Florida Program Update

October 2021

NASCA Regional

Christopher Pettit, Director

Florida Department of Agriculture and Consumer Services

Office of Agricultural Water Policy



OAWP Responsibilities

- Development and implementation of agricultural best management practices (BMPs)
- Implementation of cost share programs
- Water supply and water quality planning and coordination
- Scientific and technical research
- Technical support and general oversight of SWCDs
- Other policy development and statutory responsibilities



Past Successes

- Implementation and enhancement of agricultural BMP Program
- Utilization of cost share programs to assist producers and protect the environment
- Accurate characterization of agricultural water and land use
- Development of top-quality research
- Development and implementation of innovative agricultural practices and technologies



Resources

- 59 positions
 - Policy
 - Finance and contracts
 - IT and Data Management
 - Field staff (25 positions)
- Contractual support provided by soil and water conservation district technicians and independent consultants
- ~\$50 million budget for FY 2021-22

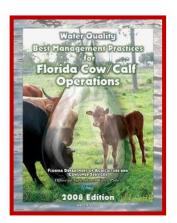


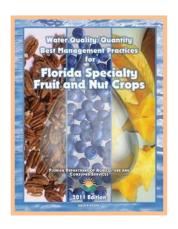
BMPs

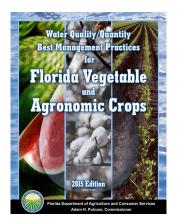
- Management strategies, tools and practices that improve water quality, conserve water, and protect water resources (Efficiency)
- Best available science and technology
- Technical and economic feasibility (Manual)
- Balance Productivity with Water Quality Improvement*
- Proper implementation confirmed through implementation verification site visits

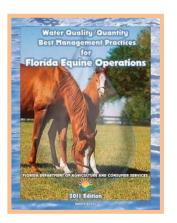


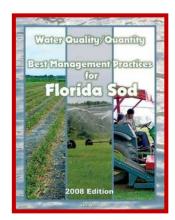
Adopted BMP Manuals



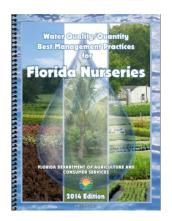


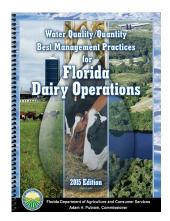


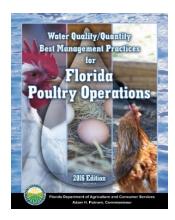


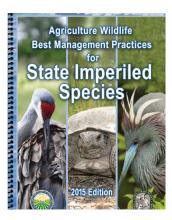












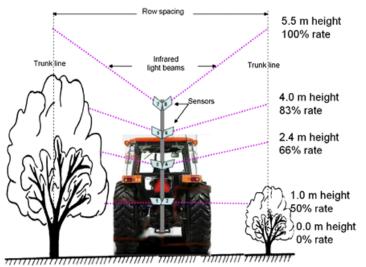


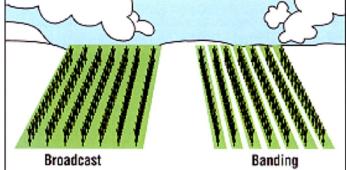
Nutrient Management BMPs

Precision Fertilization – Multiple technologies such as soil sampling on a grid or precision application equipment – reduces fertilizer inputs as much as 35%

Variable Rate Technology — Allows precise placement of nutrients to roots and

leaf tissue







Irrigation Management BMPs

- Soil Moisture Probes Reduces fertilizer and water usage by up to 50%
 provides tracking of fertilizer through soil column
- Precision Irrigation Allows placement of water close to the plant and reduces evaporation - individual valves may be guided by soil moisture probes – reduces groundwater withdrawals up to 40%



Water Resource Protection BMPs

- Surface Water Control Structures
- Buffers erosion control







BMP Enrollment and Verification

- Notice of Intent to Implement BMPs Enrollment and identification of BMPs appropriate to the specific parcel and commodity
- Implementation verification (IV) site visits
- Cost Share Projects identified at enrollment, IV, or through outreach efforts
- Referral to the Department of Environmental Protection in the event of non-compliance
- Annual Report
- Data management



Producer Options in TMDL/BMAP Areas

- Sign an NOI and properly implement applicable BMPs for presumption of compliance, <u>OR</u>
- Follow an FDEP or WMDprescribed water quality monitoring plan at a Producer's expense





SB 712



New Statutory Language in SB 712, s. 403.067(c)7(d)3, F.S.

At least every 2 years, the Department of Agriculture and Consumer Services shall perform onsite inspections of each agricultural producer that enrolls in a best management practice to ensure that such practice is being properly implemented. Such verification must include a **collection and review** of the best management practice documentation from the previous 2 years required by rules adopted pursuant to subparagraph (c)2., including, but not limited to, nitrogen and phosphorus fertilizer application records, which must be collected and retained pursuant to subparagraphs (c)3., 4., and 6. The Department of Agriculture and Consumer Services shall initially prioritize the inspection of agricultural producers located in the basin management action plans for Lake Okeechobee, the Indian River Lagoon, the Caloosahatchee River and Estuary, and Silver Springs.



