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Report Title

2008 Insect Resistance Management Compliance Assurance Program Report for Corn Borer-Protected Bt corn, Corn Rootworm-Protected Bt corn, and Corn Borer/ Corn Rootworm-Protected Stacked Bt corn

Data Requirement

Condition of Registration for:

Corn Borer-Protected Bt Corn (EPA Reg. Nos. 524-489, 68467-2, 67979-1, and 29964-3), Corn Rootworm-Protected Bt Corn (EPA Reg. Nos. 524-528, 524-551, 68467-5, 67979-5, and 29964-4), and
Corn Borer/Corn Rootworm-Protected Stacked Bt Corn (EPA Reg. Nos. 524-545, 524-552, 68467-6, 67979-8, and 29964-5)

Author

Lance Bailey

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Registrant Submitting

The IRM Stewardship Subcommittee of the Agricultural Biotechnology Stewardship Technical Committee

c/o Arent Fox LLP
1050 Connecticut Avenue, NW
Washington, DC 20036-5339

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Volume 1 of 1

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Company:	The IRM Stewardship Subcommittee of the Agricultural Biotechnology Stewardship Technical Committee (ABSTC)*
Company Agent:	Stanley H. Abramson
Title:	Authorized Representative of the ABSTC
Signature:	
Date:	1/30/2009

* Comprised of the following member companies: Dow AgroSciences LLC; Monsanto Company; Pioneer Hi-Bred International, Inc.; and Syngenta Seeds, Inc.

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GLP Compliance Statement

This report does not meet the U.S. EPA Good Laboratory Practice requirements as specified in 40 CFR Part 160, as it is not a study but a report summarizing information compiled from third party, anonymous grower surveys and on-farm assessments by the ABSTC.

Submitter: _____ Date: 1/30/2009
Stanley H. Abramson
ABSTC

Sponsor: _____ Date: 1/30/2009
Ravinder Sidhu, Ph.D.
ABSTC

Study Director: _____ Date: 1/30/2009
Margaret Wideman
ABSTC

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The "2008 Insect Resistance Management (IRM) Compliance Assurance Program Report for Corn Borer-Protected Bt corn, Corn Rootworm-Protected Bt corn, and Corn Borer/ Corn Rootworm-Protected Stacked Bt corn" report is the property of the IRM Stewardship Subcommittee of the ABSTC whose member companies include: Dow AgroSciences LLC; Monsanto Company; Pioneer Hi-Bred International, Inc.; and Syngenta Seeds, Inc.

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Executive Summary

The third party, anonymous IRM grower survey[1] has been designed and conducted each year since 2000 by the independent marketing research firm, Market Probe, Inc. (formerly Marketing Horizons, Inc.), of St. Louis, MO. The Agricultural Biotechnology Stewardship Technical Committee (ABSTC) has sponsored annual grower surveys for corn borer-protected Bt corn since 2000, and for corn rootworm-protected Bt corn and corn borer/corn rootworm-protected stacked Bt corn[2] since 2006. For the second consecutive year, due to the increasing complexity of growers' Bt corn planting practices and a need to standardize the grower survey across insect-protected traits, Market Probe utilized an internet-based survey approach.

The 2008 grower survey responses indicated that the majority of growers adhered to the refuge size requirement for each Bt product type:

- 78% for corn borer-protected Bt corn
- 74% for corn rootworm-protected Bt corn
- 72% for stacked Bt corn

And to the refuge distance requirement for each Bt product type:

- 88% for corn borer-protected Bt corn
- 63% for corn rootworm-protected Bt corn
- 66% for stacked Bt corn

Once again, further analysis of the survey results revealed that a significant portion of the growers not adhering to the refuge size and distance requirements attempted to meet the requirements by planting a refuge between 15-20% of their total acres and/or ensuring that most of their Bt fields met the refuge distance requirement.

