



April 28, 2025

Bid Bulletin No. 2
Modification of the Technical Specifications and Answers to Clarifications

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| <u>Name of Project:</u> | <i>2025-05G: Acquisition of Equipment and other Equipment for the Provision of Higher Education Services (Lot 3: Agroforestry Equipment)</i> |
| ABC: Php2,126,000.00 | |

This Bid Bulletin No. 2 is issued to modify or amend items in the Bidding Documents for the above cited project. This shall form an integral part of the said Bidding Documents. The changes in the technical description shall also apply to the Schedule of Requirements and Price Schedules found in the Bidding Documents

A. Section VII. Technical Specifications

| Item | From | To |
|------|---|--|
| 1 | <p>PENETROMETER</p> <p>Capacity: 28 lb x 0.25 lb (12.7 kg x 100 g)</p> <p>Designed for measurements between 3 and 27 pounds/1.2 and 12.25 kg</p> <p>Traceable Penetrometer Calibration</p> <p>Units are verified at multiple points</p> <p>Available for the FT011, FT327 and FT444 and firmness testers</p> <p>Lead time is 2-3 days from date of order</p> <p>Includes complete certificate with all data points</p> <p>FT Penetrometer Calibration Kit</p> <p>Kit Includes</p> <p>(1) Aluminum FT-penetrometer Stand</p> <p>(1) Plastic stabilizer for 8mm penetrometer Tip</p> <p>(1) 2kg calibration weight</p> <p>Manual Test Stand</p> <p>Large Anodized Aluminum platform</p> <p>Steel rack and pinion elevating mechanism</p> <p>Steel guide posts with teflon coated bushings</p> <p>Generous vertical clearance is approximately 8"</p> <p>Platform: 10" x 10"</p> <p>Work Area: 10" x 6"</p> <p>Vertical Arm: 8" travel distance 3" clearance from posts</p> <p>Weight: 8 lbs.</p> <p>Dimensions: 10" x 10" x 12" H</p> | <p>PENETROMETER</p> <p>Capacity: 28 lb x 0.25 lb (12.7 kg x 100 g)</p> <p>Designed for measurements between 3 and 27 pounds/1.2 and 12.25 kg</p> <p>Accessories:</p> <p>NIST Traceable Penetrometer Calibration</p> <p>Penetrometer Calibration Kit</p> <p>(1) Aluminum penetrometer Stand</p> <p>(1) Plastic stabilizer for 8mm penetrometer Tip</p> <p>(1) 2kg calibration weight</p> <p>Manual Test Stand</p> <p>Large Anodized Aluminum platform</p> <p>Steel rack and pinion elevating mechanism</p> <p>Steel guide posts with teflon coated bushings</p> <p>Generous vertical clearance is approximately 8"</p> <p>Generous vertical clearance is approximately 8"</p> <p>Work Area: 10" x 6"</p> <p>Vertical Arm: 8" travel distance 3" clearance from posts</p> |
| 2 | <p>TEXTURE ANALYZER</p> <p>Capacity:</p> <p>GS-15 device: 33 lbs</p> <p>GS-25 device: 55 lbs</p> <p>Operating Range:</p> <p>GS-15: 50 g to 15,000 g</p> <p>GS-25: 50 g to 25,000 g</p> <p>Measuring units: kg, lbs, newton</p> <p>Maximum fruit size: 120 mm</p> | <p>TEXTURE ANALYZER</p> <p>Capacity: 55lbs</p> <p>Operating range: 50g to 15,000g</p> <p>Measuring units: kg, lbs, newton</p> <p>Maximum fruit size: 120 mm</p> <p>Weight: 9 kg (approximately)</p> <p>Power: 100-240 VAC Adapter (included)</p> <p>Power consumption: 30 watts (30 Volts DC, 1 Amp)</p> |



