Republic of the Philippines
VISAYAS STATE UNIVERSITY
Visca, Baybay City, Leyte

PURCHASE REQUEST

PPMP No. : **PPMP-2025-092524-0599**

Dept./Office: **DA**

Section/End-User: **Milesa C. Marsado**

Funding Source: **General Fund - CO**

PR No.: **GF-2024-11-03090**   Date: **11-04-2024**

Category: **Laboratory Equipment**

Project Title/Code: **DA- Capital Outlay**

Item #	Item Description	Unit	Qty	Unit Cost	PAR/ICS	Total Cost
1	**Analytical Balance**	unit	1	50,000.00		50,000.00

Specification:

- Capacity: 220 g
- Readability: 0.1 mg
- Repeatability (Standard Deviation): 0.1 mg
- Linearity: ±0.2 mg
- Pan Size: 90 mm Ø (3.5 inches Ø)
- Response Time: 3 seconds
- Calibration:
  - Automatic Internal Calibration
  - Perfect Self Auto Calibration (temperature, time, power on)
- Display: Bright LCD with LED backlight
- Units of Measure: Gram, Milligram
- Tare Range: Full
- Operating Temperature: 10°C to 40°C
- Dimensions (W x D x H): 342.5 x 212 x 341 mm
- Power Supply: AC Adapter (100V-240V ± 20%, 50-60 Hz)
- Net Weight with Packing: 8 kg
- Packing Dimensions (W x D x H): 500 x 380 x 510 mm (19.6" x 14.9" x 20")

Item #	Item Description	Unit	Qty	Unit Cost	PAR/ICS	Total Cost
2	**Chlorophyll Meter**	pc	1	50,000.00		50,000.00

Specification:

Models: CM-A, CM-B

- **Measuring Area:** 2mm x 2mm
- **Measuring Mode:** 2-wavelength concentration difference of optical methods
- **Sensors:** Silicon semiconductor photodiode
- **Display Mode:**
  - Measuring value: 3-digit liquid crystal display
  - Measuring times: 2-digit liquid crystal display
- **Min Measuring Interval:** <3 seconds
- **Measuring Range:**
  - Chlorophyll: 0.0-99.9 SPAD

- Temperature: -10 to 99.9°C
- **Accuracy:**
    - Chlorophyll: ±3.0 SPAD
    - Temperature: ±0.5°C
- **Repeatability:**
    - Chlorophyll: ±0.3 SPAD
    - Temperature: ±0.2°C
- **Power Supply:** 4.2V - 2000mAh rechargeable Li battery
- **Memory Capacity:** 30KB, automatically calculates and shows the average
- **Packing Size (W x D x H):** 270 x 210 x 140 mm
- **Gross Weight:** 1.0 kg

3	Hygrometer	unit	1	100,000.00		100,000.00

Specification:

- **Professional accuracy:**
    - ±2-3% RH
    - ±1°F/°C
    - Provides the most reliable readings.
- **Wide temperature range:**
    - From -58°F to 158°F (-50°C to 70°C)
- **Humidity range:**
    - 10% to 99% RH

Indoor Thermometer TP-55 Features:

1. **Large Screen with Large Numbers:**
    - 4" large display for easy usability
    - Optional backlight and simple touchscreen
2. **Backlight Function:**
    - Blue backlight for easy reading in low light
    - Automatically turns off after 15 seconds
3. **Touch Screen:**
    - Switch between Fahrenheit (°F) and Celsius (°C)
    - Screen can light up for easy reading
    - Displays temperature/humidity data for all-time or last 24 hours
4. **Real-Time Temperature and Humidity Readings:**
    - Updates every 10 seconds
    - Humidity level icons indicate air conditions: DRY/COMFORT/WET
5. **Temperature and Humidity History:**
    - Measures and compares readings to 24-hour or all-time records
    - Helps adjust clothing based on previous conditions
6. **Trend Display:**
    - Displays trend of each reading
    - Allows proactive adjustments to thermostat or humidifier
7. **Multiple Mounting Options:**
    - Table-top
    - Wall hanging
    - Magnetic stick-up

Room Thermometer TP-55 Package Contents:

- 1 x Temperature and Humidity Monitor
- 2 x AAA Batteries
- 1 x User Manual

Additional Features:

- Large LCD display with touchscreen and backlight
- **Assembled dimensions:**
  - 4.30" x 3.30" x 0.80" (10.9 x 8.4 x 2 cm)
- Small and portable design with a large screen
- Reads humidity and temperature together
- High accuracy
- Convenient mounting for any room

4	Laboratory Oven	unit	1	250,000.00		250,000.00

Specification:

Interior:

- Dimensions: 400 mm (W) x 560 mm (H) x 330 mm (D) (excluding 39 mm for fan)
- Material: Easy-to-clean stainless steel, reinforced with deep drawn ribbing
- Heating: Large-area heating on four sides
- Volume: 74 L
- Max. Number of Internals: 6
- Max. Chamber Loading: 120 kg
- Max. Loading per Internal: 20 kg

