



# Involvement of Women Dairy Farmers in Decision Making Regarding Dairy Farm Activities in Guntur District of Andhra Pradesh, India

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## Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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## ABSTRACT

An investigation was carried out to study the decision making of 225 women dairy farmers regarding dairy farm activities in Guntur district of Andhra Pradesh. The data was collected by administering the interview schedule to the respondents. The data collected during the period of study was scrutinized and tabulated. The study revealed that majority of farm women were

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participating in decision making regarding taking loans (82.67%), health care of animals (80.00%), management of newborn calves (80.00%), insurance of animals (73.33%), culling of uneconomic animals (73.33%), construction of animal sheds (58.67%), and breeding practices (56.00%) in Narasaraopeta division. Majority of women dairy farmers in Pedaravuru division were participating in decision making regarding farm expansion (64.00%), purchase of loans (61.33%) and insurance of animals (60.00%) whereas majority of women in Guntur division were participating in decision making in purchase of roughages and feeding of animals (64.00%). Overall, significant ( $P \leq 0.01$ ) majority of farm women were participating in decision making regarding purchase of roughages and feeding of animals (44.89%). Only 13.30%, 12.40%, 11.60% and 6.70% were participating in decision making regarding management of pregnant animals, management of sick animals, utility of dung and adoption of scientific management practices, respectively. Overall, 35.60% and 12.90% were regularly participating in decision making regarding preparation of milk products and sale of milk, respectively.

*Keywords: Dairy farming; decision making; farm women; Guntur district.*

## 1. INTRODUCTION

Decision-making by women in dairy farming can be understood through a multifaceted lens. In many regions around the world, women play a crucial role in dairy production, from managing livestock to processing and marketing dairy products. Their decision-making processes, however, can be influenced by several social, economic, cultural, and environmental factors. Gender norms and roles in certain communities might restrict women from participating in or making decisions about specific areas of dairy farming, like buying and selling of cattle or land. Women who have access to training and education related to dairy farming can make more informed decisions.

## 2. MATERIALS AND METHODS

The present study was conducted in the rural areas of Guntur district of Andhra Pradesh. Guntur district has three animal husbandry divisions namely Pedaravuru, Guntur, Narasaraopeta. Five mandals were selected from each animal husbandry division and 5 villages from each mandal were selected by using stratified random sampling method. Three dairy farm women were selected randomly from each village resulting in 225 respondents. The data was collected from the women dairy farmers on their involvement in decision making regarding dairy farm activities. For this, an interview schedule was prepared and pretested in non-sample area. The data collected during the period of study was scrutinized and tabulated. The data were subjected to frequency, percentage, arithmetic mean and chi-square test using statistical package for social science (IBM SPSS 25.0 Version) [1].

## 3. RESULTS AND DISCUSSION

### 3.1 Involvement of Women Dairy Farmers in Decision Making in Economic Aspects of Dairy Farming

It was observed from Table 1 that overall 36.44% of women farmers were regularly participating in decision-making regarding the choosing breed of animal for dairying. It was similar with the findings of Chauhan [2] who reported that 40% of women were participating in decision whereas Upadhyay and Desai [3] reported that 50% of farm women took participation in decision about choosing animals for dairying.

It was observed that overall significant ( $P \leq 0.01$ ) majority (65.77%) of farm women were regularly participating in decision making regarding taking loans. Similar trend was observed in all the three divisions whereas Patel et al. [4] reported that only 1.00% of farm women have participated in decision about taking loans for purchase of milch animals.

It was observed that overall significant ( $P \leq 0.01$ ) majority (65.33%) of farm women were participating in decision making regarding the purchase/sale of animals. Similar trend was observed in all the three divisions. Similarly Sharma et al. [5] reported that 59.3% of farm women are participating in decision making regarding the purchase/sale of animals in Jammu district of Jammu and Kashmir state.

It was observed that overall significantly ( $P \leq 0.01$ ) majority (65.33%) of farm women were participating in decision making regarding insurance of animals. Similar trend was observed in all the three divisions whereas Upadhyay and

