

## V(A). Planned Program (Summary)

### Program # 16

#### 1. Name of the Planned Program

Global Food Security and Hunger - Pest Management

- Reporting on this Program

Reason for not reporting

We changed our set of Planned Programs starting with 2013 reporting. The work in this area will be captured in the Agriculture Profitability and Sustainability Planned Program.

## V(B). Program Knowledge Area(s)

#### 1. Program Knowledge Areas and Percentage

## V(C). Planned Program (Inputs)

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

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	36.3	0.5	40.1	1.5
Actual Paid Professional	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
Actual Volunteer	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

## V(D). Planned Program (Activity)

#### 1. Brief description of the Activity

Continue coordinated research aimed at integrated pest control and resulting in the basic and applied knowledge needed by the agricultural industry and general public. Conduct workshops, meetings, field tours, demonstrations, develop training media, training manuals, curriculum, resources,

provide training, provide counseling, conduct assessments, facilitate meetings, and document stakeholder input, partner with other state and federal agencies including VDACS, USDA, EPA, conduct pesticide disposal events and related activities, conduct on-line courses and hands-on activities, conduct research experiments and surveys, maintain websites, the VA Ag Pest Advisory, and phone assisted hotlines.

**2. Brief description of the target audience**

Consumers, landowners, homeowners, producers, producer groups, pesticide applicators seeking certification under federal and state laws, pesticide regulators, boards, commissions, and enforcement officials, local government, councils, and community groups, universities, colleges, K-12, youth aged 13-18, schools, advocacy and consumer protection groups and associations, pesticide safety educators, pest management specialists, and related experts, authors, journalists, other media specialists, institutional, industrial, and vector control groups and individuals, health/medical, environmental, and emergency response personnel and organizations, farm workers, migrants, and day-laborer groups and individuals, researchers, scientists, pesticide toxicologists, extension educators and related experts.

**3. How was eXtension used?**

{No Data Entered}

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	0	0	0	0

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

**Patent Applications Submitted**

Year: 2013

Actual: {No Data Entered}

**Patents listed**

{No Data Entered}

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2013	Extension	Research	Total
<b>Actual</b>	10	25	0

**V(F). State Defined Outputs**

## Output Target

### Output #1

#### Output Measure

- Number of non-peer reviewed outreach citations incorporating information on the most effective IPM strategies and systems for use on selected commodities and/or at selected sites

Year	Actual
2013	0

### Output #2

#### Output Measure

- Number of private applicators trained for certification

Year	Actual
2013	0

### Output #3

#### Output Measure

- Number of commercial applicators trained for certification

Year	Actual
2013	0

### Output #4

#### Output Measure

- Number of private applicators trained for recertification

Year	Actual
2013	0

### Output #5

#### Output Measure

- Number of commercial applicators trained for recertification

Year	Actual
2013	0

### Output #6

#### Output Measure

- Number of non-certified applicators trained

<b>Year</b>	<b>Actual</b>
2013	0

**Output #7**

**Output Measure**

- Number of stakeholders enrolled in the IPM Stakeholder Network

<b>Year</b>	<b>Actual</b>
2013	0

**Output #8**

**Output Measure**

- Number of trainers and regulatory officials trained

<b>Year</b>	<b>Actual</b>
2013	0

**Output #9**

**Output Measure**

- Educational media website visits communicated through the Pesticide Safety Education website

<b>Year</b>	<b>Actual</b>
2013	0

**Output #10**

**Output Measure**

- Number of non-peer reviewed research citations incorporating information on the most effective IPM strategies and systems for use on selected commodities and/or at selected sites.

<b>Year</b>	<b>Actual</b>
2013	0

**Output #11**

**Output Measure**

- Number of presentations on IPM related topics.

