



OFFICE OF INSPECTOR GENERAL

Catalyst for Improving the Environment

Evaluation Report

Strategic Agricultural Initiative Needs Revisions to Demonstrate Results

Report No. 2007-P-00040

September 26, 2007



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Abbreviations

EPA	U.S. Environmental Protection Agency
FQPA	Food Quality Protection Act
FY	Fiscal Year
GAO	Government Accountability Office
IPM	Integrated Pest Management
OIG	Office of the Inspector General
OPEI	Office of Policy, Economics, and Innovation
OPP	Office of Pesticide Programs
OPPTS	Office of Prevention, Pesticides, and Toxic Substances
RFP	Request for Proposal
SAI	Strategic Agricultural Initiative
USDA	U.S. Department of Agriculture

Cover photo: Brown Marmorated Stink Bug, *Halyomorpha halys*
(Maine Department of Agriculture)



At a Glance

Catalyst for Improving the Environment

Why We Did This Review

We evaluated how the U.S. Environmental Protection Agency's (EPA's) Strategic Agricultural Initiative (SAI) uses performance measures to demonstrate results. We specifically sought to determine if SAI uses performance measurement tools and efficiency measures that provide for continuous program improvement.

Background

The SAI is a program that helps growers of minor crops replace high-risk pesticides phased out or restricted because of the Agency's pesticide reevaluations. Since 2001, the program has given out about \$4 million in grants. According to Agency staff, SAI fills a role within EPA's regulatory framework by helping minor crop growers transition to reduced risk and alternative methods of pest management.

For further information, contact our Office of Congressional and Public Liaison at (202) 566-2391.

To view the full report, click on the following link:
www.epa.gov/oig/reports/2007/20070926-2007-P-00040.pdf

Strategic Agricultural Initiative Needs Revisions to Demonstrate Results

What We Found

The SAI program has not demonstrated how it fulfills its unique role of helping growers transition away from Food Quality Protection Act high-risk pesticides. The program does not have a strategic plan or similar documents that link project mission and goals, logic model, performance measures, and the data collected by the program. Headquarters and the regions have inconsistent priorities for implementing the program. This lack of structure makes it difficult to measure and validate results.

The SAI databases, which are used to gather data on project performance, lack definitions and structure, and thus contain incomplete and extraneous information. Therefore, the SAI program does not have performance measurement tools or performance measures in place to ensure or facilitate continuous program improvement.

What We Recommend

We recommend that EPA develop a needs assessment for the SAI program to demonstrate how it fulfills its role in meeting Food Quality Protection Act requirements. If the need is demonstrated, the Program Office should create a strategic plan which sets clear priorities for the direction of the program. For the SAI Projects database, the Agency should create guidance documents and establish standards and procedures for data collection and entry into these databases. SAI data and results should be accessible to grantees and other interested stakeholders. EPA agreed to reassess the need for the SAI program. If the SAI needs assessment demonstrates a unique need for SAI, EPA agreed to develop a strategic plan, based on logic modeling, that will address the issues identified in this evaluation and the SAI needs assessment.

These recommendations will result in approximately \$1.5 million in annual grant funds put to better use. This is because either the need for these grants will be determined to no longer exist or, if needed, their effectiveness will be enhanced following the creation of a strategic plan and associated goals, logic model, performance measures, and data systems.



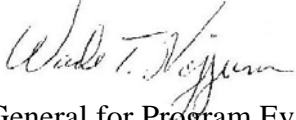
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
INSPECTOR GENERAL

September 26, 2007

MEMORANDUM

SUBJECT: Strategic Agricultural Initiative Needs Revisions
to Demonstrate Results
Report No. 2007-P-00040

FROM: Wade T. Najjum 
Assistant Inspector General for Program Evaluation

TO: James B. Gulliford
Assistant Administrator, Office of Prevention, Pesticides,
and Toxic Substances

Debbie Edwards
Director, Office of Pesticide Programs

This is a report on the Strategic Agricultural Initiative conducted by the Office of Inspector General (OIG) of the U.S. Environmental Protection Agency (EPA). This report is subject to revision by the OIG and, therefore, does not represent the final position of the OIG on the subjects reported. Final determinations on matters in this report will be made by EPA managers in accordance with established resolution procedures.

The estimated cost of this report – calculated by multiplying the project's staff days by the applicable daily full cost billing rates in effect at the time – is \$ 307,570.

Action Required

In accordance with EPA Manual 2750, you are required to provide a written response to the report within 90 calendar days. You should include a corrective action plan for agreed-upon actions, including milestone dates. We have no objection to the further release of this report to the public. This report will be available at <http://www.epa.gov/oig>.

If you or your staff have any questions regarding this report, please contact me at (202) 566-0827 or najjum.wade@epa.gov; or Jeffrey Harris, Director of Special Studies, at (202) 566-0831 or harris.jeffrey@epa.gov.