The 2008 on-farm assessments were conducted with growers representing a range of farm sizes across thirty-five states (approximately a third of the farmers were categorized as "smaller growers" with less than 250 acres of corn). The results revealed that the majority of growers fully complied with all the refuge requirements for each product type they planted:

- 86% compliance for corn borer-protected Bt corn
- 86% compliance for corn rootworm-protected Bt corn
- 86% compliance for stacked Bt corn

In accordance with the Phased Compliance Approach, follow-up assessments in 2008 of growers with significant deviations in 2007 resulted in no growers being denied access to the investigating company's Bt technology for the 2009 planting season.

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[1] Hereafter referred to as "grower survey", "internet survey" or "survey".

[2] Hereafter referred to as "stacked Bt corn".

The results of the on-farm assessments were similar to those found in previous years and provide further evidence that the majority of growers are adhering to the IRM requirements for Bt technologies. In addition, the Phased Compliance Approach continues to prove to be a successful mechanism to bring non-compliant growers back into compliance.

Section I: Introduction

The 2008 Compliance Assurance Program Report, compiled by the Agricultural Biotechnology Stewardship Technical Committee (ABSTC), describes industry-coordinated compliance assurance activities for insect resistance management (IRM) requirements associated with corn borer-protected Bt corn, corn rootworm-protected Bt corn and stacked Bt corn. The IRM Stewardship Subcommittee of ABSTC contributed to this report and the activities described herein. Membership of this Subcommittee consists of the following Bt corn registrants: Dow AgroSciences LLC; Monsanto Company; Pioneer Hi-Bred International, Inc.; and Syngenta Seeds, Inc.

This report represents the third year of ABSTC activities covering all Bt technologies (corn borer-protected, corn rootworm-protected and stacked Bt corn products)[3]. As described in the applicable compliance assurance programs (CAP)[4], the registrants of insect-protected Bt corn products used two instruments to assess 2008 grower adherence to all Bt corn IRM requirements: an anonymous grower survey and on-farm visits. The grower survey has been conducted since the inception of the corn borer-protected Bt corn IRM program (2000) and had been a phone-based survey until 2006. Upon the recommendation of Market Probe, and following consultation with the Agency[5] in 2007, an internet-based survey approach was incorporated to reduce complexity involved with surveying multiple Bt traits on the phone. Given the success with the internet-based survey in 2007, the approach was again utilized in 2008.

An ABSTC coordinated on-farm IRM assessment program was initiated in 2002 by each registrant as part of the EPA-mandated CAP for corn-borer protected Bt corn[6]. In 2006, the on-farm IRM assessment program was adapted to include corn rootworm-protected and stacked Bt corn products as mandated by the registrant specific CAPs for these products.

In fulfillment of the corn borer-protected Bt corn, corn rootworm-protected Bt corn and stacked Bt corn registrations, this report includes a summary of the results of the 2008 third-party grower survey, 2008 on-farm assessments, CAP activities for the prior year, and plans for the CAP during 2009.

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[3] Prior to 2006, CAP activities for corn rootworm-protected Bt corn and stacked Bt corn were the responsibility of the registrant for each product.

[4] Refer to the Bt Corn IRM Compliance Assurance Program (submitted to EPA on September 24, 2002) and individual registrant Compliance Assurance Programs submitted in fulfillment of their rootworm-protected Bt corn and stacked Bt corn registrations.

[5] E-mail exchange and telephone discussions between David Guyer, representing ABSTC, and Mike Mendelsohn, BPPD, in June 2007.

[6] Refer to 2003 Insect Resistance Management Compliance Assurance Program Report for Corn Borer-Protected Bt corn (submitted to the EPA on January 29, 2004) for a comprehensive description of the on-farm assessment methodology MRID# 473396-01.

