ART OF SILK COCOON CRAFTING - A BOON FOR VALUE ADDITION

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ABSTRACT

Handicrafts are hand made products prepared from raw indigenous material using traditional artistic tools or even some simple machinery in its designing/innovation. Handicraft products are catchy, cost effective objects of gift and decorative value. In Jammu and Kashmir State, as a result of rearing of 30 lakh DFLs during 2013-14, about 5000 kg cut/pierced mulberry silkworm cocoons have been produced in silkworm seed production centre grainages. These cocoons being non reelable, hence, are disposed off to spun silk industries at a very low rate. However, it is estimated that these cut cocoon byproducts could lead to a value addition upto 30.0% in mulberry post cocoon sector if utilized skillfully with effective management in cocoon crafting, besides, raw silk reeling from good cocoons. Cocoon crafting is an art of designing of some handicraft products like flowers, bouquets, garlands, greeting cards and other artistically designed fancy items. These can be decorated in our homes and work places to add to its aesthetic look. Cocoon crafted flowers can be used as ornamentals. Cocoon crafting can be taken as a commercial activity particularly by women folk of low socio-economic status and in turn bargain good economic return, simply utilizing cut/pierced cocoon waste with their creative skill. If development/designing of cocoon handicrafts is taken as a commercial activity, it will attract attention of huge number of local masses, thereby boosting up their revenue returns and value addition in sericulture through handicraft market.

Key words: Silk cocoon crafting, Sericulture.

INTRODUCTION

We offer flower bouquets and garlands to the dignitaries and guests on special occasions. The freshness and shape of these natural flowers last for little time only, ending up in wilting/drying and thus serving only momentary purpose. It also means the wastage of amount of money spent for purchase of these natural but temporary fresh flowers. On the contrary, if we honor the guests with cocoon crafted flower bouquets, garlands, fancy gift items etc. they will carry it to their home and preserve it for long time memory as a decorative show piece. Cocoon crafted items maintain luster for years to come with visual appeal and demand. As a handicraft activity, utilization of cocoon byproducts is gaining ground and popularity in the market [1-4].

Input Regimes for Cocoon Crafting
(a) Basic Raw Material
The basic raw material, (cut/pierced cocoons) is procured from any government or private grainage (SSPC). Rejected (dead/double) cocoons can also be used as substitute raw material to earn the return. These cocoons are cut open from one end and the cap portion thus obtained alongside cocoon body can also be utilized for preparation of some handicraft products.

(b) Other Miscellaneous material
The items required, based on the type of cocoon handicraft to be designed are scissors, zig-zag scissors, blade, cotton thread, cardboard, drawing sheets, needles, fabric glue, craft paper, glaze paper, velvet paper, adhesive tape, colour tape, stapler, plastic ornamental material, soft
binding wire, beads, chemical dyes and dyeing vessel, besides, heater required for cocoon dyeing. Instead of heaters, fire wood used for domestic purposes can also be utilized for cocoon dyeing. Fabric paint and water colour can also be used during cocoon craft fabrication.

Material and Methods for Development of Cocoon Crafts.
Small Scissor : It is used to give the desired shape to the cocoon and to cut the designer paper sheets etc.
Zig Zag Scissor : During the preparation of garlands, this type of scissor is used to cut the cocoons so as to make its edges serrated.
Paper cutter and Blade : These are used to cut the cocoons/paper sheets to the desired size and shape for innovating a design.
Fancy Plastic/Wire : It is used in the preparation of stalk of cocoon flowers. Soft wire can be also used as a substitute material for it.
Satin Ribbon : It is used to enhance the aesthetic look of the flower bouquet, by tying it around the bouquet.
PVC Sheet : It is required in the preparation of single and “bunch flower bouquets”. Cotton thread & Needle : It is used in stitching of garlands.
Velvet (handmade paper) Sheet : It is used in preparation of “flat flower bouquets”.
Gum : It is used as an adhesive to fix the cocoon material during designing of various craft items.
Paint Brush : It is used for colouring of the cocoons to be utilized in craft work.
Sketch Pens : They are used as colouring material in the designing of greeting cards.
Dyes : Chemical dyes are used for cocoon dyeing.
Adhesive Tape : It is used as an adhesive material in fixing and attaching the cocoon flower bouquets.
Drawing Sheet. It is used for preparation of flat flower bouquets and greeting cards. It can be substituted by craft sheets.
Fabric Paint. It is used in painting of the cocoons for fancy hand product designing.
Beads : These are used in preparation and decoration of small cocoon cap and other types of cocoon garlands.
Stapler : It is required to pin the edges of the bouquets, cards etc.
Glaze Paper : Glaze paper sheets are required for wrapping the flower bouquets.

