THE CORN SHELL MATERIAL TO DESIGN BAGS FOR WOMEN

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ABSTRACT

The objective of this research is to: 1) study and analyze the properties of corn shell to guide the design of bags; 2) experiment with forming corn shell for use in bag design; and 3) design bags from corn shell. Step 1: Data collection Analyze and study the type of corn husk and its characteristic properties. Step 2: Experiment with processing corn husk material. Step 3: Design of bags from corn husk material The results showed that from the study of corn husk types and corn husk properties, it was found that there are 7 types of corn shell. Field corn with dent corn and flint corn types is the type with the properties of strength, durability, flexibility, lightness, and a smooth surface. From the material molding experiment, it was found that suitable techniques include tassel-making techniques. The process includes cutting the corn shell into strips, soaking them in fabric softener to soften them so that they do not irritate the skin, drying them, cross-embroidering the corn shell in front to get a tassel-like sheet, and the technique of making flower tassels by cutting the corn shell into strips. Soak it in fabric softener to make it soft and not irritating to the skin. Both techniques can be processed into bag products, which add value to corn shell as an alternative material and can be created into environmentally friendly products based on the creative economy concept.

Keywords : bags, creative materials, corn shell

INTRODUCTION

Corn is grown in all parts of the country. Considering Thailand's current corn yield, It was found that although Thailand has reduced the area of corn cultivation in the past, the number of harvests has not decreased. As a result, corn shell are left over from consumption in large numbers. This causes the remaining resources to outweigh the consumed output. Corn shell are large and tough, not easily torn, as well as resistant to mold, dew, and mold in damp places (Department of Agriculture, 2019). It can be used to make good handicraft products because, in addition to reducing the amount of agricultural corn husk waste that is left over in large quantities, It also adds value to corn shell.

Designing corn shell into products is the use of the properties of corn shell to be processed into materials. By experimenting with reprocessing corn shell using various techniques. In addition to being processed into new materials, it also adds value to leftover corn shell used in agriculture (Pairat Towiwat, 2017), which is considered to be the maximum utilization of resources and can be further developed in the design of handicraft products. Nowadays, environmentally friendly products or products made from local materials are gaining popularity and demand from consumers, which can create an identity for the product (Akapong Inkue, 2023).

Bags are essential for women to store their travel belongings, and they are also a piece of jewelry that boosts confidence when meeting people in different places. A bag can change the personality of the person carrying it and make the outfit look even better. Most women's research finds that women have a habit of buying a new bag every 3 months, which is very

wasteful, and they often find that the price of the bags purchased is quite high, as women's bags are currently both domestic and international and have developed more competition (Phuchit Rakruang, 2014).

Based on the above information, the designer came up with the idea of reusing leftover corn shell from animal husbandry. The properties of corn shell are useful because they can be developed into a material, increasing the value of corn shell. It also helps to reduce the remaining resources used in agriculture in another way.

OBJECTIVES

1. To study and analyze the properties of corn shell.
2. To experiment with forming corn shell for use in bag design.
3. To design a bag from corn shell

RESEARCH SCOPES

1. Study the properties of corn shell.
2. Study the pattern in the design of the bag.
3. Analyze corn husk properties and experiment with corn husk properties to apply to bag design.
4. Design 1 set of bags made of corn husk material, consisting of 2 handbags and 2 crossbody bags.

METHODOLOGY

This is qualitative research with the objective of studying corn husk properties and material-forming process techniques for application in bag design. It is divided into three stages:

Step 1: Study information about the properties of corn shell and the molding process for bag production by studying various sources such as books, journals, online media, theses, and research articles.

Step 2: Experiment with the molding process to use in bag design.

1) Experiment with the physical properties of corn shell that affect their use in bag design.

2) Experiment with forming from corn shell for use in bag design.

Step 3: Design and Development.

1) Design concept summary.
2) Sketch and develop designs.
3) Drawing for production.
4) Manufacture prototype bag products.

RESULT

The study analyzed 7 types of corn shell as follows : Field corn with dent corn, field corn with flint corn, sweet corn, pop corn, waxy corn, flour corn, and pod corn. When designing women's bags, there are two types of corn: dent corn and flint corn, which are most suitable for forming materials with strength, durability, flexibility, lightness, and a beautiful natural texture.

Table 1: Analyze the properties of corn shell that can be used to design bags.

Types of corn	Features suitable for the bag							
	strength	durability	flexibility	thickness	Thinness	lightness	smoothness	roughness
dent corn	✓	✓	✓		✓	✓	✓	
flint corn			✓		✓	✓	✓	
sweet corn				✓		✓		✓
pop corn				✓		✓	✓	
waxy corn					✓	✓		
flour corn					✓	✓	✓	
pod corn		✓			✓			✓

From the table of analysis of corn types and the properties of corn shell that can be used to design women's bags, it was found that field corn with dented and hard-headed types with strength, durability, flexibility, lightness, and a smooth surface can be used to design women's bags.

Table 2: Analyze the technique of forming corn husk materials that can be used to design bags.