Statutory Language in SB 712

Section 403.067(c)

5. Subject to subparagraph 6., the Department of Agriculture and Consumer Services shall provide to the department information obtained pursuant to subparagraph (d)3.



SB 712 language and requirements

- IV Site Visit required for all enrolled producers every two years
- Documentation is required to be provided from Producers to demonstrate proper implementation of Applicable BMPs (Collect and Review). See existing BMP manuals.
- Records are required to be retained by OAWP. (N and P fertilizer application records quantifying the amount of nutrients applied on an enrolled parcel). See NARF and associated rule amendments.



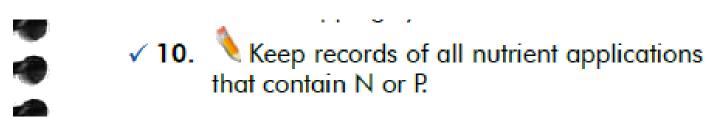
** Nutrient information obtained provided to the Department of Environmental Protection for utilization within BMAP assessment process

Existing Record Requirements for Nutrient Management

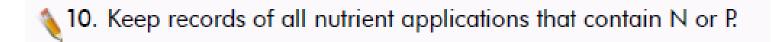
- Quantify all nutrient sources
 - Guaranteed analysis for commercial fertilizer
 - Book values, other lab analysis, supplier data for other sources
- Plan nutrient applications to match plant requirements
 - Soil and tissue testing
 - UF/IFAS recommendations are the default; some manuals have special nutrient management measures to justify alternative applications
- Keep records of sources (w/content), application rates,
 location, and timing

Current Recordkeeping Requirements

In the Narrative of the manual



In the **Checklist** of the manual







Florida Department of Agriculture and Consumer Services Office of Agriculture Water Policy

FDACS-OAWP 407 S. Calhoun Street, MS-E1 Tallahassee, FL 32399

NUTRIENT APPLICATION RECORD FORM

Rule 5M-1.008, F.A.C

| NOI Number: | | | | | I certify that the information on this form is accurate and based on those records required under the applicable BMP Manual. Print name | | | | | | |
|--|---------------------|------------|--------------------|-----------------------------------|--|---|----------------------------------|---|--------------------------|--|--|
| Producer Provided Electronic Excel Spreadsheet • Yes No | | | | | Date | | | | | | |
| No Fertilizers | Applied | | | | | | | | | | |
| | | | | | Signature of authorized contact for this NOI | | | | | | |
| Application Month | Application Year | BMP Manual | Commodity Grown | Other Commodity Description | Nutrient Source | Other Nutrient Source Description | Pounds of nitrogen applied | Pounds of phosphorus (P ₂ O ₅) applied | Crop Acres Fertilized | | |
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FDACS-04005 06/20



Final Rule Changes

- Rule 5M-1.001 (Definitions)
 - Update Definitions of "Notice of Intent" and "Enrollment" to clarify how enrollment occurs
 - Incorporate by reference General NOI form
- Rule 5M-1.008 (Implementation Verification)
 - New subparagraph identifying "collection and review" to determine proper implementation of Applicable BMPs
 - New subparagraph requiring submittal of the NARF or substantially similar records detailing the application of N or P on a subject parcel
- Rule 5M-1.009 (BMP Implementation Assistance)
 - Update for consistency with SB 712
 - Update timeframes for the implementation of corrective / remedial action



How are we doing?