**Table 1. Involvement of women dairy farmers in decision making in the economic aspects of dairy farming**

S.No.	Category		Pedaravuru (N =75)		Guntur (N =75)		Narasaraopeta (N =75)		Overall (N =225)		χ 2 value
			N	%	N	%	N	%	N	%	
1	Choosing breed of animal for dairying	Self decision	6	8.00	32	42.67	44	58.67	82	36.44	66.395**
		Participation in decision	26	34.67	5	6.67	0	0.00	31	13.78	
		No involvement in decision	43	57.33	38	50.67	31	41.33	112	49.78	
2	Taking loans	Self decision	3	4.00	5	6.67	0	0.00	8	3.55	120.480**
		Participation in decision	39	52.00	47	62.67	62	82.67	148	65.77	
		No involvement in decision	33	44.00	23	30.67	13	17.33	69	30.67	
3	Purchase / sale of animals	Self decision	3	4.00	5	6.66	14	18.67	22	9.78	96.183**
		Participation in decision	46	61.33	48	64.00	53	70.66	147	65.33	
		No involvement in decision	26	34.67	22	29.33	8	10.66	56	24.89	
4	Insurance of animals	Self decision	4	5.33	5	6.67	1	1.33	10	4.44	113.320**
		Participation in decision	45	60.00	47	62.67	55	73.33	147	65.33	
		No involvement in decision	26	34.67	23	30.67	19	25.33	68	30.22	
5	Culling of uneconomic animals	Self decision	13	17.33	5	6.67	0	0.00	18	8.00	89.227**
		Participation in decision	39	52.00	39	52.00	55	73.33	133	59.11	
		No involvement in decision	23	30.67	31	41.33	20	26.67	74	32.89	
6	Construction of sheds	Self decision	29	38.67	3	4.00	14	18.67	46	20.44	57.927**
		Participation in decision	39	52.00	34	45.33	44	58.67	117	52.00	
		No involvement in decision	7	9.33	38	50.67	17	22.67	62	27.55	
7	Farm expansion	Self decision	21	28.00	3	4.00	0	0.00	24	10.67	66.698**
		Participation in decision	48	64.00	36	48.00	46	61.33	130	57.77	
		No involvement in decision	6	8.00	36	48.00	29	38.67	71	31.55	

N= No. of women dairy farmer; \*\* Significant at (P≤0.01)

**Table 2. Involvement of women dairy farmers in decision making regarding care and management of animals in Guntur district**

S.No.	Category		Pedaravuru (N =75)		Guntur (N =75)		Narasaraopeta (N =75)		Overall(N =225)		χ 2 value
			N	%	N	%	N	%	N	%	
1	Purchase of roughages and feeding of animals	Self decision	4	5.30	3	4.00	53	70.70	60	26.66	92.637**
		Participation in decision	40	53.30	48	64.00	13	17.30	101	44.89	
		No involvement in decision	31	41.30	24	32.00	9	12.00	64	28.40	
2	Breeding practices in animals	Self decision	8	10.70	3	4.00	0	0.00	11	4.88	96.253**
		Participation in decision	41	54.70	33	44.00	42	56.00	116	51.55	
		No involvement in decision	26	11.60	39	17.30	33	44.00	98	43.60	
3	Health care of animals	Self decision	23	30.70	6	8.00	13	5.78	42	18.67	59.422**
		Participation in decision	41	54.70	59	78.70	60	80.00	160	71.11	
		No involvement in decision	11	14.70	10	13.30	2	2.70	23	10.20	
4	Management of new born calves	Self decision	33	44.00	5	6.70	0	0.00	38	16.89	60.797**
		Participation in decision	33	44.00	59	78.70	60	80.00	152	67.56	
		No involvement in decision	9	12.00	11	14.70	15	20.00	35	15.60	
5	Management of pregnant animals	Self decision	46	61.30	59	78.70	71	94.70	176	78.20	33.740**
		Participation in decision	21	28.00	5	6.70	4	5.30	30	13.30	
		No involvement in decision	8	10.70	11	14.70	0	0.00	19	8.40	
6	Management of sick animals	Self decision	49	65.30	57	76.00	60	80.00	166	73.80	14.466**
		Participation in decision	18	24.00	5	6.70	5	6.70	28	12.40	
		No involvement in decision	8	10.70	13	17.30	10	13.30	31	13.80	
7	Utility of dung	Self decision	28	37.30	27	36.00	42	56.00	97	43.10	46.957**
		Participation in decision	23	30.70	3	4.00	0	0.00	26	11.60	
		No involvement in decision	24	32.00	45	60.00	33	44.00	102	45.30	
8	Adoption of scientific management practices	Self decision	4	5.30	24	32.00	36	48.00	64	28.40	39.692**
		Participation in decision	10	13.30	5	6.70	0	0.00	15	6.70	
		No involvement in decision	61	81.30	46	61.30	39	52.00	146	64.90	

N= No. of women dairy farmer; \*\* Significant at (P≤0.01)

**Table 3. Involvement of women dairy farmers in decision making regarding disposal of milk**

S.No.	Category		Pedaravuru (N =75)		Guntur (N =75)		Narasaraopeta (N =75)		Overall (N =225)		χ 2 value
			N	%	N	%	N	%	N	%	
1	Sale of milk	Self decision	42	56.00	37	49.30	56	74.70	135	60.00	20.235**
		Participation in decision	12	16.00	17	22.70	0	0.00	29	12.90	
		No involvement in decision	21	28.00	21	28.00	19	25.30	61	27.10	
2	Preparation of milk products	Self decision	15	20.00	35	45.70	16	21.30	66	29.30	53.883**
		Participation in decision	12	16.00	30	40.00	38	50.70	80	35.60	
		No involvement in decision	48	64.00	10	13.30	21	28.00	79	35.10	

N= No. of women dairy farmer; \*\* Significant at (P≤0.01)

Desai [3] and Kavithaa and Rajkumar [6] reported only 23.00 - 25.00% of farm women were participating in decision about insurance of animals.

