## **Cooperative Agreement Detailed Financial Plan**

**Cooperator Name: Aubrey Moore** 

PERSONNEL:  1 graduate Assistant: Ian Iriarte, BS; Graduate Assistant: \$35,000 per annum plus 27% benefits  4 part-time student employees to assist with laboratory and field activities  4*700h*\$15/h=\$42,000 plus 27\% benefits  Salary reimbursement for PI (Aubrey Moore; 10% FTE @ \$90k)  Subtotal  FRINGE BENEFITS:  for above personnel (27% * salary for graduate assistant and student employees)  Subtotal  TRAVEL:  International travel. PI and Post Doc plan to participate in a special meeting on biocontrol of CRB-G at the International Association of Plant Protection Science meeting in Hyderabad, India, November 10-14, 2019.  Estimated cost per person is \$5118 (Registration: \$760; Airfare: \$2048; Per diem: 7d@\$330=\$2310)  International travel. PI and Post Doc plan a one week trip to Japan to work in collaboration with Dr. Madoka Nakai, Tokyo University of Agriculture and Technology, to collect isolates of OrNV from CRB-G populations in that country. January 15-22, 2020. Estimated cost per person is \$4099. (Airfare: \$550; Per diem: 7d@\$507=\$3549)  Subtotal	
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Subtotal	\$8,198
	\$18,434
EQUIPMENT	
Subtotal	\$0
SUPPLIES	
Chemicals and reagents	\$2,500
Microinjector	\$2,747
pH meter	\$580
media for rearing beetles	\$1,556
Vehicle fuel and maintenance	\$5,000
Computers and computer supplies	\$5,000
Cloud computing. Training a CRB damage detector using deep learning requires use of a computer with specialized software (TensorFlow) and specialized hardware (a graphics processing unit (GPU)). Instead of purchasing a physical machine we will rent a virtual machine designed specifically for this application from Amazon web services. We expect to run this machine for a total of 30 days. Estimated cost is \$648 (30 d x 24 h x \$0.90 per h)	\$648
Miscellaneous lab supplies	\$745
Subtotal	\$18,776
CONTRACTUAL	

Contract with AgResearch New Zealand. Grant funding will be used to support an existing collaboration with Dr. Sean Marshall and Dr. Trevor Jackson who are recognized as global experts on biological control of CRB using OrNV. AgResearch New Zealand will provide molecular diagnostics for genotyping specimens of CRB and samples of OrNV. AgResearch maintains a collection of OrNV isolates in insect cell culture and has the facilities to mass produce virus <i>in vitro</i> once we have identified promising candidates for CRB-G biocontrol agents.	\$35,000
Cell Phone Contract with Docomo Pacific. We rent a cell phone with unlimited data to be used as a dedicated device for CRB surveys. We commonly use the EpiCollect app for these surveys. This cell phone also doubles as a safety device for technicians working alone in remote locations.	\$1,000
Subtotal	\$36,000
TOTAL DIRECT COSTS	\$180,000
<b>INDIRECT COSTS</b> Administrative fee (10% of total grant charged by Research Corporation of the University of Guam)	\$20,000
TOTAL	\$200,000