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## A study on dimension wise management efficiency of red gram growers in North-Eastern Karnataka

**Ashok Kumar B and K Venkataranga Naika**

### Abstract

Pigeon pea or Red gram is a backbone of nutritional security of India. India contributes nearly 80 per cent of production in the world. In India, red gram mainly grown in many states like Maharashtra, Madhya Pradesh, Karnataka, Andhra Pradesh, Rajasthan and Uttar Pradesh and it occupies area 3.89 million hectares and production more than the 3.30 million tonnes, having productivity of 849 kg per hectare on an average. With respect to Karnataka state, nearly 0.82 million hectares of area under red gram cultivation with production of 0.61 million tonnes and their average yield/productivity is 733 kg per hectares. The research study conducted in North Eastern region of Karnataka during the year 2017-18 to know the dimension wise management efficiency level of red gram growers. The results of the study reveals from different components that, eighty seven per cent of the red gram growers completely acquired skills on techniques of disease diagnose in red gram crop. Sixty per cent (60.56%) of the red gram growers planned in advance the place of marketing, 75.00 per cent of the red gram growers consulted experts to decide on harvesting period, 94.44 per cent of the red gram growers have adequate quantity of seeds, 96.67 per cent of the red gram growers followed coordination in land preparation as well as in weed management, 68.33 per cent of the red gram growers followed proper packaging practices to avoid wastage, 90.00 per cent of the red gram growers were followed seed treatment with bio-fertilizer and 87.22 per cent of them correctly answered for identification of symptoms caused by pest and disease.

**Keywords:** red gram, management efficiency, skills, marketing, experts, seeds

### Introduction

Pigeon pea or Red gram [*Cajanus cajan* (L.) Millsp.], stands in the list of the major pulse crops of the tropics and sub-tropics. In India Pigeon pea known as tur (Tur in many states of India), red gram, arhar, thogari (thogari in local language in Karnataka) congobean, gandul, tuvarica etc. Red gram stood 6<sup>th</sup> (sixth) rank in area and production in comparison to other pulses such as gram or Bengal gram, beans and peas. In India, Pigeon pea or red gram mainly grown in many states like Maharashtra, Madhya Pradesh, Karnataka, Andhra Pradesh, Rajasthan and Uttar Pradesh and it occupies 3.89 million hectares of area with the about 3.30 million tonnes of production, having yield of 849 kg per hectare on an average (Anonymous, 2016). With respect to Karnataka state, nearly 0.82 million hectares of area under red gram cultivation with production of 0.61 million tonnes and their average yield/productivity is 733 kg per hectares. It is largely cultivated in Kalaburgi (Gulbarga), Vijayapura (Bijapur), Bidar and Yadgir districts of northern parts of Karnataka. Thus, North-East Karnataka region is called as "Pulse bowl of Karnataka". The adoption of recommended technologies, improved practices and proper management techniques helps in increase the productivity or yield of red gram. The growers expects more farm income from their farming, which may be in the terms of yield or income which is obtained by selling their produced quantity in the market, which is needed for meeting the needs and necessity of the family and household (Tonbary, 1957)<sup>[8]</sup>. Management is a logical discipline that promotes the pursuit of efficient production for a firm with local availability of resources or some time minimum utilization of resources. Managers have better knowledge of managing resources like materials, men, money, facilities and equipment (implements) to produce a product in the most efficient and economic manner. In all over the world, it has been accepted that farmers or produces of crop are the managers of their farms. In terms of the socio-economic, cultural, physical, ecological as well as technological environment, farmers manage a system of production so with the aspiration of getting maximum benefits from production system. Improving efficiency in management or enhancing or increasing the quality of human resource is vitally important and will show new

doors for producers and helps to achieve and get substantial returns from their own farming farm. The implementation of various schemes/programmes by Government of India has changed pulse farming scenario and helped the pulse growers to obtain higher profits. Many Government Institutes supporting to pulse growers directly or indirectly with which supplied good quality seeds to the farmers to double their production. Sustainability of pulse however largely depends on the efficient management of the resources by the pulse growing farmers or farmers' producer organisation. Raising the quality of human factor is the fundamental problem which needs to be carefully tackled, if permanent solution to the problem of underdeveloped farming has to be worked out. The study based on these perspectives is framed with the specific objective to assess the component/dimension wise management efficiency level of red gram grower (Tonbary, 1957 and Bora and Ray 1986) [4, 8].

