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Comparative study on cashewnut plantation on hillocks and plane land

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Abstract

The study was conducted in Sindhudurg district with objective to comparative nutrient management, plant protection practices and yield of cashew plantation on hillocks and plane land by interviewing 100 cashewnut nut growers. It is noticed that more than three fifth cashewnut farmers adopted the recommended dose of fertilizer in both plantation. It is found that in hillock plantation one to two sprays for plant protection were followed and on plane land three, two and single spray for plant protection measure were followed by cashew nut farmers. It is noticed that more than two fifth cashewnut farmers from hillock plantation having high to medium level of yield. Nearly half to nearly two fifth farmers having low to medium level of yield of cashewnut.

Keywords: Hillocks, plan, cashewnut

Introduction

Cashew (*Anacardium occidentale* L.) was introduced to India from Brazil about 500 years ago as a crop of afforestation and soil conservation. which has been adapted to Indian climatic conditions and is being cultivated in different part of the country. In Maharashtra total area under cashew crop is 1.83 lakh ha. with annual nut production more than 2.00 lakh MT. and average productivity ranges between 1.3 ton to 1.5 ton/ha. The Regional Fruit Research Station, Vengurle of Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli has evolved Vengurla-1 to Vengurla-9 high yield varieties of Cashew as well as standardized soft wood grafting propagation technique. Further, organized massive extension programme for dissemination of information regarding modern package of practices of cashew crop among the farmers which has resulted into increase in area under cashew crop. The cashew plantation in the konkan region is mostly observed on hillocks and at some of the places it is on plane land. Hence, the present comparative study on cashew plantation on hillocks and plane land was undertaken with the following objectives.

1. To study the nutrient management and plant protection practices followed by cashewnut growers from hillocks and plane land.

2. To study the yield obtained by cashewnut growers from hillock plantation and plane land.

Methodology

The study was conducted in Sindhudurg district. Out of 7 tahsils, two tahsils namely Dodamarg and Sawantwadi were selected purposively according to area under cashew crop. From each tahsil 5 villages were selected on the basis of maximum area under cashewnut cultivation. In all 100 farmers i.e. 10 farmers from each village (5 farmers from hillock plantation and 5 farmers from plane land) were selected randomly and interviewed with the specially designed interview schedule. The farmer having more than 10 years old and at least 100 plants of high yielding varieties of cashew was considered as a cashew grower under this study.

Results and Discussion

The results are presented hereunder.

Nutrient management of cashew orchards

The information pertaining to the nutrient management of cashew orchards from hillock region and plane land is depicted in Table 1.

Table 1: Nutrient management of cashew orchards

Sl. No.	Name of category	Hillock Plantation		Plane Plantation	
		Respondents (N=50)		Respondents (N=50)	
		Number	Percentage	Number	Percentage
1.	No use	2	04.00	8	16.00
2.	Only Urea + FYM (2.5 + 10 kg/plant)	6	12.00	8	16.00
3.	Urea + Mix Fertilizer (19:19:19) + FYM (2 + 1 + 10 kg/plant)	8	16.00	2	4.00
4.	As per recommendation (1000:250:250 + FYM 20 kg)	34	68.00	32	64.00
Total		50	100.00	50	100.00

The data presented in Table 1 indicated that 68.00 percent cashew growers from hillocks plantation apply fertilizer as per recommendation. whereas, 16.00 percent of the Urea + Mix Fertilizer (19:19:19) + FYM (2 + 1 + 10 kg/plant) as a dose of fertilizer. While, 12.00 percent of the respondents applied only Urea (2.5 kg/plant) to the cashew plant and 4.00 percent of the respondents have not applied fertilizer to the cashew orchard.

In case of cashew cultivation on plane land data revealed that 64.00 percent of the respondents applied fertilizer dose as per the recommendation. Whereas, 16.00 percent of the respondents have not applied fertilizer to cashew plant. While, 16.00 percent of the respondents had applied only Urea to the cashew orchard. Only 4.00 percent respondents

applied fertilizer dose as Urea + Mix Fertilizer (19:19:19) + FYM (2 + 1 + 10 kg/plant) as fertilizer dose to the cashew orchard.