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Chapter 1

Introduction

Purpose

The purpose of this evaluation is to respond to a request from the U.S. Environmental Protection Agency's (EPA's) Office of Prevention, Pesticides, and Toxic Substances (OPPTS) to evaluate, in part, the performance measures of the Strategic Agricultural Initiative (SAI) program.¹ We specifically sought to determine whether SAI utilized performance measurement tools and performance measures that provide for continuous program improvement.

Background

In the Food Quality Protection Act (FQPA) of 1996, Congress amended pesticide regulations to establish a more consistent, protective regulatory scheme, grounded in sound science. Among its directives, FQPA mandated EPA to create incentives for developing and maintaining effective crop protection tools for American farmers. Specifically, FQPA required EPA to promote Integrated Pest Management (IPM),² and implement IPM education, research, and demonstration programs. FQPA also required EPA to create incentives to maintain existing, and develop new, minor use pesticides.³

As part of implementing FQPA, EPA is phasing out some toxic and persistent pesticides that are no longer considered safe for human health or the environment, also known as “high-risk pesticides.” As certain pesticides are phased out and new alternatives are developed, the Agency acknowledged that farmers needed help in adopting new pest control practices and approaches to pest management. Thus, EPA developed the SAI in 1998. The Agency stated that the SAI program helps growers of minor crops replace high-risk pesticides phased out or restricted because of the Agency's pesticide reevaluations. According to SAI, the mission of the program is to “support and promote environmentally sound agricultural and pest management practices across the United States that are economically viable and socially responsible.”

¹ See Appendix A for the original evaluation request that OPPTS sent to the OIG.

² A strategy generally viewed as a sustainable approach to managing pests by combining biological, cultural, physical, and chemical methods so that risks to economic well being, human health, and the environment are minimized.

³ Minor use pesticides are defined as (1) using pesticides on crops where the total U.S. acreage is less than 300,000 acres, or (2) where using pesticides does not provide sufficient economic incentives for a registrant to support initial or continued registration.

According to EPA, the SAI provides funds on a competitive basis for projects that are intended to:

- Increase the adoption of sustainable agricultural protection practices through implementing IPM programs;
- Contribute to pesticide re-registration decisions under FQPA; and
- Employ performance measures to determine if adopting IPM practices improves the ecosystem.

Since 2001, the program has given out approximately \$4 million in grants. According to Agency staff, SAI fills a role within EPA's regulatory framework by providing outreach and support to minor crop growers.

According to SAI staff, the program tracks and reports several performance measures in various Agency systems. The SAI program uses two databases, Projects and Collaborations, to help track, measure and report program impacts and results. The SAI Projects and Collaborations databases can be found on the SAI Website.⁴ As of March 2007, the Projects database had information for 150 projects.

Noteworthy Achievements

Since the program began in 1998, SAI reports that it has helped implement reduced risk pest management strategies on over 780,000 acres of farmland, reducing the use of highly toxic pesticides on these acres by over 30 percent. Two documents that highlight SAI program accomplishments are the *Results Across the Nation* summary, FY (Fiscal Year) 2001 - FY 2006; and SAI 2005 Snapshot, FY 2005. EPA reported, for example, that one project achieved reducing 16,000 pounds of active ingredients of pesticide and produced a savings of nearly \$17 per acre. Another project resulted in removing two lakes from the Clean Water Act 303(d) impaired waters list for atrazine.

Scope and Methodology

We interviewed stakeholders of the program to gather feedback about performance measures and the data they collect to report results.⁵ Internal stakeholders included EPA staff, including officials in OPPTS and its Office of Pesticide Programs (OPP), and Division Directors. Also, we interviewed Agency contractors and the U.S. Department of Agriculture (USDA).

We reviewed SAI program documents and guidance, and the Federal IPM Road Map. We assessed the SAI databases to determine if projects had information on

⁴ <http://www.aftresearch.org/sai/protected/>. The SAI program has an assistance agreement with the American Farmland Trust to develop and maintain the SAI Website and databases on behalf of the EPA. One needs a login code and password to enter the Projects database.

⁵ During our evaluation, we did not interview growers associated with the SAI program or others in the agricultural community.

program and project specific performance measures, and whether this information could be retrieved for reporting. Specifically, we selected the following data fields because they are used to track overall project and program performance measures: grant amount, acres impacted, pesticides transitioned from, collaborating organizations, and matching funds. We determined the percentage of incomplete information (of the selected data fields) by region.

We performed our evaluation in accordance with generally accepted government auditing standards, issued by the Comptroller General of the United States. We performed our field work from November 2006 through February 2007. See Appendix B for additional details on our scope and methodology.

Prior Coverage

The Government Accountability Office (GAO) and OIG have issued several reports that address Federal Integrated Pest Management programs, FQPA, and EPA performance measurement. The Office of Management and Budget performed a 2004 Program Assessment Rating Tool assessment of OPP field programs. Although these are not specifically targeted to the SAI program, they contain applicable information and findings related to our evaluation of SAI performance measures.

