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Introduction

Medicinal Plant Programme in Forest Research Institute Malaysia (FRIM) is committed to assist the local herbal and traditional medicine industries through the development of the modern techniques in the production of herbal products. Herbal Technology Centre is one of the excellence centre here that play a major role in supporting the herbal industry. The purpose of this leaflet is to provide information on the technical

services offered by HTC to the herbal industry. The service fees listed here are based on the cost of materials & labor charges incurred for carrying out the job.

Objectives
As a reference centre to individual, researchers, institutions & herbs base industries. Performing R&D works, provide services, consultation as well as training incubation centre.

Production Sections

Based on GMP, the management in HTC are divided into 5 sections which comprises:

Section 1: Post-Harvest Technology

Post - harvest processing activities such as washing, drying, grinding

& temporary packaging.

- RM 100.00 / 30kg 3 days Services & charges: Oven

Grinding - RM 60.00 / 30kg 1 day

Section 2: Extraction

Plant sample extraction using Extractor or juice extraction using Screw Press.

Drying process using either Freeze Dryer or Spray Dryer. Other equipment such as jet mixer, evaporator, homogenizer, vacuum packager, sealer, balance & freezer.



- RM 300.00 / 1000L 1 day - RM 250.00 / 50kg 1 day Screw Press Jet Mixer - RM 250.00 / 500L 1 day - RM 250,00 / 500L Homogenizer 1 day Evaporator RM 300.00 / 100L 1 day Freeze Dryer - RM 900.00* / 12L 3 days Spray Dryer - RM 1000.00 / 100L 1 day

* if sample less than 5L, charge will be RM 100.00 / L

Section 3: Milling

Grinding of dried extract into powder form. Milling powdered extract with the specific formulation. Drying of mixed materials for capsule & tablet production.

Services & charges: Granulator

- RM 250.00/ 50kg 1 day

Fluid Bed

- RM 300.00 / 70kg 1 day

Particle Size Reducer - RM 250.00/50kg 1 day Double Cone Mixer

- RM 250.00 / 100kg 1 day







Section 4: Finished Product

Capsule & tablet making using Capsule Filler & Tablet Pressed Machines.

Responsible for the packaging of the finished products.

Services & charges: Tablet Pressed

- RM 0.12 / capsule (30,000 capsules 1 day) - RM 0.10* / capsule (30,000 capsules 1 day)

Capsule Filler Counting & Filling - RM 0.01**

- RM 0.25 ***/ blister (2,500 blisters 1 day) Blister Pack

Ink-Jet Printing - RM 0.05 / blister (10,000 blisters 1 day)

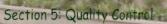
- RM 0.12 / pack (1,500 packs 1 day) Shrink Pack

Capsule size 1 & 2 provided

** Packaging materials (bottles & boxes) not provided

*** Capsule size 1 & 2 only





Quality control activities started from raw materials, temporary finished products untill finished products based on the developed standard to make sure that these products

are safe. Quality & safety testing including heavy metals & steroid testing, stability & chemical markers detection. Quality testing is also provided to the local herbs entrepreneur & to help them in the process of registration with the Ministry of Health Malaysia.