It is noticed that more than three fifth cashewnut farmers adopted the recommended dose of fertilizer in both plantation. Remarkable number of cashewnut farmers (16.00 percent) do not use any fertilizer on plan plantation.

2. Plant protection measures followed by cashew growers

The information about plant protection measures followed by cashew growers from hillocks region and plane land is presented in Table 2.

Table 2: Plant protection measures followed by cashewnut growers

Sl. No.	Name of category	Hillock plantation		Plane land plantation	
		Respondents (N=50)		Respondents (N=50)	
		Number	Percentage	Number	Percentage
1.	No Spray	02	04.00	-	-
2.	Single Spray	28	56.00	11	22.00
3.	Two Sprays	20	40.00	19	38.00
4.	Three Sprays	-	-	20	40.00
Total		50	100.00	50	100.00

It is seen from Table 2 that 56.00 percent of the respondents from hillock plantation sprayed their orchard with single spray of insecticide. Whereas, 40.00 percent of the respondents applied two sprays of insecticides. However, only 4.00 percent of the respondents had not sprayed any of the insecticide.

The data regarding cashew plantation from plain land revealed that 40.00 of the respondents sprayed their cashew orchard with three sprays of insecticides. While, 38.00 percent respondents applied two sprays of insecticides to

their cashew orchard and 22.00 percent respondents used only one spray of insecticides as plant protection measure.

It is found that in hillock plantation one to two sprays for plant production were followed and on plane land three, two and single spray for plant production measure were followed by cashew nut farmers.

3. Comparison in terms of yield

The data regarding yield obtained from cashew orchards from hillocks and plane land is presented in Table 3.

Table 3: Comparison in terms of yield of cashew orchards from hillocks and plane land

Sr. No.	Name of category	Hillock plantation		Plane land plantation	
		Respondents (N=50)		Respondents (N=50)	
		Number	Percentage	Number	Percentage
1.	Low (Upto 3.6 ton)	9	18.00	24	48.00
2.	Medium (3.6 to 9.0 ton)	20	40.00	19	38.00
3.	High (9.1 ton above)	21	42.00	7	14.00
Total		50	100.00	50	100.00
Average yield (ton)		2.32 ton/ha		1.73 ton/ha	

It is noticed that more than two fifth cashewnut farmers from hillock plantation having high to medium level of yield. Nearly half to nearly two fifth farmers having low to medium level of yield of cashewnut.

Table 3 indicated that 42.00 percent respondents from hillock plantation were from the category of high yield, while, two-fifth of the respondents (40.00 percent) were from the medium yield category. However, only 18.00 percent of respondents were from low yield category. The average yield of cashew plantation from hillock region was 2.32 ton/ha.

The data regarding yield of cashew crop from plane land revealed that more than two-fifth of the respondents (48.00 percent) were from low yield category, while, 38.00 percent respondents were from medium yield category, where as only 14.00 percent respondents were observed in high yield

category of cashew crop. The average yield of cashew plantation from plane land was 1.73 ton/ha.

It is observed that more than two fifth cashewnut farmers from hillock plantation having high to medium level of yield. Nearly half to nearly two fifth farmers having low to medium level of yield of cashewnut.

Conclusion

1. It is indicated that more than three fifth cashewnut farmers adopted the recommended dose of fertilizer in both plantation. Remarkable number of cashewnut farmers (16.00 percent) do not use any fertilizer on plan plantation.
2. It is noticed that in hillock plantation one to two sprays for plant production were followed and on plane land three, two and single spray for plant production

measure were followed respectively by cashew nut farmers.

3. It is observed that more than two fifth cashewnut farmers from hillock plantation having high to medium level of yield. Nearly half to nearly two fifth farmers having low to medium level of yield of cashewnut on plan plantation.
4. The average yield of cashew nut is more on hillock plantation than on plan land.

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