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| | Weight: 9 kg (approximately) Power: 100-240 VAC Adapter (included) Power consumption: 30 watts (30 Volts DC, 1 Amp) | |
| 3 | REFRACTOMETER SCM-1000 Digital Refractometer Range: 0.0-55.0% Brix Resolution: 0.1% Accuracy +/-0.2% Sample Volume: 0.5 mL Weight: 149 g Dimensions: 2.3" x 1.4" x 4.8" Power: Two AAA alkaline batteries | REFRACTOMETER Range: 0.0-55.0% Brix Resolution: 0.1% Accuracy +/-0.2% Sample Volume: 0.5 mL Weight: 149 g Power: Two AAA alkaline batteries |
| 4 | PH METER Ranges: pH: -2.00 to 16.00 Temperature: 23°F to 221°F (-5.0°C to 105.0°C) Resolution: 0.01 pH/0.1° Accuracy: ±0.02 pH/±1.0°F Power: Three 1.5V AAA batteries (approx. 1400 hours of continuous use) Dimensions: 154 x 63 x 30 mm (6.1 x 2.5 x 1.2") Weight: 199g (6.91 oz.) with batteries pH 7.00 Buffer Solution Color coded yellow Traceable to NIST 500 mL bottle pH 7.00 +0.01 @ 25°C FC202D Food pH Electrode (13,690.04 PHP) pH/Temperature electrode that tapers to a strong conic tip ideal for measurements in semisolids such as meats and cheeses pH 4.00 Buffer Solution Color coded pink Traceable to NIST 500 mL bottle pH 4.00 +0.01 @ 25°C | PH METER Ranges: pH: -2.00 to 16.00 Temperature: 23°F to 221°F (-5.0°C to 105.0°C) Resolution: 0.01 pH/0.1° Accuracy: ±0.02 pH/±1.0°F Power: Three 1.5V AAA batteries (approx. 1400 hours of continuous use) pH 7.00 Buffer Solution Color coded yellow Traceable to NIST 500 mL bottle pH 7.00 +0.01 @ 25°C pH/Temperature electrode that tapers to a strong conic tip ideal for measurements in semisolids such as meats and cheeses pH 4.00 Buffer Solution Color coded pink Traceable to NIST 500 mL bottle pH 4.00 +0.01 @ 25°C |
| 5 | SOIL TESTING KIT Fertilizer Systems Built-in soil testing and fertilizer application system. Diagnostics Built-in Diagnostic Standards Atlas for Plant Nutrition. Linearity Error <0.1% (0.001, copper sulfate assay) Power supply AC 220±22V DC 12V+5V (built-in lithium battery or car power supply) Sensitivity Red light 4.5×10 ⁻⁵ Blue light >3.17×10 ⁻³ Green light 2.35×10 ⁻³ Orange light 2.13×10 ⁻³ Wavelength range Red light: 680±2nm; Blue light: 420±2nm; Green light: 510±2nm; Orange light: 590±4nm PH Value | SOIL TESTING KIT Fertilizer Systems Built-in soil testing and fertilizer application system. Diagnostics Built-in Diagnostic Standards Atlas for Plant Nutrition. Linearity Error <0.1% (0.001, copper sulfate assay) Power supply AC 220±22V DC 12V+5V (built-in lithium battery or car power supply) Sensitivity Red light 4.5×10 ⁻⁵ Blue light >3.17×10 ⁻³ Green light 2.35×10 ⁻³ Orange light 2.13×10 ⁻³ Wavelength range Red light: 680±2nm; Blue light: 420±2nm; Green light: 510±2nm; Orange light: 590±4nm PH Value Test range: 1~14 |