### Methods and Materials

The study conducted to know the dimension wise management efficiency level of red gram growers in North-Eastern of Karnataka. The research study conducted in North Eastern region of Karnataka mainly in three districts viz., Bidar, Kalaburgi and Yadgir during the year 2017-18. These districts were purposively selected as these ranks first, second and third in area and production of red gram ([www.indiastat.com](http://www.indiastat.com)). The total sample size is 180, in each district 2 taluks were selected and from each taluka 2 village were selected for the study. Thus, 30 respondents or red gram growers were selected from one taluka. In each village, 15 red gram growers were randomly selected. Ex-post fact research design suitable for the study and employed. Personal interview method was used for data collection. Data were tabulated, analysed and interpreted in the light of objectives of the study.

### Results and Discussion

#### Dimension wise management efficiency of red gram growers

A Table 1 shows the dimension/component wise distribution of the red gram growers. Thirty eight per cent of the red gram growers were has high level of skills, followed by medium (38.88%) and low (25.56%). The reason might be that red gram growers exposed to demonstration on red gram crop and extension contact with scientists of KVK, ARS, SAU's scientists, expert about new technique to manage crop in different stages and adoption of recommended technology. In case of ability in planning, 47.78 per cent of the red gram growers were in medium category planning ability, followed (33.89%) high ability and low (18.33%) low ability. Planning

necessarily is a decision making process in every activities of crop cultivation. The difference in planning ability among the growers could be attributed to the nature of risk involved in maintaining the red gram production. Other factors which contributed to present findings might small area under red gram cultivation and medium experience of grower's red gram about cultivation. With respect to rationality in decision making, maximum red gram growers fall under low level category that is 36.11 per cent, followed by medium (34.44%) and high (29.45%). Decision making is highly influenced by close interaction among co-growers, friends and members of family. Most of the decisions are influenced by close members of group dynamics as well as scientist or experts which in turn effect the decision making process of an individual. Similarly, in ability to mobilize resources, 35.56 per cent, 33.33 per cent and 31.11 per cent were had high, medium and low ability. Reasons for high mobilize resources due to the availability of adequate quantity seeds, fertilizers etc., now-a-day's every central government, state government as well as local private company made effort to avail the seeds to farmers on time. Maximum amount of farmers having some crop production implements in their home and farm for their crop production and management and also having knowledge on bio-fertilizer and consulting Agricultural officers, scientist, expert and fellow farmers about use of bio-fertilizer and new techniques about red gram crop cultivation.

In respect to ability to coordinate activities, 38.33 per cent growers fall in medium level, followed by 34.44 per cent high level and 27.23 per cent low level of ability to coordinate activities. Red gram crop management requires timely coordination of different activities in order to get maximum yield and returns. Tasks are interrelated and need to be performed in tandem with one another. Activities such as control of pests and diseases, maintaining proper moisture in the field, temperature and water requirement or irrigation are interrelated. In case of innovative ideas, nearly 48.89 per cent of the red gram farmers were medium innovative, 42.78 per cent were highly innovative and only eight per cent were less innovative. In respect of competence on crop technology, 44.44 per cent of the red gram growers were medium category, followed by 40.56 per cent were in high category and 15.00 per cent were in low category. In most of the components or dimensions, more number of red gram growers were found in medium category. The probable reason for this might be due to the cosmopolite, innovative nature of the red gram growers as well as their knowledge level. The results of the study are corroborated with the findings of with different a researchers (Reddy, 2006) [7], (Birajdar, 2012) [3], (Basavaraj, 2014) [2] and (Pawar Rahul, 2015) [6].

**Table 1:** Dimension wise management efficiency of red gram growers (n = 180)

Sl. No.	Aspects	Categories	Criteria	Respondents	
				No.	%
1	Skills acquired Mean = 20.35 SD = 2.38	Low	<19.16	46	25.56
		Medium	19.16-21.54	64	35.56
		High	>21.54	70	38.88
2	Ability in planning Mean = 30.86 SD = 3.28	Low	<29.22	33	18.33
		Medium	29.22-32.49	86	47.78
		High	>32.49	61	33.89
3	Rationality in DM Mean = 23.86 SD = 2.95	Low	<22.38	65	36.11
		Medium	22.38-25.33	62	34.44
		High	>25.33	53	29.45
4	Ability to mobilize resources Mean = 22.48	Low	<21.37	56	31.11
		Medium	21.37-23.60	60	33.33