Section II: Methodology

1. IRM Third Party Grower Survey Methodology

With the call/internet survey, growers were first contacted by phone and asked a series of basic questions about their corn borer-protected, rootworm-protected or stacked Bt corn planting practices. Qualified respondents (i.e., planting > 200 acres of corn and > 50 acres of Bt corn) were then directed to the internet, where the IRM questionnaire was available online. Once online, growers were sequentially prompted to respond to a series of questions about their Bt corn planting practices and IRM awareness. This approach allowed the growers time to complete the survey at their own pace, helping to ensure that they understood what was being asked, and allowed time for the growers to check their planting records if necessary to confirm that they were responding accurately. The consolidated survey questionnaire was very similar to the individual Bt product survey questionnaires used previously for the phone survey, and like the phone survey, the growers did not know that it was an IRM compliance survey until sufficient information had been collected for the assessor to determine adherence to the refuge requirements.

The sampling procedure and respondent qualification criteria were the same for all traits. Respondents were randomly selected and remained anonymous to protect the integrity of the responses. Respondents were screened using the same criteria that ABSTC previously used for the corn borer-protected Bt corn grower surveys. Specifically, respondents were required to: i) be actively involved in farming, ii) be the individual primarily responsible for decisions concerning seed purchase for their operation, and iii) not have worked for a farm chemical manufacturer, distributor or dealer, or for a seed company other than as a farmer/dealer, which also applied to family members.

The objectives of the grower survey were to i) determine the level of adherence to the IRM requirements, ii) measure awareness of the IRM requirements, iii) obtain grower feedback for improvement of educational and compliance programs, and iv) evaluate the potential biological significance of non-adherence to the requirements.

Details about the methodology of the grower survey are outlined below:

- Growers were recruited for the survey between August 20th and October 2nd and the internet-based portion remained open for completion until October 9th, 2008.

- The survey included growers of corn borer-protected, corn rootworm-protected and stacked Bt corn; participating growers were required to have planted a minimum of 200 acres of corn in 2008 (a minimum of 100 acres in the cotton growing region) with a minimum of 50 acres of Bt corn.

- A total of 600 growers completed the internet survey. Some of the growers had multiple technologies on farm which resulted in the following survey completions by product type:

- Three hundred and seventeen (317) planted corn borer-protected Bt corn.
- One hundred and three (103) planted corn rootworm-protected Bt corn.
- Five hundred and fifty-six (556) planted stacked Bt corn.

- As part of this year's survey data analysis process, completed just prior to submission of the CAP report, it was discovered that a sample programming error inadvertently omitted growers from four states typically included in the survey (MN, NE, KS, SD)[7]. Though neighboring geographies were accounted for, the omission of these states would have caused the sample size to be skewed toward the remaining heavy corn acreage states in the Corn Belt. To prevent future sampling errors, Market Probe will implement a state quota system beginning in 2009.

- Market Probe made a concerted effort to obtain a valid number of survey responses from cotton-growing regions in 2008, but unfortunately due to the small sample size, a meaningful analysis of the differences in results between this region and the Corn Belt could not be conducted. ABSTC will meet with Market Probe prior to the 2009 survey to discuss what changes, if any, can be made to try and improve the response rate in the cotton-growing regions.

2. On-farm IRM Assessment Methodology

Registrants and their seed company partners conducted over 2000 on-farm assessments during the 2008 growing season. The number of growers of each type of Bt corn who were assessed varied due to the market size of each product type. Growers were selected from individual company customer lists and included a range of farm sizes across thirty-five (35) states. Company representatives who made on-farm visits were trained on objectives and methodology prior to initiating the 2008 IRM assessments. As in previous years, the training was conducted through a variety of mechanisms (e.g., face-to-face meetings, electronic presentations) and included the key elements of the assessment program (e.g., IRM requirements, IRM assessment form, messages to growers, and follow-up actions).

Each registrant used a similar IRM assessment form. The introduction and company representative sections of the form were customized to suit the needs of each registrant, but the actual grower assessment questions were consistent across registrants. For 2008, all the ABSTC-represented companies asked the questions related to the traits they had for commercial sale. Completed assessment forms were submitted to a representative of the registrant for documentation.

