CLRI Develops Tech To Make Products Out Of Poultry Discards

Chicken feet leather is set to rule the roost in fashion

WEALTH FROM WASTE | Chicken feet leather can compete against other exotic leathers like crocodile and ostrich due to its grain pattern and reptile-like structure

LEATHER PROCESSING
- Processing of the chicken feet skin is similar to conventional leather processing
- It requires soaking, liming, de-liming, tanning and post-tanning, including addition of colour and leather characteristics
- Scientists have replaced sodium sulphide in the liming process, done for scale removal, with eco-friendly chemicals
- Requires a maximum 18 to 24 hours to convert raw skin to crust leather compared to conventional leather processing which takes three days

STYLE BOOK
- Wallets/purses, key chains, watch straps, mobile pouches, handbags, footwear, decorative embellishments in garments, steering wheel

The challenge lies in making a product out of comparatively small size of leather. While leathers made from sheep or cow is trimmed at the edges before it is stitched into a product, leather made from chicken feet is used with its frayed edges. "They have to be stitched together to make a product, which is a challenge. Also this leather has a particular texture or a grain pattern which makes it unique. So, the processing has to be done in a way that does not affect its texture," Krishnaraj said.

Tannery owner and exporter C M Prabhaikan, who was at the workshop, said the idea of developing a product out of chicken feet leather was promising, as it won't be difficult to source the raw material. "I don't think processing of the leather is difficult too. We can create a market for it and as the demand increases, and the price could also go up," he said.

The team of scientists from the city-based CSIR-Central Leather Research Institute (CLRI), working with the council's textile division, have carried out the research for over two years. The scientists have even put together a small line of shoes, made of chicken feet leather.

"Chicken feet can be used to develop products that could be promoted as exotic along with those made from crocodile or ostrich leather," said K Krishnaraj, senior principal scientist, leather process technology division.

"Apart from these, any leather tannery can process this skin with the use of a drum within 24 hours. No additional investment is required."

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If chicken is a source of delicious high-protein diet, its feet could soon be part of high fashion clothing and accessories. A team of scientists from the city-based CSIR-Central Leather Research Institute (CLRI) have developed a technology to process the skin of the feet and make colourful products, it including bags, wallets and shoes that could be as good as those made from exotic leather.

The scientists conducted a workshop with members of the leather industry and fashion design students earlier this month to raise awareness on the new found material and the prospects of creating a market for the products.

K Krishnaraj, senior principal scientist, shoe and product design centre at CLRI, said they hit upon the idea to create products from chicken feet, that is usually disposed of as waste in poultry farms and butcher shops, after suggestions from owners of a well-known poultry farm. "We realised chicken feet can be good source of raw material to develop products that could be promoted as exotic on a par with those made from crocodile or ostrich leather."

We are not just creating wealth from waste but it will fetch more money too," he said.

CLRI scientists, who have devised a technology to process the hide, said the skin from the feet could be processed with the conventional method followed in tanneries with small changes made to the liming and scale removal processes. "We have eliminated the use of sodium sulphide for processing and used an environment-friendly chemical instead. We have also changed the proportion and type of agent used for tanning," said R Venba, senior principal scientist, leather process technology division.

"Apart from these, any leather tannery can process this skin with the use of a drum within 24 hours. No additional investment is required."

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