ABSTRACT

Peeling is an important preliminary stage of fruits and vegetable processing. The quality and the final price of the processed products is highly dependent on this stage. Manual peeling is possible for any kind of product but high losses and considerable consumption of time and labor have encouraged the peeling industry to use other methods. Mechanical, thermal and chemical peelings are conventional methods each of which has its own benefits and limitations. Those methods apply mechanical tools, heat or cold and dye respectively to peel off the fruit and vegetable skin. As none of the current methods can satisfy all requirements of producers and consumers, other kinds of peeling methods have been developed. Changing the peeling technique has changed the kind of merits and demerits but the problem is still unsolved.

Among the current peeling methods, mechanical methods can attract the satisfaction of consumers as these methods possess some important benefits of the ideal methods such as freshness of the peeled product. As the view of consumers is important to the food processing industries researchers are encouraged to continue the search for mechanical peeling methods that are closer to the ideal peeling, in spite of the high losses so far experienced with these methods.

In the proposed project an automatic banana peeling and slicing machine will designed and fabricated using mechanical means. With this project the aim is to reduce the amount of time consumed to peel the rind of the plantain banana used in banana chips industries. As an additional feature the slicer is provided which will slice the plantain banana into thin slices which can be directly used fried in oil to make banana chips.