A 2006 OIG report, 2006-P-00028, *Measuring the Impact of the Food Quality Protection Act: Challenges and Opportunities*, discusses the importance of performance measurement for FQPA programs at EPA. The report emphasizes that effective performance measurement enables an agency to establish baselines; identify and prioritize problems; and evaluate, manage, and improve programs.

The 2004 Office of Management and Budget's Program Assessment Rating Tool assigned the Field Programs a "Results Not Demonstrated" rating. The assessment reported that "The budgets of the Field Programs taken independently can not tie to program-specific goals because no adequate program-specific goals have been established."

A GAO report, GAO-05-52, issued in 2004, discusses performance measurement at EPA. This report, *Environmental Indicators: Better Coordination Is Needed to Develop Environmental Indicator Sets That Inform Decisions*, found that EPA has challenges with developing environmental indicator sets to inform decisions. GAO also found the Agency had problems in linking specific environmental management actions and program activities to changes in environmental conditions and trends.

Chapter 2

SAI Needs to Improve Program Design to Validate Results

The SAI program has not demonstrated how it fulfills its unique role of helping growers transition away from FQPA high-risk pesticides. Headquarters and the regions have inconsistent priorities for implementing the program. No strategic plan or similar document exists that describes the linkage between program mission and goals, logic model, performance measures, and data the program collected. This lack of structure makes it difficult to measure and validate results. Also, the Projects database lacks definitions and structure, which prevents the program from capturing data for performance measurement. Therefore, the SAI program does not have performance measurement tools in place to ensure or facilitate continuous program improvement and validate results.

SAI Program Priorities Are Inconsistent

The national SAI coordinator and regional staff have developed individual priorities for implementing the program. While Headquarters and the regions both stress FQPA in their Requests for Proposal (RFPs), the focus for how to address FQPA requirements varies among regions. For example, some regions focus on a particular group of pesticides; others prioritize by a specific pesticide or have added endangered species issues to their RFPs.

According to Agency documents, projects that the SAI program funds must support FQPA implementation by addressing high-risk chemicals. However, we found that not all SAI projects focus solely on FQPA priorities. The SAI national coordinator stated that she has not received guidance regarding which pesticides are identified as FQPA priority pesticides for the program to address. We also found EPA does not have guidance or planning documents showing the relationship between the FQPA re-registration decisions and its projects and program measures. Such program measures include, for example, potential acres impacted and percentage reduction of high-risk pesticides as identified by the Agency.

OPPTS has not performed a program needs or baseline assessment that identifies the unique role and status of SAI in meeting FQPA requirements. For example, to date, OPPTS has not identified the number, uses, and milestones of high-risk pesticides to be phased out due to FQPA implementation. Furthermore, we observed that the mission of the SAI program and how it will be implemented is described differently in various documents. This divergence in documenting how the mission is achieved makes it difficult for the program to establish priorities and capture results.

SAI Program Design Lacks Several Components

SAI Program Does Not Have a Strategic Plan

SAI does not have a strategic plan to chart and coordinate the direction of the program and identify which outputs and outcomes it needs to measure against an established baseline or a desired goal. The lack of the strategic plan has created variation in the goals and objectives for the national program and regional RFPs. Also, the SAI program has not clearly demonstrated how the projects funded by the program contribute to transitioning from high-risk pesticides.

SAI cannot identify how each of its projects has contributed to the impact and effectiveness of the overall program. The regions fund various types of grant projects, which include demonstration, research, education, and implementation. We found that for the projects that listed project type in the SAI Projects database, 45 percent are classified as demonstration, 32 percent as research, 16 percent as education, and 7 percent as implementation.⁶ We found that the SAI program does not have any guidance or documents that address: (1) when each project type should be used, (2) what constitutes a successful project (including timeline for completion), (3) how different project types will be measured against one another, or (4) how each type of project ultimately relates to FQPA goals. One regional coordinator remarked that the types of projects have great degrees of variation in the time needed to be effective. For example, a research project may take much longer than an implementation project because much of the IPM research has already been completed.

Many of the regions' RFPs vary, and require grantees to address various priorities with different reporting and performance requirements. Certain regions are funding mostly research-based projects, while other regions give grants for a mixture of demonstration and education projects. For example, Region 9 has entered 81 percent of its projects into the database as demonstration projects, while Region 4 has close to half, or 46 percent, as research projects. Neither Headquarters nor the regions have documents that explain how a particular choice of projects meets the SAI goal of transitioning growers away from high-risk pesticides.

Changes Needed to Improve SAI Logic Model

While the Agency has developed a logic model for the SAI program, we found it is not designed according to Office of Policy, Economics, and Innovation (OPEI) Guidelines and other documents which define output and short-, intermediate-, and long-term outcomes. Table 2.2 further defines these performance measurement terms.

⁶ Of the 150 projects in the database, 112 projects provided information under project type.