	SD = 2.23	High	>23.60	64	35.56
5	Ability to coordinate activities Mean = 20.74 SD = 2.30	Low	<19.60	49	27.23
		Medium	19.60-21.89	69	38.33
		High	>21.89	62	34.44
6	Rational marketing decision Mean = 25.13 SD = 3.74	Low	<23.27	52	28.89
		Medium	23.27-27.00	59	32.78
		High	>27.00	69	38.33
7	Innovative ideas Mean = 7.20 SD = 1.23	Low	<6.59	15	8.33
		Medium	6.59-7.81	88	48.89
		High	>7.81	77	42.78
8	Competence in evaluation on crop technology Mean = 15.73 SD = 2.51	Low	<14.47	27	15.00
		Medium	14.47-16.98	80	44.44
		High	>16.98	73	40.56

**1. Skills acquired by red gram growers**

Data in Table 2 reveals that above eighty per cent of the red gram growers completely acquired skills on techniques of disease diagnose in red gram and identification of pests in red gram. Seventy six per cent of the red gram growers moderately acquired technique of weed management, 66.67 per cent of them moderately acquired skill of preparation of desired concentration of spray mixture to control diseases as well as to control pests. Whereas, 68.33 per cent of the red

gram growers not acquired technique of transplanting. The reason might be majority of the famers were exposed to demonstration and extension contact with expert about new technique to manage crop and adoption of technology. Skill is one of most important component to know their potentiality to manage their crop with best techniques so that grower can get maximum amount of yield. Every skill is important to manage the crop for better profit.

**Table 2:** Skills acquired by red gram growers (n = 180)

Sl. No.	Item	Not acquired		Moderately acquired		Completely acquired	
		No.	%	No.	%	No.	%
1	Techniques of seed treatment	5	2.78	101	56.11	74	41.11
2	Techniques of transplanting	123	68.33	23	12.78	34	18.89
3	Techniques of weed management	0	0.00	137	76.11	43	23.89
4	Techniques of fertilizer application	0	0.00	93	51.67	87	48.33
5	Identification of diseases in red gram	1	0.56	22	12.22	157	87.22
6	Identification of pests in red gram	0	0.00	36	20.00	144	80.00
7	Preparation of desired concentration of spray mixture to control diseases	0	0.00	120	66.67	60	33.33
8	Preparation of desired concentration of spray mixture to control pest	0	0.00	120	66.67	60	33.33
9	Techniques of IPM control measures	110	61.11	67	37.22	3	1.67

**2. Red gram growers' ability in planning**

An examination of Table 3 reveals that sixty per cent of the red gram growers planned in advance the place of marketing, above seventy per cent of them somewhat followed the activities like estimation of cost of red gram production (85.00%), followed by work out the cost of farm implements for various intercultural operations (82.22%), Work out farm implements availability for various intercultural operations (81.67%), setting objective of production target (73.33%), setting objective of profit target (79.44%), prepared a plan for timely operations (74.44%), forecasting various operation in red gram production (79.44%), forecast input requirements for red gram production(70.56%), listing the different sources of credit availability (77.78%) and workout labour availability for carrying out various operations for peak and off seasons (77.22%). Planning necessarily is a decision making process in every activities of farming. The difference in planning

ability among the growers could be attributed to the nature of risk involved in maintaining the red gram production. Other factors that might have contributed to present findings might be the less experience of growers and small area under red gram cultivation. As the area under red gram cultivation is low so, it does not necessarily to have extra burden on growers to plan the activities. Other important factors observed that generally farmers do not tend to plan their activities and famers would always think that planning and documentation are time consuming activities and also farmers under Indian conditions are found to neglect or attach lesser importance to planning activity in case of any enterprise, this might be due to the somewhat difficulty in understanding and implementing planning techniques. The results of the study are corroborated with the findings of different researchers (Reddy, 2006) [7], (Birajdar, 2012) [3], (Basavaraj, 2014) [2] and (Pawar Rahul, 2015) [6].

