Florida’s Nitrogen BMP Program and Associated Grower Record Keeping Requirements

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Many growers have heard about Florida’s nitrogen best management practices (BMPs) legislation but have questions about specific details of this legislation, benefits of participation in the program, and record keeping requirements associated with this voluntary program. The goals of this article are to explain the purpose of the nitrogen BMP bill, list potential benefits for growers who participate in the program, offer an explanation of the details of the program that relate directly to growers, provide information about record keeping requirements, and list sources of further information about BMPs and this program.

Purpose:

According to Florida Statutes, section 576.045 (1) (b) — “It is the intent of the Legislature to improve fertilizer-management practices as soon as practicable in a way that protects the state’s water resources and preserves a viable agricultural industry.” Furthermore, “This goal is to be accomplished through research concerning best-management practices and education and incentives for the agricultural industry and other users of fertilizer.”

Some potential benefits to growers from adopting irrigation and nutrient BMPs:

1) Reduced fertilizer costs – Research on numerous crops has shown that fertilizer application rates can often be reduced significantly with no adverse effects on crop yield or quality. For example, research and field trials have shown that leatherleaf fern growers can reduce their nitrogen fertilizer application rates by 50% or more compared to industry averages with no reduction in crop yield or quality. This reduction in fertilizer costs translates directly into reduced production costs and increased profitability.

2) Reduced irrigation costs – Irrigation and nutrient management go hand-in-hand and, therefore, proper irrigation management is a key component of best management practices.

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By irrigating only when necessary and applying only the amount of water needed to bring the growing substrate back to container or field water-holding capacity, irrigation run times can be minimized. This saves fuel costs and wear and tear on irrigation system equipment.

3) **Reduced pesticide washoff and shorter foliar wetting times** – By applying less irrigation water, growers can minimize pesticide washoff and thereby maximize the effectiveness of foliar pesticide. In addition, minimizing the duration of time that the foliage remains wet can help reduce disease development.

**Benefit to growers of participating in Florida’s nitrogen BMP program:**

1) **Reduced liability** – Growers who (a) sign up for this voluntary program with Florida’s Department of Agriculture and Consumers Services (FDACS), (b) implement the prescribed BMPs, and (c) comply with the record keeping requirements of the program will not be held liable “for any costs or damages associated with the remediation of drinking water wells contaminated with nitrate from the application of materials containing nitrogen”. This provision relieves growers who follow the BMPs from the traditional liability for ground water cleanup as described in Florida Statutes, section 376.307(5). This waiver of liability only provides protection from the State of Florida and does not protect growers from actions taken by other entities such as neighboring landowners.

**Program details:**

1) In order to participate in Florida’s voluntary Nitrogen BMP Program, each grower must send a letter of intent to participate to FDACS. An example letter is provided on page 5. If you have more locations to include in the program than there are spaces provided in the sample letter, simply attach a list of those additional locations to your letter of intent.

2) After having signed up for the program, participants must use the approved irrigation and nutrient management practices outlined in the Nitrogen BMP Program (see Additional Information Sources listed at the end of this article). These practices include:
   (a) Measuring irrigation system water application rates.
   (b) Determining the available water-holding capacity of the growing substrate.
   (c) Scheduling irrigation using measurements such as those provided using tensiometers or other appropriate methods (calendar-based scheduling is not acceptable).
   (d) Applying only the amount of water needed to replenish available water in the crop root zone.
   (e) Applying nutrients, nitrogen in particular, according to research-based guidelines. For leatherleaf fern, these guidelines are summarized on page 19 of Bulletin 300 (see Additional Information Sources at the end of this article).

3) Growers must keep irrigation management and nitrogen application records for each location included in the letter of intent. These records should include:
   (a) Date of application.
   (b) Soil water potential measurements or soil water budget ledger.
   (c) Water meter readings before and after running the irrigation system.
(d) Reason for running the irrigation system (for example, chemigating, cold protecting, fertilizing, replenishing growing substrate water, or maintenance of the system).

(e) Analysis and amount of nitrogen-containing fertilizer applied.

An example record keeping form appropriate for use when using tensiometers as the method of scheduling irrigation events is provided on page 6.

Summary: Florida's Nitrogen BMP Program is designed to encourage growers to voluntarily adopt irrigation and nutrient management practices that can save them money and protect the environment. Besides increased profitability, the waiver of liability is in itself a compelling reason to sign up for this program. Hopefully this program will become a model for future voluntary programs designed to develop additional improved farming methods that help protect the environment.

Additional information sources

BMPs, Nitrate BMP Program approved — Irrigation and Nutrient Management Practices for Commercial Leatherleaf Fern Production in Florida, University of Florida's Institute of Food and Agricultural Sciences' Cooperative Extension Service's Bulletin 300. Available through county extension offices or from Dr. Robert Stamps (2807 Binion Road, Apopka, FL 32703-8504; 407/884-2034; rhs@icon.apk.ufl.edu).


Notice of Intent

Bureau of Compliance Monitoring
Fertilizer Section
3125 Conner Boulevard
Building ME-1
Mail Drop L-33
Tallahassee, Florida 32399-1650

We will comply with the Nitrogen Interim Measure for Citrus dated December 1, 1995 or the Nitrogen BMP for Shadehouse Grown Leatherleaf Ferns, IFAS Bulletin 300, published February 1995, and will commence to follow the BMP as of 

_____________________________ Date

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Property Address: ________________________________
Property Location: ________________________________
County Name: ________________________________

Applicant’s Mailing Address (Please print legibly):
Name: ________________________________
Address: ________________________________
City/State: ________________________________
Phone number: (______) ________________________________

Signature(s) of Landowner(s)/Leaseholder(s)
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