

## 4.3 Waste Management and Prevention

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

##### 1. Name of the Planned Program

4.3 Waste Management and Prevention

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

##### 1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
133	Pollution Prevention and Mitigation	86%		86%	
403	Waste Disposal, Recycling, and Reuse	14%		14%	
<b>Total</b>		100%		100%	

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

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

Year: 2007	Extension		Research	
	1862	1890	1862	1890
<b>Plan</b>	2.4	0.0	0.5	0.0
<b>Actual</b>	16.3	0.0	10.5	0.0

##### 2. Institution Name: Cornell University

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

Extension		Research	
Smith-Lever 3b & 3c 71434	1890 Extension	Hatch 233056	Evans-Allen 0
1862 Matching 71434	1890 Matching 0	1862 Matching 233056	1890 Matching 0
1862 All Other 769821	1890 All Other 0	1862 All Other 449140	1890 All Other 0

##### 2. Institution Name: NY State Agricultural Experiment Station

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

Extension		Research	
<b>Smith-Lever 3b &amp; 3c</b> 0	<b>1890 Extension</b> 0	<b>Hatch</b> 2451	<b>Evans-Allen</b> 0
<b>1862 Matching</b> 0	<b>1890 Matching</b> 0	<b>1862 Matching</b> 2451	<b>1890 Matching</b> 0
<b>1862 All Other</b> 0	<b>1890 All Other</b> 0	<b>1862 All Other</b> 129220	<b>1890 All Other</b> 0

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

**1. Brief description of the Activity**

This is a statewide educational program entailing a wide range of applied research activities and multiple education methods depending on local context and need. Campus-based faculty and extension associates, regional specialists and county-based educators all are involved in designing, implementing, and evaluating tailored educational efforts depending on the focus and scope of their role.

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

Residents and property owners are targeted with stewardship and waste reduction and management in their homes and on their properties. Businesses, organizations, and producers are targeted with information about reducing impacts of their operations. Local government and community leaders are targeted with information related to governmental management of waste, such as relationship between waste management and land use, effective recycling programs, and roadkill management. Environmental planners and managers and technical assistance providers are targeted with in-depth information related to their audiences/constituents. Teachers and youth professionals and volunteers are provided with curriculum and training. Youth are targeted with age appropriate education.

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

**1. Standard output measures**

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

	<b>Direct Contacts Adults</b>	<b>Indirect Contacts Adults</b>	<b>Direct Contacts Youth</b>	<b>Indirect Contacts Youth</b>
<b>Year</b>	<b>Target</b>	<b>Target</b>	<b>Target</b>	<b>Target</b>
<b>Plan</b>	5500	50000	2500	15000
2007	4589	221817	1486	35900

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

**Patent Applications Submitted**

<b>Year</b>	<b>Target</b>
<b>Plan:</b>	0
2007:	0

**Patents listed**

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

**Number of Peer Reviewed Publications**

	<b>Extension</b>	<b>Research</b>	<b>Total</b>
<b>Plan</b>			
2007	0	0	26

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

##### Output Target

##### Output #1

###### Output Measure

# non-credit instructional activities directed to this program.

Year	Target	Actual
2007	0	63

##### Output #2

###### Output Measure

# non-credit instructional activity contact hours directed to this program.

Year	Target	Actual
2007	0	1605

##### Output #3

###### Output Measure

# funded applied research projects directed to this program.

Year	Target	Actual
2007	1	25

##### Output #4

###### Output Measure

# of agricultural/natural resources producers and business representatives completing educational programs on managing and reducing waste. (4.3.1a)

Year	Target	Actual
2007	0	0

##### Output #5

###### Output Measure

# of organization and business representatives completing educational programs on managing and reducing waste. (4.3.2a)

Year	Target	Actual
2007	0	0

##### Output #6

###### Output Measure

# of local government officials and community leaders completing educational programs on managing and reducing waste and the relationship between waste and land use management. (4.3.4a)

Year	Target	Actual
2007	0	0

##### Output #7

###### Output Measure

# of consumers, residents, and landowners completing educational programs on waste reduction and management. (4.3.5a)

Year	Target	Actual
2007	0	0

##### Output #8

###### Output Measure

# of youth completing educational programs on waste management and reduction. (4.3.6a)

Year	Target	Actual
2007	0	0

##### Output #9

###### Output Measure

# of teachers and youth professionals and volunteers completing educational programs on waste management and reduction. (4.3.7a)

