Maryland Farmers' Winter Cover Crop Participation

Report on a mail survey and four
focus groups of Maryland Farmers

Prepared for:
Office of Resource Conservation
Maryland Department of Agriculture
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A Survey of Maryland Farmers Participation in and Evaluation of the Maryland Department of Agriculture's Winter Cover Crop Program – 2005

Executive Summary

Working with The Office of Resource Conservation of the Maryland Department of Agriculture (MDA), the Schaefer Center for Public Policy conducted a survey on the use of winter cover crops in the state. The target population was farm operators in Maryland. The objectives of the survey were to collect information about: 1) participation in the MDA Winter Cover Crop Program; 2) the extent to which winter cover crops are used in Maryland; 3) influences effecting the adoption or rejection of cover crops; and 4) the extent to which innovations in the existing cover crop program would influence both expansion of and customer satisfaction with the program.

The mail survey was conducted from April 2005 through June 2005. A questionnaire was mailed to 3,006 farm owners and/or operators from a list supplied by the Maryland Department of Agriculture. Six hundred seventy three (673) completed surveys were returned. The margin of error for the overall data is between three and three and a half percentage points.

- Over a third (37%) of respondents were owners of the land that they farmed. About 9% were strictly farm operators and 11% were renters. A majority of respondents (43%) were both owners and operators of their farms.

- About 41% of respondents would continue to plant at least the same amount of cover crops if cost-share assistance was not available.

- More than three quarters (83%) of all respondents reported using cover crops. Fifty-nine percent (59%) of respondents planted cover crops on their own, that is, without financial or technical assistance from MDA.

- Wheat is by far the most planted crop with an average of 90 acres planted this past season and an average of 101 acres projected to be planted in the 2005-2006 season.

- Half of farmers (50%) had more than 10 years experience using cover crops.

- Respondents reported that the most important factor affecting their decision to use cover crops was time and labor availability (mean response of 3.39 on a five point scale). This was followed closely by crop rotation/production goals, availability of cost-share, environmental concerns, and expected cost of planting and management.

- As for factors that posed problems, required planting deadline being too restrictive (too early or before the harvest of corn/soybeans) was the most problematic, followed by insufficient cost share rates, not enough time to plant cover crop, and seed cost too high/required seed not available.

- Farmers reported that their most useful source of information was Soil Conservation District (SCD) staff (mean value of 3.02 on a 5 point scale). This was followed by Farm Service Administration (FSA) Staff (mean response of 2.76), letter mailed by SCD to prior participants (mean response of 2.67), and other farmers (mean response of 2.61). Close to a third of farmers (32%) found the Soil Conservation District staff to be the most reliable source of information.

- Fifty-nine percent (59%) of respondents stated that information needed to be provided regarding program requirements such as planting dates, planting methods, etc. Half (50%) of farmers felt that better and more timely information needed to be provided regarding application dates and 42% felt that information needed to be provided regarding the fall and spring certification process such as providing copies of seed invoices and seed tags to MDA.

- When asked about reforms, sixty-eight percent (68%) of farmers would plant the fall cover crop without fertilization if the winter crop was allowed to be harvested and sold as a commodity in the spring. Over half (52%) of farmers would plant more acres of cover crops if harvesting were allowed but the cost-share rate was less than the cost share rate for unharvested cover crops. Close to half (50%) of farmers would plant more acres of cover crops if they received one cost-share payment in the fall and another cost-share payment in the spring (i.e, a split payment).

- Sixty-three percent (63%) agreed that all farmers, regardless of the size of their farms, had fair access to the cover crop program. Forty three percent (43%) agreed that their area was treated fairly compared to the farms located in other areas around Maryland.

- Close to half (49%) thought that watersheds across the state should be prioritized for cover crop participation and payment. Forty percent (40%) would favor the prioritized approach even if their farm was not in a prioritized watershed.

- Over half (52%) of farmers stated that an increase in the base cost-share ratio would have a big impact on their planting more cover crops.

- Close to a third (31%) stated that eliminating the restriction on spreading manure on growing cover crops would have a big impact on their planting more winter cover crops.

- Seventy three percent (73%) were satisfied with 24% describing themselves as being very satisfied and 49% describing themselves as being somewhat satisfied with the MDA Cover Crop Program.

- Fifty-five percent (55%) rated the program as "good" or "very good" in terms of effectiveness.

- Fifty-five percent (55%) said they would likely or definitely participate in the program in the future.

Introduction[1]

Excess nutrients and sediments entering the Chesapeake Bay from urban, agricultural, and forested nonpoint sources within the Bay region have been shown to cause degradation of both water quality and living resources. In 1987, Maryland, Pennsylvania, Virginia, the District of Columbia and the federal government signed the Chesapeake Bay Agreement, pledging to reduce controllable nutrient loads to the Bay by 40 percent by the year 2000.

The total land area in Maryland is 6.3 million acres, with farmland accounting for about 2.2 million acres, or 35 percent of the total land. Agriculture is the most prevalent land use. Total cropland is about 1.7 million acres—75% of the total farmland. In addition, 1.0 million acres of cropland are capable of having cover crops planted on them. Most of the cropland is planted in corn, small grains, and soybeans. In addition to grain crops, Maryland farmers produce vegetables and fruits. As in other agricultural areas nationwide, crop yields are linked to the amount of fertilizer applied to the soil. The potential movement of these nutrients into surface and groundwater is a concern that the Maryland Department of Agriculture, working with the farming community, has addressed with a variety of best management practices (BMPs). The implementation of the agricultural nonpoint-source (NPS) pollution control program is a priority, and the use of winter cover crops has been recognized as an efficient and cost effective practice to reduce NPS pollution.

The data and analyses presented in this report are the product of a survey conducted by the Schaefer Center for Public Policy for the Office of Resource Conservation,

[1] Introduction and Background material were excerpted from *A Survey of Maryland Farmers' Winter Cover Crop* Participation, Maryland Department of Agriculture, May 1997. Reprinted with the permission of Maryland Department of Agriculture.

Maryland Department of Agriculture in 2005. The purpose of the survey is to provide information to policy makers for the modification or development of programs to promote and support farmer's usage of winter cover crops. The survey sample was obtained from a list of owners and/or operators produced by MDA. The study used a mail survey of farmers to gather information on the use of winter cover crops. The questionnaire focused on farmers' attitudes about the adoption and use of winter cover crops, the influence of incentives, the sources of incentives, and the impact of various reforms. Specific attention was given to changes in participants and incentives.

Background

Excess loading of nutrients in the Chesapeake Bay region has been attributed to runoff and potential nitrate leaching from agricultural practices (Brinsfield and Staver, 1991). Nitrate pollution of ground and surface water has also been found in many areas of the country, including Maryland, and agriculture has been its most frequent cause (Hallberg, 1986). Hallberg's review of field research on groundwater pollution found that "many studies show a direct relationship between nitrate leaching to groundwater and nitrogen fertilization rates and/or fertilization history," (1986, p. 356). Hallberg (1987) cited several studies showing that crops did not use large percentages (65% or more) of the applied fertilizer, instead the fertilizer remained stored in the soil or was lost to runoff, groundwater, or denitrification (conversion to gas).

Nitrate leaching during the late fall and early winter into the groundwater is the major pathway for nitrogen loss from the root zone. Past strategies promoted for reducing the transport of agricultural pollutants have focused mainly on surface runoff. Several studies have shown that winter cover crops have the potential to immobilize residual nitrogen, reduce runoff, improve soil physical properties and increase nitrogen supply for the next crop (Decker et al., 1992; Meisinger et al., 1991). In addition, some cover crops have been shown to function as trap crops for parasitic soil nematodes and as sources of natural compounds, such as glucosinolates, that can kill or suppress some soil pathogens, nematodes, and weed seeds.

The use of cover crops imposes some costs, especially expenditures for seed and soil preparation, which have to be added to the farming budget. As a non-harvested crop, winter cover crops bring in no receipts to offset these costs. Some financial incentives, may be needed to offset some of these incidental costs and motivate farmers to plant winter cover crops.

A four-year financial incentive pilot program was initiated by the Maryland Department of Agriculture in 1992 to offset some of the costs of planting and managing winter cover crops and to encourage farmers to adopt and implement this BMP. MDA included cover crops as a BMP eligible for grants and emphasized their use for nutrient uptake in the fall and winter.

During the pilot program, more than 2,000 farm owners and operators applied for financial assistance from MDA at an average annual rate of 500 applicants per year. In the first year of the program, 610 applications were received. The number of applicants decreased in the following three years. Since 1992, four contract sign-ups have been held. The cost-share grant available per acre was revised from $30 per acre, per year, for rye and rye/legume mixture in 1993 to a $10 flat rate per acre, per year, for all approved winter cover crops. During the cover crop sign-up period in 1996, the flat rate was $10 per acre. The percentage of voluntary cancellations for the first year of the pilot program was about 5 percent. The second and subsequent years had cancellation rates above 40 percent.

Currently, the program offers a $20 per acre base payment with the possibility for incentive payments. A $10 per acre incentive payment is available to those farmers that plant cover crops by October 15th. In addition, the United States Department of Agriculture (USDA) offers farmers a $10 per acre incentive payment if the cover crop is planted by October 1st. Slippage rates, defined as the reduction in the amount of actual payments made to farmers as compared to the originally approved payment amount, have been about fifty (50) percent over the past few years. These slippage rates are caused by cover crops being planted later than originally planned or the decision of the farmer to harvest the cover crop after being accepted into the program.

METHODOLOGY

The data collected were obtained through a survey questionnaire mailed to 3,006 randomly selected Maryland farmers. Descriptive analyses were based on frequency distribution tables and were applied to the data collected. The unit of analysis for this was the individual operator farming in Maryland. MDA was interested in the use and nonuse of winter cover crops and the motivations for usage prior to and during availability of incentive payments.

The sources of the total population mailing list were the files of the Maryland Agricultural Statistics Service. Once the list was obtained, simple random samples were drawn from both. The objective was to secure sample findings which could be generalized to all Maryland farmers with a margin of error +/- 3 to 4%.

The questionnaire was developed from three sources: 1) the questionnaire used in a similar survey conducted in 1996; 2) input from four focus groups held around the state that explored similar topics (the focus group report is included as Appendix 2); and 3) input and review from Office or Resource Conservation (ORC) staff. A final questionnaire was reviewed by ORC staff.

The questionnaire was mailed to three thousand six (3,006) farmers along with a cover letter from the Secretary of the Maryland Department of Agriculture. This letter included

a desired return by date for the completed survey along with a postage paid envelop for respondents to use. After the given deadline had passed, a postcard reminder was sent to non-respondents. Of the surveys mailed, fifty-nine (59) were returned as undeliverable, fifty-one (51) were returned as not applicable (primarily due to death, retirement, or sale of the farm). Six hundred sixty-seven (667) completed surveys were returned. The overall response rate was twenty-three percent (23%).

The completed questionnaire for each respondent was coded and entered by a data entry firm. The resulting data file was then imported into an analysis software program, Statistical Package for Social Sciences (SPSS). Data merging and cleaning was then conducted.

FOCUS GROUPS

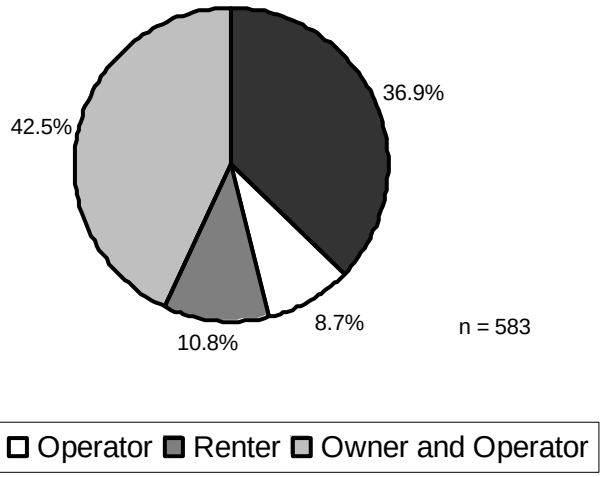
The Maryland Department of Agriculture (MDA) contracted with the Schaefer Center for Public Policy at the University of Baltimore to facilitate four focus groups regarding MDA's Winter Cover Crop Program during February 2005. The purpose of these focus groups was to obtain farmers' perceptions regarding every aspect of the Winter Cover Crops Program in order to develop a survey to be mailed to a large sample of farmers. Focus groups were held in different geographical locations around Maryland to ensure that every region had an adequate channel to provide feedback, comments, and suggestions. The location and dates of these focus groups were: Salisbury (February 4th), Frederick (February 9th), Centerville (February 16th), and Charlotte Hall (February 23rd).