<b>Year</b>	<b>Actual</b>
2013	0

**Output #12**

**Output Measure**

- Number of volunteer hours dedicated to pest management programming

<b>Year</b>	<b>Actual</b>
2013	0

**Output #13**

**Output Measure**

- Number of extended learners with four or more hours of contact related to pest management

<b>Year</b>	<b>Actual</b>
2013	0

**Output #14**

**Output Measure**

- Amount of revenue generated in dollars for pest management Extension and research programming

<b>Year</b>	<b>Actual</b>
2013	0

**Output #15**

**Output Measure**

- IPM publications for clientele including extension publications, manuals and guides, multi-media pieces, websites, newspaper and trade journal articles, and papers provided at production meetings and field days.

<b>Year</b>	<b>Actual</b>
2013	0

**Output #16**

**Output Measure**

- Number of samples evaluated by current and improved plant diagnostic methods

<b>Year</b>	<b>Actual</b>
2013	0

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Number of individuals gaining knowledge of IPM through training course completion and/or examination
2	Number of applicators who gain knowledge in pesticide safety through certification training and pass the state certification exam(s).
3	Number of applicators who gain additional knowledge in pesticide safety through re-certification training and sufficient credit to maintain their certification
4	Number of applicators, farmworkers, and the general public who gain knowledge in general pesticide safety who are not seeking certification as pesticide applicators
5	Number of trainers who gain knowledge in pesticide safety and pesticide curriculum and program training in established train-the-trainer workshops
6	Through educational programming and collaborative efforts, support the collection and proper disposal of unwanted pesticides in Virginia localities.
7	Number of localities participating in a pesticide container recycling program.
8	Number of participants gaining knowledge about invasive NIS
9	Increase the number of stakeholders collaborating with pesticide regulatory information network and activities, which support the communication of the pest management needs of Virginia and regional agricultural interests to pesticide regulatory policymakers.
10	Increase in the number of facilities that are impacted in a positive way by IPM program activities.
11	Number of applicators who indicated that they understand that they need to comply with state and federal regulations as a result of VCE training.
12	Number of applicators who read pesticide labels and wear personal protective equipment as a result of VCE training.
13	Number of applicators who changed their use of application equipment or calibration to reduce spray drift as a result of VCE training.
14	More than 20% of commercial producers indicate that plant disease diagnosis and recommendations results in reduced pesticide use in their operations.
15	Pest monitoring programs result in cost and time savings and increased crop protection for an increasing number of acres
16	Using cultural practices and on-site weed identification clinics to improve management of disease and weed pests in the horticultural industry and urban environment.
17	Providing homeowners, ag agents and producers with rapid and accurate pest identification and educational materials, via the VA Plant Disease Clinic, to increase awareness and adoption of IPM practices

18	Minimizing the spread and impact of invasive weed species in urban settings, plant nurseries and agricultural landscapes
19	Using plant disease forecasting, advisories and non-chemical mitigation methods to reduce pesticide applications and increase profitability for vegetable producers.
20	Using advisories, pest monitoring, rapid communication systems and on-the-ground training demonstrations for managing corn earworm, stink bugs (native and invasive species) and other pests in soybean

**Outcome #1**

**1. Outcome Measures**

Number of individuals gaining knowledge of IPM through training course completion and/or examination

**2. Associated Institution Types**

- 1862 Extension
- 1862 Research

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2013	0

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

{No Data Entered}

**What has been done**

{No Data Entered}

**Results**

{No Data Entered}

**4. Associated Knowledge Areas**

**KA Code    Knowledge Area**

{No Data}    null

**Outcome #2**

**1. Outcome Measures**

Number of applicators who gain knowledge in pesticide safety through certification training and pass the state certification exam(s).

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2013	0

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**  
{No Data Entered}

**What has been done**  
{No Data Entered}

**Results**  
{No Data Entered}

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
{No Data}	null

**Outcome #3**

**1. Outcome Measures**

Number of applicators who gain additional knowledge in pesticide safety through re-certification training and sufficient credit to maintain their certification

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2013	0

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

{No Data Entered}

**What has been done**

{No Data Entered}

**Results**

{No Data Entered}

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
{No Data}	null

**Outcome #4**

**1. Outcome Measures**

Number of applicators, farmworkers, and the general public who gain knowledge in general pesticide safety who are not seeking certification as pesticide applicators

