs, constraints and enablers. *Journal of Dairying, Foods and Home Sciences*. 2007; 26(1):7-8.
- Baite DJ, Kalra RK, Dhaliwal RK. Problems perceived by progressive beekeepers IN Punjab. *Agricultural Research Journal*. 2015; 52(1):70-73.
- Monga K, Manocha A. Adoption and constraints of beekeeping in District Panchkula (Haryana), India. *Livestock Research for Rural Development*. 2011, 23(5).
- Poornima BS. Social and Economic Auditing of Beekeeping in Uttara Kannada, India. *International Research Journal of Biological Sciences*. 2013; 3(2):64-66.
- Ramachandra TV, Subsah Chandran MD, Joshi NV, Balachandran C. Beekeeping: Sustainable Livelihood Option in Uttara Kannada, Central Western Ghats. *ENVIS Technical Report*, 2012, 49.

- Singh N, Yadav VPS, Raina V, Chand R. Training Needs of Bee Keepers in Haryana. *Indian Research Journal of Extension Education*. 2011; 11(1):66-69.