[7] The inadvertent sampling error was discussed with the EPA prior to submission of this report (phone conversation between David Guyer representing ABSTC and Alan Reynolds of BPPD on January 14th, 2009).

Registrants responded to all compliance deviations identified in 2008 according to the common set of standards outlined in the Phased Compliance Approach. Examples of materials used as part of this follow-up process (e.g., educational material, warning letters, and compliance assistance contact form) have been provided to the Agency in previously submitted annual CAP reports. Names of the assessed customers were kept confidential by the registrant conducting the assessment.

Section III: Results

1. Corn Borer-Protected Bt Corn

A. 2008 Grower Survey Results

i. Refuge Requirements
A total of 317 growers who planted a corn borer-protected Bt corn product in 2008 completed the internet-based IRM grower survey. These growers may or may not have also planted a stacked Bt corn product containing both a corn borer-protected and corn rootworm-protected trait.

Overall adherence to both the refuge size requirement and the refuge distance requirement remained high in 2008. Seventy-eight percent (78%) of the growers planting corn borer-protected Bt corn met the size requirement, and a number of others made a good faith effort - 86% of growers surveyed planted at least a 15% corn borer refuge on farm. Of the growers who recalled the layout of all of their corn-borer protected Bt corn fields (298/317 growers), 88% of them planted refuge corn within ½ mile of each corn-borer protected Bt corn field. On a field basis, adherence to the refuge size and distance requirements was similar at 77% and 91% respectively.

ii. Grower Awareness of IRM Requirements
As with previous years, the vast majority of growers surveyed (98%) said that they were aware of requirements for managing insect resistance. When asked on an unaided basis, 79% of growers said that a refuge size of at least 20% is needed and 89% of growers knew that the refuge must be planted within ½ mile of corn borer-protected Bt corn, a significant improvement compared to previous years.

iii. IRM Education
Results from the education portion of the survey remain unchanged from recent years. Growers indicated that (i) seed companies and their dealers are by far the most important sources of IRM information (89% and 90%, respectively) (ii) they are receiving multiple sources (e.g., technical guide, conversation with company representative) of IRM information (94% of growers received multiple sources), and (iii) they had enough information at the time of planting to establish and manage a Bt corn refuge (86% of growers).

B. 2008 On-farm IRM Assessment Results

i. Results of "First Time" On-farm Assessments in 2008
The results of the 2008 on-farm assessments, not including re-assessments of growers found to be non-compliant in 2007, are shown in Table 1 along with the results from previous years. The results of the 2008 on-farm assessments revealed that 86% of the growers fully complied with the refuge requirements (14% found to be out of compliance).

Table 1. Annual cumulative results of first-time on-farm assessments for corn borer- protected Bt corn

Year	Number of Growers Assessed	Number (and per cent) of Compliant Growers	Number (and per cent) of Non-compliant Growers	Number of Significant Deviations	Number of Deviations that were not Significant
2008	1312	1132 (86.3%)	180 (13.7%)	134	46
2007	2083	1895 (91.0%)	188 (9.0%)	129	59
2006	2020	1930 (95.5%)	90 (4.5%)	45	45
2005	2215	2089 (94.3%)	126 (5.7%)	75	51
2004	2130	2032 (95.4%)	98 (4.6%)	39	59
2003	1961	1789 (91.2%)	172 (8.8%)	104	68

Assessments were randomly conducted across a range of farm sizes, with approximately one-third of the growers categorized as "smaller growers" with less than 250 acres of corn. Analyses of those data indicate that compliance among smaller growers (82%) was similar to the level of compliance observed among larger growers (89%).

ii. Results of On-farm Reassessments of Growers Found to be Out of Compliance in 2007
One hundred eighty-eight (188) growers were found to be out of compliance in 2007 as part of the on-farm assessment process. One hundred twenty-nine (129) of these compliance deviations met the definition of "significant" and fifty-nine (59) did not. All compliance deviations were responded to in accordance with the Phased Compliance Approach, including re-assessment in 2008. None of the growers re-assessed in 2008 met the criterion for revocation of access to corn borer-protected Bt corn according to EPA requirements (i.e., a significant deviation two years in a row). A small number of the growers re-assessed were no longer farming or did not plant Bt corn in 2008.

