

Coir – An interesting value-added product with a long history

**Don Mercer
Associate Professor, Department of Food Science
University of Guelph**

It's always interesting to see how ingenious some people are when it comes to turning what was once considered waste into a value-added product. Having been involved in food processing for about forty years, I find it most gratifying to see this happening in the agri-food sector.

One example that comes to mind is the case of cocoa bean hulls which were once treated as waste from the production of chocolate. They used to be burned as fuel before their value as a garden mulch became commercially exploited. Now, they are a valuable product in their own right.

On a trip to India ten or fifteen years ago, our hosts pointed out another important product as we drove through a portion of Tamil Nadu State. Many of the homes had what looked like large strands of shredded wheat spread on the ground around them to dry in the sun. This was my first glimpse into the production of coir. It seemed to be such a modern concept to look for other products that could be made from agricultural crops such as coconuts. I was definitely impressed. However, taking a closer look at the history of coir, I was surprised to find that there was nothing new about it at all. The coir fibre-making process was almost two-thousand years old!

Coir fibres are found between the round seed of the coconut and the outer hull. The seed contains the fleshy portion that is dried for desiccated coconut. Once the outer hull is broken open, the coir fibre can be removed. If the coconut is not yet ripe, the fibre will be white in colour. Fully ripened coconuts yield a brown fibre. After soaking or "retting" to separate them, the fibres are dried in preparation for further processing and use.

Long, brown coir fibres have been twisted into rope since ancient times. They are ideally suited for this use on ships due to their resistance to salt water. Brown coir is also used for making mats, mattress stuffing, and fabric. You may have seen brown coir fibres in furniture cushions, or in door mats. White coir fibres are used in a variety of applications including bristles for brushes.

Over a quarter of a million metric tonnes (1 tonne = 1,000 kg), of coir fibre are produced world-wide each year. Over ninety percent of this is produced in India and Sri Lanka.

According to our hosts in India, the coir fibre we saw was destined for shipment to the Netherlands to be used as mulch and packing material in the tulip bulb industry. The coir is light-weight and retains water well. It is also totally organic and biodegradable. When formed into small cups and used for seedlings, the entire coir container can be

placed into the garden without disturbing the developing root system of the young plants.

Writing this article has prompted me to purchase some small coir fibre seedling pots and a few other supplies to do a bit of in-door gardening with our grandchildren. Working with our two-year-old grandson promises to be a fun experience – hopefully we can recruit Grandma to help with the clean-up.



Small coir plant pots such as these are used to start seeds and may be sold as part of a kit that includes a plastic watering tray.