The report of the focus groups is included as Appendix 2 of this document. It is structured around four areas: (1) farmers' access to information regarding the program's application process, certification process, and requirements; (2) to what degree is risk shared by farmers and MDA; (3) farmers' perceptions of the problems of the program's rules, design, and implementation; and (4) farmers' suggestions to improve the stated problems.

DESCRIPTIVE STATISTICS

The survey contained four sections on topics related to cover crops. The first section encompasses the areas of winter cover crops, types of cover crops used, years of experience with cover crops, and the effects of winter cover crops on farming operations. The second section dealt with factors impacting a farmer's decision to participate in the MDA Winter Cover Crop Program. The third set of questions dealt with the sources of information influencing farmers decision-making relating to cover crops. The fourth section addressed farmers' opinions of the impact of costs per acre and potential changes to the MDA Winter Cover Crop Program. The fifth, and final, section contained an overall evaluation of the program.

Figure 1
What Best Describes Your Relationship to the Land That You Farm?



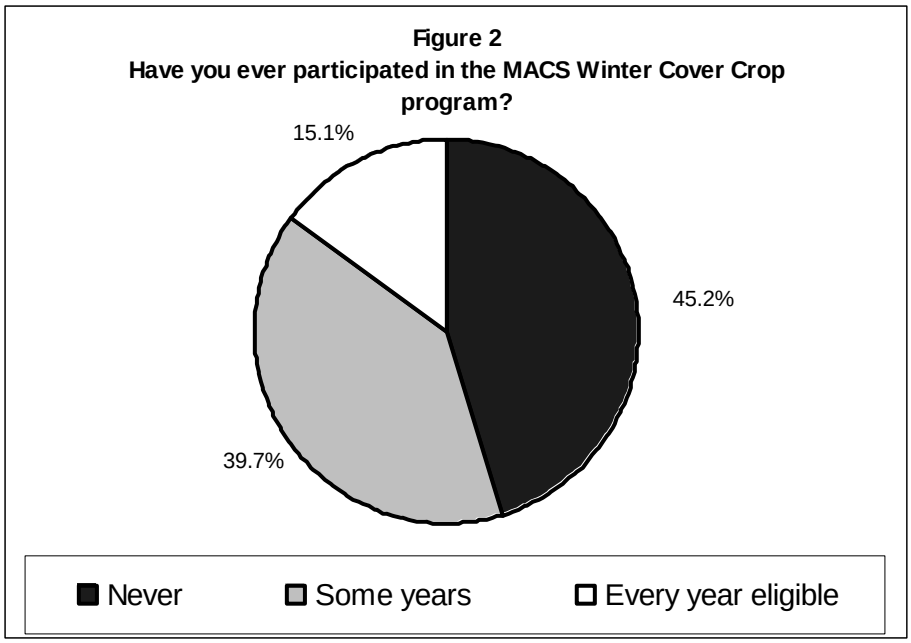
Over a third (37%) of respondents were owners of the land that they farmed. About 9% were strictly farm operators and 11% were renters. A majority of respondents (43%) were both owners and operators of their farms as shown in Figure 1. About 41% of respondents would continue to plant at least the same amount of cover crops if cost-share assistance was not available. Just over a quarter (27%) would plant less and a third (33%) would not plant any. Fifty three percent (53%) of farmers do not participate in any other state or federal conservation or cost-share program.

Cover Crop Participation – General Questions

The total survey responses reflected the overall statewide sample which mirrored statewide distribution of farmers in the 1992 Census of Agriculture. The descriptive findings of the study are presented in the Appendix 1.

The survey asked farmers if they had planted winter cover crops – either with or without governmental assistance – in the last 10 years. Only respondents who had reported that they had participated in the MDA cover crops cost-share program were asked questions about the MDA Winter Cover Crop Program. Only 40% of respondents stated that they had participated in the program and an additional 15% of respondents participated in

the MDA Winter Crop Program every year that they were eligible. About 45% of respondents stated that they had never participated in the program (See Figure 2 below).



The data shows that more than three quarters (83%) of all respondents reported using cover crops. Fifty-nine percent (59%) of respondents planted cover crops on their own (i.e., without financial or technical assistance). An additional 7% planted with both technical and financial assistance and 14% planted with financial assistance only. In addition, less than1% of respondents planted with technical assistance.

For farmers planting cover crops, wheat was by far the most often planted with 59% of farmers planting wheat. Wheat was followed by rye with 38% and barley with 25%. The least often used was a barley/legume mixture (2%) and rye/legume (4%). A combination of cover crop types was planted by over 37% of the farmers. This fact explains the total percentage not totaling 100% in Figure 3. This same trend is reflected in the proposed planting levels for cover crops in the 2005-2006 season.

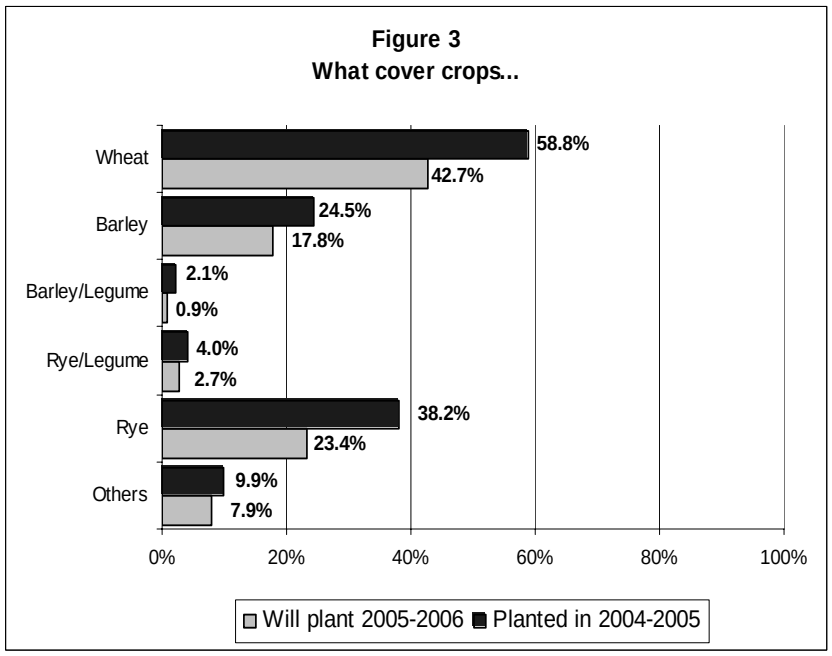
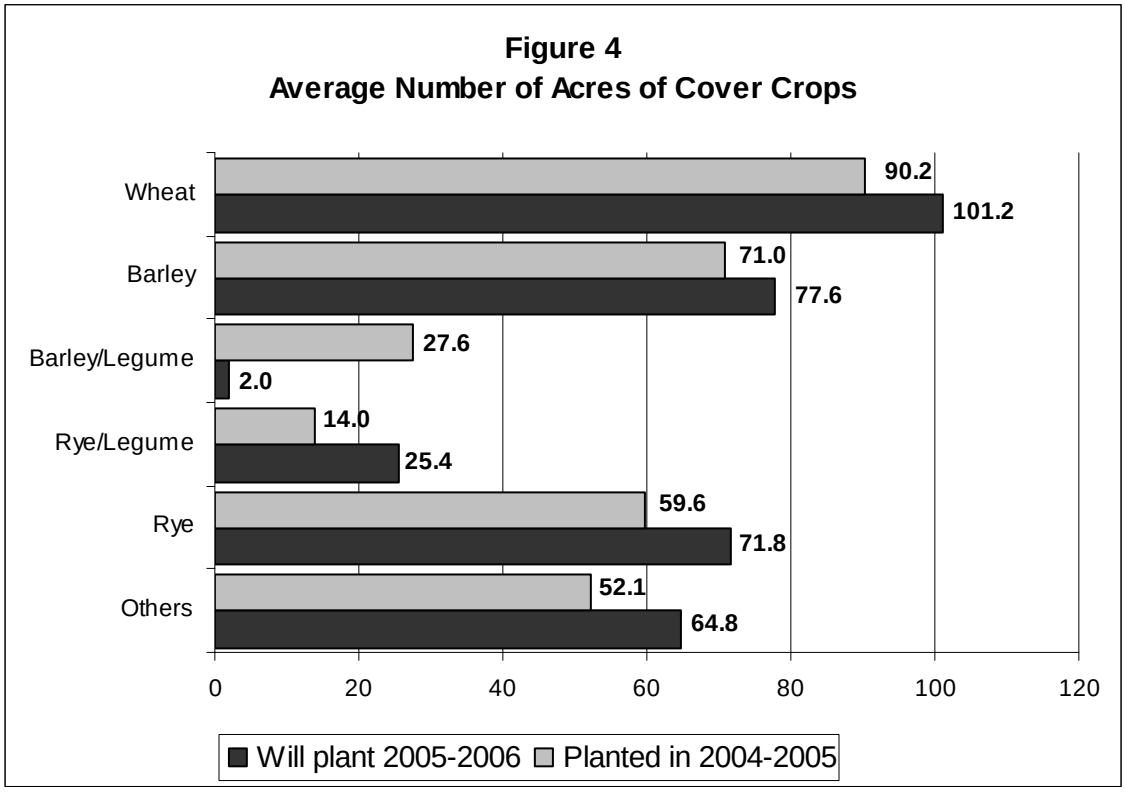
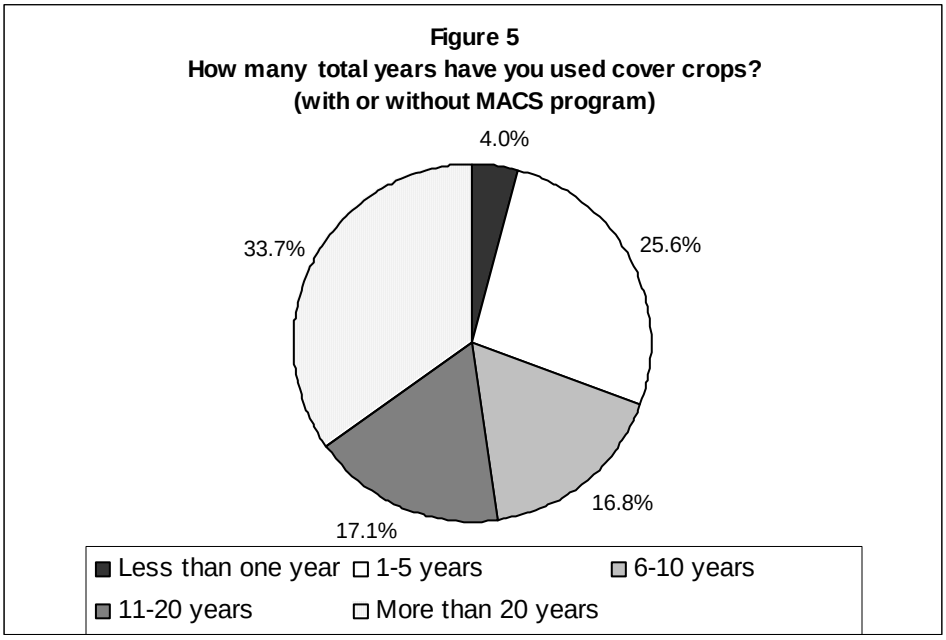


Figure 4 shows the average number of acres of the various cover crops planted in the past season as well as the average number of acres that farmers plan on planting in the 2005-2006 season. Wheat, by far, is the most planted crop by acre with an average on 90 acres planted this past season and an average of 101 acres being planting in the 2005-2006 season.



Length of experience with the use of winter cover crops is helpful in predicting the future use of winter cover crops. Half of farmers (50%) had more than 10 years experience.