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| <p>Test range: 1~14</p> <p>Accuracy: 0.01</p> <p>Error: ±0.1</p> <p>Salt content</p> <p>Test range: 0.01% ~1.00%</p> <p>Relative error: ± 5%</p> <p>Display Resolution</p> <p>1024*600</p> <p>Seismic Rating</p> <p>IP65</p> <p>Range and Resolution</p> <p>0.001-9999</p> <p>Power Instrument</p> <p><5W</p> <p>Dimension</p> <p>48*34.5*22cm</p> <p>Net Weight</p> <p>5.2kg</p> <p>Inclusions</p> <p>1 unit main engine</p> <p>1 set Medicine box</p> <p>1 Electronic scale</p> <p>10 Colorimetric dish</p> <p>12 pieces Plastic dropper (3ml)</p> <p>1 set Test tube holder (13*50)</p> <p>1 PH pH meter</p> <p>1 set TDS salinity meter</p> <p>20 pieces Plastic test tube (10ml)</p> <p>12 pieces Glass test tube (10ml)</p> <p>1 Measuring cylinder (50ml)</p> <p>1 Volumetric flask (100ml)</p> <p>2 Triangle bottle (100ml)</p> <p>1 Reagent bottle</p> <p>1 sheet After sales technical service card</p> <p>1 sheet Certificate of conformity warranty card</p> <p>1 roll Printing paper</p> <p>1 set Blackbox epe lining</p> <p>1 Aluminum box</p> <p>1 box Qualitative filter paper (11mm)</p> <p>1 bottle Washing bottles</p> <p>1 set Spoon (large, medium, small)</p> <p>1 Suction ball</p> <p>1 each Glass pipette</p> <p>1 piece Glass rod</p> <p>1 piece Test tube brush</p> <p>6 packs Soil extractant</p> <p>1 bottle Soil decolorizing agent</p> | <p>Accuracy: 0.01</p> <p>Error: ±0.1</p> <p>Salt content</p> <p>Test range: 0.01% ~1.00%</p> <p>Relative error: ± 5%</p> <p>Display Resolution</p> <p>1024*600</p> <p>Seismic Rating</p> <p>IP65</p> <p>Range and Resolution</p> <p>0.001-9999</p> <p>Power Instrument</p> <p><5W</p> <p>Main use: GT3 - soild/fertilizer/plant NPK, Organic matter, trace elements soil tesing formula</p> <p>Inclusions</p> <p>1 unit main engine</p> <p>1 set Medicine box</p> <p>1 Electronic scale</p> <p>10 Colorimetric dish</p> <p>12 pieces Plastic dropper (3ml)</p> <p>1 set Test tube holder (13*50)</p> <p>1 PH pH meter</p> <p>1 set TDS salinity meter</p> <p>20 pieces Plastic test tube (10ml)</p> <p>12 pieces Glass test tube (10ml)</p> <p>1 Measuring cylinder (50ml)</p> <p>1 Volumetric flask (100ml)</p> <p>2 Triangle bottle (100ml)</p> <p>1 Reagent bottle</p> <p>1 sheet After sales technical service card</p> <p>1 sheet Certificate of conformity warranty card</p> <p>1 roll Printing paper</p> <p>1 set Blackbox epe lining</p> <p>1 Aluminum box</p> <p>1 box Qualitative filter paper (11mm)</p> <p>1 bottle Washing bottles</p> <p>1 set Spoon (large, medium, small)</p> <p>1 Suction ball</p> <p>1 each Glass pipette</p> <p>1 piece Glass rod</p> <p>1 piece Test tube brush</p> <p>6 packs Soil extractant</p> <p>1 bottle Soil decolorizing agent</p> <p>1 bottle Soil standard solution</p> <p>1 bottle each Ammonium nitrogen 1.2.3</p> <p>1 bottle each Effective phosphorus No.123</p> <p>1 bottle each Quick acting potassium 1.2</p> <p>1 sheet Soil organic matter standard solution</p> <p>3packs Soil organic matter extraction solution</p> <p>1 Lithium battery charger</p> |
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| | 1 bottle Soil standard solution 1 bottle each Ammonium nitrogen 1.2.3 1 bottle each Effective phosphorus No.123 1 bottle each Quick acting potassium 1.2 1 sheet Soil organic matter standard solution 3packs Soil organic matter extraction solution 1 Lithium battery charger | |
| 6 | SEED GERMINATOR CHAMBER Chamber Volume: 175L Temperature Range: 0~50°C Temperature Stability : ±1°C Display Resolution : 0.1°C Temperature Uniformity: ±1°C Humidity Range : 30~95%RH Humidity Deviation +3RH Power Supply AC220V, 50Hz Ambient Temperature : +5~35°C Illumination Intensity : 030000LX Selling Units : Single item Single package size: 75X84X186 cm Single gross weight: 234.000 kg | SEED GERMINATOR CHAMBER Chamber Volume: 175L Temperature Range: 0~50°C Temperature Stability : ±1°C Display Resolution : 0.1°C Temperature Uniformity: ±1°C Humidity Range : 30~95%RH Humidity Deviation +3RH Power Supply AC220V, 50Hz Ambient Temperature : +5~35°C Illumination Intensity : 0-30,000 Lux |
| 7 | PORTABLE MULTIPARAMETER WATER QUALITY TESTING KITS Channel number: 8 Wavelength: 420nm, 440nm, 470nm, 510nm, 520nm, 540nm, 560nm, 600nm, 610nm, 630nm, 660nm, 700nm can be customized any 4 wavelengths. Wavelength accuracy: center wavelength - 1nm Measurement parameters: CODMn, CODCr, ammonia nitrogen, total phosphorus, copper, iron, nickel and six chromium, phosphate, nitrite and other 35 parameter, customer can be customized according to the operate environment. optical stability: \$0.002A/20min | PORTABLE MULTIPARAMETER WATER QUALITY TESTING KITS Channel number: 8 Wavelength: 420nm, 440nm, 470nm, 510nm, 520nm, 540nm, 560nm, 600nm, 610nm, 630nm, 660nm, 700nm can be customized any 4 wavelengths. Wavelength accuracy: center wavelength - 1nm Measurement parameters: pH, Turbidity, Dissolve Oxygen, Temperature, Microbial contaminants, Nitrate and Nitrite, Phosphate |
| 8 | ANALYTICAL BALANCE Leveling: Manual Linearity: 0.2 mg Relative humidity at temperatures up to 31° C, non-condensing, then linear decrease from max. 80 % at 31° C to max. 50 % at 40° C: 15 - 80 % Operating Conditions - Temperature: +10 - +30 °C Repeatability: 0.1 mg Sensitivity Drift between +10 °C and +30 °C: +1.5 ppm/K Typical Stabilization Time: \$1.0 s Underfloor Weighing: Yes Weighing Chamber Height: 240 mm Display: LED screen with touch technology Maximum Weighing Capacity: 220 g Readability: 0.1 mg | ANALYTICAL BALANCE Leveling: Manual Linearity: 0.2 mg Relative humidity at temperatures up to 31° C, non-condensing, then linear decrease from max. 80 % at 31° C to max. 50 % at 40° C: 15 - 80 % Operating Conditions - Temperature: +10 - +30 °C Repeatability: 0.1 mg Sensitivity Drift between +10 °C and +30 °C: +1.5 ppm/K Typical Stabilization Time: \$1.5 s Underfloor Weighing: Yes Weighing Chamber Height: 240-340 mm Display: LED screen with touch technology Maximum Weighing Capacity: 220 g Readability: 0.1 mg Weighing Pan Dimensions: 80 to 90 mm Data Interface: RS232 Weighing Units: Gram, kilogram, carat, pound, ounce, troy ounce, |