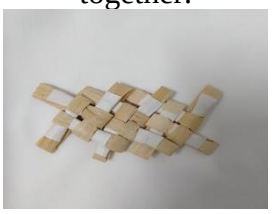
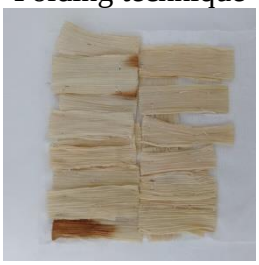
Corn husk forming technique	Features of choosing a technique		
	beauty	Corn husk surface	Easy to manufacture
Using shrink tubes to connect corn shell and weave them together. 	Moderate level	high level	low level
The use of gluing techniques. 	low level	Moderate level	low level
Folding technique 	low level	Moderate level	low level

Table 2: Analysis of techniques for forming corn husk materials that can be used to design bags (continued)

Corn husk forming technique	Features of choosing a technique		
	beauty	Corn husk surface	Easy to manufacture
The use of the mat weaving technique 	Moderate level	Moderate level	low level
Flower tassel making techniques 	high level	high level	high level
Tassel making technique 	high level	high level	high level

From the analysis of the six techniques for forming rice husk materials, it was found that each technique has beautiful properties. Easy-to-produce techniques can be used in women's bag products, namely the flower tassel making technique and the corn husk tassel making technique.

Design Guidelines

1. From the analysis of the type and properties of corn shell, it was found that the type with the best properties is field corn, dented tubers, with the following properties: strength, durability, flexibility, lightness, and a beautiful natural surface.

2. From the material molding experiment, it was found that there are two suitable techniques for forming bags in total, namely the tassel making technique and the flower tassel technique.

Figure 1. Photo of tassel technique from corn shell

Production Process

Steps to make a tassel technique from corn shell

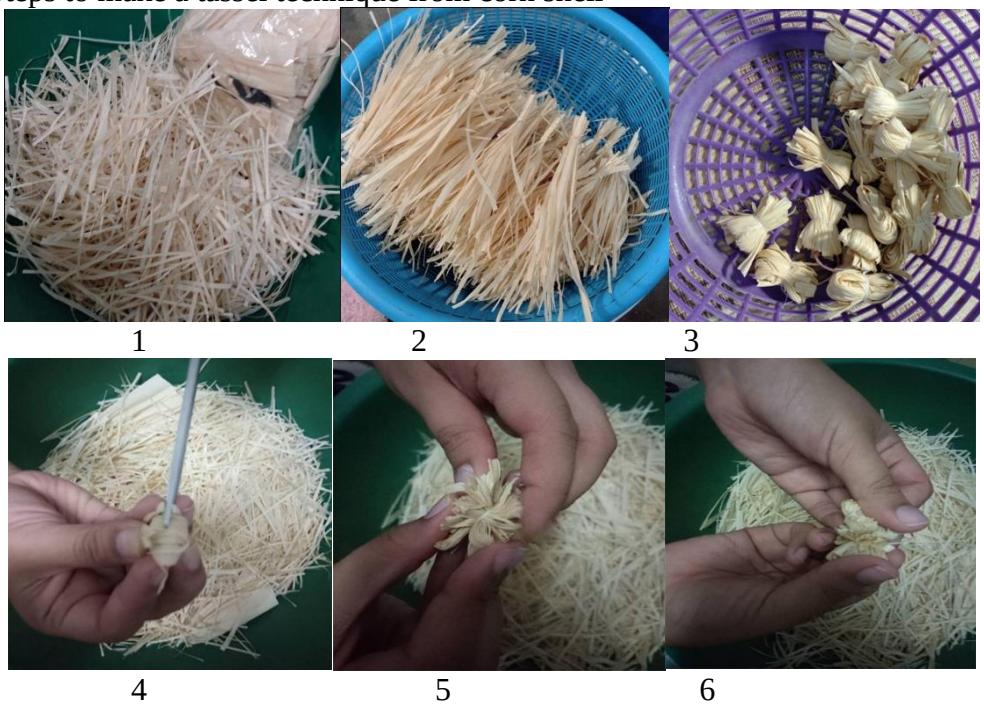


Figure 2. Flower tassel technique from corn shell

Steps to make tassel technique from corn shell

Figure 3. Tasel technique from corn shell

Figure 4. Prototype bag from corn shell

CONCLUSIONS AND DISCUSSIONS

By analyzing the corn types and husks of the seven types of corn, namely dent corn,flint corn, sweet corn, pop corn, waxy corn, flour corn, and pod corn, that can be used to design bags for women, it was found that there are two types of corn, dent corn and flint corn, that can be used to design bags. This is because it has the following properties: strength, durability, flexibility, lightness, and a beautiful natural surface, which correspond to the properties of the bag. By experimenting with corn husk materials and molding, two techniques were used: the corn husk tassel making technique and the corn husk tassel making technique. In addition to being processed into new materials, it also adds value to corn shell left over for agricultural use and is considered the maximum utilization of resources.

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