Table 2.2: Performance Measurement Terms

Term	Definition
Inputs	Personnel, funds, and other resources that contribute to an activity
Outputs	Quantitative or qualitative measures of activities, work products, or actions
Intermediate Outcomes	Changes in knowledge, behavior, or conditions that result from program activities and are needed to achieve the end outcome
End Outcomes	The ultimate outcomes of program activities – the results compared to their intended purpose

Source: OIG analysis

Specifically, some of the items currently labeled as “outcomes” in the SAI logic model should be classified as outputs, or lower level (i.e., short-term outcomes). For example: “Safer environment for farmers, the public and wildlife” is listed as a long-term outcome, but this qualitative statement does not measure quantitative environmental or health indicators. While the “Nationwide appreciation of EPA from growers and the IPM community” is listed as an intermediate outcome, it does not represent changes in knowledge of high-risk pesticides or grower behavior. The national coordinator provided OIG with a 2006 document, titled *Data Fields In SAI Database That Correspond To SAI Logic Model*, which lists data fields used to capture short-, intermediate-, and long-term outcomes. The data fields listed as long-term outcomes include worker safety issues, outreach, and use of the SAI Transition Gradient. These should be classified as intermediate outcomes because they affect behavior or conditions rather than providing specific environmental or health measurements.⁷

According to the FY 2006 document, *Guidelines for Measuring the Performance of EPA Partnership Programs*, a logic model is a visual diagram and text that shows the relationship between a program’s work and its desired results. Furthermore, it states a logic model describes the logical (causal) relationships among program elements such as resources, activities, outputs, target decision-makers, and desired outcomes. The OPEI Guidelines add that a well-thought-out logic model can easily lead managers to establishing their program’s performance measures and serves as a basic road map for the program.

⁷ Examples of long-term outcomes are found on the SAI Website. Human-related outcomes include pesticide exposure levels in study population and levels of residues of high-risk pesticides in food. Water quality measures include mortality to non-target aquatic and terrestrial organisms caused by pesticides and populations of beneficial organisms in field and adjacent habitat.

SAI Needs to Establish Criteria for Program and Project Effectiveness

Existing quantitative criteria do not capture the SAI program's impact and effectiveness towards reducing the amount of high-risk pesticides used by growers. In addition, OPPTS allocates grant funds to regions based on minor crop sales, and not on the regions' project performance or contributions to program goals. The national coordinator gauges the success of the SAI program based on "(1) a cohesive team that achieves national (common) goals and (2) the program serves the Agency, i.e., it has performance measurement and accountability," rather than how well the SAI program contributes to EPA's strategic goals.

SAI cannot identify how each of its projects has contributed to the impact and effectiveness of the overall program. The SAI program also has not established criteria to gauge project effectiveness. Because no consistent criteria exist for an effective project, it is difficult to identify which SAI projects have been the most successful, and why. For example, we found many of the regional coordinators and the national coordinator have a different working definition of a successful project. The national coordinator defined a successful project as one that "(1) Achieves stated project goals, (2) has potential for adoption for other growers in that commodity, and (3) addresses OPP priorities." Regional coordinators' definitions included: "Success means positive feedback from growers-grower chatter," and "Gauges of a successful project are: (1) What new information is made available? (2) Is there movement on the transition gradient? (3) Is there good grower involvement? (4) Is it economically viable? and (5) Did the project educate more growers?" According to one regional coordinator, one measure currently being used by SAI (number of acres per grant dollar spent) did not provide a good representation of results for projects that were done on the same amount of acreage each year.

SAI Databases Lack Guidance, Definitions, and Structure

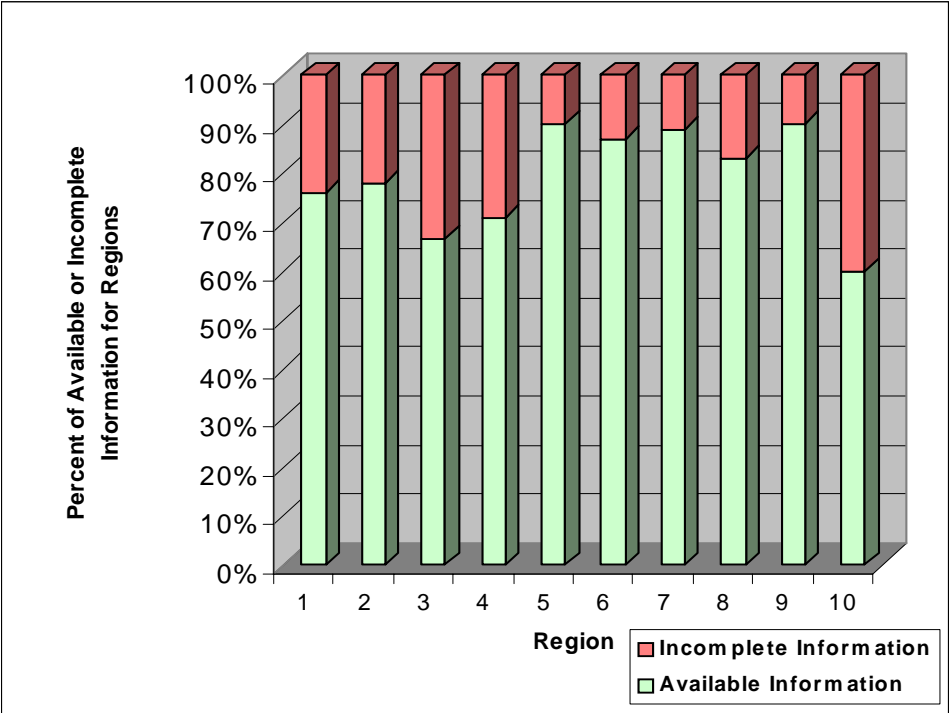
The SAI databases lack guidance, definitions, and a clear structure for entering information.⁸ We found the lack of guidance has led to inconsistencies in how each region characterizes and counts collaborations activities and project data. When descriptive information is entered for numeric data fields in the Projects database, aggregating information to conduct quantitative trend analyses for the SAI program as a whole is difficult. The SAI program is unable to utilize the databases for performance measure reporting.