**Table 3:** Red gram growers' ability in planning (n = 180)

Sl. No.	Item	Not followed		Somewhat followed		Followed	
		No.	%	No.	%	No.	%
1	Set an objective of production target	24	13.33	132	73.33	24	13.33
2	Set an objective of profit target	9	5.00	143	79.44	28	15.56
3	Prepared a plan for timely operations	0	0.00	134	74.44	46	25.56
4	Forecasting various operation in red gram production	11	6.11	143	79.44	26	14.44
5	Forecast input requirements for red gram production	3	1.67	127	70.56	50	27.78

6	Listing the different sources of credit availability	7	3.89	140	77.78	33	18.33
7	Estimation of cost of production of red gram production	10	5.56	153	85.00	17	9.44
8	Plan well in advance the irrigation schedule	174	96.67	3	1.67	3	1.67
9	Estimation of the requirements of fertilizers well in advance.	26	14.44	101	56.11	53	29.44
10	Work out the labour availability for carrying out various operations for peak and off seasons.	17	9.44	139	77.22	24	13.33
11	Work out the cost of labour for carrying various operation	17	9.44	139	77.22	24	13.33
12	Work out farm implements availability for various intercultural operations	3	1.67	147	81.67	30	16.67
13	Work out the cost of farm implements for various intercultural operations	3	1.67	148	82.22	29	16.11
14	Estimation of cost of mechanization	62	34.44	90	50.00	28	15.56
15	Plan in advance the place of marketing	4	2.22	67	37.22	109	60.56

### 3. Red gram growers' rationality in decision making

Data in Table 4 shows that 75.00 per cent of the red gram growers consulted experts to decide on harvesting period followed by 68.33 per cent to decide on place of purchase of inputs, 65.56 per cent to decide on plant protection measures against pests and diseases, 61.11 per cent on place of marketing of red gram. Whereas, 75.00 per cent of them consulted friends/salesman to decide on estimating cost of

production and profit realization, 61.11 per cent of them consulted friends/salesman to decide on number of hired labourer to be engaged in red gram cultivation. Very few per cent of the red gram growers were not aware of the rationality to take decision. Majority of the red gram growers in the area were having more contact with innovative farmers/progressive farmers. Hence, they consulted experts to take decision.

**Table 4:** Red gram growers' rationality in decision making (n = 180)

Sl. No.	Item	Own		Friends/Salesman		Recommended/Expert	
		No.	%	No.	%	No.	%
1	Type of fertilizers to be used	13	7.22	89	49.44	78	43.33
2	Quantity of fertilizers used	13	7.22	95	52.78	72	40.00
3	Plant protection measures against pest and diseases	14	7.78	48	26.67	118	65.56
4	Place of purchase of inputs	14	7.78	43	23.89	123	68.33
5	Harvesting period	2	1.11	43	23.89	135	75.00
6	Number of hired labourer to be engaged	28	15.56	110	61.11	42	23.33
7	Estimating cost of production and profit realization	21	11.67	135	75.00	24	13.33
8	Use of machinery to harvest the crop	21	11.67	103	57.22	56	31.11
9	Place of marketing of red gram	4	2.22	66	36.67	110	61.11
10	Post-harvest management at storage	18	10.00	78	43.33	84	46.67

In general, nearly an equal proportion of growers were observed among different categories of decision making. Decision making is an integral part of planning. The explanation given in case of planning ability holds good for the present findings too. Decision making concept is highly influenced by close interaction among co-growers, family members and friends. Most of the decisions are influenced by close members of groups as well as experts which in turn effect the decision making process of an individual. Decision making is also enhanced by experience, social contact and exposure through participation in activities, Use of mass media and expert's consultancy, which help farmers to understand importance of crop and also help to choose best option among many available alternatives. These results are in conformity with the results of different researchers (Reddy, 2006) [7], (Birajdar, 2012) [3], (Basavaraj, 2014) [2] and (Pawar Rahul, 2015) [6].

### 4. Red gram growers' ability to mobilise resources

An insight in Table 5 indicated that 94.44 per cent of the red

gram growers have adequate quantity of seeds followed by 82.22 per cent of them had ample number of implements, 76.67 per cent of them had adequate bio-fertilizer and 72.78 per cent had adequate plant protection chemicals. Sixty eight per cent and 61.11 per cent of the red gram growers were not having adequate financial resources and irrigation facilities, respectively. Major constraints in context of the resources were found to be irrigation source as well as financial sources. These two are the major problem where farmers are facing in all the area. Here, Government as well as private company making their effort to avail the cent per cent seeds to grower on time. At least farmers having some amount of implements in their home for their crop production and management and also having some amount of knowledge about bio-fertilizer and they also consulting expert and fellow farmers about bio-fertilizer and new techniques about red gram cultivation. In case of plant protection maximum growers taking care to protect their crop by pest and disease and other natural calamities.