Textured Stainless Steel Casing:

- Dimensions: 585 mm (W) x 944 mm (H) x 514 mm (D) (including 56 mm for door handle)
- Housing Rear: Zinc-plated steel

Electrical Data:

- Voltage:
  - 230 V, 50/60 Hz (approx. 2500 W)
  - 115 V, 50/60 Hz (approx. 1800 W)

Temperature:

- Working Temperature Range: Ambient temperature + 5°C to +300°C
- Setting Accuracy:
  - Up to 99.9°C: ±0.1°C
  - From 100°C: ±0.5°C
- Setting Temperature Range: +20°C to +300°C
- Temperature Sensor: 1 Pt100 sensor DIN class A in 4-wire circuit

Control Technology:

- Language Setting: German, English, Spanish, French, Polish, Czech, Hungarian

- Controller: ControlCOCKPIT - SingleDISPLAY with digital PID-microprocessor controller and high-definition TFT-color display
- Timer: Digital backwards counter, adjustable from 1 minute to 99 days
- Function SetpointWAIT: Process time starts only when set temperature is reached
- Calibration: Three freely selectable temperature values
- Adjustable Parameters:
  - Temperature (Celsius or Fahrenheit)
  - Fan speed
  - Air flap position
  - Program time
  - Time zones
  - Summertime/wintertime

Ventilation:

- Fan: Forced air circulation by quiet air turbine, adjustable in 10% steps
- Fresh Air: Admixture of pre-heated fresh air by electronically adjustable air flap
- Vent: Vent connection with restrictor flap

5	Leaf Area Meter	unit	1	200,000.00		200,000.00

Specification:

- Measuring Capabilities:
  - Leaf area
  - Average area
  - Leaf length
  - Leaf width
  - Leaf thickness
  - Perimeter
  - Length-to-width ratio
- Test Units: Millimeter, square millimeter
- Features:
  - Non-destructive and portable
  - Fine 1mm resolution
  - 16-hour battery life
  - Equipped with LED detectors
  - Precision: ±2%
- Measurement Range:
  - Length: ?1000 mm
  - Width: ?160 mm
- Data Storage: 200 groups
- Battery: 6V
- Optional Accessory: RS-232 link with computer (via software)

6	Seed/Grain moisture meter	unit	1	76,000.00		76,000.00

Specification:

Features:

- Digital display provides exact readings with no guessing or errors

- Two presentations: digital display and color-coded LED indication
- Color-coded LED lights indicate the moisture condition of the material:
  - Green LED: Safe, air-dry state
  - Yellow LED: Borderline state
  - Red LED: Damp state
- Utilizes exclusive micro-computer LSI circuit and crystal time base for high accuracy measurements, automatically obtaining temperature-corrected moisture values
- Cup-type measurement provides higher accuracy
- Calculates and displays statistical analysis of readings
- User-set alarm values
- Wide measuring range and high resolution
- Automatic power off to conserve battery
- Communicates with PC for statistics and printing via optional RS-232 cable and software (not included)
- Provides Bluetooth™ data output option (not included)

Specifications:

- Grains: 36 species
- Display: 4-digit 10mm LCD with color-coded LED indicator
- Calibration: Automatic
- Battery Indicator: Low battery indicator
- Measurement Range: 7% – 30%
- Accuracy: $\pm(0.5n\% + 1)$, whichever is greater
- Resolution: 0.1%
- Memory: 240 groups
- Data Output: USB, RS-232, Bluetooth (software and cables not included)
- PC Interface: RS-232C interface (software and cable not included)
- Power Supply: 4 x 1.5V AAA batteries
- Operating Conditions:
  - Temperature: 0°C – 50°C
  - Humidity: Below 90% RH
- Dimensions:
  - Main Unit: 150 x 65 x 30 mm
  - Sensor Cup: 115 x 66 x 66 mm
- Weight: 520 g (main unit and sensor cup, excluding battery)

Set Includes:

- 1 x Grain Moisture Meter
- 1 x Sensor Cup
- 1 x English Operation Manual
- Carrying case
- Standard factory packaging

TOTAL						726,000.00

Purpose: Laboratory Equipment-CO

Checked by:		Funds Available:		
GENESIS C. ALBARICO		**ALICIA M. FLORES**		201 - TQS
TWG - Laboratory Equipment		HEAD, BUDGET OFFICE		00 - 25

	Prepared by:	Noted by:		Approved by:
Signature:			LUZ G. ASIO 11/4/24	
Printed Name:	**MILESA C. MARSADO**			**PROSE IVY G. YEPES**
Designation:		UNIT HEAD, PROJECT LEADER		PRESIDENT, VSU