

Plant Health and Pest Management

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V(A). Planned Program (Summary)

1. Name of the Planned Program

Plant Health and Pest Management

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

| KA Code | Knowledge Area | %1862 Extension | %1890 Extension | %1862 Research | %1890 Research |
|--------------|---|-----------------|-----------------|----------------|----------------|
| 102 | Soil, Plant, Water, Nutrient Relationships | 5% | | | |
| 205 | Plant Management Systems | 10% | | | |
| 211 | Insects, Mites, and Other Arthropods Affecting Plants | 10% | | | |
| 212 | Pathogens and Nematodes Affecting Plants | 15% | | | |
| 213 | Weeds Affecting Plants | 5% | | | |
| 214 | Vertebrates, Mollusks, and Other Pests Affecting Plants | 5% | | | |
| 215 | Biological Control of Pests Affecting Plants | 10% | | | |
| 216 | Integrated Pest Management Systems | 40% | | | |
| Total | | 100% | | | |

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

| Year: 2007 | Extension | | Research | |
|---------------|-----------|------|----------|------|
| | 1862 | 1890 | 1862 | 1890 |
| Plan | 0.0 | 2.5 | 0.0 | 0.0 |
| Actual | 4.4 | 0.0 | 0.0 | 0.0 |

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

| Extension | | Research | |
|--|----------------------------|----------------------------|----------------------------|
| Smith-Lever 3b & 3c 150301 | 1890 Extension 0 | Hatch 0 | Evans-Allen 0 |
| 1862 Matching 102247 | 1890 Matching 0 | 1862 Matching 0 | 1890 Matching 0 |
| 1862 All Other 46108 | 1890 All Other 0 | 1862 All Other 0 | 1890 All Other 0 |

V(D). Planned Program (Activity)

1. Brief description of the Activity

A comprehensive web based pest survey list for Guam has been established and has been continuously updated. One-to-one consulting on IPM was provided to individuals who have problems with crops, weeds and/or pests. A plant health clinic was established that took a lead role in diagnosing plant problems and provided outreach by providing space, equipment, and expertise for publications, courses and workshops. Through the Pesticide Safety Educator Program (PSEP)/Pesticide Applicator Training (PAT), program applicators were instructed on plant pests and the safe handling of pesticides and were administered Environmental Protection Agency (EPA) approved licenses. National Plant Diagnostic Network (NPDN) invasive pest identification and procedures training was held and "First Detector" certifications issued.

The Plant Health Clinic identified an invasive plant disease (Black rot of orchid caused by the fungus *Phytophthora palmivora*) on a orchid sample imported from Thailand by a Guam nursery in January of 2007. After informing the Plant Inspection Station (USDA/APHIS), the nursery was quarantined and approximately 1000 plants destroyed. This disease would have been devastating to the orchid industry and homeowners on Guam. No reports of the disease have been reported and it is believed the disease has been eradicated on Guam.

In September of 2007, the "Coconut Rhinoceros Beetle" was identified through an insect sample. This Beetle has had a devastating affect on coconut trees throughout the region, sometimes resulting in the death of over 50% of the coconut trees and severe damage to the remaining trees. Student and community volunteers learned to identify the Beetle and helped to cull infected trees for incineration. A \$250,000 grant from APHIS was secured for the control and eradication of this new invasive species. It is still too early to tell if eradication efforts have been successful.

2. Brief description of the target audience

The target audience for this program includes local farmers, homeowners, nurseries, landscapers and golf course superintendents and their crews, students, government agencies, and the general public.

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

| | Direct Contacts Adults | Indirect Contacts Adults | Direct Contacts Youth | Indirect Contacts Youth |
|-------------|-----------------------------------|-------------------------------------|----------------------------------|------------------------------------|
| Year | Target | Target | Target | Target |
| Plan | 300 | 400 | 100 | 400 |
| 2007 | 7776 | 61894 | 2355 | 6650 |

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

| Year | Target |
|--------------|---------------|
| Plan: | 0 |
| 2007: | 0 |

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

| | Extension | Research | Total |
|-------------|------------------|-----------------|--------------|
| Plan | | | |
| 2007 | 1 | 1 | 0 |

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

of research papers

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2007 | 1 | 4 |

Output #2

Output Measure

of research citations

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2007 | 0 | 2 |

Output #3

Output Measure

of extension fact sheets or articles

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2007 | 3 | 8 |

Output #4

Output Measure

of workshops/trainings/classes

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2007 | 9 | 28 |

Output #5

Output Measure

of brochures

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2007 | 3 | 8 |

Output #6

Output Measure

of research or new technology reports

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2007 | 2 | 2 |

Output #7

Output Measure

of one-on-one interventions

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2007 | 160 | 2470 |

Output #8

Output Measure

of surveys

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2007 | 2 | 6 |

Output #9

Output Measure

of focus groups

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2007 | 0 | 5 |

Output #10

Output Measure

of news media activities (TV and radio)

| Year | Target | Actual |
|-------------|---------------|---------------|
| 2007 | 1 | 19 |

V(G). State Defined Outcomes

| O No. | Outcome Name |
|--------------|---|
| 1 | % of participants gaining skills in identification of insects and related pests |
| 2 | % of participants gaining skills in identification of plant diseases |
| 3 | % of participants gaining skills in identification of weeds |
| 4 | % of participants gaining knowledge about pesticides and their application |
| 5 | % of participants reducing indiscriminate use of chemical pesticides |
| 6 | % of participants adopting some established IPM practices |

Outcome #1

1. Outcome Measures

Not reporting on this Outcome for this Annual Report

2. Associated Institution Types

3a. Outcome Type:

3b. Quantitative Outcome

| Year | Quantitative Target | Actual |
|------|---------------------|--------|
|------|---------------------|--------|

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

| KA Code | Knowledge Area |
|---------|----------------|
|---------|----------------|

V(H). Planned Program (External Factors)

External factors which affected outcomes

Natural Disasters (drought, weather extremes, etc.)

Economy

Competing Public priorities

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

Before-After (before and after program)

Comparisons between program participants (individuals, group, organizations) and non-participants

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}