Method of Cocoon dyeing

Different colours give charm and glamour to the objects, adding to its visual appeal. Colouring/dyeing is an basic requisite of cocoon handicraft preparation and gives colour look to the cocoons. Cocoons should be preferably dyed with natural colours, which is going to add value and originality to the creativity of the craftsman. Use the chemical dyes which are used for colouring the silk yarn/fabric. Use only soft water in dyeing the cocoons as hard water consumes more quantity of dye and it may also result in uneven dyeing.

Bring the water to boil and take the desired dye powder with needed quantity. About 100 gm of dye is required for 1 kg cocoon dying. Mix it initially with 100 ml of hot water. Stir continuously to avoid formation of clumps and then filter the dye solution. Next add this dye solution to the hot water and stir it continuously for uniform mixing of colour. Then dip the clean, deflossed and double, rejected cocoons in this solution. Stir it again continuously till the colour absorption of dipped cocoons is uniform : Cocoons should be dipped upto the temperature range of 50°C only, otherwise the higher temperature will effect its siricin content giving deformed look to these cocoons. Then the dyed cocoon should be removed from the solution and allowed to dry in a single layer under shade only, to avoid its decoloration. Now the dyed cocoon material is ready to be crafted into desired products.

The cocoon by-products (raw material), after procurement, are to be sorted out for uniform size and shape. The stained and dirty cocoons are rejected from the sorted lot. Later on the sorted cocoons are to be deflossed. These deflossed cocoons are dyed for desired colour and then given proper shape as per the product design by using blade, scissors etc. The cap portion of the cut cocoon can be used in the preparation of small beaded garlands, greetings cards and as assembled parts in designing of various fancy items.
Designing of cocoon craft products

Cocoon Flower
Cut the cocoon dyed with natural colour in the shape of petals making 3 to 4 petals per cocoon. Take 3-4 such cut cocoons, arrange them in a flower shape. Then fix the petals with glue. Dry these flower cocoons and pierce a sharp needle in its centre to insert a soft fancy wire and knot it at the top as well as bottom of the flower which will act its stalk. Cut another green dyed cocoons in the shape of leaves. Then arrange these leaves in a way around the flowers to give it a natural leafy look. An artificial plastic leaf can also be used as a substitute of the purpose.

Single flower bouquet: It is prepared by arranging/fixing a single or 2-3 flowers along with leaf to the branch shaped green plastic wire. Then it is wrapped in a conical transparent PVC sheet and in turn covered by a glaze paper with cello tape. It looks like a fresh flower bouquet.

Flower “Bunch” bouquet: Take about 25-50 bunch of cocoon flowers of different colours and arrange them in a flower bouquet shape. Number of flower cocoons depends upon the size and design of the bouquet to be prepared. Then wrap it in a transparent PVC sheet and in turn with a glittering craft paper to give it bouquet look.

Garland Designing
Following different types of garlands can be designed from cut cocoons.

(i) Single flower garland
This type of cocoon garland is prepared by using the cut end of the cocoons. Give shallow cut to the cocoons from the cut/pierced end side of it with a small scissor to give it a flower petal shape. Then insert a colour cocoon or other flower into this cocoon flower. After this add one or two gold coloured beads through the basal end of this cocoon flower, followed by a flower and beads again alternately with the help of a needle/thread forming a shape of garland. Number of cocoons in preparing the garland is subject to its required length. This is a simple type of garland with an elegant look and can be designed with three line orientation like a “Har” with central cocoon pendulum design.

(ii) Flower “Bunch” garland
Cut the open end of the “cut cocoon” by using a zig zag scissor. Stitch or fix 5-6 such cocoons joining their ends firmly. Such more stitched circle of cocoons (bunches) can be stitched further by thick thread to give it a shape of garland. Multicoloured cocoons can be used to grace the look of the garland. About 500 cocoons are required for preparation of the garland with heavy bouncy look. Cocoon flower garlands look more graceful and last for years to come. About 6 heavy garlands can be prepared from 1 kg cut/pierced cocoon.

(iii) Cocoon cap garland
The caps removed during inner cleaning of the cocoons, can be fixed together just like two halves of a walnut with the glue. These differently coloured caps are stitched/intermixed with golden beads in a line to form a garland with beaded look. White and colour caps beaded together add to its visual appeal. This type of garland is very light, delicate with decent look and easy to carry as a surprise gift.