2. Corn Rootworm-Protected Bt Corn

A. 2008 Grower Survey Results

i. Refuge Requirements
In 2008, 103 growers of corn rootworm-protected Bt corn completed the internet survey. These growers may or may not have also planted a stacked Bt corn product containing both a corn borer-protected and corn rootworm-protected trait. Adherence to the refuge size requirement, accounting for growers' total rootworm-protected traits including stacks, was 74% on a grower basis and 75% on a field basis. A total of 84% of corn rootworm-protected corn growers surveyed planted at least a 15% refuge in an apparent "good faith" attempt to meet refuge size requirements. Adherence to the refuge distance requirement was 63% on a grower basis and 81% on a field basis.

ii. Grower Awareness of IRM Requirements

Ninety-six percent (96%) of corn rootworm-protected Bt corn growers surveyed in 2008 said they were aware of requirements for managing insect resistance. When asked on an unaided basis, 72% of growers said that a refuge size of at least 20% is needed. Thirty-four percent (34%) of growers knew on an unaided basis that the refuge must be planted within or adjacent to the corn rootworm-protected Bt corn field (separated by only a road, path or ditch).

iii. IRM Education
Results from the education portion of the survey remain unchanged from recent years. Growers indicated that (i) seed companies and their dealers are by far the most important sources of IRM information (89% and 95%, respectively) (ii) they are receiving multiple sources (e.g., technical guide, conversation with company representative) of IRM information (92% of growers received multiple sources), and (iii) they had enough information at the time of planting to establish and manage a Bt corn refuge (84% of growers).

B. 2008 On-farm IRM Assessment Results

i. Results of "First Time" On-farm Assessments in 2008
The results of the 2008 on-farm assessments, not including re-assessments of growers found to be non-compliant in 2007, are shown in Table 2 with the results from the previous year. The results of the on-farm assessments revealed that 86% of the growers assessed fully complied with the refuge requirements (14% found to be out of compliance).

Table 2. Annual cumulative results of first-time on-farm assessments for corn rootworm-protected Bt corn

Year	Number of Growers Assessed	Number (and per cent) of Compliant Growers	Number (and per cent) of Non-compliant Growers	Number of Significant Deviations	Number of Deviations that were not Significant
2008	134	115 (85.8%)	19 (14.2%)	12	7
2007	247	223 (90.3 %)	24 (9.7 %)	16	8
2006	395	374 (94.7 %)	21 (5.3 %)	11	10

Assessments were randomly conducted across a range of farm sizes, with approximately one-third of the growers categorized as "smaller growers" with less than 250 acres of corn. Those data indicate that compliance among smaller growers (82%) was similar to the level of compliance observed among larger growers (88%).

ii. Results of On-farm Reassessments of Growers Found to be Out of Compliance in 2007
Twenty-four growers were found to be out of compliance for corn rootworm-protected Bt corn in 2007 as part of the on-farm assessment process. Sixteen (16) of these compliance deviations met the definition of "significant" and eight (8) did not. All compliance deviations were responded to in accordance with the Phased Compliance Approach, including reassessment in 2008. None of the growers re-assessed in 2008 met the criterion for revocation of access to corn rootworm-protected Bt corn according to EPA requirements (i.e., a significant deviation two years in a row). A small number of the growers reassessed did not farm or plant Bt corn in 2008.