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| | <p>Weighing Pan Dimensions: 90 mm</p> <p>Data Interface: RS232</p> <p>Weighing Units: Gram, kilogram, carat, pound, ounce, troy ounce, Hong Kong tael, Singapore tael, Taiwan tael, grain, pennyweights, miligram, parts per pound, China tael, mommes, Austrian carat, tola, baht, mesghal and Newton</p> <p>Package Includes:</p> <p>Delivery on Site</p> <p>Training with end Users</p> <p>Commissioning and Installation on sites</p> <p>Training Certificate to End Users</p> <p>Calibration Certificate and sticker</p> <p>Certificate of Distributorship from Manufacturer</p> <p>AVR, 1KVA</p> | <p>Hong Kong tael, Singapore tael, Taiwan tael, grain, pennyweights, miligram, parts per pound, China tael, mommes, Austrian carat, tola, baht, mesghal and Newton</p> <p>AVR, 1KVA</p> |
| 9 | <p>COOLED INCUBATOR</p> <p>Performance Data Temperature</p> <p>Temperature range °C -10... 100</p> <p>Temperature variation at 37 °C [+ K] 0.2</p> <p>Temperature fluctuation at 37 °C [+K] 0.1</p> <p>Recovery time after 30 seconds door open at 37 °C [min] 2</p> <p>Electrical data</p> <p>Rated Voltage [V] 230</p> <p>Power frequency [Hz] 50/60</p> <p>Nominal power [kW] 0.7</p> <p>Unit fuse [A] 10</p> <p>Phase (Nominal voltage) 1~</p> <p>Interior volume [L] 115</p> <p>Net weight of the unit (empty) [kg] 105</p> <p>Permitted load [kg] 50</p> <p>Load per rack [kg] 20</p> <p>Wall clearance back [mm] 100</p> <p>Wall clearance sidewise [mm] 100</p> <p>Internal Dimensions</p> <p>Width [mm] 600</p> <p>Height [mm] 480</p> <p>Depth [mm] 400</p> <p>Inner doors 1</p> <p>Unit doors 1</p> <p>Housing dimensions not including fittings and connections</p> <p>Width net [mm] 835</p> <p>Height net [mm] 1025</p> <p>Depth net [mm] 650</p> <p>Environment-specific data</p> <p>Energy consumption at 37 °C [Wh/h] 75</p> <p>Sound-pressure level [dB(A)] 49</p> <p>Number of shelves (std./max.) 2/5</p> <p>With 5 KVA AVR</p> | <p>COOLED INCUBATOR</p> <p>Performance Data Temperature</p> <p>Temperature range °C -10... 100</p> <p>Temperature variation at 37 °C [+ K] 0.2</p> <p>Temperature fluctuation at 37 °C [+K] 0.1</p> <p>Recovery time after 30 seconds door open at 37 °C [min] 2</p> <p>Electrical data</p> <p>Rated Voltage [V] 230</p> <p>Power frequency [Hz] 50/60</p> <p>Nominal power [kW] 0.7</p> <p>Unit fuse [A] 10</p> <p>Phase (Nominal voltage) 1~</p> <p>Interior volume [L] >115</p> <p>Net weight of the unit (empty) [kg] <130</p> <p>Permitted load [kg] >40</p> <p>Load per rack [kg] >15</p> <p>Wall clearance back [mm] >80</p> <p>Wall clearance sidewise [mm] >80</p> <p>Internal Dimensions</p> <p>Width [mm] <700</p> <p>Height [mm] <600</p> <p>Depth [mm] <500</p> <p>Inner doors 1</p> <p>Unit doors 1</p> |



