

Periodic Research

Development of Diversified Products Using Chokla Wool

Abstract

The present study was conducted with a prime objective of developing diversified products using Chokla wool. For this purpose a list of fifteen products was prepared and Preference for to be developed diversified products was taken from twenty old age persons suffering from multiple arthritis. By scoring and ranking method top six most preferred products were developed by the researcher viz. Chest warmer pad, Upper back supporter, Lower waist belt, Wrist belt, Knee pad and Ear muff. These products were developed using Chokla wool in pure and blended form. Each product was duplicated into three. Further these products were given to twelve respondents suffering from multiple arthritis. Each product was given for a wear trial for three days, and responses were collected on suitability scale using five point rating scale. Developed products were evaluated for their acceptability and market potential, developed products were highly appreciated for their uniqueness and usefulness

Keyword: Diversified Product, Multiple Arthritis

Introduction

Fibre has been of great importance to man and rank second only to food in their usefulness. Sheep along with goats were perhaps the first ruminants to be domesticated by man. Rajasthan accounts for more than fifty per cent of the total sheep population. Rajasthan is the biggest wool-producing area in India. Of the total wool production in India, 40-50 per cent comes from Rajasthan. Chokla, Marwari, Jaisalmeri, Magra, Malpuri, Sonadi, Nali and Pungal breeds of sheep are found in the region. Chokla sheep produce fine carpet wool compared to all the other Rajasthan breeds. It is also known as Rajasthan Merino. Bikaneri Chokla is abundantly available in Loonkaransar and Bikaner tehsils particularly towards eastern and southern parts of Bikaner. Bikaneri Chokla wool deemed to be the best carpet wool in the world. The characteristic of Bikaneri Chokla wool suits to the requirement of ideal carpet in terms of micron, length, strength and resilience. Bikaneri Chokla wool deemed to be the best carpet wool in the world. (Prajapati *et al.* 2012).

Chokla wool is coarser in nature which delimits its uses in textile sector. At present Chokla wool is only used in the field of carpet and rug making. As the production of this wool is not able to meet demands, it is used in blends with other woolen fibers, large amount of blending is done with available international wools to enhance quality of these wools. Felts can also be produced by using Chokla wool in pure and blended form.

It is well known that apparels cannot be made using Chokla wool, this is why Chokla wool is only used for carpet and rug making. Sporadic efforts have been made to diversify uses of Chokla wool, with keeping in mind that developed products should have enough market potential. In this study quilting technique was used for the development of diversified products, because by using this technique wool does not come in direct contact with the skin of the wearer. For development of diversified products Chokla wool was used in both pure and blended form.

Objectives

Present study was conducted with the following objectives:

1. To develop diversified products using Chokla wool.
2. To find out acceptability and marketability of developed products.

Methodology

The various steps to achieve the objectives were as follows:

- (a) **Preference for the diversified products** A sample of 20 old age respondents suffering from multiple arthritis was selected purposively to find out the preference of diversified products developed under the study by using Chokla wool.

Chandni Swami

M.Sc. Scholar,
Dept. of textile and
Apparel Designing,
College of Home Science
M.P.U.A.T., Udaipur

Sudha Babel

Professor
Dept. of Textiles and
Apparel Designing
College of Home Science
M.P.U.A.T., Udaipur

Periodic Research

- (b) **Development of diversified products:** On the basis of preference of the respondents most preferred six products were developed using quilting technique.
- (c) **Wear trial of developed diversified products:** For this purpose 12 respondents suffering from multiple arthritis were selected. Only those respondents who were willing to participate were selected take wear trial of the developed diversified products .
- (d) **Assessment of suitability of developed diversified products:** Each of the product were independently rated using five point rating scale by all the twelve respondents who also participated in wear trial of developed diversified products.
- (e) **Marketability and acceptability of the developed diversified product:** In order to assess the market potential of the developed diversified product market potential rating scale was used. For this researcher selected ten market personals dealing with sale of these type of products and twelve old age persons who were selected for trial of developed products. At first manufacturing cost was calculated and then the profit percentage was added to the net rate in three categories i.e. 20 percent, 30 percent and 40 percent profit. These rates were shown to respondents and most acceptable rate was decided.