3. Stacked Bt Corn

A. 2008 Grower Survey Results

i. Refuge Requirements
A total of 556 growers planting stacked Bt corn were surveyed in 2008. These growers may or may not have also planted corn borer-protected Bt corn and/or corn rootworm-protected Bt corn products on their farm. These growers were assessed for their adherence to refuge requirements for both their corn borer and corn rootworm traits. The majority (72%) planted the required refuge sizes for both the corn borer and corn rootworm traits. A total of 81% of stacked Bt corn growers surveyed planted at least a 15% refuge in an apparent "good faith" attempt to meet refuge size requirements. Of the growers who recalled the layout of all of their stacked Bt corn fields (543/556), 66% planted a corn rootworm refuge within or adjacent to all of their stacked Bt corn fields, and a corn borer refuge within ½ mile of all of their stacked Bt corn fields. On a field basis, adherence to the refuge size and distance requirements was 73% and 76% respectively.

ii. Grower Awareness of IRM Requirements
Ninety-seven percent (97%) of growers planting stacked Bt corn surveyed in 2008 said they were aware of requirements for managing insect resistance. When asked on an unaided basis, 81% of growers said that a refuge size of at least 20% is needed for the corn borer-protected and the corn rootworm-protected component of stacked Bt corn On an unaided basis, 86% of growers indicated that the refuge for corn borer must be ½ mile or less from the corn borer-protected Bt corn while 36% of growers reported that the refuge for corn rootworm must be within the same field or in an adjacent field.

iii. IRM Education
Results from the education portion of the survey remain unchanged from recent years. Growers indicated that (i) seed companies and their dealers are by far the most important sources of IRM information (90% and 91%, respectively) (ii) they are receiving multiple sources (e.g., technical guide, conversation with company representative) of IRM information (95% of growers received multiple sources), and (iii) they had enough information at the time of planting to establish and manage a Bt corn refuge (83% of growers).

B. 2008 On-farm IRM Assessment Results

i. Results of "First Time" On-farm Assessments
The cumulative results of the 2008 on-farm assessments, not including re-assessments of growers found to be noncompliant in 2007, are shown in Table 3 with the results from the previous year. The results of the on-farm assessments revealed that 86% of the growers fully complied with the refuge requirements (14% found to be out of compliance).

Table 3. Annual cumulative results of first-time on-farm assessments for stacked corn borer-protected and corn rootworm-protected Bt corn

Year	Number of Growers Assessed	Number (and percent) of Compliant Growers	Number (and percent) of Noncompliant Growers	Number of Significant Deviations	Number of Deviations that were not Significant
2008	1799	1546 (85.9%)	253 (14.1%)	86	36
2007	1069	959 (89.7%)	110 (10.3%)	77	33
2006	600	539 (89.8%)	61 (10.2%)	45	16

Assessments were randomly conducted across a range of farm sizes, with approximately one-third of the growers categorized as "smaller growers" with less than 250 acres of corn. The data indicate that the level of compliance among smaller growers (82%) was comparable to that of larger growers (88%).

ii. Results of On-farm Reassessments of Growers Found to be Out of Compliance in 2007
One hundred ten (110) growers were found to be out of compliance for stacked Bt corn in 2007 as part of the on-farm assessment process. Seventy-seven (77) of these compliance deviations met the definition of "significant" and thirty-three (33) did not. All compliance deviations were responded to in accordance with the Phased Compliance Approach, including reassessment in 2008. None of the growers re-assessed in 2008 met the criterion for revocation of access to corn rootworm-protected Bt corn according to EPA requirements (i.e., a significant deviation two years in a row). A small number of the growers reassessed did not farm or plant Bt corn in 2008.