We found that data fields are often missing data, or numerical data is entered in descriptive form. Sometimes different units of measurement are used within the same field for different projects. We analyzed the Projects database to determine

⁸ In November 2006, the national SAI coordinator stated proposed changes would be made to definitions for data fields in the Projects database. As of March 2007, these changes to the Projects database have not been implemented.

what percentage of information was available for data fields or if they were incomplete.⁹ Figure 2.1 shows each region’s percentage of incomplete information for selected data fields. Some regions had a large amount of information incomplete in their project reports. For example, two regions had approximately 33 to 40 percent of their data field entries incomplete, with data classified as unavailable, unknown, or to be determined. In contrast, some other regions had only 10 to 13 percent of their entries incomplete.

Figure 2.1. Regional Percentage of Incomplete Information for Selected Data Fields



Source: OIG analysis of Projects database

Information is collected and stored in the SAI Projects database that is not used for reporting, planning, or evaluation. According to OPP staff, researchers utilizing the Projects database like to acquire as much information from the projects as possible. These informal requests for additional information may be the cause for extra data being collected. However, SAI coordinators expressed concern that prospective grantees may be less interested in the grants due to the additional data requirements.

⁹ We defined incomplete information as data fields that are empty or stated, “unknown, to be determined, N/A, ongoing project, or unavailable.” We examined the following data fields: grant amount, acres impacted, pesticides transitioned from, collaborating organizations, and matching funds.

Recommendations

We recommend that the Assistant Administrator, Office of Prevention, Pesticides, and Toxic Substances:

- 2-1 Perform a needs assessment for the SAI program to establish to what extent SAI fulfills a unique role for meeting FQPA requirements. This assessment should also illustrate how program resources are used to fulfill specific needs of the FQPA. If the assessment results show that the SAI program does not fulfill a unique role in meeting FQPA requirements, OIG recommends that the Agency phase out the SAI program and shift the funding to other OPP priorities.

We recommend that the Director, Office of Pesticide Programs:

- 2-2 If a valid need is identified by the above assessment, create a strategic plan with:
- a national set of goals, objectives, and measures;
 - clear, strategic priorities with a focus on transition to reduced-risk practices;
 - links to projects to EPA and OPP Strategic Plan goals and performance measures;
 - internal measures used to gauge project and program success with the database information;
 - a roadmap that articulates how each type of project (research, demonstration, implementation, education) directly contributes to program outcomes; and
 - a logic model that adheres to OPEI guidelines and accurately reflects outputs and short-, intermediate-, and long-term outcomes of the program.
- 2-3 Develop an overarching RFP that aligns national goals of the SAI program and also allows for regional priorities.
- 2-4 Create guidance documents for the use of the Projects and Collaborations databases. These documents should:
- include a clear and consistent data dictionary for all fields,
 - provide a quality control/quality assurance check for data entry,
 - specify how the data will be used for reporting and analysis by the SAI national and regional coordinators, and
 - make SAI data and results accessible to grantees and other interested stakeholders.

These recommendations will result in approximately \$1.5 million in annual grant funds put to better use. This is because either the need for these grants will be determined to no longer exist or, if needed, their effectiveness will be enhanced following the creation of a strategic plan and associated goals, logic model, performance measures, and data systems.

Agency Comments and OIG Evaluation

We received Agency comments on August 15, 2007, regarding our draft report findings and recommendations. While the Agency's response discussed the OIG recommendations, it did not address how OPPTS would assess the need for the SAI program, or resolve the structural issues identified in Recommendations 2-1 and 2-2. Subsequently, OPPTS issued an additional response on September 17, 2007 (see Appendix C). This second response concurred with our recommendations, and clarified the Agency's commitment to perform a needs assessment for the program.