Year	Target	Actual
2007	0	0

##### Output #10

###### Output Measure

# refereed publications directed to this program.

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<b>Year</b>	<b>Target</b>	<b>Actual</b>
2007	2	26

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

O No.	Outcome Name
1	# of agricultural/natural resources producers and business representatives who demonstrate knowledge gains about waste management and reduction. (4.3.1b)
2	# of organization and business representatives who demonstrate knowledge gains about waste management and reduction. (4.3.2b)
3	# of local government officials and community leaders who demonstrate knowledge gains about waste management and reduction and the relationship between waste and land use management. (4.3.4b)
4	# of consumers, residents, and landowners who demonstrate knowledge gains about waste management and reduction. (4.3.5b)
5	# of youth who demonstrate knowledge gains about waste management and reduction. (4.3.6b)
6	# of teachers and youth professionals and volunteers who demonstrate knowledge gains about waste management and reduction. (4.3.7b)
7	# of agricultural/natural resources producers and business representatives documented to have modified existing practices or technologies and/or adopted new practices to manage and reduce waste. (4.3.1c)
8	# of organization and business representatives documented to have modified existing practices or technologies and/or adopted new practices to manage and reduce waste. (4.3.2c)
9	# of producers, businesses, local governments, organizations, landowners, and individuals who collaborate to develop and implement waste reduction and management strategies. (4.3.3a)
10	# of local government officials and community leaders documented to have modified existing practices or technologies and/or adopted new practices to manage and reduce waste. (4.3.4c)
11	# of consumers, residents, and landowners documented to have modified existing practices or technologies and/or adopted new practices to manage and reduce waste. (4.3.5c)
12	# of youth documented to have modified existing practices and/or adopted new practices to manage and reduce waste. (4.3.6c)
13	# of youth introduced to variety of environmental and natural resources career options. (4.3.6d)
14	# of teachers and youth professionals and volunteers who incorporate waste reduction and management knowledge into curriculum. (4.3.7c)
15	# of agricultural/natural resources producers and business representatives documented to have improved waste management practices. (4.3.1d)
16	# of organizations and businesses documented to have established or modified waste management policies to enhance and protect land and water resources. (4.3.2d)
17	Documented instances in which resource managers credit reduced risk from waste handling and disposal; decreased waste volume; and improved environmental equity to implementation of improved waste management practices. (4.3.3b)
18	# of local government officials and community leaders documented to have established or modified waste management policies to enhance and protect land and water resources. (4.3.4d)
19	# of consumers, residents, and/or landowners, documented to have improved waste management practices. (4.3.5d)
20	# of youth documented to have chosen waste management-related careers. (4.3.6e)
21	Documented instances in which public health officials credit decreased public health risks to implementation of improved waste management practices. (4.3.8a)
22	Documented instances in which resource managers credit lower costs for remediation to implementation of improved waste management practices. (4.3.8b)
23	Development, Validation, and Costs of Net Energy and Gas Production Model of Anaerobic Digesters
24	Development of Effective Proteases to Enhance Nutritional Values of Low Quality Feed Proteins and to Reduce Environmental Pollution from Poultry Feather By-products
25	Household Hazardous Waste Collection

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##### **Outcome #1**

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

*Not reporting on this Outcome for this Annual Report*

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

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

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

<b>Year</b>	<b>Quantitative Target</b>	<b>Actual</b>
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###### **3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

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

<b>KA Code</b>	<b>Knowledge Area</b>
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##### **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

###### **Brief Explanation**

See plan.

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

###### **1. Evaluation Studies Planned**

After Only (post program)

Retrospective (post program)

During (during program)

Case Study

###### **Evaluation Results**

Evaluation results are reflected in the outcome indicators and impact statements associated with each planned program and result from a broad variety of evaluation approaches appropriate to the individual programs and contexts they represent.

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### **Key Items of Evaluation**

Each of our planned programs represents broad program emphases and strategies. Absent selection criteria, individual "findings" are not useful. See impact statements associated with this planned program for representative results.

Example results from impact statements: •

Determined the energy requirement to optimally operate a digester and to calculate the remaining energy that could be used for other beneficial purposes. •

Over 130 households participated in the collection event keeping 4,534 tons of electronics, 1,000 tires, and several tons of hazardous waste out of area landfills.