



2007 Delta F.A.R.M. Environmental Stewardship Report

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A report of the B. F. Smith Foundation and the Association of
Delta Farmers Advocating Resource Management.

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INTRODUCTION

The Delta F.A.R.M. Program began operation in the summer of 1998. The organization serves the farmers and landowners of the Mississippi Delta by providing technical information on conservation practices and promoting their current conservation efforts.

Membership to Delta F.A.R.M. is free, as are the services Delta F.A.R.M. provides its members. However, members are asked to submit an annual evaluation provided by the Delta F.A.R.M. staff. The staff will also provide assistance to the membership in completing the evaluation.

The Delta F.A.R.M. evaluation serves two general purposes. First, the evaluation is used by the Delta F.A.R.M. staff to document the current non-regulatory conservation efforts of its members and give farmers credit for their efforts. Second, the evaluation identifies those areas on members' lands, which may be improved through the implementation of additional conservation measures.

ACKNOWLEDGEMENTS

Delta F.A.R.M. wishes to acknowledge the sponsors of this program. Without their support, this program or the data presented in this report would not be available.

Syngenta
Monsanto
FMC
Farmers Grain Terminal
U.S. Environmental Protection Agency
Mississippi Department of Environmental Quality

METHODS

Development.

With the guidance and support of the Delta F.A.R.M. Executive Committee, numerous State, Federal and private resource agencies helped to develop the Delta F.A.R.M. Program and its subsequent Evaluation. This group of farmers and resource agency personnel identified a list of recognized BMPs (Best Management Practices) for all types of agricultural production systems found in the Mississippi Delta. This list was utilized to establish the Delta F.A.R.M. Program Manual and the Evaluation.

The Program Manual provides detailed information on recognized BMPs advocated by Delta F.A.R.M. The Evaluation portion of the program serves to document all BMPs that are currently implemented on Delta F.A.R.M. member properties.

Design.

The Evaluation takes place annually, following a cropping season. Each Delta F.A.R.M. member submits to an Evaluation through a questionnaire. The staff also makes field visits to a number of the member's farms each year to ensure the evaluations are done properly and are consistent from farm to farm. Data is collected through the questionnaire and is analyzed to develop this document, the annual Delta F.A.R.M. Environmental Stewardship Report.

Analysis.

Each evaluation is entered into a database to form a composite data set for all Delta F.A.R.M. lands. The data yields percent utilization statistics for each recorded BMP. These statistics represent the percentage of farmers in the program that utilize a particular BMP. This statistic does not identify to what extent the BMP is being implemented, only that the BMP is being implemented at some level. Treatment area (acres) is also recorded on some BMPs to more thoroughly document the extent of BMP usage and also to track trends in conservation.

Although each farm's data is entered into a composite data set, farms are scored individually in order to recognize those producers and/or landowners who are exceptional stewards of the Delta's natural resources. All farms that score 90% or higher receive an annual Environmental Stewardship Award. Each farm is scored using a weighted system developed by cooperating natural resource agencies. Weight is given to the most important BMPs with consideration given to each BMP's economic feasibility. The weighted system is listed below.

Best Management Practice	Weighted Score
Soil Conservation Plan	10
Filter Strips (Grass or Trees)	50
Grass Waterways	25
Terraces (when needed)	10
Conservation Tillage	50
Water Control Structures	20
Residue Management	10
Sub-soiling	20
Crop Rotation	10
Containment Levees Around Fields	10
Double Cropping	10
Cover Crop	10
Maintain Natural Riparian Areas	10
Impound Winter Water on Fields	20
6/3 Water Management on Catfish Ponds	20
Straight Levee Rice/Bean Production	20
Water Testing for Drinking Wells	10
Tail Water Recovery System (irrigation)	20
Conversion from Ground to Surface Water Irrigation	20
Land Forming	20
Back Siphon Check Valves	25
Closed or Semi-Closed Mixing System	25
Precision Ag	20
Drift Reduction (Hooded Sprayers, etc.)	20
Integrated Pest Management	20
Recycle Pesticide Containers	10
Recycle Used Oil	10
Dispose of Used Batteries through Retailer	10
Dispose of Used Tires through Retailer	10
Recycle Polypipe	10
Wildlife Management Plan	10
Leave Crops for Wildlife	10
Food Plots	10

RESULTS

2007 General Statistics:

Total Acres Evaluated: 926,471
Total Farmland in Region: approximately 3.6 million

Acres Enrolled:

Acres enrolled represents all acres enrolled into Delta F.A.R.M. since inception. All acres reported have been evaluated and are broken down by crop types.