**Table 5:** Red gram growers' ability to mobilise resources (n = 180)

Sl. No.	Item	Not used		Not adequate		Adequate	
		No.	%	No.	%	No.	%
1	Seed	0	0.00	10	5.56	170	94.44
2	Availability of farm yard manure	77	42.78	95	52.78	8	4.44
3	Bio-fertilizer	0	0.00	42	23.33	138	76.67
4	Chemical fertilizers	17	9.44	44	24.44	119	66.11
5	Plant protection chemicals	13	7.22	36	20.00	131	72.78
6	Labourers (Men, women, bullock pair)	10	5.56	84	46.67	86	47.78

7	Implements	3	1.67	29	16.11	148	82.22
8	Irrigation/Rainfed	0	0.00	110	61.11	70	38.89
9	Financial resources	0	0.00	123	68.33	57	31.67

### 5. Red gram growers' ability to co-ordinate activities

It is apparent from Table 6 that 96.67 per cent of the red gram growers followed coordination in land preparation as well as in weed management, 82.22 per cent followed in pest management. Ninety three per cent of them somewhat followed nutrient management, 96.67 per cent not followed co-ordination in transplanting stage, moisture conservation practices, each. Coordinating of activities is related to the intensity of activities of an enterprise. In general, enterprise

with more intricate activities requires higher coordination efforts. Red gram management also requires timely coordination of different activities in order to get maximum returns. Tasks are interrelated and need to be performed in tandem with one another. Activities such as control of pests and diseases, maintaining proper moisture, temperature and water requirement are interrelated, hence the findings might have been observed in the present study. The results are in accordance with the findings of (Chandramouli, 2005) [5].

**Table 6:** Red gram growers' ability to co-ordinate activities (n = 180)

Sl. No.	Item	Not followed		Somewhat followed		Followed	
		No.	%	No.	%	No.	%
1	Land preparation	0	0.00	6	3.33	174	96.67
2	Transplanting stage	174	96.67	2	1.11	4	2.22
3	Weed management	2	1.11	4	2.22	174	96.67
4	Nutrient management	5	2.78	169	93.89	6	3.33
5	Disease management	13	7.22	80	44.44	87	48.33
6	Pest management	5	2.78	27	15.00	148	82.22
7	Moisture conservation practices	174	96.67	3	1.67	3	1.67
8	Post-harvest linkage-grading, packaging and transportation	4	2.22	93	51.67	83	46.11
9	Obtaining necessary guidance from extension workers/experts	75	41.67	73	40.56	32	17.78
10	Reading literature for taking suitable control measures	134	74.44	37	20.56	9	5.00

### 6. Rational marketing decision by red gram growers'

A cursory look at Table 7 highlighted that 68.33 per cent of the red gram growers followed proper packaging practices to avoid wastage, 67.22 per cent were followed proper storage to avoid spoilage, 61.11 per cent followed collecting information about marketing channels and places for selling produce,

each. Sixty four per cent of the red gram growers were somewhat following collecting information about cost and marketing practices in different market and only 48.89 per cent of them were not following information on e-tendering process. For the remaining items very few individuals were not following.

**Table 7:** Rational marketing decision by red gram growers' (n = 180)

Sl. No.	Item	Not followed		Somewhat followed		Followed	
		No.	%	No.	%	No.	%
1	Collecting information about various marketing channels	4	2.22	66	36.67	110	61.11
2	Collecting information about various places for selling produce	4	2.22	66	36.67	110	61.11
3	Collecting information about cost and marketing practices in different market	6	3.33	116	64.44	58	32.22
4	Collecting information about malpractices, delayed payment of money and other pilferages if any, at different market outlets	27	15.00	92	51.11	61	33.89
5	Select a market outlet where competitive price for red gram was ensured	23	12.78	96	53.33	61	33.89
6	Collecting information on e-tendering process	88	48.89	78	43.33	14	7.78
7	Ensured that the price offered for red gram was not less than cost of production	30	16.67	96	53.33	54	30.00
8	Mode of transportation	6	3.33	89	49.44	85	47.22
9	Proper packaging of red gram to avoid transportation losses.	1	0.56	56	31.11	123	68.33
10	Proper storage of red gram to avoid spoilage	1	0.56	58	32.22	121	67.22
11	Maintenance of market records	72	40.00	79	43.89	29	16.11

This might be due to their respective education level, extension contact and mass media exposure and marketing procedure. Rational marketing is influenced by the decision taken by the respondents in production planning. It was observed that most of the respondents were selling their produce in regulated markets. This in turn had positive impact on their marketing orientation. As they were found to have medium ability in rational marketing, assured market with near stabilized prices for the produce might have resulted in medium marketing orientation. The results are in conformity with the findings of researchers (Reddy, 2006) [7], (Birajdar, 2012) [3], (Basavaraj, 2014) [2] and (Pawar Rahul, 2015) [6].