It was observed that overall significantly ( $P \leq 0.01$ ) majority (59.11%) of farm women were participating in decision making regarding culling of uneconomic animals. Similar trend was observed in all the three divisions whereas Patel et al. [4] reported that only 4.50% of women were taking self-decision regarding culling of uneconomic animals.

It was observed that overall significantly ( $P \leq 0.01$ ) majority (52.00%) of farm women were participating in decision making, followed by 27.55% were not participating and 20.44% are taking self-decision regarding construction of shed, whereas Manthekar and Nigade [7] reported that participation in decision making was low regarding construction of dairy animal sheds. Overall it was observed that 57.77% of farm women are participating in decision making regarding farm expansion whereas Kavithaa and Raj Kumar [6] reported that 76.66% farmers were involved in decision making regarding farm expansion.

### **3.2 Involvement of Women Dairy Farmers in Decision Making Regarding Care and Management of Animals in Guntur District**

It was observed from Table 2 that overall, significant ( $P \leq 0.01$ ) majority (44.89%) of farm women were participating in decision making regarding the purchase of roughages and feeding of animals, followed by not participating (28.40%) and self-decision (26.66%) whereas Krishna et al [8] and Patel et al. [4] reported that 77.33% and 67.00% of farm women were participating in decision making regarding purchase of roughages.

The results revealed overall significantly ( $P \leq 0.01$ ) majority (51.55%) of farm women were participating in decision-making regarding breeding practices in animals. Similar trend was observed in all the three divisions whereas Kaur and Kaur [9] reported that only 25.10% of farm women were

participating in decision making regarding breeding practices.

The results revealed that overall significantly ( $P \leq 0.01$ ) majority (71.11%) of farm women were participating in decision making regarding health care of animals. Similar trend was observed in all the three divisions whereas Kavithaa and Rajkumar [6] reported that only 56.66% of farm women were involved in decision making regarding health care of animals.

The results revealed that overall, significantly ( $P \leq 0.01$ ) majority (67.56%) of the women were participating in decision making regarding management of newborn calves, followed by not participating (15.60%) and self-decision (14.67%). It was similar with the findings of Kavithaa and Rajkumar [6] whereas Upadhyay and Desai [3] reported that only 36.67% of farm women were involved in decision making regarding management of newborn calves.

The results revealed that overall, significantly ( $P \leq 0.01$ ) majority (78.20%) of women are taking self-decision regarding management of pregnant animals. Similar trend was observed in all the three divisions whereas Kavithaa and Rajkumar [6] reported that only 56.66% of farm women were participating in decision making process regarding management of pregnant animals. The results revealed that overall, significantly ( $P \leq 0.01$ ) majority (73.80%) of women are taking self-decision regarding management of sick animals. Similar trend was observed in all the three divisions.

The result revealed that overall 11.60% were participating in decision making regarding utility of dung whereas Roy and Kadian [10] reported that 54.67% of women were participating in decision making regarding utility of dung. The result revealed that overall 28.40% of women are taking self-decision regarding the adoption of scientific management practices. It was similar with the findings of Kavithaa and Rajkumar [6] who reported that 23.33% of women were participated in decision making regarding the adoption of scientific management practices.

The study revealed that majority of women had participation in decision making in care and management of animals. It was similar with the

findings of Kaur et al. [11] where women are diversely involved in various dairy farming activities and their role is required to be scientifically strengthened through polices and extension activities.

### 3.3 Involvement of Farm Women in Decision Making Regarding Disposal of Milk

It was revealed from Table 3 that significantly ( $P \leq 0.01$ ) majority (60.00%) of women were taking self-decision regarding sale of milk. Similar trend was observed in all the three divisions. It was similar with the findings of Chauhan *et al.* [12], Mulugeta and Amsalu [13] and Kaur and Kaur [8] who reported that majority of women were taking self-decision regarding sale of milk. In contrast with the findings of Krishna et al [8] where majority (73.33%) of farm women were participating in decision making regarding sale of milk.

The results showed that overall 35.60% of women were participating in decision making regarding the preparation of milk products whereas Kavithaa and Rajkumar [6] reported that 55.00% of farm women were participating in decision making regarding the preparation of milk products.

## 4. CONCLUSION

The women were not independent in taking decision about the economic aspects as well as the care and management of animals. Supporting and empowering women in this sector can lead to increased productivity, sustainability and overall community well-being. If they were also encouraged to take self decision they will try to improve their participation and work for the success and development of dairy occupation.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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