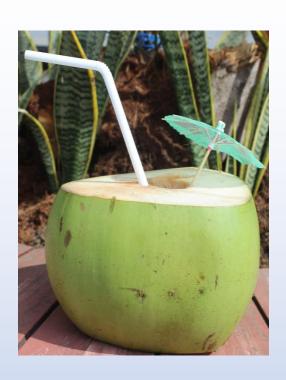
The modified **Cart-Mounted Buko Trimmer-Puncher** is a peeling machine for young coconuts on-wheels and equipped with storage compartment for *buko* and its waste. The stainless steel blade of the trimmer and puncher is manually operated. It has a carrying capacity of 30-40 pieces of *buko*. The design is convenient for *buko* vendors in mobility of the machine and the transport of fresh *buko* from farm to market. Moreover, the machine is designed with a manual hand break allowing the operator to maneuver the cart easily even in uneven roads.



## **SPECIFICATIONS**

- > Capacity: Three (3) buko per minute
- Cart Capacity:
- 30-40 pieces of average sized buko
- > Operation: Manual
- Blade and Puncher: Stainless steel
- Dimension:
  160 cm x 90 cm x 135 cm
- ➢ Weight: 95 kgs
- > Equipped with manual hand break
- With buko and waste storage/compartment
- Unit Price: Php 50,000.00





Republic of the Philippines Department of Agriculture PHILIPPINE COCONUT AUTHORITY ZAMBOANGA RESEARCH CENTER NON-FOOD PRODUCTS DEVELOPMENT DIVISION San Ramon, Zamboanga City 7000 P.O Box 356

> Tel/Fax: (062) 982-0302 E-mail: pcazrc2018@gmail.com pcanfpdd@gmail.com



Republic of the Philippines Department of Agriculture PHILIPPINE COCONUT AUTHORITY ZAMBOANGA RESEARCH CENTER Non-Food Products Development Division





# YOUNG COCONUT (BUKO) TRIMMER-PUNCHER

The **Buko Trimmer-Puncher** is a machine designed and developed to provide *buko* processors and street vendors a more convenient method of trimming and punching young coconut with the use of simple machines. It can be used in preparing *buko* at various pointsof-sale. The manually-operated trimmer is used to chop off the top and bottom of the nut with the use of a blade. The trimmed nuts are then punched by a stainless-steel puncher to make hole fitted for a drinking straw. The machine will help the *buko* vendors present and sell *buko* in a *faster*, *easier* and *more convenient way*.



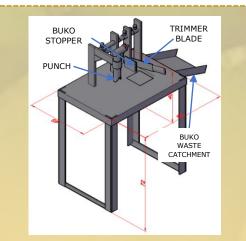






#### **SPECIFICATIONS**

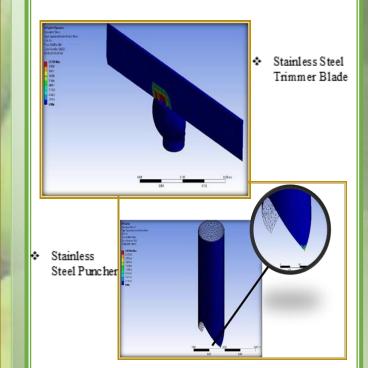
- Capacity: Three (3) pieces of *buko* per minute
- > Operation: Manual
- Blade and Puncher: Stainless steel
- Table Top: Stainless steel
- Dimension: 65 cm x 45 cm x 100 cm
- ➢ Weight: 41 kgs
- > Portable
- Unit Price: Php 25,000.00



#### **FEATURES**

- ✓ Low maintenance
- ✓ Easy to clean
- ✓ Easy to use and user friendly
- ✓ With excellent mechanical durability
- ✓ Made to be mobile, hence giving the user flexibility in transporting the machine on different areas
- ✓ Increases output and can be operated continuously since less human effort is required
- ✓ Designed with tempered blades, thus less likely to break and gets blunt
- ✓ Designed to be hygienic
- ✓ Reasonably priced technology

### VIRTUAL TESTING of PARTS: TRIMMER BLADE AND PUNCHER



The equivalent von-Mises stress in the *buko* trimmer blade and puncher caused by the trimming and punching action on the husk is at 21.4 kPa and 2.67 MPa, respectively. These results are significantly less than the tensile strength of the stainless steel which is at 860 MPa. This implies that the materials used are safe and durable.