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| Inclusions: Delivery on Site Training with end Users Commissioning and Installation on sites Training Certificate to End Users Calibration Certificate and sticker | Housing dimensions not including fittings and connections Width net [mm] <900 Height net [mm] <1100 Depth net [mm] <650mm Environment-specific data Energy consumption at 37 °C [Wh/h] 75 Sound-pressure level [dB(A)] 49 Number of shelves (std./max.) at least 2 With 5 KVA AVR Inclusions: Training Certificate to End Users Calibration Certificate and sticker |
| All Items must have: At least 1 year warranty after sales services installation / assembly Training on how to use and maintain the equipment | All Items must have: At least 1 year warranty after sales services installation / assembly Training on how to use and maintain the equipment Equipment Manual Distributors Certificate |

B. Answer to the Clarification of Suppliers on the Technical Specifications

| Item | Clarification | TWG Answer |
|---|--|---|
| Texture Analyzer | Please clarify which test range the end user requires: GS-15 is up to 33 lbs, GS-25 is up to 55 lbs. Both have the same lower limit, fruit measuring size, units and consumption. | 55 lbs capacity |
| Soil Testing Kit | Please identify for which test the unit will be used for: GT1, GT2, GT3, GT4, GT5, GT6, GT7, GT60. There is a large variation on the prices per kind of test. | GT3 would be enough -soil/fertilizer/plant NPK, Organic matter, Trace Elements Soil testing formula |
| Seed Germination Chamber | We would like to ask if an illumination intensity of 0-10,000 Lux is acceptable. | Yes |
| Portable Multiparameter Water Quality Testing Kit | Please identify the measurement parameters for this unit. Price variance is large due to the wide range of parameters (61 in total) and our supplier needs us to identify at least 8. Please also identify the 4 wavelengths required for customization. | pH, TDs, Turbidity, Dissolved Oxygen, Temperature, Microbial Contaminants, Nitrate and Nitrite, Phosphate, There are no specific wavelengths required for customization. |
| Analytical Balance | The technical specifications indicated in the bid documents are very specific to a single brand and model of Analytical Balance (Sartorius Entris II BCE64I-1S). May we suggest making the specifications more generalized to make the project more feasible to more suppliers. Perhaps we can | Some of the specifications are retained and some are adjusted. Please check bid bulletin |



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| | concentrate on the capacity, linearity, readability, repeatability, and stabilization time. | |
| Cooled Incubator | The technical specifications indicated in the bid documents are very specific to a single brand and model of incubator (Binder KB115). May we suggest making the specifications more generalized to make the project more feasible to more suppliers. Perhaps we can concentrate on the capacity, temperature range, and power requirements. Dimensions can be dependent on manufacturer's standards since there will be variance in dimensions even if the capacity is the same. | Some of the specifications are retained and some are adjusted. Please check bid bulletin |

For the guidance and information of all concerned.


RONALD REAGAN T. ALONZO, Ph.D.
BAC Chairperson