Greeting Card Preparation

In greeting card preparation, both white and colour cocoons are used. These cocoons are cut into small pieces of various designs so that these are shaped as flowers, trees, and other scenic objects including small huts, animals, birds etc. Then fix these shapes on a piece of a craft/drawing paper and use water colour/sketch pens wherever necessary to design and paint the card. These cards look awe-some with full emotional expression as being hand crafted from the natural material. An occasion specific message carved on this card with “small cocoons pieces” shall mark the moment with nostalgic memories.

Fancy items of Gift/Interior Decoration
Small gift/decoration items like colourful birds, images of deity Ganesha etc., miniature mulberry or other trees, historic monuments like Taj Mahal and mythological Snowman, or any other items of aesthetic value which will exhibit the creative skill of craftsmanship, can be prepared and designed by utilizing cocoon by-products and waste deformed/ rejected cocoons. The cocoons are cut into small pieces of various designs, and these pieces are assembled together to form a particular shapes and fixed on craft, velvet or drawing paper. After giving it a finishing artistic touch, fancy product thus prepared can be glass framed and presented as gift or sold in the market. These items exhibit exquisite look and attract the attention of dignitaries and customers.

Economics of Designing/Development of cocoon crafts
Expenditure/cost of input items

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount (Rs.)</th>
</tr>
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<tbody>
<tr>
<td>Scissor</td>
<td>45</td>
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<tr>
<td>Zigzag scissor</td>
<td>200</td>
</tr>
<tr>
<td>Needle</td>
<td>02</td>
</tr>
<tr>
<td>Cotton thread roll</td>
<td>10</td>
</tr>
<tr>
<td>Satin ribbon</td>
<td>3/mt</td>
</tr>
</tbody>
</table>

Fancy wire 30/100 gm
Plier 100
Paper cutter 20
Blade 5
PVC sheet 15/mt
Craft paper sheet 15
Sketch pen 20/pack
Paint brush 15
Chemical dyes 45/100 gm
Adhesive tape 10
Glaze sheet 5
Gum/Glue 30/tube
Fabric paint 15/tube
Drawing sheet 5
Velvet paper sheet 20
Beads 50 (one small garland size)
Stapler 30

Single Flower Bouquet
A quantity of about 1000-1500 single flower bouquets can be designed from 1 kg cut cocoon.
No. of cocoons required/bouquet 2-3
Cocoon cost (Rs.) 0.50
Cost of input material (Rs.) 5.00
Labour cost (Rs.) 5.00
Total production cost 10.50
Product sale cost (Rs.) 20.0
Net Profit (Rs.) 9.50

“Flower Bunch” Bouquet
About 30-34 bouquets can be prepared from 1 kg cut cocoon.
Number of cocoons required/bouquet 95-100
Cocoon cost (Rs.) 15
Cost of input material (Rs.) 60
Labour cost (Rs.) 20
Total production cost (Rs.) 95
Product sale cost (Rs.) 200
Net Profit (Rs.) 105

Single Flower garland
A total of 30-38 single flower garlands are prepared per kg cut cocoon.
No. of cocoons required 85-100
Cocoon cost (Rs.) 15
Cost of input material (Rs.) 15
Labour cost (Rs.) 15
Total production cost (Rs.) 45
Product sale cost (Rs.) 75
Net profit 30

Flower “Bunch” garland
A total of 3-6 garlands can be prepared from 1 kg cut cocoon.
Number of cocoons required/bunch 500-600
Greeting Card
About 20 greeting cards can be prepared by utilizing only 50 cocoons.
No. of cocoons required/card 2-3
Cocoon cost (Rs.) 0.50
Cost of input material (Rs.) 3.0
Labour cost (Rs.) 3.0
Total production cost (Rs.) 6.5
Product sale cost (Rs.) 12.0
Net profit (Rs.) **5.5**

Fancy Ganesha
About 40 fancy Ganesha can be prepared from 1 kg cut cocoons.
No. of cocoons required 60-80
Cocoon cost (Rs.) 10
Cost of input material (Rs.) 45
Labour cost (Rs.) 90
Total production cost (Rs.) 150
Product sale cost (Rs.) 300
Net profit (Rs.) **150**

CONCLUSION
The cocoon byproducts though having less commercial value can generate handsome returns if utilized for preparation of cocoon handicrafts skillfully. An amount of about Rs.1500.00 can be earned from one kg of cut cocoon, as there is a good demand of cocoon crafted items in the market. However, revenue generation/kg cocoon can be enhanced if fancy cocoon craft products with creative skill are developed. Rural women folk can take up the activity and earn more as an aid to their livelihood. Cocoon crafting is a self-employment with minimum input but with considerable monetary profit if the activity is taken up with creative touch.

REFERENCES