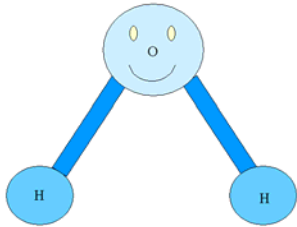


# Water Ways

Indian River County Extension Service Water Quality Program

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**Hydro the Water Molecule**

## PUTTING A STOP TO EXOTIC PLANTS

Florida is under attack! Exotic plants are invading our natural areas, waterbodies, and parks. According to the Florida Exotic Pest Plant Council, “an exotic plant is a plant that has been introduced to an area from outside its native range, either purposefully or accidentally.” You may not realize it, but exotics may be in your landscape! What is so bad about that? When these exotic plants become established, they may take over and crowd out native plants because the natural predators that keep the exotic plant in check are not present. An example is the Australian pine. This fast growing exotic is extremely aggressive by sterilizing the soil, which makes it unsuitable for growth of other plants. Since it is tall, it shades out native plants that require adequate amounts of sunlight, and native wildlife suffers because the pines do not produce a food source for them. Finally, Australian pines alter the environment by using more water than native plants, which may decrease water resources. Although an exotic plant may be appealing, it may be harmful because they can escape into natural areas.

Exotic species negatively impact our economy as well. The State of Florida spends millions of dollars each year to control these species. Waterways can become clogged with exotic aquatic plants, which make them impassable. This impacts recreational boating, commerce, and commercial fishing. Funds are spent to control exotic species in natural areas to preserve their functions and value.

You can help stop this phenomenon by planting native species in your landscape. Native plants are more energy efficient because they require less irrigation and fertilization since they are adapted to the soils, temperature, and rainfall patterns of the area. In addition, maintenance is low because native plants are resistant to pests and diseases that evolved along with them. To gain these benefits, it is necessary to do some research because the right plant needs to be in the right place. For example, a sweetbay tree that likes a lot of light should not be planted in a shading area of the lawn. Your local extension service is a good place to start researching the best native plants for your situation.

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### HYDRO’S WATER TIP

Check your sprinkler system regularly and adjust sprinklers so only the lawn is watered.



### DID YOU KNOW...

In a 100-year period, a water molecule spends 98 years in the ocean, 20 months as ice, about 2 weeks in lakes and rivers, and less than a week in the atmosphere.

## EXOTIC PLANTS (continued from page 1)

In order to be successful in establishing native plants, there are several things that should be done:

- Remove any exotic plants from your lawn or at least the fruits.
- Determine the soil type.
- Find out what nutrients are already present in the soil, which can be done by submitting a sample to the University of Florida/IFAS Soil Testing Laboratory.
- Survey your yard for areas of standing water, areas of salt spray,
- Based on your findings, select appropriate native plants.
- Plant the plants and watch them grow!

By establishing native plants in your landscape, you are helping slow down the invasion of exotic plants. But you don't have to do it alone; your local extension service can assist you throughout this process.

## FLORIDA'S NON-NATIVES

Florida's climate makes it a perfect place for exotic species from tropical areas to find a home. According to the University of South Florida, about one-third of all the plants growing wild in Florida are non-native. Here are just a few:

- Brazilian peppertree
- Carrotwood
- Melaleuca
- Waterlettuce
- Mexican petunia
- Tropical soda apple
- Hydrilla
- Water hyacinth
- Australian pine
- Chinaberry



Mexican Petunia

Descriptions and other information about these and many other exotic species can be found through the Florida Exotic Pest Plant Council (<http://www.fleppc.org>) and UF/IFAS Center for Aquatic & Invasive Plants (<http://plants.ifas.ufl.edu>).

## WATER AND EXOTICS

Native plants aren't the only things affected by exotics, our water bodies are also negatively affected. These are a few examples:

Water hyacinth and waterlettuce grow so quickly and densely that they clog water bodies, which causes navigation and recreational problems.

West Indian Marsh Grass spreads rapidly from dense mats and reduces the amount of light that is able to reach submerged aquatic plants. When the plant dies, it increases the amount of decaying vegetation which reduces oxygen levels in the water.

Melaleuca trees use so much water that they can dry entire swamps. It also grows in dense stands where no other plants can survive. This negatively impacts wildlife because the trees provide little food.



Melaleuca

## PESTICIDE NOTES

### Training

Mark your calendars.

The University of Florida/IFAS is sponsoring Right-of-Way and Aquatic Pesticide Applicator Training that will be held October 16-18, 2007 in Panama City, Florida. You can earn up to 12 continuing education units (CEUs) in these categories:

- Aquatic
- Right-of-Way
- General Standards (CORE)
- Natural Areas

A representative from the Florida Pesticide Certification Office will be available to answer questions regarding CEUs and Florida licensing requirements.

