

## Budget Justification

### A. Senior/Key Persons

**Gabriel Putnam, Consultant Engineer/co-PI**, will devote 2080 hours per year in Years 1-3. Base rate of pay is (\$45.25/hr) Requested salary for Year 1 is (\$94,120), with no fringe benefits requested. Total request for project is (\$282,360).

### D. Travel (Year 3 \$1,666; Cumulative Total \$1,666)

#### Professional meetings and conferences travel:

(Year 3 \$1,666; Cumulative Total \$1,666)

Project Team travel to present project outcomes at professional meetings or conference.

Year 3 request for travel to 1 professional meeting/conference (1 each for Putnam).

Travel estimates based on the following, for a per trip total of \$1,705 per traveler:

- Round trip airfare to metropolitan area (TBD), from Spokane, Washington: \$600
- 3 nights hotel @ \$216/night: \$650
- Shuttle between airport and hotel: 2 per trip @ \$50: \$100
- Mileage (round trip from Moscow, Idaho, to Spokane, Washington, airport) 167 miles @ \$.575/mile: \$96
- Per diem @ \$55/day @ 4 days: \$220

### F. Other Direct Costs (Year 1 \$91,160; Cumulative Total \$106,860)

#### 1. Materials and Supplies (Year 1 \$91,160; Cumulative \$106,860Total)

- Growing system construction materials and supplies for supporting 3D lattice framework of baskets. Prices based on current catalog prices and shipping and handling fees.

Year 1 (\$51,125 + \$1,300 shipping = \$52,425), including:

- *Steel Support Posts, square tube 1-1/4 x 1-1/4 x 8' (50 @ \$35 + \$400 S&H = \$2150)*
- *Support Eye Bolts, 1/4" x 2" (500 @ \$5 = \$2500)*
- *Basket Support Ropes, Double Braid Nylon 1/4" (7500' @ \$0.25/ft + \$400 S&H = \$2275)*
- *Planter Flower Pot, Transparent, Plastic, 15 cm x 15 cm (15000 @ \$1 + \$250 S&H = \$15250)*
- *Macrame Hanging Plant Holder, 15 cm x 60 cm (15000 @ \$2 + \$250 S&H = \$30,250)*

Year 2 (\$1,600)

- *Replacement Planter Flower Pot, Transparent, Plastic, 15 cm x 15 cm (500 @ \$1 + \$50 S&H = \$550)*
- *Macrame Hanging Plant Holder, 15 cm x 60 cm (500 @ \$2 + \$50 S&H = \$1,050)*

Year 3 (\$1,600)

- *Replacement Planter Flower Pot, Transparent, Plastic, 15 cm x 15 cm (500 @ \$1 + \$50 S&H = \$550)*
- *Macrame Hanging Plant Holder, 15 cm x 60 cm (500 @ \$2 + \$50 S&H = \$1,050)*

- Sensors, cameras, and communication electronics for monitoring plant growth, recording insect interaction, and recording plant growth environment. Prices based

## Budget Justification: Gabriel Putnam

on current catalog prices and shipping and handling fees.

Year 1 (\$30,905 + \$880 shipping = \$31,785), including:

- *Lora Wireless Light Intensity Sensor Lux Meter (20 @ \$40 + \$85 S&H = \$885)*
- *Lora Wireless CO2, Temperature, and Humidity Sensor (20 @ \$180 + \$140 S&H = \$3740)*
- *Lora Wireless O2, Temperature, and Humidity Sensor (20 @ \$220 + \$140 S&H = \$4540)*
- *Lora 4G Concentrator/Receiver for LoRa Wireless Sensors (1 @ \$150 + \$15 S&H = \$165)*
- *Logia Windfall & Rain Sensor (7 @ \$120 = \$840)*
- *ATL 200S Time Lapse Camera (41 @ \$450 + \$250 S&H = \$18,700)*
- *Camera Clamp Mount for Time Lapse Camera (41 @ 40 = \$1640)*
- *Steel Camera Support Post, round tube, ½" x 6', 41 @ \$25 + \$250 S&H = \$1275)*
- Year 1 Seeds and starts
  - *50 units of bulk seeds at \$20 per packet. Seeds will be sourced from Johnny's or other seed companies depending on availability plus shipping and handling \$1,100*
  - *5000 bulk starts/plugs \$0.50 each from Harris Seeds or similar company based on availability plus shipping and handling Year 1 total: \$2,650*
- Year 2 Seeds and starts
  - *50 units of bulk seeds at \$20 per packet. Seeds will be sourced from Johnny's or other seed companies depending on availability plus shipping and handling \$1,100*
  - *5000 bulk starts/plugs \$0.50 each from Harris Seeds or similar company based on availability plus shipping and handling Year 1 total: \$2,650*
- Year 3 Seeds and starts
  - *50 units of bulk seeds at \$20 per packet. Seeds will be sourced from Johnny's or other seed companies depending on availability plus shipping and handling \$1,100*
  - *5000 bulk starts/plugs \$0.50 each from Harris Seeds or similar company based on availability plus shipping and handling Year 1 total: \$2,650*