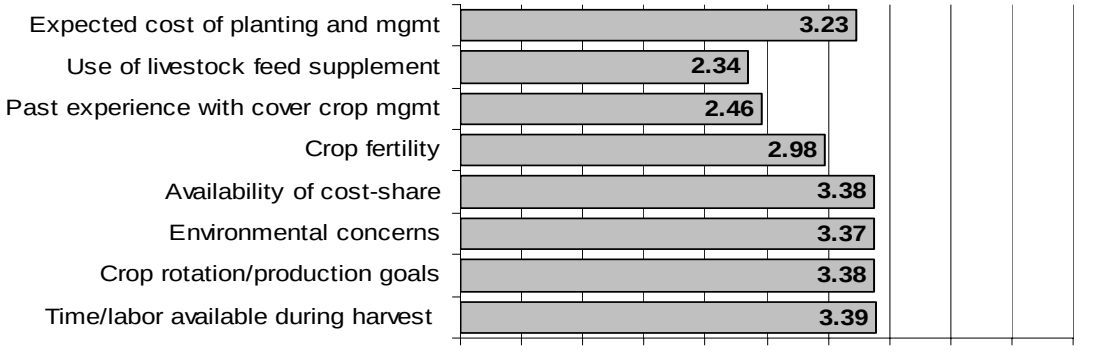


Slightly more than a third (34%) had more than 20 years experience. In contrast, only 4% of farmers had less than five years experience (Figure 5). This study shows that most of the respondents' use of winter crops predates the program.

Factors Influencing Farmer's Participation in the MDA Winter Cover Crop Program

Respondents were asked what factors may have affected their decision to plant winter crops. Respondents were asked to rank the factors by importance with a "5" being "very important" and "1" being "not at all important." There were several factors that farmers considered relatively important. The time/labor available during harvest season was considered the most important with a mean response of 3.39. This was followed closely by crop rotation/production goals (mean response of 3.38), availability of cost-share (mean response of 3.38), environmental concerns (mean response of 3.37), and expected cost of planting and management (mean response of 3.23). The responses are shown in Figure 6.

Figure 6
How important were the following factors in your decision to plant winter cover crops?
(1 = not at all important
5 = very important)



Respondents were then asked to what degree were the following factors a problem for them in the MDA Winter Cover Crop Program. Again, respondents were asked to rank the factors by degree of problem they felt with a "5" being "serious problem" and "1" being "not a problem." Farmers found the required planting deadline too restrictive (too early or before the harvest of corn/soybeans) as the most problematic with a mean response of 3.43. This issue was followed by the cost share rate being insufficient (mean response of 3.18), not enough time to plant cover crop (mean response of 3.01), and seed cost too high/required seed not available (mean response of 2.97). This is shown in Figures 7 and 8.

Figure 7
To what degree were the following a problem for you in the MACS winter cover crop program...
(1 = not a problem 5 = serious problem)

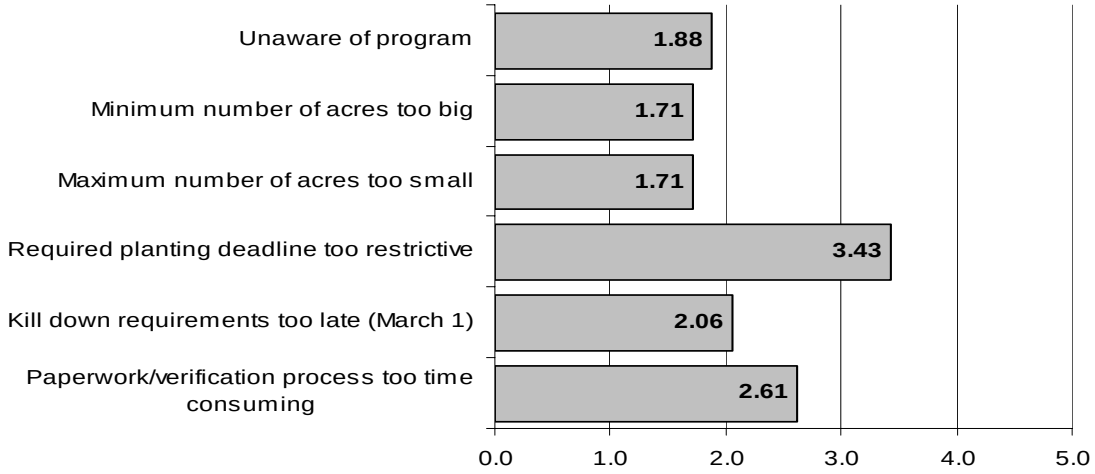
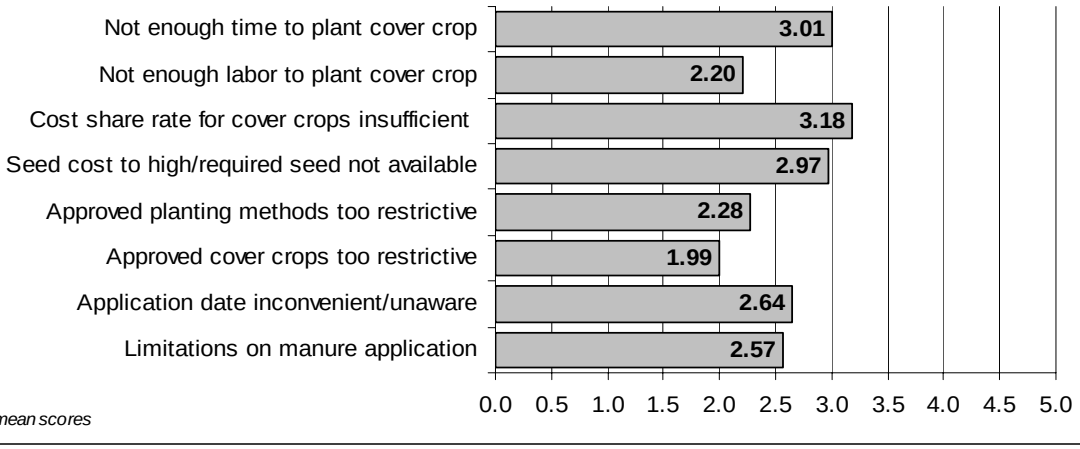


Figure 8
To what degree were the following a problem for you in the MACS winter cover crop program…
(1 = not a problem
5 = serious problem)



Sources of Information Influencing Cover Crops Decision-Making

Farmers were asked from where they received their most useful information regarding winter cover crop planting and management. Respondents were asked to rank the factors by degree of usefulness of the information with a "5" being "a large amount of useful information" and "1" being "no useful information (none)." Farmer found their

most useful source of information was the Soil Conservation District (SCD) staff with a mean response of 3.02. This was followed by the Farm Service Administration (FSA) staff (mean response of 2.76), letter mailed by SCD to prior participants (mean response of 2.67), and other farmers (mean response of 2.61). All sources of information are shown in Figures 9 and 10.

Figure 9
How useful were the following sources in providing information in winter cover crop planting and management?
(1 = none; 5 = a large amount)

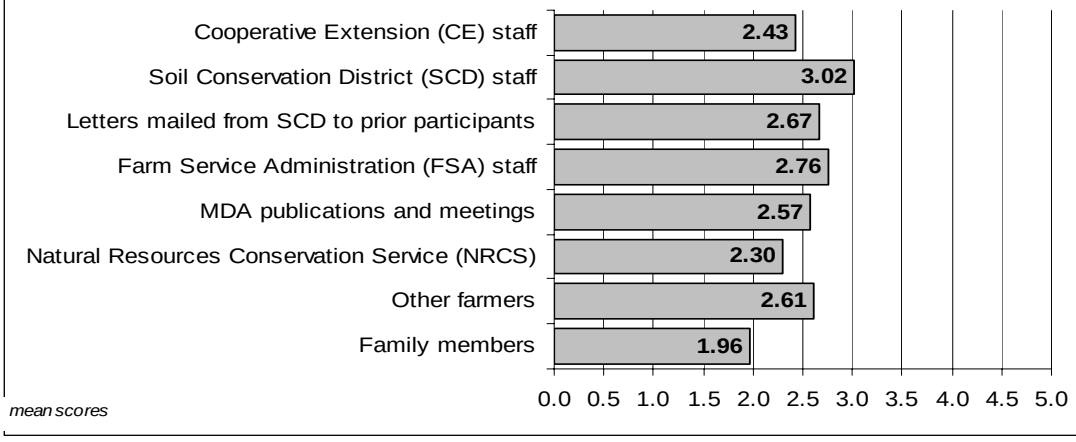
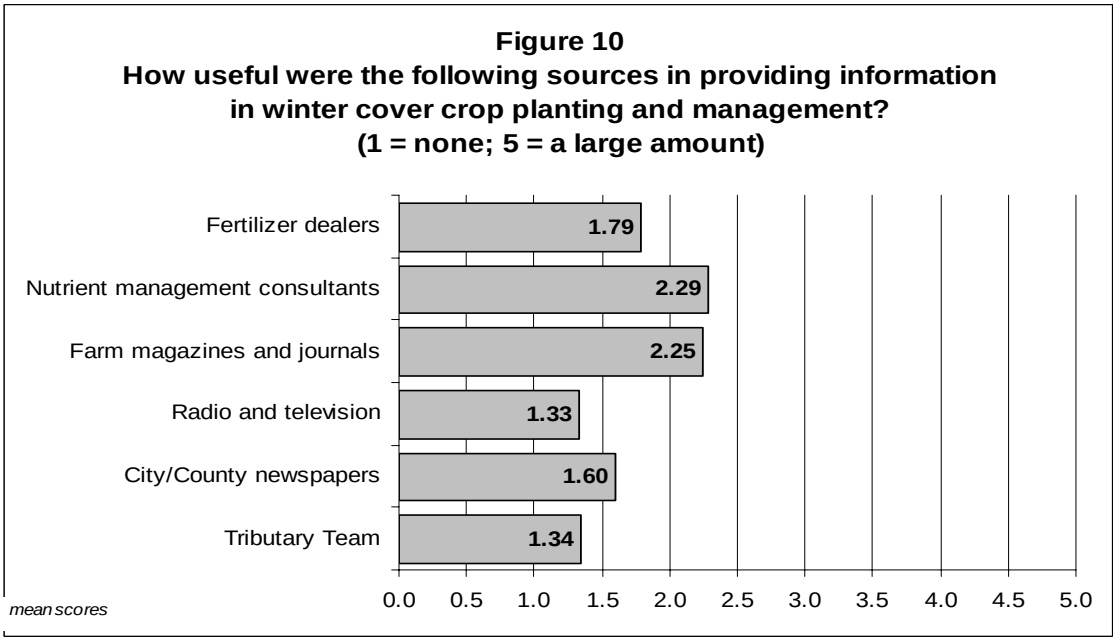
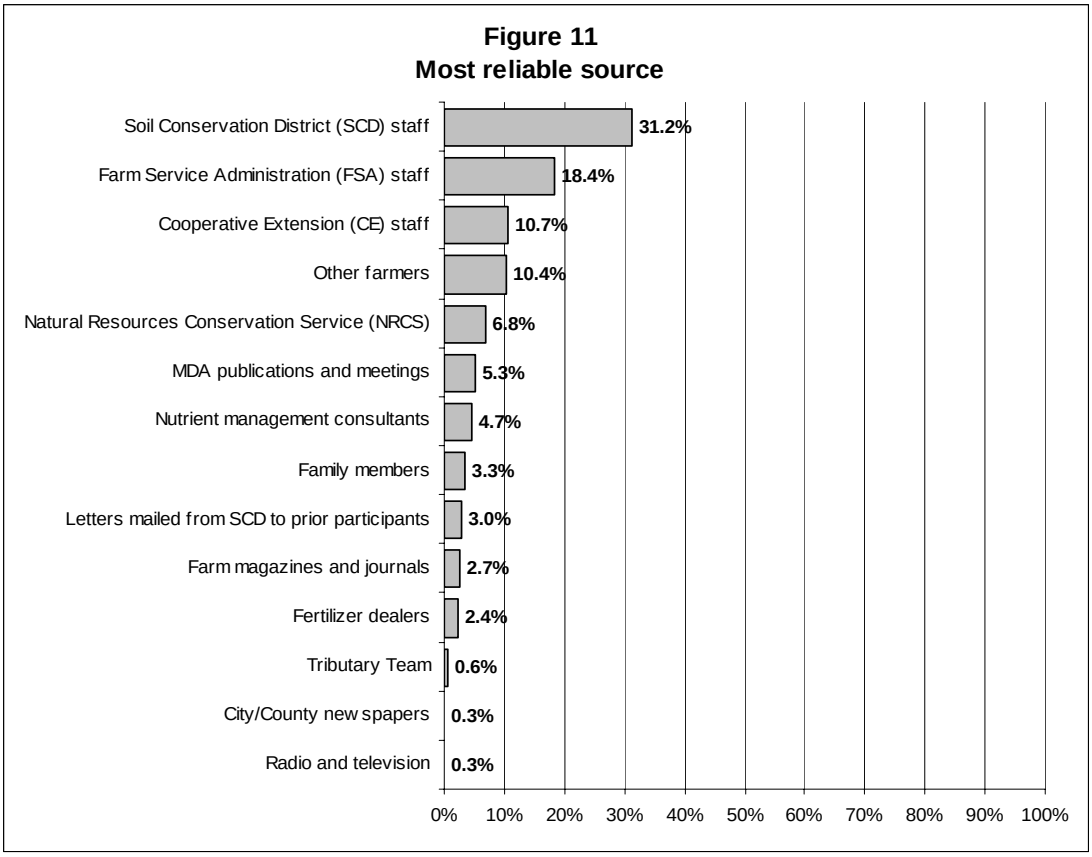


Figure 10
How useful were the following sources in providing information in winter cover crop planting and management?
(1 = none; 5 = a large amount)



Respondents were then asked which source of information they found to be most reliable. As shown in Figure 11, close to a third of farmers (32%) found the Soil Conservation District (SCD) staff to be the most reliable source of information followed

by Farm Service Administration (FSA) staff (19%), and the Co-operative Extension (CE) staff (12%).