The Agency has agreed to develop a work plan and schedule to complete a needs assessment by the first quarter of 2008. According to Agency staff, the needs assessment will be conducted by an independent contractor to ensure objectivity. The assessment will include the views of key stakeholders, including USDA counterparts who share responsibilities under the FQPA.

The Agency stated that if the needs assessment demonstrates that SAI fulfills a unique role within OPP, it will implement Recommendations 2-2 through 2-4 by developing a strategic plan based on a logic model, and will restructure the program as needed. OPP will utilize a single national RFP in future grant cycles.

Status of Recommendations and Potential Monetary Benefits

RECOMMENDATIONS						POTENTIAL MONETARY BENEFITS (in \$000s)	
Rec. No.	Page No.	Subject	Status ¹	Action Official	Planned Completion Date	Claimed Amount	Agreed To Amount
2-1	9	Perform a needs assessment for the SAI program to establish to what extent SAI fulfills a unique role for meeting FQPA requirements. This assessment should also illustrate how program resources are used to fulfill specific needs of the FQPA. If the assessment results show that the SAI program does not fulfill a unique role in meeting FQPA requirements, OIG recommends that the Agency consider phasing out the SAI program and shift the funding to other OPP priorities.	O	Assistant Administrator, Office of Prevention, Pesticides, and Toxic Substances	12/31/07	\$1,500	
2-2	9	If a valid need is identified by the above assessment, create a strategic plan with: <ul style="list-style-type: none"> • a national set of goals, objectives, and measures; • clear, strategic priorities with a focus on transition to reduced-risk practices; • links to projects to EPA and OPP Strategic Plan goals and performance measures; • internal measures used to gauge project and program success with the database information; • a roadmap that articulates how each type of project (research, demonstration, implementation, education) directly contributes to program outcomes; and • a logic model that adheres to OPEI guidelines and accurately reflects outputs and short-, intermediate-, and long-term outcomes of the program. 	O	Director, Office of Pesticide Programs			
2-3	9	Develop an overarching RFP that aligns national goals of the SAI program and also allows for regional priorities.	O	Director, Office of Pesticide Programs			
2-4	9	Create guidance documents for the use of the Projects and Collaborations databases. These documents should: <ul style="list-style-type: none"> • include a clear and consistent data dictionary for all fields, • include a quality control/quality assurance check for data entry, • specify how the data will be used for reporting and analysis by the SAI national and regional coordinators, and • make SAI data and results accessible to grantees and other interested stakeholders. 	O	Director, Office of Pesticide Programs			

¹ O = recommendation is open with agreed-to corrective actions pending;
C = recommendation is closed with all agreed-to actions completed;
U = recommendation is undecided with resolution efforts in progress

OPPTS Evaluation Request

7/12/2006

EPA's Strategic Agricultural Initiative (SAI) Program Evaluation Proposal

1. Title: Evaluation of the SAI Program.

EPA's Strategic Agricultural Initiative helps to ensure the safety and sustainability of American agriculture by working with farmers, researchers, and other agencies to implement reduced risk pest management strategies. EPA's Office of Pesticide Programs (OPP) established SAI in 1998 to address Food Quality Protection Act (FQPA) priorities and help reduce the use of high-risk pesticides on fruits and vegetables. These pesticides can harm human health and can also have adverse effects on air, water, and biodiversity. To help producers transition away from using these pesticides, SAI provides funds on a competitive basis for projects that increase the adoption of sustainable agricultural production practices through the implementation of Integrated Pest Management (IPM) programs, contribute to pesticide re-registration decisions, and employ performance measures to determine if the adoption of IPM improves the ecosystem. Unlike more traditional programs, SAI uses innovative online tools to manage and track the results of projects and outreach efforts. These include 1) a searchable project database that can provide regional and national summaries across 35 data fields, 2) a collaborations database to record outreach activities, and 3) a toolbox of information on grant management, grant opportunities, performance measurement, baseline data sources, reporting outcomes, and evaluation. SAI specialists in each EPA region use these online resources to manage projects and make final decisions on funding. The specialists also maintain regional outreach programs, and work with other programs within the Agency, state and federal agencies, commodity groups, farm organizations, and stakeholder groups to further SAI objectives. Within OPP, the national SAI coordinator oversees the program and ensures that project results are aligned with OPP goals.

2. Questions:

- (i) How can SAI help more farmers adopt successful technologies, field-tested through the SAI grants program, to achieve greater technology transfer and help farmers comply with FQPA?
- (ii) Does SAI utilize the appropriate performance measurement tools and efficiency measures that provide for continuous program improvement?
- (iii) How can SAI improve its databases (projects and collaborations) to collect more pertinent information for the Agency?
- (iv) How can the structure of SAI be improved to produce better program outcomes?
- (v) What role can SAI play in future EPA/OPP activities?