**2. Associated Institution Types**

- 1862 Extension
- 1862 Research

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

### 3b. Quantitative Outcome

Year	Actual
2013	0

### 3c. Qualitative Outcome or Impact Statement

#### Issue (Who cares and Why)

{No Data Entered}

#### What has been done

{No Data Entered}

#### Results

{No Data Entered}

### 4. Associated Knowledge Areas

KA Code	Knowledge Area
{No Data}	null

## Outcome #5

### 1. Outcome Measures

Number of trainers who gain knowledge in pesticide safety and pesticide curriculum and program training in established train-the-trainer workshops

### 2. Associated Institution Types

- 1862 Extension
- 1862 Research

### 3a. Outcome Type:

Change in Knowledge Outcome Measure

### 3b. Quantitative Outcome

Year	Actual
2013	0

### 3c. Qualitative Outcome or Impact Statement

#### Issue (Who cares and Why)

{No Data Entered}

**What has been done**

{No Data Entered}

**Results**

{No Data Entered}

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
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{No Data}	null
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**Outcome #6**

**1. Outcome Measures**

Through educational programming and collaborative efforts, support the collection and proper disposal of unwanted pesticides in Virginia localities.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2013	0

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

{No Data Entered}

**What has been done**

{No Data Entered}

**Results**

{No Data Entered}

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
{No Data}	null

**Outcome #7**

**1. Outcome Measures**

Number of localities participating in a pesticide container recycling program.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2013	0

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

{No Data Entered}

**What has been done**

{No Data Entered}

**Results**

{No Data Entered}

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
{No Data}	null

## **Outcome #8**

### **1. Outcome Measures**

Number of participants gaining knowledge about invasive NIS

### **2. Associated Institution Types**

- 1862 Extension

### **3a. Outcome Type:**

Change in Knowledge Outcome Measure

### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2013	0

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

{No Data Entered}

#### **What has been done**

{No Data Entered}

#### **Results**

{No Data Entered}

### **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
{No Data}	null

## **Outcome #9**

### **1. Outcome Measures**

Increase the number of stakeholders collaborating with pesticide regulatory information network and activities, which support the communication of the pest management needs of Virginia and regional agricultural interests to pesticide regulatory policymakers.

### **2. Associated Institution Types**

- 1862 Extension
- 1862 Research

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2013	0

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

{No Data Entered}

**What has been done**

{No Data Entered}

**Results**

{No Data Entered}

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
{No Data}	null

**Outcome #10**

**1. Outcome Measures**

Increase in the number of facilities that are impacted in a positive way by IPM program activities.

**2. Associated Institution Types**

- 1862 Extension
- 1862 Research

**3a. Outcome Type:**

Change in Action Outcome Measure

### 3b. Quantitative Outcome

Year	Actual
2013	0

### 3c. Qualitative Outcome or Impact Statement

#### Issue (Who cares and Why)

{No Data Entered}

#### What has been done

{No Data Entered}

#### Results

{No Data Entered}

### 4. Associated Knowledge Areas

KA Code	Knowledge Area
{No Data}	null

## Outcome #11

### 1. Outcome Measures

Number of applicators who indicated that they understand that they need to comply with state and federal regulations as a result of VCE training.

### 2. Associated Institution Types

- 1862 Extension

### 3a. Outcome Type:

Change in Knowledge Outcome Measure

### 3b. Quantitative Outcome

Year	Actual
2013	0

### 3c. Qualitative Outcome or Impact Statement

#### Issue (Who cares and Why)

{No Data Entered}

**What has been done**  
{No Data Entered}

**Results**  
{No Data Entered}

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
{No Data}	null

#### Outcome #12

##### 1. Outcome Measures

Number of applicators who read pesticide labels and wear personal protective equipment as a result of VCE training.

##### 2. Associated Institution Types

- 1862 Extension

##### 3a. Outcome Type:

Change in Knowledge Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2013	0

##### 3c. Qualitative Outcome or Impact Statement

**Issue (Who cares and Why)**  
{No Data Entered}

**What has been done**  
{No Data Entered}

**Results**  
{No Data Entered}

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
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{No Data} null

### **Outcome #13**

#### **1. Outcome Measures**

Number of applicators who changed their use of application equipment or calibration to reduce spray drift as a result of VCE training.