Farmers were then asked how and what types of information could improve the understanding of the program. Respondents were instructed to select all that apply so percentages will not total to 100%. Fifty-nine percent (59%) of respondents stated that information needed to be provided regarding program requirements such as planting dates, planting methods, etc. Half (50%) of farmers felt that better and more timely information needed to be provided regarding application dates and 42% felt that information needed to be provided regarding the fall and spring certification process.

Future and Potential Changes to the MDA Winter Cover Crop Program

Respondents were asked what minimum cost-share rate they would require to continue participation in the MDA Winter Cover Crop Program. The rates are dependent on whether harvesting of the crop was allowed or not. The dollar amount shown is the mean value of all respondents. Table 1 shows the mean as well as the interquartile range (25^{th} and 75^{th} percentile) since there is a large variance with several outlying values that would skew the mean. The median, in conjunction with the interquartile range, will present a true picture of the minimum payment needed by farmers to continue participation in the Winter Crop Program.

Table 1
Comparison of Needed Payments for Harvesting Allowed and No Harvesting Allowed

	N	Mean	25th Percentile	Median	75^{th} Percentile
Harvesting not allowed -- Wheat	310	43.39	30.00	40.00	50.00
Harvesting allowed -- Wheat	266	30.51	20.00	25.00	35.00
Harvesting not allowed -- Barley	190	41.63	30.00	40.00	50.00
Harvesting allowed -- Barley	165	29.03	20.00	25.00	30.00
Harvesting not allowed -- Spring Oats	86	40.44	30.00	37.50	46.25
Harvesting allowed -- Spring Oats	65	31.72	20.00	25.00	40.00
Harvesting not allowed -- Ryegrass	89	41.88	30.00	40.00	50.00
Harvesting allowed -- Ryegrass	63	35.29	20.00	30.00	40.00
Harvesting not allowed -- Rye	179	39.89	30.00	40.00	45.00
Harvesting allowed -- Rye	121	31.80	20.00	30.00	35.00
Harvesting not allowed -- Triticale	71	42.79	30.00	40.00	50.00
Harvesting allowed -- Triticale	59	31.85	20.00	30.00	40.00
Harvesting not allowed -- Canola & Rapeseed	46	45.41	30.00	40.00	50.00
Harvesting allowed -- Canola & Rapeseed	37	37.00	22.50	30.00	47.50

Respondents were then asked which potential reforms would influence their participation in the program. Sixty-eight percent (68%) of farmers would plant the fall

cover crop without fertilization if the winter crop was allowed to be harvested and sold as a commodity in the spring. Over half (52%) of farmers would plant more acres of cover crops if harvesting were allowed but the cost share rate was less than for unharvested cover crops. Close to half (50%) of farmers would plant more acres of cover crops if they received a split payment, that is, farmers would receive half of their total cost share amount in the fall and the other half in the spring. The complete breakdown of these potential reforms is shown in Figure 12.

Figure 12
Would potential reforms to the MACS program influence program participation?

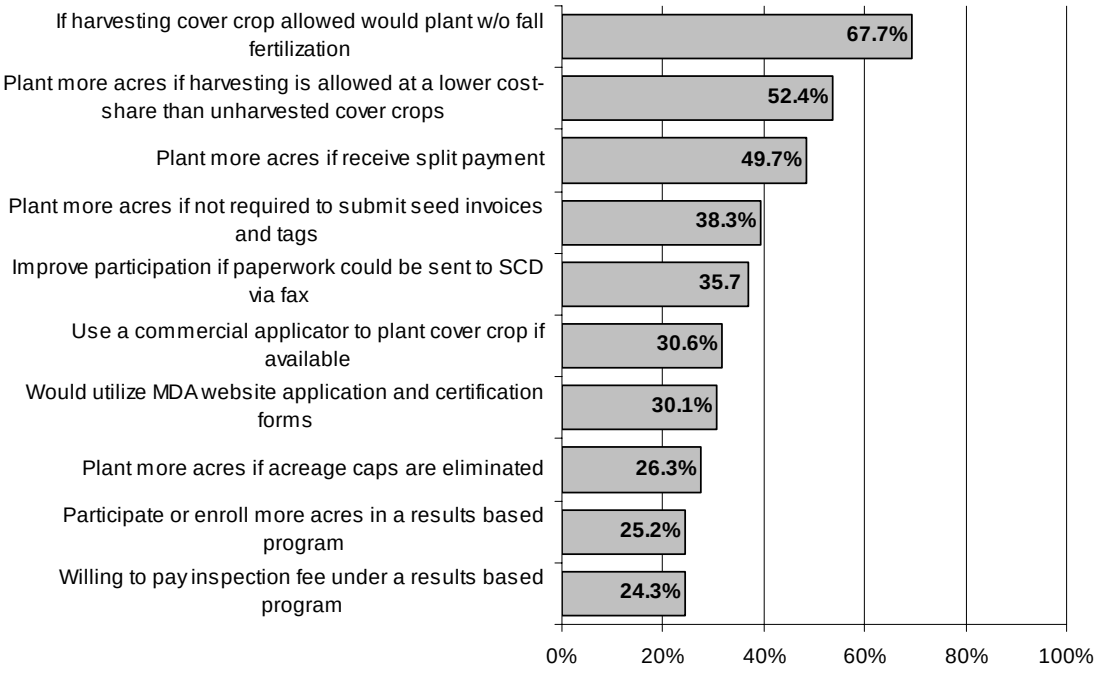
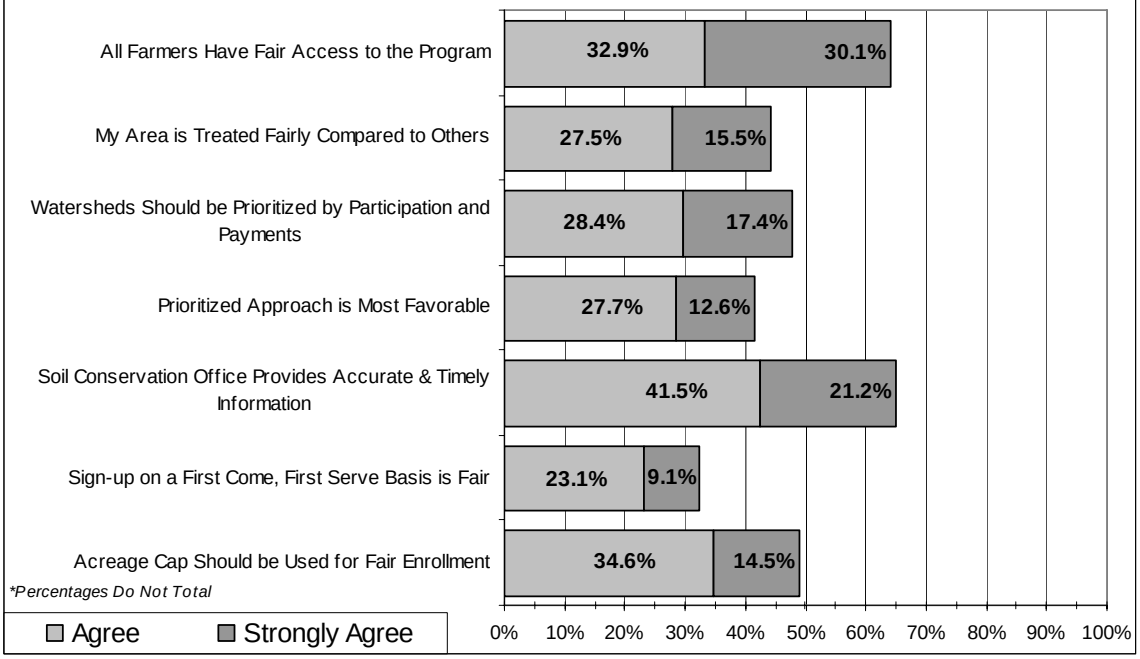
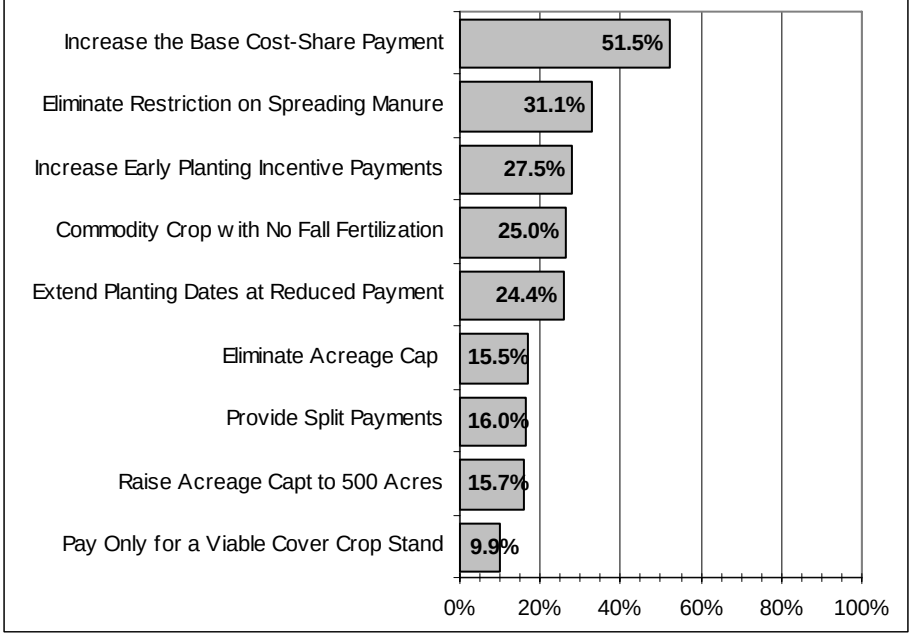


Figure 13
Percentage of Those Who Agree or Strongly Agree That...



The respondents were then asked to measure the degree of fairness of various aspects of the program. Figure 13 shows the percent of respondents who either strongly agreed or agreed to the statements. Overall, 63% of respondents agreed that all farmers, regardless of the size of their farms had fair access to the cover crop program. Forty three percent (43%) agreed that their area was treated fairly compared to the farms located in other areas around Maryland. Close to half (49%) thought that watersheds across the state should be prioritized for cover crop participation and payment. Forty percent (40%) would favor the prioritized approach even if their farm was not in a prioritized watershed. Sixty three percent (63%) of respondents felt the Soil Conservation Office provided accurate and timely information. Less than a third (32%) felt that conducting sign-up for the program on a first come-first serviced basis would be a fair way to enroll farmers. Close to half (49%) felt that the use of an acreage cap so that a maximum number of farmers can enroll in the program was fair.