Registration, conference agenda, and hotel information can be found at <http://conference.ifas.ufl.edu>.

### Biopesticide/Organic Website

The Interregional Research Project No. 4 (IR-4) announced in mid-May the launch of its biopesticide/organic database on the IR-4 website: [www.ir4.rutgers.edu/Biopesticides/LabelDatabase/index.cfm](http://www.ir4.rutgers.edu/Biopesticides/LabelDatabase/index.cfm) The database, which is searchable by crop, pest, and state, will assist commercial and home growers of specialty crops. Specialty crops include fruits, vegetables, ornamentals and turf, but IR-4 also includes minor pests that are found on major row crops in this database. IR-4 Biopesticide Manager, Dr. Michael Braverman explained, "This project was conceived out of the observation that most growers or homeowners were unaware of the variety of today's biopesticides. There are a few biopesticides that show up on conventional product websites, but there isn't a database for just biopesticides and organics."

(IR-4 Release, 5/17/07 as cited in UF/IFAS Chemically Speaking, June 2007).

## WELCOME

The University of Florida Indian River County Extension Service group has grown with the addition of Holly Mixon. Holly is the new Environmental Horticulture agent and will be coordinating the Master Gardener program in addition to educating county residents about landscaping, plants, and turfgrass.

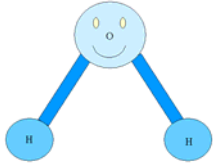
Please welcome Holly to the extension family.



## POND APPEAL TIP

There are some things you can do to help prevent algae from becoming a problem in your pond.

- Don't over fertilize. Follow University of Florida recommendations for your particular grass species.
- When fertilizing near a pond, leave a "Ring of Responsibility" at the water's edge. This is an untreated area of at least 5 feet.
- Properly irrigate. Irrigate 2 times per week from March to October and 1 to 2 times every 2 weeks from November to February. Apply 1/2 to 3/4 inch of water during irrigation.
- Make sure grass clippings do not blow or get tossed into the pond. This includes not sweeping or blowing grass clippings into the street.



## HYDRO'S KIDS PAGE

### HYDRO'S WATER CYCLE JOURNEYS - ALGAE ON A DIET

In my last column, I told you about Algae. She is a tiny plant that lives in water. She eats nutrients. When there are a lot of nutrients in the water, she grows very big. When Algae gets too big, she blocks the sunlight from reaching plants that live on the bottom of the pond. These plants can't grow without sunlight.

Algae said that the best way to help her not grow so much was to keep nutrients from coming into water. She told us about some ways.

First, do not throw grass into the water. It has nutrients in it that will get into the water.

Second, do not put fertilizer in the water. When fertilizer dissolves in the water, it lets go of nutrients like nitrogen and phosphorus.

Third, plant native plants. They don't need a lot of fertilizer.

Fourth, do not over water the lawn. Too much water is bad for the grass and washes away fertilizer. This fertilizer goes into the pond or other water body.

Algae gave me some great tips!

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### PUZZLE TIME

Can you think of some other ways to keep nutrients out of the water?

- 1.
- 2.
- 3.
- 4.

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Visit Our Web Site  
[http://indian.ifas.ufl.edu/waterquality/water\\_quality.htm](http://indian.ifas.ufl.edu/waterquality/water_quality.htm)

### UPCOMING EVENTS

Date/Time	Event	Location
July 14	Water Lily Celebration	McKee Botanical Garden, Vero Beach
July 28 10am-11:30am	Rain Barrel Workshop	IRC Extension Office <i>Pre-registration required*</i>
August 10 8:30am-12:30pm	CORE Training	IRC Extension Office <i>Pre-registration required*</i>
September 21 9am-4pm	Limited Certification Training (new license only)	IRC Extension Office <i>Pre-registration required*</i>

**\*To pre-register for classes and workshops, please call (772) 770-5030.**

*St. Lucie County Extension is also offering pesticide applicator training classes. Call (772) 462-1660 for more information.*

If you have any questions about the upcoming events or anything in this newsletter, please contact Janet Bargar at the University of Florida/IFAS Indian River County Extension Service.

The enclosed material is provided as one of the many services to the educational programs offered by this agency. Our statewide network of faculty is prepared to provide current information on food, agriculture, marine, and natural resource science, energy, nutrition, family and 4-H youth, community development, and related fields. We will be happy to help you with additional information upon request.

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