#### **2. Associated Institution Types**

- 1862 Extension

#### **3a. Outcome Type:**

Change in Knowledge Outcome Measure

#### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2013	0

#### **3c. Qualitative Outcome or Impact Statement**

##### **Issue (Who cares and Why)**

{No Data Entered}

##### **What has been done**

{No Data Entered}

##### **Results**

{No Data Entered}

#### **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
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{No Data}	null
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### **Outcome #14**

#### **1. Outcome Measures**

More than 20% of commercial producers indicate that plant disease diagnosis and recommendations results in reduced pesticide use in their operations.

#### **2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2013	0

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

{No Data Entered}

**What has been done**

{No Data Entered}

**Results**

{No Data Entered}

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
{No Data}	null

**Outcome #15**

**1. Outcome Measures**

Pest monitoring programs result in cost and time savings and increased crop protection for an increasing number of acres

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
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2013                      0

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

{No Data Entered}

**What has been done**

{No Data Entered}

**Results**

{No Data Entered}

**4. Associated Knowledge Areas**

**KA Code    Knowledge Area**

{No Data}    null

**Outcome #16**

**1. Outcome Measures**

Using cultural practices and on-site weed identification clinics to improve management of disease and weed pests in the horticultural industry and urban environment.

**2. Associated Institution Types**

- 1862 Extension
- 1862 Research

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2013	0

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

{No Data Entered}

**What has been done**

{No Data Entered}

**Results**

{No Data Entered}

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
{No Data}	null

**Outcome #17**

**1. Outcome Measures**

Providing homeowners, ag agents and producers with rapid and accurate pest identification and educational materials, via the VA Plant Disease Clinic, to increase awareness and adoption of IPM practices

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2013	0

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

{No Data Entered}

**What has been done**

{No Data Entered}

**Results**

{No Data Entered}

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
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{No Data} null

## **Outcome #18**

### **1. Outcome Measures**

Minimizing the spread and impact of invasive weed species in urban settings, plant nurseries and agricultural landscapes

### **2. Associated Institution Types**

- 1862 Extension
- 1862 Research

### **3a. Outcome Type:**

Change in Action Outcome Measure

### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2013	0

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

{No Data Entered}

#### **What has been done**

{No Data Entered}

#### **Results**

{No Data Entered}

### **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
{No Data}	null

## **Outcome #19**

### **1. Outcome Measures**

Using plant disease forecasting, advisories and non-chemical mitigation methods to reduce pesticide applications and increase profitability for vegetable producers.

### **2. Associated Institution Types**

- 1862 Extension
- 1862 Research

### **3a. Outcome Type:**

Change in Action Outcome Measure

### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2013	0

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

{No Data Entered}

#### **What has been done**

{No Data Entered}

#### **Results**

{No Data Entered}

### **4. Associated Knowledge Areas**

#### **KA Code    Knowledge Area**

{No Data}    null

## **Outcome #20**

### **1. Outcome Measures**

Using advisories, pest monitoring, rapid communication systems and on-the-ground training demonstrations for managing corn earworm, stink bugs (native and invasive species) and other pests in soybean

## 2. Associated Institution Types

- 1862 Extension
- 1862 Research

### 3a. Outcome Type:

Change in Action Outcome Measure

### 3b. Quantitative Outcome

Year	Actual
2013	0

### 3c. Qualitative Outcome or Impact Statement

#### Issue (Who cares and Why)

{No Data Entered}

#### What has been done

{No Data Entered}

#### Results

{No Data Entered}

## 4. Associated Knowledge Areas

KA Code	Knowledge Area
{No Data}	null

### **V(H). Planned Program (External Factors)**

#### **External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)
- Other (immigration, new cultural groups)

#### **Brief Explanation**

{No Data Entered}

### **V(I). Planned Program (Evaluation Studies)**

#### **Evaluation Results**

{No Data Entered}

#### **Key Items of Evaluation**

{No Data Entered}