Figure 14
Programs That Have a Big Impact on the Amount of Acreage Planted

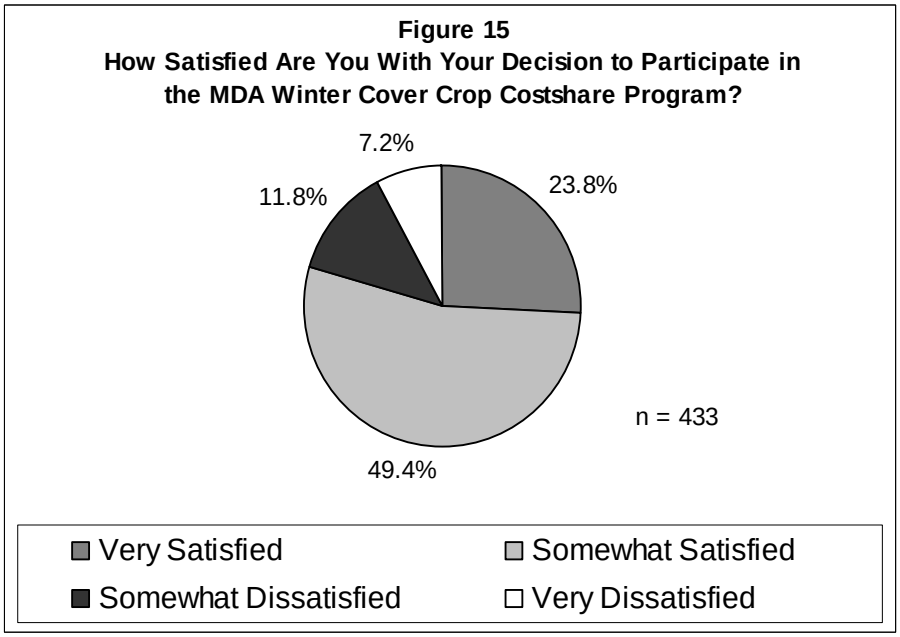


Respondents were asked to rate the effect potential program changes would have in causing them to plant additional acres (see Figure 14 above). Over half (52%) of farmers stated that an increase in the base cost-share ratio would have a big impact on their planting more cover crops. Close to a third (31%) stated that eliminating the restriction on spreading manure on growing cover crops would have a big impact on their planting more winter cover crops.

Overall Program Evaluation

The evaluation questions were asked of respondents who had participated in the MDA Winter Cover Crop Program for at least one of the past five years.

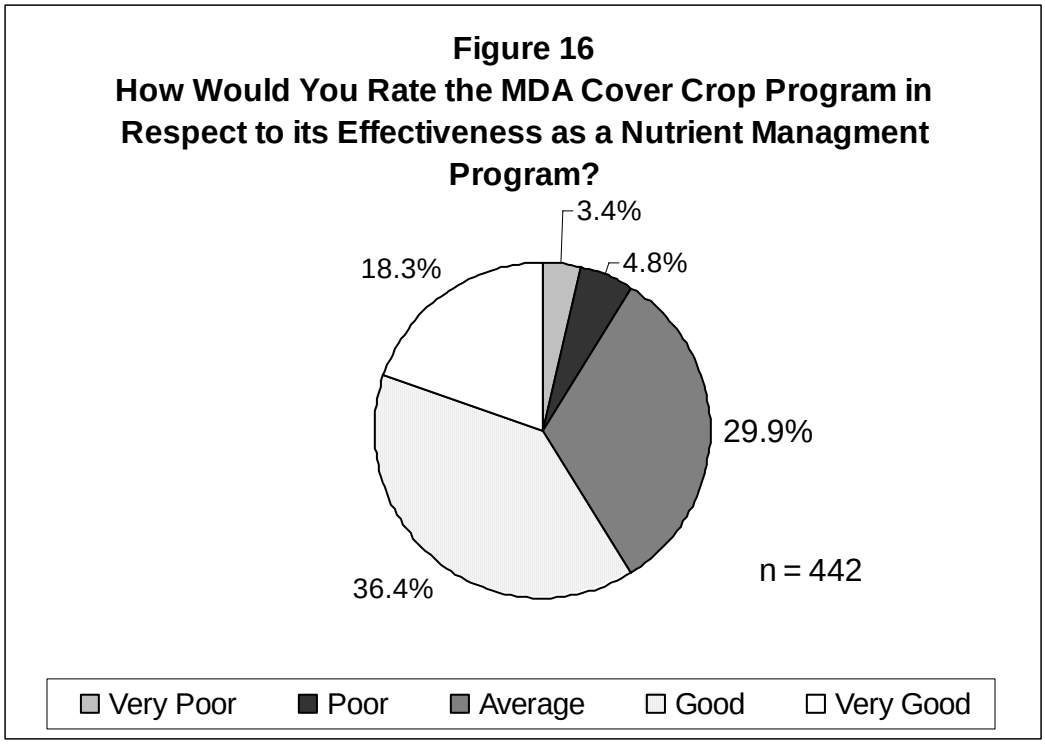
Figure 15
How Satisfied Are You With Your Decision to Participate in the MDA Winter Cover Crop Costshare Program?



When asked how satisfied they were with the program, 73% were satisfied with 24% describing themselves as being very satisfied and 49% describing themselves as being somewhat satisfied as shown in Figure15.

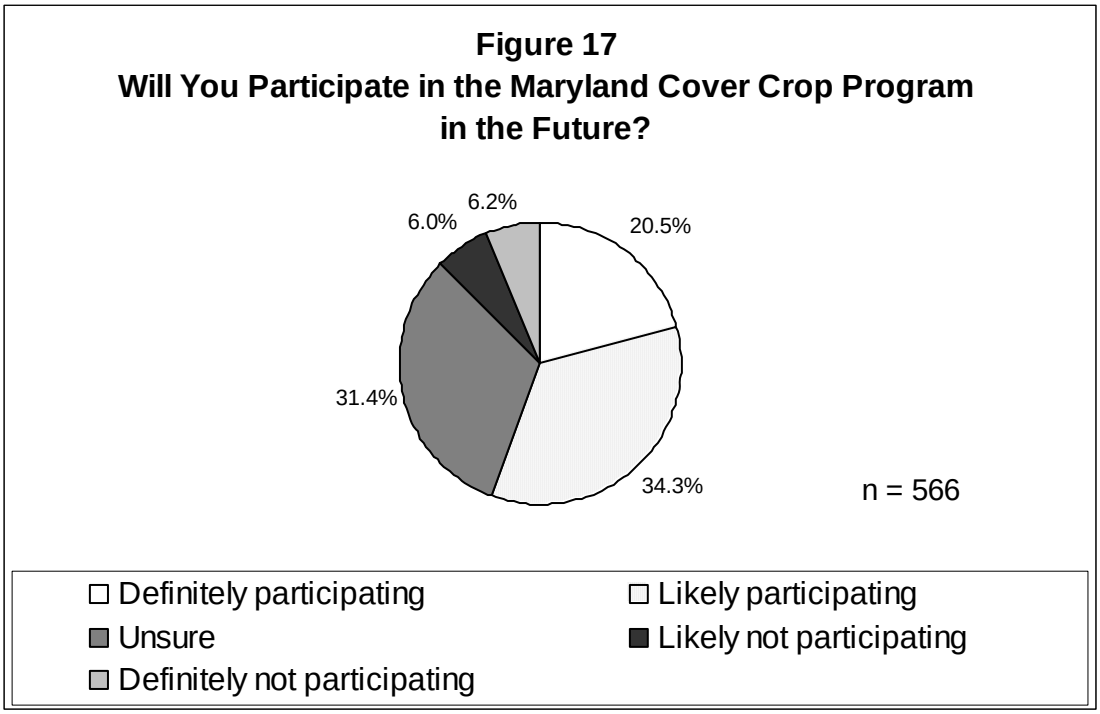
When asked to rate the MDA Program in respect to its effectiveness as a nutrient management program 55% percent of farmers rated it as “good” or “very good.” This is shown in Figure 16.

Figure 16
How Would You Rate the MDA Cover Crop Program in Respect to its Effectiveness as a Nutrient Managment Program?



As shown in Figure 17, 55% of respondents would likely or definitely participate in the program in the future.

Figure 17
Will You Participate in the Maryland Cover Crop Program in the Future?



Conclusions

The Maryland Department of Agriculture's Winter Cover Crop program has been operating for about a decade with mixed results. Historically, the program has fallen short of its desired acreage enrolled in the program. The results of the survey and focus groups have important implications for policy makers as they amend the program to increase the enrolled total acreage.

Farmers are relatively satisfied with the nature of the program and support its goals. Farmers are well aware of the need for nutrient uptake and are appreciative of the role that cover crops play in both farm management and eco-system management. However, while they are supportive of the idea of the program, they remain critical of its implementation. Key critiques include:

The MDA Cover Crop Program often conflicts with overall farm management strategy and with other state programs, especially nutrient management plans. Conflicts with overall farm management include the timing of planting, the kinds of crops allowed under the current system, inability to harvest the crop, and inability to spread manure on fields growing cover crops. These constraints play out differently in the various regions and differ by the kind of farming operations undertaken. Future iterations of MDA need to be more responsive to the day-to-day operations of farms so that additional costs – measured both in monetary outlays for seed and labor and time outlays – are not unnecessarily increased. Some flexibility in program design could go a long way to increasing the attractiveness of the program to farmers.

Lack of timely information about the annual program requirements, required paperwork, and sign-up dates was another source of dissatisfaction. MDA needs to make a more concerted effort to disseminate information about the program more thoroughly.

The survey results suggest that specific program reforms would go along way toward increasing participation. These include allowing harvesting of the crop for commercial purposes, increasing the cost-share ratio, and eliminating restrictions on spreading manure.

Appendix 1
Maryland Department of Agriculture

Winter Cover Crop Program
Survey Results by Region

Table 1-A

Participation Levels by Region

	West	South	Shore
Ever participated in the MDA Winter Cover Crop program?			
Never participated in the program.	47.0%	49.0%	41.0%
Participated in the program some years.	40.9%	36.4%	40.7%
Participated every year I was eligible.	12.2%	14.6%	18.3%
Ever planted cover crops with or without government assistance in the past 10 years?			
Yes, with technical assistance.	1.0%	-------	1.3%
Yes, with financial assistance.	9.9%	12.1%	18.8%
Yes, with both technical and financial assistance.	6.4%	8.3%	8.3%
Yes, on my own.	64.4%	63.6%	53.3%
Never planted cover crops.	18.3%	15.9%	18.3%
Which cover crop(s) have you planted?			
Wheat	55.0%	56.5%	61.7%
Barley	22.1%	28.6%	23.5%
Barley/Legume mixture	2.2%	2.6%	1.8%
Rye/Legume mixture	4.3%	2.6%	4.7%
Rye	35.1%	39.6%	39.7%
Others (Please Specify)	13.0%	9.7%	7.6%
Expect to plant cover crops for 2005-2006?			
Wheat	39.8%	42.2%	45.5%
Barley	18.2%	18.2%	17.3%
Barley/Legume mixture	1.7%	.6%	.4%
Rye/Legume mixture	3.0%	4.5%	1.4%
Rye	22.1%	24.7%	23.8%
Others	11.7%	7.8%	5.1%
Not planting cover crops in 2005-2006.	15.6%	15.6%	15.2%
Whether as part of the MDA program or not, how many years have you been using cover crop(s)?			

Less than one year	4.7%	2.2%	4.1%
1-5 years	24.6%	25.7%	25.5%
6-10 year	18.3%	17.6%	14.8%
11-20 years	17.8%	17.6%	16.9%
More than 20 years	32.5%	34.6%	35.0%

Table 2-A

To what degree was each of the following a problem for you in participating in the MDA winter cover crop program?

Mean values (1-5 scale with "1' being "not a problem" and "5" being "a serious problem")

	West	South	Shore
Unaware of the Program	1.86	2.10	1.77
Minimum number of acres required (10) too big	1.82	1.77	1.60
Maximum number of acres too small	1.75	1.87	1.57
Required planting deadline too restrictive	3.49	3.44	3.34
Kill down requirements (after March 1) too late	2.07	2.09	2.04
Paperwork and verification procedure too difficult or time consuming	2.62	2.80	2.50
Not enough time available to plant cover crop	3.09	2.85	3.01
Not enough labor to plant cover crop	2.22	2.19	2.17
Cost share rate for cover crops was insufficient	3.20	3.30	3.09
Seed cost too high/required seed not available	3.04	2.98	2.90
Approved planting methods too restrictive	2.29	2.45	2.19
Approved types of cover crops too restrictive	2.14	2.05	1.84
Application date inconvenient/unaware of date	2.73	2.74	2.51
Limitations on manure application to cover crop	2.67	2.58	2.46

Table 3-A

How important were each of these factors while making your decision to plant cover crops?