Section IV: Tips and Complaints

The registrants have developed mechanisms (e.g., customer service numbers) to receive alleged instances of non-compliance with the IRM requirements. The availability of these mechanisms continues to be communicated to growers, dealers, and sales representatives as part of the IRM education programs. In 2008, the registrants collectively received five (5) tips and complaints. Legitimate tips and complaints (as defined in Section 2.3 of the corn-borer protected Bt corn CAP) were managed in accordance with the CAP requirements. In other words, growers allegedly out of compliance who were identified as a result of a legitimate tip or complaint received an on-farm IRM visit and growers found to be out of compliance during this visit were responded to in a manner consistent with the Phased Compliance Approach.

Section V: Publicizing the Compliance Assurance Program

The registrants have widely publicized the CAP, including the Phased Compliance Approach, which is common to all Bt corn registrations, to ensure growers are aware of the on-farm IRM assessment program and the penalties for noncompliance, including revocation of access to Bt technologies. The key elements of the CAP and Phased Compliance Approach are well integrated into each registrant's IRM education program, including company literature, internal training sessions, and meetings with growers and dealers. In addition, key stakeholder groups such as the National Corn Growers Association are educated by the ABSTC members and continue to inform their members of the CAP. Consistency of the CAP for corn rootworm-protected Bt corn and stacked Bt corn with the longer-established CAP for corn borer-protected Bt corn strengthens awareness.

Section VI: Conclusions

The results of the 2008 IRM grower survey and on-farm assessment program indicate that the majority of growers continue to adhere to the refuge requirements. Eighty-six percent (86%) of all growers visited by company representatives were in full compliance. Similar results were observed in the survey for some product and requirement combinations (e.g., corn borer product distance requirement), and a significant number of growers not fully adhering to the requirements made a good faith effort, either narrowly missing the size requirement or planting the appropriate refuge for the majority of their

Bt fields. Analysis of the survey also identified some opportunities for improvement. For example, the IRM Awareness section of the survey indicates that while the majority of growers can recite the corn borer distance requirement, many are not aware that the rootworm distance requirement is different.

Some of the challenges to measuring and ensuring compliance with the refuge requirements remain the same as those identified and discussed in the 2007 CAP report, including: potential double counting of the survey results, last minute planting challenges, and multiple Bt technologies on farm. However, the 2008 results continue to validate the effectiveness of the CAP for insect-protected Bt corn and the ongoing education efforts of the ABSTC and individual member companies. In addition, the Phased Compliance Approach has again proven to be a successful mechanism to bring non-compliant growers back into compliance.

In 2007 and 2008, the ABSTC partnered with National Corn Growers Association (NCGA) to launch the "Respect the Refuge" campaign, a broad and intensive education program designed to increase IRM awareness. This campaign included a press release reminding growers of the importance of implementing IRM requirements, roadside billboards, direct mailing of postcards by individual companies to their customers containing ABSTC/NCGA- developed messages, and NCGA's refreshed internet-based IRM training module. The extension, academic, and crop consultant communities were extensively engaged. ABSTC participated in formal and informal meetings, and helped develop and promote a new Bt corn IRM instructor-led training course used as part of Continuing Education programs for extension agents. A web-based seminar on IRM requirements for Bt corn, organized by NCGA and including a speaker from ABSTC, was attended by more than 40 leading extension agents, crops consultants and other farm educators from across the country. The 2008 survey and on-farm assessment results suggest that this program had a positive impact. As significant numbers of growers switched to stacked Bt corn products with more complex IRM requirements, the levels of the adherence with the refuge requirements held steady.

The ABSTC is committed to maintaining the "Respect the Refuge" program in 2009. The program will once again include press releases, roadside billboards, and direct mailings that will focus on education opportunities identified in the grower survey such as the rootworm distance requirement. These efforts will supplement the already robust company IRM education programs that include technical guides, brochures, direct mail pieces, etc. Further, the ABSTC will continue to partner with key external groups such as the NCGA, the extension entomology community, and academics. The communication messages will focus on the different trait refuge requirements (i.e., corn borer refuge vs. rootworm refuge), resistance development risks and impacts, and our efforts to identify non-compliant growers through the CAP.