3. Justification:

Over the last three years, SAI has emphasized the use of outcome, performance, and efficiency measures. These measures were created in a self-directed team effort to focus the program on outcomes and efficiency. Now, at the request of several other federal agencies, including USDA, the Department of Defense and the Department of the Interior, SAI is beginning to share these measures to help other agencies measure the impacts of IPM adoption. Thus, it is important to determine if SAI has indeed adequately developed and used these measures to fulfill the tenets of FQPA and the Government Performance and Results Act, as well as answered questions posed by the Office of Management and Budget. We welcome the evaluation as a means of determining if modifications in SAI would make the program more effective. If the evaluation finds that our focus on measures and outcomes is adequate, then other programs and divisions within EPA and other Agencies may be able to benefit by following a similar process to develop measures and record progress. In this way, SAI can serve as a template for other federal programs that need better measurement tools. Also, if OPP field programs are scheduled to be PARTED in the future, results of this evaluation could be used to adjust the program to be better positioned to respond to the PART questions.

This evaluation would analyze the outcomes of SAI and its efficiency. For the outcome components, evaluators will use a multiple group, non-experimental approach that uses observations from key customers after the program has been implemented. Evaluators will interview farmers, (end users of the program), as well as federal personnel (internal customers.) This will allow evaluators to determine if SAI achieves three key outcomes: (1) increased adoption of sustainable agricultural practices on farms, (2) increased use of performance measures to quantitatively document reductions in risk due to the adoption of sustainable agricultural practices, and (3) increased communication with other EPA programs and other agencies to help implement EPA Strategic Plan Goal 4.

The efficiency evaluation will focus on how SAI achieves its outcomes. Evaluators will interview the SAI coordinator and the 10 regional SAI specialists to determine if SAI conducts its operations in an efficient manner. In addition, the efficiency evaluation will use quantifiable data from the SAI projects database to calculate efficiency measures. By emphasizing outcomes and efficiency, this evaluation can determine whether SAI has been effective in helping the Agency implement FQPA.

4. Information Needed:

Interviews with EPA staff, U.S. Department of Agriculture staff, SAI grantees, and farmers will provide most of the outcome-related information. SAI will give the evaluator(s) a list of twenty or so Agency contacts with detailed knowledge of SAI and its past activities. SAI will also provide the evaluator(s) with a list of nine grantees and/or farmers who can comment on the effectiveness of the program. Since we limit this part of the evaluation to only nine interviews involving non-federal employees, this evaluation will not need an Information Collection Request (ICR). SAI will also provide the evaluator(s) with complete access to SAI's online tools (e.g. SAI toolbox, project database, and collaborations database) to further explore and analyze program outcomes.

For the efficiency part of the evaluation, interviews with the SAI coordinator and the 10 regional SAI specialists will provide most the information needed. Additional information can be gleaned from SAI's online tools that contain efficiency data (e.g. SAI project database). The SAI coordinator and specialists will provide any other information requested by the evaluator(s).

5. **Contacts:**

Frank Ellis, Acting Branch Chief
Environmental Stewardship Branch,
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Detailed Scope and Methodology

We generally performed our evaluation in accordance with generally accepted government auditing standards, issued by the Comptroller General of the United States. We performed our field work from November 2006 through February 2007.

To determine if the SAI has been utilizing the appropriate performance measurement tools and efficiency measures that provide for continuous program improvement, we interviewed internal stakeholders of the program to gather feedback about performance measures and the data they collect to report results. We interviewed Division Directors from the Biopesticides and Pollution Prevention Division and the Biological and Economic Analysis Division. We attended the 2006 SAI Interagency Conference on IPM in Dallas. During this conference, we interviewed the national and regional SAI coordinators. We also met with staff of the USDA and American Farmland Trust who collaborate with SAI on collecting performance measures. In addition, we met with former SAI staff with detailed knowledge of SAI and its past activities in order to gather information about performance measures used by the program.

To understand the historic context of SAI the program, we read SAI Regions' Proposals written in 1997, which detailed how the program would be implemented in the SAI Pilot Regions (4, 5, 9, and 10). We reviewed documents containing program guidance such as the FY 2001, 2005, and 2006 SAI Budget Guidance Memorandums, the 2006 SAI Draft Marketing/Communications Strategy, and FY 2006 Regional Distributions for SAI grant monies. We analyzed the 2004 USDA National Road Map for IPM to identify any guidance that may be relevant to SAI and adoption of performance measures. We reviewed regional annual summaries and regional RFPs to determine if regions had similar priorities when funding projects. We also examined the 2006 SAI Logic Model to evaluate the outputs and outcomes listed for the program.

We analyzed the SAI Projects and Collaborations databases. We examined databases used by SAI to see if they capture consistent, reportable, and measurable information. To analyze the Projects database, we first used the database generator located on the Projects database Website. We selected for specific data fields: grant amount, acres impacted, pesticides transitioned from, leveraged funds, collaborating organizations, and project type. We sorted each of these data fields separately using Microsoft Excel®. After re-organizing and sorting, we analyzed the data to determine if the SAI Projects database has the necessary information to track and report on performance measures. We determined the percentage of incomplete information for the above selected fields for all 150 projects in the Projects database. We determined the percentage of incomplete information (of the selected data fields) by region. We also reviewed documents provided by the SAI national coordinator with proposed changes to the data fields within the Projects database. For the Collaborations database, we reviewed the types of activities that were recorded, noting if regions entered or counted similar activities differently.