Mean values (1-5 scale with "1" being "not at all important" and "5" being "very important")

	West	South	Shore
Expected cost of planting and management	3.23	3.35	3.15
Use for livestock feed supplement	2.41	2.12	2.38
Past experience with cover crop management	2.37	2.55	2.46
Crop fertility (savings from conserving plant nutrient)	2.94	3.08	2.95
Availability of cost-share	3.38	3.36	3.37
Environmental concerns	3.32	3.44	3.38
Crop rotation/production goals	3.44	3.39	3.34
Time/Labor available to plant cover crop during harvest season	3.39	3.26	3.42

Table 4-A

Regarding your winter cover crop planting and management, please indicate how much useful information and/or advice you receive from each of the following sources.

Mean values (1-5 scale with "1" being "none" and "5" being "a large amount")

	West	South	Shore
Cooperative Extension (CE) staff	2.45	2.43	2.40
Soil Conservation District (SCD) staff	3.11	2.85	3.01
Letters mailed to previous participants	2.61	2.53	2.76
Farm Service Administration (FSA) staff	2.84	2.64	2.74
MDA publications and meetings	2.48	2.52	2.63
Natural Resources Conservation Service (NRCS)	2.26	2.29	2.30
Other farmers	2.62	2.68	2.54
Family members	1.88	2.13	1.92
Fertilizer dealers	1.85	1.74	1.76
Nutrient Management Consultant(s)	2.26	2.30	2.30
Farm magazines and journals	2.27	2.24	2.21
Radio and television	1.35	1.28	1.30
City/County Newspapers	1.66	1.58	1.54
Tributary Team	1.30	1.28	1.36

Table 5-A

In order to improve understanding and increase participation in the cover crop program, what type of information needs to be clarified or made more readily available?

Percentage indicating "Yes"

	West	South	Shore
Better and more timely information regarding application dates	52.0%	45.5%	50.9%
Program requirement information (planting dates, planting methods, etc)	56.1%	57.1%	61.9%
Fall and spring certification information (copies of seed invoices, and tags)	44.8%	40.3%	40.4%
Scientific/technical information on the benefits and goals of cover crops	20.5%	22.1%	21.2%
Other	19.2%	17.5%	13.9%

Table 6-A

What minimum payment rate for each cover crop would you require in order to begin or continue participation in the MDA Winter Cover Crop Program?

Mean Dollar Value Per Acre

	Amount required if harvesting for market is not allowed.			Amount required if harvesting cover crop for market is allowed		
Crop	**West**	**South**	**Shore**	**West**	**South**	**Shore**
Wheat	$43.65	$43.62	$42.55	$30.94	$30.48	$29.85
Barley	$42.04	$44.31	$38.15	$30.73	$29.22	$26.60
Spring Oats	$40.63	$40.57	$40.11	$30.73	$33.42	$31.47
Ryegrass	$44.39	$42.73	$38.71	$34.79	$37.31	$34.59
Rye)	$42.79	$38.04	$38.11	$34.21	$31.55	$28.95
Triticale	$42.09	$42.36	$43.85	$30.36	$33.94	$31.90
Canola/Rapeseed	$48.50	$44.25	$43.46	$39.20	$37.33	$33.67

Table 7-A

Would these potential reforms to the program influence program participation?

Percentage indicating "Yes"

	West	South	Shore
If the winter cover crop is allowed to be harvested and sold as a commodity in the spring, would you plant the cover crop without fall fertilization?	69.3%	66.9%	66.7%
Would you plant more acres of cover crop if a split payment (i.e. you would receive half of your total cost share amount in the fall and the other half in the spring) is provided?	52.7%	50.0%	47.6%
Would you plant additional acres of cover crops if harvesting as a commodity is allowed but the cost share rate would be less than the rate for unharvested cover crops?	50.5%	58.5%	50.8%
If acreage caps are eliminated, will you plant additional acreage to cover crops?	29.1%	32.8%	20.7%
If the requirement to submit seed invoices and seed tags is eliminated, will that cause you to plant additional acres of cover crops?	39.6%	43.0%	34.5%
Would you use a commercial applicator to plant your cover crops if one was available in your area?	28.9%	33.3%	30.3%
If you could send paperwork to the local Soil Conservation District via a fax machine, would that improve your participation in the cover crop program?	36.5%	31.9%	36.5%
If the application forms and certification forms were Internet/Web based on the Maryland Department of Agriculture website, would you utilize that method to apply for and certify cover crops?	28.2%	31.9%	30.9%
Under the current program, cost-share payments are made regardless of resulting cover crop quality if all required procedures are followed and documented. Would you participate/enroll more acres in the cover crop program if the program criteria are changed to base the cost-share payment on meeting an established stand of an approved cover crops by a specific date, regardless of planting methods/dates? But, no cost-share payment would be made for poor cover crop stands.	23.6%	27.5%	24.7%
Keeping in mind the proposed change discussed in question 20, would you be willing to pay a minimal fee (i.e. $1 per acre) to cover stand inspection services to verify that a viable stand has been achieved?	24.0%	22.2%	25.8%

Table 8-A

Perceived degree of fairness in the winter cover crops program

Mean values (1-5 scale with "1" being "strongly disagree" and "5" being strongly agree")

	West	South	Shore
All farmers, regardless of the size of their farms, have fair access to the cover crop program.	3.59	3.64	3.87
My area is treated fairly compared to the farms located in other areas around Maryland.	3.32	3.7	3.43
Watersheds across the state should be prioritized for cover crop program participation and payments.	3.36	3.45	3.25
I would favor a prioritized approach even if my farm was not located in a prioritized watershed.	3.17	3.31	3.17
My Soil Conservation District Office provides accurate information to me in a timely manner.	3.67	3.56	3.77
Conducting sign-up on a first-come, first-service basis is a fair way to enroll farmers in the program.	2.80	2.60	2.84
Using an acreage cap so that the maximum number of people can enroll in the program is fair.	3.39	3.20	3.35

Table 9-A

Rate the effect each possible program change would have in causing you to plant additional acreage in cover crops

Percentage indicating "Big Impact"

	West	South	Shore
Ability to harvest as a commodity crop with no fall fertilization	26.8%	25.6%	24.4%
Extend planting dates until November 30th across the state at a reduced cost-share payment rate	24.9%	22.5%	25.6%
Increase the base cost-share payment	59.1%	53.0%	46.7%
Increase the early planting incentive payments	33.0%	32.0%	22.6%
Raise acreage cap to 500 acres	18.8%	18.0%	13.2%
Eliminate acreage cap completely	17.2%	19.2%	13.0%
Eliminate restriction for spreading manure on growing cover crops	35.5%	35.9%	26.4%
Provide split payments (fall and spring)	22.4%	16.2%	13.2%
Pay only for a viable cover crop stand rather than following MDA requirements/procedures	14.1%	12.5%	6.1%

Table 10-A Overall Program Evaluation			
	West	**South**	**Shore**
Which of the following best describes your relationship to the land that you farm?			
owner	41.0%	33.9%	36.6%
operator	8.3%	7.9%	9.7%
renter	10.2%	15.0%	9.7%
owner/operator	40.5%	43.3%	44.1%
Are you willing to plant winter cover crops at your own expense if cost-share assistance is not available?			
Yes, I would plant more acres.	3.8%	2.1%	2.3%
Yes, I would plant the same amount of acres.	39.2%	38.3%	37.1%
Yes, but I would plant a reduced amount of acres.	26.3%	29.1%	25.4%
No, I would not plant any winter over crops.	30.6%	30.5%	35.2%
Are you currently participating in any other state or federal conservation or cost-share program?			
Yes	45.9%	45.4%	47.2%
No	54.1%	54.6%	52.8%
How satisfied are you with your decision to participate in the MDA winter cover crop cost-share program?			
very satisfied	28.5%	22.5%	25.7%
somewhat satisfied	48.5%	57.3%	56.0%
somewhat dissatisfied	13.8%	11.2%	12.0%
very dissatisfied	9.2%	9.0%	6.3%
How would you rate the MDA Winter Cover Crop program in respect to its effectiveness as a nutrient management program?			
very poor	5.0%	3.4%	2.3%
poor	5.0%	6.7%	4.0%
average	34.5%	36.0%	28.4%
good	41.0%	25.8%	44.9%
very good	14.4%	28.1%	20.5%
How would you rate the MDA Winter Cover Crop program in respect to customer service?			
very poor	5.6%	5.1%	3.4%
poor	6.3%	8.2%	6.1%
average	39.9%	37.8%	40.8%
good	38.5%	34.7%	38.0%
very good	9.8%	14.3%	11.7%
Will you participate in the MDA Winter Cover Crop Program in the future?			
Definitely will participate	20.8%	25.0%	18.8%
Likely will participate	35.9%	32.5%	35.6%
Unsure	31.3%	30.0%	32.6%
Likely will not participate	5.2%	5.0%	7.5%
Definitely will not participate	6.8%	7.5%	5.4%

Appendix 2
Maryland Department of Agriculture

Winter Cover Crop Program
Focus Groups Report

The Maryland Department of Agriculture (MDA) contracted with the Schaefer Center for Public Policy at the University of Baltimore to facilitate four focus groups regarding MDA's Winter Cover Crop Program during February 2005. The primary objective of the Winter Cover Crop Program is the uptake of excess nutrients (i.e., nitrogen) from the soil to prevent those nutrients from draining into and polluting the Chesapeake Bay. The purpose of these focus groups was to obtain farmers' perceptions regarding every aspect of the Winter Cover Crops Program in order to develop a survey that will be mailed to a large sample of farmers. The results of that survey will provide valuable information as MDA evaluates potential reforms to the program. These focus groups were held in different geographical locations around Maryland to ensure that every region had an adequate channel to provide feedback, comments, and suggestions. The location and dates of these focus groups were Salisbury (February 4th), Frederick (February 9th), Centerville (February 16th), and Charlotte Hall (February 23rd). Farmers were the main participants in the focus groups, but there were also representatives from local conservation districts and other MDA administration offices. Participants who held the dual role of farmer/administrator were asked to speak from a farmer's perspective. However, the fluid nature of focus groups provided a small number of situations where participants who held the dual role of farmer/administrator did comment from an administrator's perspective.

This report will address the major trends and themes that surfaced during these focus groups. The focus groups were structured around the four areas of: (1) farmers' access to information regarding the program's application process, certification process, and requirements (2) to what degree is risk shared by farmers and MDA (3) farmers' perceptions of the problems of the program's rules, design, and implementation (4) farmers' suggestions to improve the stated problems. The salient and reoccurring points relating to each area are summarized. It should be noted that the majority of the discussions centered on farmers' problems with the program and their view of the solutions needed to increase farmer participation.

Access to information regarding program's application process, certification process and requirements

- Information was made available to farmers by sending letters to those who participated last year, announcements in newspapers and agricultural based newsletters, farmer visits to county extension offices, and even phone calls

from county extension offices. This mix of general and specific outreach worked well in making farmers aware of the program.

- More information is known regarding the program's existence versus the requirements of the program. This fact can be attributed to periodic changes in application periods, approved planting methods, and planting dates.

- The application sign-up period, required planting dates, and the certification period fall during farmers' two busiest periods, June/July and October. Thus, time constraints might limit a farmer's ability to become familiar with the program's requirements and program participation.

To what degree is risk shared by farmers and MDA

- Extensive discussions were centered on the idea of changing the program from its current process base to a results base program. Generally, farmers favored changing the program to a results base in order to be freed from state requirements. As one participant noted, "A results based program would allow the farmer to farm."

- However, farmers realized and were not entirely comfortable with the possibility that factors beyond their control (ie. geese eating cover crop or weather issues) could destroy their cover crop. If this situation did occur, farmers wanted some type of "good faith effort" payment from the state.

- Administrators worried about the increased staff, time, and resources needed to enforce the results based program.

- Farmers viewed the current MDA practice of spot checking fields a performance standard that required them to produce results in order to receive payment.

Problems of the program's rules, design, and implementation

- Application dates were too early in the summer and planting dates were too early in the fall. Also, planting dates did not allow for regional differences (ie. varying weather conditions and farm operation issues) found within the state.

- Between the application and certification process, farmers had to make three or four visits into the extension office.

- Farmers viewed the restriction on harvesting cover crop as a major obstacle to program participation. As one farmer stated, “At the end or April, the purpose of the program is complete. What is done with the cover crop after that should not be the state’s concern.”

- For livestock/poultry farmers, the program requirement that does not allow the spreading of manure on the cover crop was viewed as being in direct conflict with the regulations mandated by their Confined Animal Feeding Operation (CAFO) permits.