CROP TYPE:	2007 ACRES:
Cotton	189,278
Rice	79,548
Soybeans	303,419
Corn	216,173
Wheat	28,176
Milo	16,775
Catfish	15,269
Other Crops	7,106
Non-Cultivated	81,408
TOTAL	926,471

Percent Utilization:

46 Best Management Practices have been recognized by Delta F.A.R.M. and are accounted for through the Evaluation. Each evaluated data set recognizes the utilization or non-utilization of any particular BMP. As a composite, the data is then used to calculate the percentage of Delta F.A.R.M. members' who utilize a specific BMP.

BEST MANAGEMENT PRACTICE:	2007 PERCENT UTILIZATION:
Soil Conservation Plans	95.67%
Grass Filter Strips (Soil)	93.44%
Grass Waterways (Soil)	90.71%
Terracing	18.36%
Conservation Tillage	100.00%
Water Control Structures (Soil)	97.83%
Maintain Crop Residues	97.82%
Sub-Soil	92.34%
Rotate Crops	97.81%
Containment Levees Around Field	42.45%
Double Crop	51.93%
Cover Crop	48.33%
Maintain Riparian Zones (WQL)	87.84%
Hold Winter Water (WQT)	92.93%
Grass on Exterior of Catfish Ponds	100.00%
6/3 Water Management on Catfish Ponds	93.33%
Extend Drains Past the Toe of Ponds	60.00%
Seining Pads for Catfish Ponds	53.33%
Straight Levees	93.65%
Water Control Structures (WQL)	99.45%
Test Water at Wells	15.74%
Tail Water Recovery System	36.26%
Conversion from Ground to Surface Water Irrigation	26.37%
Grass Filter Strips (WQL)	91.84%
Grass Waterways (WQL)	88.52%
Water Control Structures (WQT)	95.67%
Land Form	98.36%
Pads on the Lower End of Fields	93.88%

Filter Strips Around Mixing Facilities	25.60%
Back Siphon Check Valves	57.06%
Close Mixing Systems	85.79%
Precision Applications Technologies	89.61%
Drift Reduction Technologies	99.45%
IPM	85.36%
Store Chemicals in the Proper Location	99.40%
Store Pond Additives in Proper Location	95.00%
Genetically Modified Crops	100.00%
Recycle Pesticide Containers	96.19%
Recycle Oil	97.28%
Recycle Batteries	97.29%
Recycle Tires	96.21%
Recycle Polypipe	94.28%
Wildlife Management Plan	66.30%
Leave Crops for Wildlife	92.30%
Manage or Maintain Riparian Areas	91.66%
Food Plots	93.98%
Flood for Winter Waterfowl	94.56%
Manage Wildlife Habitat	90.21%

(Soil) references practices which are associated with soil conservation.

(WQL) references practices which are associated with water quality.

(WQT) references practices which are associated with water quantity.

(Mixing) references practices which are associated with chemical mixing.

Acres Treated:

Selected BMPs can be measured in acres affected by the practice. This can be in the form of protection, prevention, or area treated. The following represents data collected, which can be accounted for by acreage.

BEST MANAGEMENT PRACTICE	2007 ACRES	% OF TOTAL ACREAGE*
No-Tillage	126,156	13.7%
Minimum-Tillage	270,730	29.3%
Reduced-Tillage	216,291	23.4%
Conventional Tillage	313,294	33.9%
Land Formed Fields	389,509	42.1%
Containment Levees	224,910	24.3%
Winter Water Acres	79,922	8.7%
Straight Levee Fields	147,853	16.0%
Tail Water Irrigation	53,939	5.9%
Surface Water Irrigation	44,982	4.9%
Ground Water Irrigation	454,345	49.1%
Wildlife Food Plots	8,720	1.0%
Timberland	63,141	6.9%
Riparian Zones	6,915	0.8%
Drainage through Grass Filters	210,044	22.7%
Drainage through WCS	319,034	34.5%

*% OF TOTAL ACREAGE = % of all evaluated acres (926,471).

2007 Overall Stewardship Level.

The annual Overall Stewardship Level of Delta F.A.R.M. reached **81.28%** in 2007. This statistic is calculated by averaging the percent utilization of all recognized BMP from all farms evaluated.

CONCLUSION

The 2007 Membership of Delta F.A.R.M., with an overall stewardship level of 81.28%, has demonstrated their efforts to conserve, restore, and enhance the environment of this region as documented in this report. And by documenting the conservation efforts of approximately 30% of all the cropland in the region, Delta F.A.R.M. feels confident that its data is representative of the conservation efforts of the entire Yazoo-Mississippi Delta.

Through this evaluation, we can now identify areas that need to be focused on in the future. Ultimately, Delta F.A.R.M. would like to reach a stewardship level of 100%, and by focusing on those weak areas, we can reach this goal. But, as additional conservation practices are implemented and the overall stewardship level increases, Delta F.A.R.M. must also work to improve and expand existing conservation practices.