Agency Response

September 17, 2007

Memorandum

Subject: Clarification of OPPTS Response to Draft Report "The Strategic Agricultural Initiative Needs Revisions to Demonstrate Results" – Assignment No. 2006-01630 (dated July 16, 2007)

From: James B. Gulliford, Assistant Administrator

To: Jeffrey Harris, Director
Cross-Media Issues
Office of Program Evaluation
Office of Inspector General

Thank you for the opportunity to discuss the draft evaluation "The Strategic Agricultural Initiative Needs Revisions to Demonstrate Results – Assignment No. 2006-01630 (dated July 16, 2007) on September 10, 2007, and to clarify our earlier response. Your evaluation, conducted at our request, focused on the usefulness of the performance measures of the Strategic Agricultural Initiative (SAI) program.

OPPTS wholeheartedly agrees with your conclusion that OPP should reassess the need for the SAI program. This reassessment should focus on SAI's linkage to the Food Quality Protection Act, the needs and goals of EPA's Pesticide Program, and possible restructuring of the SAI program, as necessary, to meet the needs identified.

The concerns about methodology that were expressed in our comments do not diminish our overall agreement with the recommendations. Your draft evaluation highlights the need to demonstrate the unique role of the SAI program; the need for a stronger link to program missions and goals; inconsistencies between Headquarters and the Regions; and a concern about the structure of the program. The draft evaluation also outlines some specific concerns regarding SAI databases and streamlining grant programs. We agree with these recommendations.

The following is an itemized list of each recommendation and the actions that OPP intends to take to address each recommendation. Numbers 2-2 through 2-4 obviously hinge on a positive finding from the first recommendation, that the need for a stewardship program still exists to assist growers as identified in the FQPA.

2-1 The draft report recommends that OPPTS perform a needs assessment for the SAI program to establish to what extent SAI fulfills a unique role for meeting FQPA requirements. This assessment should also illustrate how program resources are used to fulfill specific needs of the FQPA. If the assessment results show that the SAI program does not fulfill a unique role in meeting FQPA requirements, OIG recommends that the Agency phase out the SAI program and shift funds to other OPP priorities.

We agree with your recommendation to conduct a needs assessment, which would include gathering and assessing information on risk reduction needs from a variety of key stakeholders and our counterparts in USDA who share responsibilities under the FQPA. By the end of October 2007, we propose to develop a methodology, workplan, and schedule for the completion of a needs assessment for the mission of SAI. This needs assessment would identify needs based on FQPA and EPA/OPP's strategic goals and would further identify an optimum structure for meeting those needs. We anticipate that the assessment will be complete in the first quarter of 2008.

2-2 If a valid need is identified by the above assessment, OPP should create a strategic plan, with:

- **a national set of goals, objectives and measures,**
- **clear, strategic priorities with a focus on a transition to reduced-risk practices,**
- **links to projects to EPA and OPP Strategic Plan goals, and performance measures,**
- **internal measures used to gauge project and program success with the database information,**
- **a roadmap that articulates how each type of project (research, demonstration, implementation, education) directly contributes to program outcomes, and**
- **a logic model that adheres to OPEI guidelines and accurately reflects outputs, and short-, intermediate-, and long-term outcomes of the program.**

If the SAI needs assessment demonstrates a unique need for SAI then OPP will begin to look at recommendations 2-2 thru 2-4. OPP, in coordination with the ten EPA Regions, will develop a strategic plan, based on logic modeling, that will address the issues identified in this evaluation and the SAI needs assessment.

If the needs assessment does demonstrate a unique need for a non-regulatory approach to pesticide risk reduction, such as SAI, we recognize that there may be a need for restructuring of the program as it exists today. Any such restructuring would be done in order to contribute to the successful achievement of EPA/OPP national goals, to Regional goals, and to significantly improve pest management practices for growers. This would ultimately reduce the risks of both pests and pest management practices for the American people.

2-3 Develop an overarching RFP that aligns national goals of the SAI program, and also allows for Regional priorities.

- OPP agrees with this recommendation and will utilize a single national RFP in future grant cycles.

2-4 Create guidance documents for the use of the Projects and Collaborations databases. These documents should:

- **include a clear and consistent data dictionary for all fields,**
- **provide a quality control/quality assurance check for data entry,**
- **specify how the data will be used for reporting and analysis by the SAI National and Regional Coordinators, and**
- **make SAI data and results accessible to grantees and other stakeholders.**

OPP agrees that these are necessary components and will include them in any projects and collaboration databases developed for the SAI program.

Distribution

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