- Farmers’ expenses occurred in the fall, yet they had to wait until the spring to receive payment.

- The twenty dollar per acre reimbursement rate needed to be increased. Farmers claimed that price does not even allow them to recapture their costs.

- Farmers want to use all the available money allocated to the program because they are funding this program with the “flush tax.”

Farmer’s suggestions to improve the stated problems

- Extend the application period. Extend the planting dates to the end of November for the entire state or go to regional based planting dates.

- Allow farmers to use fax/internet during the application/certification process to alleviate their time-costs.

- Allow farmers to harvest cover crop.

- Allow the spreading of manure on cover crop.

- Go to a two-tiered payment plan. One payment in the winter and the other payment in the spring.

- Increase payment level to $30-$40 per acre.

- Allow the 250 acre limit to be increased if there is extra funding available. These extra acres would be placed on a stand-by basis or allow later entries into the program on a prorated basis. Alternatively, allow farmers to sign-up on a stand-by basis.

Access to information regarding the program's application process, certification process, and requirements

Information was made available to farmers regarding the Winter Cover Crops Program in a variety of ways. The only consistent method of disseminating information was a letter sent to those who participated in the program during the previous year. Other forms of general outreach included announcements in newspapers and agricultural based newsletters, phone call reminders from county extension/soil conservation staff, and farmer visits to county extension offices. The Calvert County extension office was specifically cited for its good outreach efforts. Thus, their practices might be a potential model for increasing awareness and disseminating information.

In regards to the application process, the program has never had consistent, set sign-up dates. Indeed, from 1999 to 2004 the application dates have been in either June, July, or August. The program does not have an established "time of year" that farmers can rely upon. In fact, participants mentioned that the 2004 program had a very short timeframe for sign-up (i.e., 7-10 days in early June) and that it was not advertised well. Soil Conservation District (SCD) staff felt very rushed in trying to contact farmers while June is one of the busiest times for farmers.

Knowledge of the program's existence seemingly trumped knowledge about the program's requirements. Specifically, participants mentioned a situation where farmers used stalk chopping to plant their cover crop. At the time, this planting method was not approved and they were disqualified from the program. This same experience happened to other farmers with the use of broadcasting. Although both of these practices are currently allowed by the program, these situations are examples of where farmers' understanding of the program and program requirements did not mesh. Indeed, at one focus group, substantial chatter broke out among participants when the topic of approved planting methods and dates arose. There was a clear lack of consensus among participants regarding these methods and dates because participants had to correct/inform each other about the current program requirements.

The application and the certification periods are during farmers' two busiest periods of June/July and October. These time constraints might limit a farmer's ability to become familiar with the program's requirements as well as inhibit participation. As one farmer noted, "I am not going to participate in the program if I have to work it into my busy time. During certification time, I have to get off my combine and go into the office. This is my one payday of the year." A more complete examination of farmers' concerns regarding the application and certification processes are contained in the problems section of the report.

To what degree is risk shared by farmers and MDA

Extensive discussions centered on the possibility of changing the program from its current process base (i.e., meet MDA established application deadlines, planting dates, certification guidelines, and seed requirements) to a results based (i.e., minimum or no state requirements except that the enrolled acres meet an established stand). The fact was raised that the current program already has an instilled performance measure (i.e., spot checks). Most farmers viewed the results based proposal very favorably as it would "allow the farmer to farm." Indeed, most participants expressed frustration at the amount of state regulations concerning farm operation methods and practices. Farmers also wanted the freedom to harvest and spread manure on cover crops if the program became results based.

The major drawback cited by farmers to a results based program would be problems associated with natural phenomenon and other factors beyond their control. For example, concerns about geese eating seeds or "mother nature wiping you out" were raised. In this case, farmers wanted some insurance from the state in the form of cost recovery. The farmers believed their "good faith effort" should be rewarded. However, farmers did not give any more specifics about a potential insurance/reimbursement program. Thus, participants generally did not want to bear all the risks of planting cover crops on their own. It was noted that cover crop risk is not that high vis-à-vis total farm operations.

If the program became results based, SCD staff would be charged with performing spot checks to determine if the required stand was met. Farmers agreed that this is an acceptable method for policing the program. SCD staff was worried about the increased number of spot checks needed to be done with their existing staff and funding levels. Another concern was the potential of a results based program placing some strain on the farmer-SCD relationship.

Problems of the program's rules, design, and implementation

This area of discussion dominated the focus group. Participants were quite vocal in their critique of the Winter Cover Crops Program with many of the same critiques appearing at all four focus groups. One of the main problems was in regards to application and planting dates. Application dates were viewed as being too early in the summer and the application dates changed on a yearly basis. Thus, the program does not have on established, consistent timeframe that farmers can rely upon. These early dates forced the farmer to try and predict weather and crop conditions for the fall. Many farmers stated it was very difficult to determine the state of their farm operations in the fall during the summer months.

Related to early application dates was the issue of program mandated planting dates. In short, farmers felt that the state's timeline for planting was too early in the fall compared to generally accepted planting practices. For example, farmers noted that the program required them to plant wheat by October 15th. However, best practices dictate that wheat should not be planted before October 15th due to concerns of Hessian Fly infestation. Farmers were also concerned that planting dates were not adjusted by geographical region to account for variations in climate, crops grown, etc. But, the program did have different planting dates for two regions: 1) Eastern Shore and Southern Maryland and 2) Central and Western Maryland. These regional planting dates were in effect from 2002 to 2004 and provided some flexibility with three or four cover crops. Therefore, a mismatch between what the program allowed and what the farmers thought the program allowed may have been present.

A second often cited problem dealt with farmers' time-cost during the application and the certification process. MDA does not allow any of the paperwork/filing to be done by electronic methods such as fax or internet. Farmers noted that they had to make three or four trips to their local SCD office throughout the length of the program. This problem was viewed more as an annoyance than a major obstacle to program participation.

Thirdly, farmers consistently voiced their displeasure with the program's restriction on harvesting the cover crop. This restriction was viewed as being the major obstacle to program participation. As one participant stated, "At the end of April, the purpose of the program is complete. What is done with the cover crop after that should not be the state's concern." In fact, some farmers stated that harvesting the cover crop would "tie up and remove" the nutrients from the soil, thus aiding the goal of the program. Farmers are potentially able to make/save more money harvesting the cover crop for sale or using it for livestock feed compared to the payment schedule allocated by MDA. Thus, farmers have no real financial incentive to be in the program. This fact is reinforced by farmers' statements that the twenty dollar per acre payment did not even allow them to fully recover their costs for labor, fuel, seed, etc. Farmers were also frustrated that almost all of their expenses occurred in the fall, but they had to wait until spring to receive their payments. This time gap slightly decreases the actual purchasing power of their payments.

Fourthly, livestock/poultry farmers noted that the program's requirement of not allowing the spreading of manure on the cover crop was in direct conflict with the operator's Confined Animal Feeding Operation (CAFO) permit. CAFO regulations allow the outside storage of manure for a maximum of forty-two days. Farmers noted that manure can not be placed on the cover crop or on bare ground per their state mandated nutrient management plan. They were then wondering, "Where/what should be done with this manure?" Concern was also expressed about limiting the spreading of manure during the wettest months of the year.

The fifth topic that was mentioned extensively related to the programs' funds. Farmers wanted to use all the available money allocated to the program for two main reasons. First, since farmers were financing the program by the "flush tax," they wanted to receive all the benefits of the tax. Secondly, some participants were worried about unused money being diverted by the General Assembly to other programs/projects. In order to use all this money, participants were concerned that the 250 acre limit discouraged larger operators from enrollment. On the other hand, there was a general view that the program should not become a strictly "first-come, first-serve" program. Overall, farmers wanted a fair and equitable program that allowed everyone to share in the program's benefits.

Other problems mentioned:

- Farmers viewed the 80% germination seed requirement as arbitrary
- Not enough information available on the scientific/technical aspects of the program (ie. the timeline for breakdown of organic material; differences in nutrient uptake using various planting methods)
- Reminder/information letter sent to farmers was confusing/overwhelming
- Providing seed tags was unnecessary.

Farmer's suggestions to improve the stated problems

Farmers want MDA to extend the application and planting dates. In regards to application dates, operators felt that the large time lag between the summer sign-up dates and fall planting dates made it difficult to accurately predict what the current state of farm operations would be. This uncertainty had a negative impact on participation. Farmers suggested adding 2-4 weeks onto the application window. Planting dates could reasonably be extended until the end of November for almost all accepted cover crops. This extension would not force farmers to squeeze in planting while trying to harvest. These later dates would not adversely impact the growth and nutrient up-take of the cover crops. Additionally, farmers wanted to be able to use electronic methods (ie. fax and internet) during the application and certification process in order to reduce their time-costs associated with the program.

In response to farmers wanting extended planting dates, a specific plan was discussed. Under this plan, planting dates would be extended from October 15th to November 15th

with the condition that the farmer would have to pay $1 per acre for an inspection. This plan did not find much support. A major reason why this idea did not resonate well might be due to the fact that farmers view the time from Oct. 15th to Nov. 15th as the ideal time to plant cover crops. Thus, farmers felt that they were being penalized for engaging in accepted farming practices. A secondary concern of this approach was related to weather issues. If weather problems constricted/inhibited planting dates for those farmers who wanted to plant cover crops for harvest, they would simply enroll into the program which could result with some farmers being squeezed out.

A major and universal suggestion for reform was to allow farmers to harvest their cover crop. Not allowing the harvest of these cover crops was one of primary reasons for non-participation in program. Farmers stated that lifting this restriction would result in a major increase in the number of acres enrolled in the program. However, allowing farmers' to harvest their cover crops may shift the program's focus from being nutrient uptake to a small grains enhancement/subsidy program.

Farmers also wanted to be allowed to spread manure over their cover crop. Specifically, farmers wanted to spread manure soon after the crop is planted and mid-February. It is important to note that March 1st is the first date allowed under their nutrient management plan in which it is permissible to apply fertilizer. MDA should be aware of this potential conflict.

Several participants raised the notion of a two-tiered payment plan. There were two main proposals. The first proposal would be structured so that the first payment would be given soon after the crop is planted and the certification paperwork is submitted. The second payment would be in the spring after all spot checks were completed. The second proposal's first payment would also be given soon after the crop is planted and the certification paperwork is submitted. This proposal's second payment would be in the spring, but it would allow the farmer to reject the payment if he/she decides to harvest the cover crop. Under this second proposal, MDA would have to be careful about the administrative challenges and potential equity/subsidy issues of allowing farmers to jump in-and-out of the program.

Another major concern of farmers was that the $20/acre reimbursement rate was not sufficient even for the farmer to recover all of his/her costs. Thus, the program only defrays some of the costs incurred. Farmers noted that their costs will continue to rise as seed and fuel costs climb. Farmers generally wanted to see the basic payment level between $30 and $40 per acre. This payment level would not include MACS or EQIP bonuses.

Farmers wanted to use all available program funding. There were three main suggestions made in this respect. The first suggestion was to raise the 250 acre limit per operator, but participants did not mention how much the limit should be raised.

Secondly, MDA could keep the 250 acre limit but allow farmers to enroll extra acres on a stand-by basis. Third, the program could let farmers enroll into the program at a later date (ie. once all the initial, on time applications had been completed), but then pro-rate their reimbursement rate.

Appendix 2A

NOTES FROM FOCUS GROUPS

Maryland Department of Agriculture
Focus Group: Winter Cover Crops Program
Salisbury, MD (February 4, 2005)
Frederick, MD (February 9, 2005)
Centerville, MD (February 16, 2005)
Charlotte Hall, MD (February 23, 2005)

Questions 1 and 2: What has been your experience with the cover crop program?
AND
How did participation "work out" for you?