| ВМАР | IVs Completed | Total IVs | Percentage | IV Acres Completed | Total IV Acres | Percentage |
|--|---------------|-----------|------------|--------------------|----------------|------------|
| Alafia River Basin | 10 | 104 | 10% | 1,960 | 6,013 | 33% |
| Caloosahatchee River and Estuary Basin | 170 | 377 | 45% | 220,358 | 583,779 | 38% |
| Central Indian River Lagoon | 89 | 249 | 36% | 34,832 | 103,839 | 34% |
| Chassahowitzka-Homosassa Springs BMAP | 60 | 113 | 53% | 9,623 | 17,238 | 56% |
| DeLeon Spring BMAP | 8 | 31 | 26% | 1,089 | 2,546 | 43% |
| Everglades West Coast Basin | 1 | 18 | 6% | 2,570 | 6,112 | 42% |
| Gemini Springs BMAP | 2 | 8 | 25% | 349 | 377 | 93% |
| Hillsborough River Basin | 8 | 58 | 14% | 2,160 | 11,013 | 20% |
| Jackson Blue Spring | 142 | 231 | 61% | 27,469 | 37,592 | 73% |
| Kings Bay and Crystal River Springs | 20 | 27 | 74% | 2,865 | 3,094 | 93% |
| Lake Harney, Lake Monroe, Middle St. Johns River and Smith Canal | 9 | 29 | 31% | 9,320 | 10,299 | 90% |
| Lake Jesup Basin | 7 | 49 | 14% | 705 | 6,078 | 12% |
| Lake Okeechobee Basin | 1,153 | 2,341 | 49% | 509,866 | 1,377,599 | 37% |
| Long Branch | 1 | 1 | 100% | 229 | 229 | 100% |
| Lower St. Johns River Basin Main Stem | 105 | 300 | 35% | 27,365 | 78,673 | 35% |
| Lower St. Johns River Basin Tributaries I and II | 2 | 4 | 50% | 54 | 1,074 | 5% |
| Manatee River Basin | 2 | 5 | 40% | 653 | 1,186 | 55% |
| Middle and Lower Suwannee River Basin | 588 | 1,345 | 44% | 119,483 | 297,142 | 40% |
| North Indian River Lagoon | 3 | 14 | 21% | 137 | 333 | 41% |
| Orange Creek | 110 | 209 | 53% | 21,033 | 33,903 | 62% |
| Rainbow River and Springs | 305 | 471 | 65% | 62,038 | 121,670 | 51% |
| Santa Fe River Basin | 377 | 770 | 49% | 75,701 | 141,039 | 54% |
| Silver River and Springs | 249 | 349 | 71% | 31,742 | 48,418 | 66% |
| St. Lucie River and Estuary Basin | 206 | 448 | 46% | 137,864 | 276,917 | 50% |
| Upper Ocklawaha River Basin | 150 | 346 | 43% | 11,830 | 24,198 | 49% |
| Upper Wakulla River and Wakulla Spring | 21 | 108 | 19% | 5,876 | 20,392 | 29% |
| Volusia Blue Springshed | 3 | 6 | 50% | 84 | 125 | 67% |
| Wacissa River and Wacissa Spring Group | 55 | 85 | 65% | 19,352 | 24,311 | 80% |
| Weeki Wachee Spring and River | 61 | 91 | 67% | 20,901 | 29,413 | 71% |
| Wekiva River, Rock Springs Run, and Little Wekiva Canal | 111 | 276 | 40% | 4,852 | 9,806 | 49% |
| Wekiwa Spring and Rock Springs BMAP | 62 | 167 | 37% | 2,229 | 4,254 | 52% |
| Total | 4,090 | 8,630 | 47% | 1,364,587 | 3,278,663 | 42% |



Scientific and Technical Research

- Scientific and technical foundation for BMP development and improvement
- OAWP Research Priorities
 - https://www.fdacs.gov/Agriculture-Industry/Water/Agricultural-Best-Management-Practices/BMP-Research
- Research Plan Development (SB 712)
 - Collaboration with UF/IFAS, other research universities, state colleges with an agricultural program
 - Solicitation published February 2021, Proposals received by June 1
 - Coordination with FDEP
 - Legislative Budget Request



Emerging Issue: Rate Research v. Efficiency of Management in BMP Manual Implementation

Other OAWP Policy Issues

- Central Florida Water Initiative Water Scarcity
- NW Florida Springs MFLs (DEP, SJRWMD, SRWMD)
- LOSOM Lake Okeechobee System Operations
- Comprehensive Everglades Restoration
- Wildlife Species
- Conservation Lands
- Public Goods / Payment for Environmental Services
- Regional Water Supply Planning and Land Use
 - FSAID
 - ESRI GIS



Emerging BMP/Policy Issues

- Clarity in Existing Recordkeeping
 - Electronic v. Traditional
 - Forms and Templates
- IV Site Visit Efficiency
 - Technical Assistance
- Enrollment/Land Use Classification
 - State owned lands
 - Leases
- Diversified Operations
- Human Resource Needs
- Coordinating Agency Agreements (SB 712 and Northern Everglades)



Cost Share Programs

- \$\$\$\$ Needed with emerging trends
- Prioritization
 - "Bang for the buck"
 - Targeted areas
 - Economic feasibility
- Collaboration and Leveraging
 - Water management district programs
 - Statutory requirements as a collaborative agency
 - Federal agency programs (Natural Resources Conservation Service USDA)







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- Enrollment/Land Use Classification
 - State owned lands
 - Leases
- Diversified Operations
- Human Resource Needs LBR for 27 additional positions
- Coordinating Agency Agreements (SB 712 and Northern Everglades)



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What's Next?

- Efficiency and Nutrient Reduction
 - Nutrient Reduction Plan or Similar
- Cost Share Improvements
 - Prioritize
 - Improve tracking and data management
 - Possible Rulemaking
- Efficiency in Contracting
 - MILs
 - Technicians
 - Cost Share
 - AFCD
 - Fiscal Year Begins July 1



Thank You!

http://www.fdacs.gov/Divisions-Offices/Agricultural-Water-Policy

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