Results and Discussions

- (a) **Selection of most preferred products:** On the basis of preference of the respondents most preferred six products were developed namely: chest warmer pad, ear muff, knee pad, wrist belt, knee pad, lower waist belt and upper back supporter using quilting technique.
- (b) **Selection of most preferred colour and material:** For preference for fabric, majority of respondents preferred blended fabric the reasons stated by the respondents were easy to wash, maintain and removes stain from blended fabric as compared to cotton. For colour respondents preferred light skin colour.
- (c) **Development of diversified products:** Most preferred products were developed and each product was duplicated in three viz. 100 per cent Chokla wool, in second 70 per cent Chokla and 30 per cent nylon was used and in third product 50 per cent Chokla and 50 per cent nylon was used. There by making a total of 18 products. Skin colour spun fabric was used to prepare products.
- (d) **Suitability assessment of developed diversified products:** Suitability of developed products was assessed on various suitability parameters viz. Grip, Thickness, Warmth, Shape and size, Comfortability, Support the muscle, Protect the affected area, Do not hinder the movement, Easy to put on, Easy to put off, Easy to maintain, Fastener used is comfortable, Suitability of the design, Utility of product and Overall appearance using five point rating scale.

Further scores and percentage were calculated and lower waist belt obtained first rank followed by upper back supporter with second rank, third position was secured by wrist belt and earmuff, kneepad and chest warmer pad got forth fifth and sixth position by their relative ranking.

Table 1:
Scores and rank obtained by diversified products
N = 12

Products	Scores	Rank
Lower waist bend	849	1
Upper back supporter	808	2
Wrist belt	770	3
Earmuffs	764	4
Knee pad	734	5
Chest warmer pad	713	6

(e) **Calculation of cost**

In order to access the market potential for the developed diversified products researcher estimated the cost all diversified products. The market price of upper back supporter found to be highest i.e. 185 rupees including cost of fabric, raw material cost, Velcro, wire and labour cost. Whereas lower waist belt, chest warmer pad, knee pad, wrist belt and earmuffs cost was estimated 172, 91, 75, 31 and 21 rupees respectively.

Table 2
Estimation of production cost of the developed diversified product
N = 22

S. No.	Criteria of cost estimation	Chest warmer pad	Earmuffs	Knee pad	Wrist belt	Lower waist belt	Upper back supporter
1	Cost of fabric	40	6.5	24	16.5	50	55
2	Raw material cost	12.5	1.5	8	1.5	32	40
3	Velcro	1.5	0	15	3	15	15
4	Wire	0	3	0	0	0	0
5	Labour cost	37	10	28	10	75	75
6	Total	91	21	75	31	172	185

Estimation of profit

After cost calculation, the products were shown to total 22 respondents, 12 respondents who took trial of developed diversified products and 10 market personnel's to access the market potential. Findings of table 4.35 reveals that 59.09 per cent respondents gave preference to 20 per cent profit whereas 28.03 per cent respondents were ready to give 30 per cent profit and 6.81 per cent respondents were willing for 40 per cent profit and only 6.06 per cent were ready to give more than 40 per cent profit for the products. The result reveals that all developed products have enough market potential.

Conclusion

Threat to sustainability of Chokla sheep has resulted in awareness towards conservation of this breed, for this it is necessary to explore additional uses of this wool. With this study a small effort has been made towards developing diversified products using Chokla wool. All products were highly appreciated for their usefulness and uniqueness. Further cost was calculated and these products were evaluated for market potential and it was found that good profit can be gained by developing these type of useful products.

References

1. Prajapati, M., Prajapati, R.S., Murdia C.K. and Pannu, U. (2012) Study on wool quality attributes in Bikaneri Chokla Sheep in arid region of Rajasthan, *Veterinary Practitioner*, vol.13 pp 258-259.
2. Sankhyan, S.K. 2014. Chokla, best carpet wool. Central sheep and wool research institute, Avikanager, Rajasthan cited from http://www.cswri.res.in/technology_developed.asp on February 10, 2014.
3. Patil, V. 2012. Livestock production and management. Sheep and goat production management. Sheep breeds cited from <https://sites.google.com/site/viveklpm/sheep-and-goat-production-management/sheep-breeds> on January 20, 2014.