Salisbury, MD

a. cut-off dates are too early and do not allow enough flexibility with varying weather/crop conditions and farm operation issues; extension of deadline by two weeks would help
b. if cover crop is planted too early, it can adversely impact the primary fall harvest crop (ie. rye into cutter bar when harvesting beans)
c. cover crop can easily contaminate certified seed
d. not going to participate if, "I have to work it (the cover crop) in."
e. one farmer described a situation where stalk chopping was an unapproved method for planting cover crop two years ago (currently this practice is acceptable to MDA); some farmers planted cover crops using this method and then found out that they were disqualified from the program; thus, an aura of distrust may surround the program
f. some requirements of the program were challenged: why is 80% germ seed required?; harvest wheat should be included; why are dates for the Northern and Southern part of the state the same?
g. the issues of changing the program from a process base to an outcome/results base (ie. allowing a farmer to use his own planting methods to obtaining the sufficient stand required under the program) was discussed with outcome base seemingly gathering more support from those in attendance. A potential drawback to the outcome/results base would be the problems with natural phenomenon (ie. geese eat seed, act of God, etc).
A belief that if a natural phenomenon does damage the cover crop a "good faith effort" reward should be given to the farmer to recover his costs.

h. concern over the 2 bushel requirement was that it can lead to extra spraying at planting time, thus adding extra costs on the program

Frederick, MD

a. concern was expressed that Western Maryland farmers were being discriminated against vis-à-vis the Eastern Shore by making the planting dates the same across the state; this standard does not adequately take into account the different types of crops grown and varying weather conditions (ie. corn still at 20% moisture in the middle of October in Western Maryland); suggestions were made for a regional based plan for planting dates
b. participants agreed that planting cover crops was effective in limiting soil erosion while increasing nutrient uptake; incentives from the state are needed to help cover some of the out-of-pocket cost faced by planting cover crops (ie. "only so much a farmer can do with his own pocket book"); this monetary incentive is especially important as farmers face rising costs with fuel and fertilizers while also encountering low corn/bean prices
c. the 250 acre cap is too low; large operators might be dissuaded from participating
d. a major point of discussion related to the fact that the cover crop program does not allow the farmer to sell that cover crop in the spring; this factor was viewed as a major cause for nonparticipation/drop-out; "At the end of April the purpose of the program is complete. What is done with the cover crop after that should not be the state's concern."
e. another major point of discussion was related to the program requirement that does not allow the spreading of manure on the cover crop; concern was also expressed about limiting the spreading of manure during the wettest months of the year; operators pointed out that if manure can not be placed on cover crop and bare ground, where/what should be done with it?

Centreville, MD

a. farmers noted the environmental benefits of planting cover crops: nutrients gained from burn-down, soil is built-up and not eroded, and water quality increases
b. $20-$30 payments were seen as a level that is not going to be high enough to substantially increase acres in program; more incentive is needed; $40 per acre was viewed as the level of full cost recovery
c. farmers noted that their outlays occurred in September and October, but payments were not received until June; thus some farmers suggested a split payment
d. the planting dates required for participation in the program were in conflict with more pressing/important events (ie. fall harvest of corn and beans and fall planting of wheat and rye); specifically regarding fall harvest participants felt that MDA was

asking them to sacrifice “our one pay day a year” to get off the combine and plant cover crops
e. planting dates are too early; in some counties the personnel/equipment to conduct aerial application is quite limited; this situation can be exacerbated by difficult weather conditions
f. participants expressed perceptions that as the money available for the program eased, state rules/regulations also increased
g. the program requirement that forbids farmers from spreading manure on cover crop was again viewed as a weakness of the program; farmers see a conflict with the regulations provided by the Confined Animal Feeding Operation (CAFO) (ie. manure can not be outside for more than 42 days)

Charlotte Hall, MD

a. participants stated that if the cover crop program allowed the harvesting of wheat/barley, program participation would rise; harvesting cover crops that did not undergo a fall fertilization would tie-up and remove excess nutrients
b. the need for consistent, extended planting dates was considered important; planting dates could be easily extended to Thanksgiving/December 1; for example concerns about Hessian Fly infesting wheat causes farmers to view Oct. 15th as the first possible day for wheat planting.
c. if MDA is not going to allow the harvesting of cover crops, they should pay farmers an amount that makes planting the cover crop profitable
d. a two-tiered payment plan was again proposed; one payment in fall once crop is planted and certified; in the spring, farmer could opt out of payment if he decides to harvest crop
e. administrators voiced concern over increased paperwork/administrative expenses if payment becomes two-tiered
f. farmers were concerned about using all of the funds available from the flush tax; fears were that if funds are left over the General Assembly would re-direct funds to other programs/issues
g. participants lauded/wanted a return to the 1998 composite of the program; this year allowed the harvesting of cover crops (ie. a small grain program); this harvesting due to the fact that 1998 was a drought year and the Secretary of Agriculture wanted to alleviate some of the hardships that the drought posed for farmers
h. application dates should be extended; first-come first-serve was viewed as being unfair (ie. big operators would “gobble up” all the land); provisions should allowed for later sign-up if acres/funds are still available

Question 3: Were you able to get adequate information about the program?

Salisbury, MD

a. more information on the scientific/technical aspects of the cover crop program (ie. brochures describing the timetable and breakdown of organic material and Nitrogen; differences in no-till vs. till soil)
b. general consensus that enough information was available on the basics of the program (most information received by mail and/or farmer visits to extension offices)

Frederick, MD

a. issue not addressed/discussed

Centreville, MD

a. information was made available to farmers in the form of sending letters to those who participated last year and announcements in papers/newsletters; this general method of distributing information worked well

Charlotte Hall, MD

a. general consensus was that there was enough information about the program's existence but not as much information on program requirements
b. some farmers received phone calls from extension office as reminders; Calvert County was specifically cited for its good outreach efforts

Question 4: What has been your experience with the application process?

Salisbury, MD

a. sign up dates were described as "horrible"; dates are too early thus a farmer does not know because of weather/farm operation issues if participating in the program is feasible
b. the issue alternative sign-up procedures was discussed (ie. "Why do I have to go into the office?); fax and internet
c. since each farmer is required to submit a Nutrient Management Plan independent of the program participation, it is not an obstacle to the application process

d. farmers agreed that farm visits are an acceptable way to police the program

Frederick, MD

a. three (3) trips to local extension office was seen as being too burdensome; allowing some of the paperwork to be done over fax/internet would reduce time-cost for farmers

Centreville, MD

a. the application process was viewed as being fairly simple; however allowing farmers to use fax/internet would reduce the trips a farmer has to make to the extension office
b. the window for sign-up was seen as too short; signing up in summer for activities in the fall is too far ahead to predict farm operations
c. farmers noted that application time, June/July, was their busiest time of the year; certification time, October, is their second busiest time of the year
d. the certification process, which entails three office visits (sign paperwork that states the farmer planted by a certain date, locate field on map for extension service, and bring receipts for seed) was seen as more burdensome

Charlotte Hall, MD

a. last year the program sign-up was quick; farmers were only given one week to sign-up in July which is a very busy time
b. application paperwork was viewed as less burdensome than certification paperwork for both farmers and administration officials

Questions 5 and 6: What do you think MDA could do to improve the program?

AND

How do you think MDA could get more farmers to buy into the program?

Salisbury, MD

a. again the point of changing the program to results/outcome based was raised
b. allowing the farmer to harvest the cover crop (ie. wheat), could increase participation
c. half-payments in Dec/Jan could increase participation
d. the letter mailed to farmers informing them of the requirements of the program was seen as being a bit confusing/overwhelming; thus the farmer faced increased decision-making
e. increase the limit from 250 acres; possibly a first-come first-serve approach on unlimited/highly increased acreage
f. allow farmers to plant more than just wheat and rye
g. push back sign up dates
h. farmers agreed that requiring all non-certified seed to undergo germination and noxious weed tests was a good idea; make sure farmers are aware of the long delays at the Maryland Seed Lab
i. parameters of germination should be less strict than those for noxious weeds

Frederick, MD

a. lengthy discussion on the possibility of changing the program from results (outcomes) based versus process base; in general the participants welcomed this change (ie. “makes sense” and “win-win”); caution was expressed as “mother nature can wipe you out.”; if the program goes to a results based and the farmer does not meet the required stand, a sliding scale should be established so some costs are recovers; farmers wanted the results based program to allow the spreading of manure on cover crop and the harvesting of cover crop; extension/soil conservation staff worried about the increased burdens (ie. inspections) that would be placed on them if the program changed to results based; extension/soil conservation staff also worried about the possibility of a results based program straining relationships between the themselves and operators; participants acknowledged that random/spot checks would be a fair way to authenticate
b. extend the planting dates to recognize the real differences between Maryland’s regions, climates, and farm operations; be more flexible on the timeframe that farmers have to sign-up in order to participate in the program
c. 2.5 bushel requirement is too high; 2 bushel is the standard
d. allow the application of manure on cover crops

The following comments were submitted in writing by two farmers who were unable to attend meeting. Their suggestions are replicated in full below.

a. State could contract with aerial applicators and purchase seed to plant cover crops. Would seed in standing crops and pay farmer fee for use of ground.
b. Scrap all rules and allow farmer to farm. Certify one time in the winter and if the minimum acceptable stand was found farmer would get paid. If poor stand farmer wouldn't get paid. Farmer would be fully responsible for quality and quantity of seed, seeding method and time, etc.
c. Allowing harvest without fertilizer prior to March 1 would increase acreage but may hurt small grain and straw markets by encouraging more production.
e. dates need to be extended until at least Nov 15
f. increase payments as $20 does not cover all costs
g. seed tags should not be required
h. should allow bin run seed even if at a lower payment

Centreville, MD

a. process vs. results base; generally farmers favored to shift the program to a results base; the cover crop risk is not that high vis-à-vis risk of total farm operations; random inspections were viewed an acceptable enforcement mechanism; concern was raised again about the possibility of weather issues negatively impacting cover crops (ie. drought)
b. one farmers suggested shifting the program to counties that needed it more; for example, in bumper crop years cover crops do very little in terms of nutrient uptake because the harvest crop absorbed most of the nutrients; if some counties experienced a drought year they would be more in need of nutrient up-take;
c. allow fall fertilization of cover crops and relax the March 1st nutrient date (ie. allow the spreading of manure by the middle of February); another idea offered to allow the harvesting of small grains was to not allow fall fertilization and delay the spring application to Feb 15 through March 15
d. extend and go to regional based planting dates (at least two zones of North and South)
e. look into the possibility of the state contracting with custom no-till operators
f. allow the harvesting of cover crops (ie. by spring the cover crop has done its job)
h. if the state want to increase ethanol production, barley planted as cover crop and then harvested for an input in the ethanol process would be beneficial
i. go to a two-tiered payment plan: half of the payment in December and the other half in March (but this second payment could be forfeited by the farmer if he decides to apply fertilizer/harvest cover crop)
j. make the program a first-come-first-serve one that allows later entry of farmers into the program but not at the expense of those farmers that

signed up early; if acre participation is lacking, pay farmers for the number of acres they have planted cover crops on that exceed the 250 acre limit or increase the payments for the acres enrolled; in other words there was a desire that the program use all of its available funding
h. a recognized best management principle is spreading manure in the fall on small grains; the program should follow this practice
i. increase payment to $40 per acre for planting that occurs before October 20
j. allow sign-up after planting has occurred; money would be pro-rated if the number of acres enrolled exceeds funds available
k. don't require 80% germination seed; use lower percent germination as long as the stand can be verified

Charlotte Hall, MD

a. this group did not have as lively a discussion about the process vs. results based plan as other groups; one positive of going to the results based was that it would free farmers from the 80% seed germination requirement (ie. put on more seed with a lower germination rate); the issue of geese "eating up your performance" was again raised; district staff worried about more demands with fewer resources/personnel
b. the idea of allowing planting dates to be extended from 10/15 to 11/15 with the condition that the farmer would have to pay $1 an acre for inspection did not enjoy a great deal of support; Oct. 15 to Nov. 15 was viewed by farmers as "the ideal time to plant wheat" so why should they be penalized for planting at the appropriate time?
District staff worried about the administrative/time costs for inspecting "thousands of acres"; another potential problem of this approach was the belief that if weather problems constrict planting dates for those farmers who want to plant fall cash crops they would now enroll in the cover crop program and funding issues would arise; some participants felt there is already a performance standard with the spot checks
c. one district official presented 2002 data on the actual costs to farmers for seed, planting (no-till), and kill-down; total cost were about $44 per acre; thus the payment rates should take these costs into consideration; however concern was raised that money will go too fast if MDA pays $40-$50 per acre
d. farmers again wanted to be able to harvest grain in spring; the issue of equity was raised as farmers in Southern Maryland cannot harvest grain but farmers in Frederick can cut the grain for food for their livestock
e. extend planting dates and broadcasting season
f. increase payment amounts and allowed for the flexibility to harvest cover crop
g. increase funding to lands deemed highly critical
h. have "fair" sign-up dates; do not allow the small farmer to be squeezed out or beat to the door by large operators