### 7. Innovative ideas followed by red gram growers

The data in Table 8 indicated that 90.00 per cent of the red gram growers were followed seed treatment with bio-fertilizer, more than ninety per cent of them not followed innovation in nipping (97.78%), transplanting (96.67%), organic farming (96.11%), and dibbling method (96.11%). In farming everywhere adopting innovative ideas which is one of the techniques helping growers to maximize their area of cultivation and get maximum returns. In red gram only selected innovative ideas only following by maximum growers. Here seed treatment is one of the idea which protect seed from soil borne diseases and transplanting also plays an important role to increase the yield and also by organic farming the farmer can get organic food.

**Table 8:** Innovative ideas followed by red gram growers (n = 180)

Sl. No.	Item	Not followed		Somewhat followed		Followed	
		No.	%	No.	%	No.	%
1	Organic farming	173	96.11	3	1.67	4	2.22
2	Seed treatment with bio-fertilizer	18	10.00	0	0.00	162	90.00
3	Transplanting	174	96.67	2	1.11	4	2.22
4	Nipping	176	97.78	1	0.56	3	1.67
5	Dibbling method	173	96.11	2	1.11	5	2.78

### 8. Competence in evaluation of red gram growers on crop technology

A Bird eye view of Table 9 reveals that 87.22 per cent of them correctly answered for identification of symptoms caused by pest and disease, 83.89 per cent of them correctly answered for estimation of yields. Seventy six per cent of them were partially satisfactory in estimation of cost of production, 72.22 per cent of them in identifying causes for poor yield and quality. Only 25.00 per cent of them given incorrect answer for estimation of nutrients available and their cost in different fertilizer. The importance of competence in

evaluation of technology and control is obvious for keeping in touch with the desired goals. Evaluation is necessary to know whether the enterprise is earning profits or incurring loss. It was observed that majority of the red gram growers kept records of produced quantity and prices realized. They were aware of profits and loss in the enterprise. Societies too provided the data to the growers which helped them to assess their costs of production. Similar findings are observed by (Reddy, 2006) <sup>[7]</sup>, (Chandramouli, 2005) <sup>[5]</sup> and (Vyas and Patel, 2002) <sup>[9]</sup>.

**Table 9:** Competence in evaluation of red gram growers on crop technology (n = 180)

Sl. No.	Item	I/U		PC/PS		C/S	
		No.	%	No.	%	No.	%
1	Identification of nutrient deficiency symptoms	14	7.78	55	30.56	111	61.67
2	Estimation of nutrients available and their cost in different fertilizer	45	25.00	112	62.22	23	12.78
3	Identification of symptoms caused by pest and diseases	1	0.56	22	12.22	157	87.22
4	Identifying causes for poor yield and quality	24	13.33	130	72.22	26	14.44
5	Estimation of yields	11	6.11	18	10.00	151	83.89
6	Estimation of cost of production	26	14.44	138	76.67	16	8.89
7	Seeking help of professionals in maintaining records	81	45.00	70	38.89	29	16.11

IC/US - Incorrect/Unsatisfactory, PC/PS - Partially correct/Partially satisfactory, C/S - Correct/Satisfactory

### Conclusion

The study revealed that red gram growers were the have good skill, better planners, better decision making ability or better decision markers, better resource mobilizer, coordinate the activities, coordinators besides skilled in rational marketing and adopted innovative techniques or ideas and they have the good competence to evaluate crop technology. Management in agriculture necessarily is a combination of various functions viz., acquire skill, planning, decision making, organizing, efficient utilization of resources, market place and facilities, innovative idea or techniques and co-ordination of activities to improve profits. Management is entirely concerned with getting things done and determining how to get things accomplished. To improve management ability or efficiency requires an understanding of the components or competencies of the managerial tasks. The different component or dimension like skill, planning, decision making ability, resource mobilizing, coordinate the activities, coordination in rational marketing and adoption innovative techniques or ideas and competence to evaluate crop technology will play the important role to perform management efficiency and lead to good progressive formers or innovative formers. To achieve improvement in management efficiency, training programs can be considered as the most effective method. Training programs may involve relatively formal course work and/or discussions in collaboration with management experts, innovative farmers and progressive growers. It necessitates formulation and implementation of suitable education strategies specifically in pulse cultivation areas to increase the level of management efficiency among the pulse growing farmers that in turn

influences on productivity of pulse or especially red gram.

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