

**DEVELOPMENT A CINNAMON BARK PEELING
EQUIPMENT**

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Abstract

The Cinnamon Industry has been in Sri Lanka for hundreds of years and the product is commonly known as Ceylon Cinnamon. Sri Lanka is the dominant supplier in the world cinnamon market from the past due to its special taste and quality. Therefore, this has been a solid export earner over the years for Sri Lanka. At present it accounts for 80 % of the global cinnamon market and brings in an annual income of LKR 3,000 million.

Although the cinnamon industry is bringing in foreign exchange to the country, development activities in the cinnamon industry have been rare compared to the other industries. There is potential to develop the industry in various facets. The cinnamon peeling is one such process that needs development in this industry. It is a time consuming process. This is also a labour intensive process, and requires highly skilled labour to perform the task. Therefore, the new generation is reluctant to work in this sector. This has badly affected the entire cinnamon industry. In addition, only primitive tools are being used in the cinnamon peeling process. Thus, mechanization of process is one of the options available to overcome the existing issues in the industry.

In the current study, a new cinnamon peeling equipment was developed by introducing a new peeling technology. Existing cinnamon peeling method and other peeling technologies have been scrutinised to propose an appropriate peeling method.

Cinnamon peelers' (n = 12) and exporters (n = 2) feedback was gathered to improve the design. It was identified that the introduced equipment in general can be used with minimal training and knowledge. The study also showed that the safety and efficiency of the cinnamon peeling process is increased significantly when the equipment was used. Apart from that, there is a possibility to automate the process and it is suggested as future work.

Key Words

Cinnamon Peeling
Cinnamon Production
Cinnamon Bark
Cinnamon Quills
Peeling Equipment

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Declaration

I declare that this is my own work and this thesis/dissertation does not incorporate without acknowledgement any material previously submitted for a Degree or Diploma in any other University or institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

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LIST OF ABBREVIATIONS

Abbreviation	Description
USFDA	United States Food and Drug Administration
MPM	Microanalytical Procedures Manual
AOAC	Association of Official Analytical Chemists.
HACCP	Hazard Analysis and Critical Control Point
ITI	Industrial Testing Institute
DEA	Department of Export Agriculture
SFD	Shear Force Diagram
BMD	Bending Moment Diagram
S/S	Stainless Steel