# WATERWORKS

NYSFOLA

New York State Federation of Lake Associations, Inc. $1.50 per copy October 1999


## Algae Control Using Barley Straw

*by Ed Molesky*

There is a lot of talk between lake professionals and lake owners about the use of barley straw to control nuisance levels of planktonic (free floating) and filamentous algae. This article provides some insight about how barley straw works; some current philosophies on how to apply it and how much to apply; and some areas of concern regarding its use.

Although the exact manner in which barley straw controls algae is not fully-proven, below is one of the more plausible explanations as cited in the literature. Barley Straw placed in water begins to decay and during this process, lignins are released from the barley cell walls. If there are high levels of dissolved oxygen, lignins can be oxidized via bacteria to produce humic acids and other humic substances. In the presence of sunlight, hydrogen peroxide is produced from various humic substances. Low levels of hydrogen peroxide in aquatic systems are believed to inhibit the growth of algae. Peroxides are very reactive in solution and will only last for very short periods of time. However, when high dissolved oxygen levels and sunlight are present, the continuous decay of barley straw provides a sufficient level of humic substances which are then converted to hydrogen peroxide. The use of barley straw does not kill algae, but appears to limit the growth of new algal cells (IACR Centre for Aquatic Plant Management, UK).

For barley to work properly, it must remain near the surface of the water body (e.g., within the photic zone where algal growth and reproduction is occurring). The surface waters must contain high concentrations of dissolved oxygen and have good sunlight penetration. Therefore, the trick is to keep the barley straw suspended in the photic zone using floats and some type of device to contain the straw, such as netting. Within the netting, the straw cannot be packed too tightly or it will go anoxic (low levels of dissolved oxygen). Some current research indicates that barley straw application rates may range from 80 to 200 pounds per acre depending upon the clarity of the water. Applications re typically applied in the spring prior to the occurrence of any algal blooms and in the fall (IACR Centre for Aquatic Plant Management, UK).

*Continued on page four*

*NYSFOLA's mission is to protect the water resources of New York State by assisting local organizations and individuals through public dialogue, education, information exchange and collaborative efforts.*

## *from the* President

Dear members,

As I sit down at my *computer* to write a letter for this issue of Waterworks, my thoughts go to "change." In less than three months, we shall have to drop "19" and use "20" instead. How long will it take us to make this "new" number part of our thinking? How else are we being asked to change our daily lives? How have *computers, e-mail, the Internet, web pages, cellular phones, instant access* affected our lives and our vocations and avocations? I assume the answer is different for each one of us. These tools have also affected NYSFOLA and the role it plays in our lake activities.

Let me cite the boxed statement on the first page of this publication -- NYSFOLA's Mission: **"to protect the water resources of New York State by assisting local organizations and individuals through public dialogue, education, information exchange and collaborative efforts."** Much of NYSFOLA's activities have centered around information exchange -- our '800' number, our annual conference, our Scientific Advisory Board. I'm sure the *Internet,* with its wealth of information, has reduced the need for calls to our office. With the *Internet and web pages* everyone can be his/her own expert and cite all kinds of authoritative information.

We certainly will do our best to continue to improve our annual conference with its opportunity to discuss our questions/problems with others face-to-face. We plan to make the conference better and better. We will also continue to be available to provide answers to questions and act as an information repository. However, NYSFOLA must "change" in the 21st Century, if only to fulfill our mission better.

We have increased our advocacy while recognizing that not all members are of one mind. We have increased our visibility as the New York Chapter of the North American Lake Management Society making elected and appointed officials aware of the importance of our lakes. We are looking for grants to continue our lake management plan development program and our pollution control projects.

What else can we do for you, the lake associations that are our reason for existence? Please let me know so I can bring it up with our dedicated Board of Directors. Just *e-mail* me with your thoughts at *lns22@cornell.edu.*
Happy 2000!!

Lewis N. Stone, President

*Points of view expressed and products advertised herein do not necessarily reflect the views and policies of NYSFOLA or its members. Mention of trade names and commercial products shall not constitute an endorsement of their use.*



**WATERWORKS-**
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# Does Fred Barlow know how to winterize his camp?

Fred Barlow's next door neighbor John asked, "how did you and your family enjoy your first summer here at the lake?" Fred was quick to respond, saying, "we all had a fabulous time. My three kids were busy almost every minute of every day, swimming, canoeing and fishing, which freed up my wife to soak up some sunshine while catching up on her reading and puttering in the garden."

"I drive my car to work on Friday and at 5:00 P.M. drive directly here. I have three weeks vacation and took two in July when the days are longer and used the balance in three day weekends. I don't think there is anything more gratifying than my whole family spending a quality time summer vacation at our own fresh water lake camp."

"By the way, we are planning on coming up for the last time next weekend to close up for the winter season. I brought up two gallons of Prestone® Anti-freeze to put in my traps and toilet to prevent a freeze-up and broken plumbing. I'm also going to put a cupful in the clothes and dishwasher. I'm really proud of myself for thinking ahead."

John said, "hold it right there Fred, Prestone® anti-freeze will prevent water from freezing, but in the spring when you turn your water on again all the Ethylene-Glycol base which is not biodegradable will end up in your septic system and ultimately may leach into the lake. Let me show you what I and most of the summer families use." John showed Fred a gallon of Winter-Fresh® -50 RV anti-freeze, by Camco. "I'm not promoting this product but it is the only one I'm aware of, however I'm sure other brands are equally good."

"When you turn your water off for the winter Fred, make certain that you open all your hot and cold faucets so that gravity will drain them completely. Don't forget to drain your hot water heater. Your outdoor hose bib may be the lowest drain and should be left open. All your water pipes should be slanted so that they will not hold any trapped water. If not, you may need a plumber to blow any remaining water out with air pressure."

"Thanks John for the winterizing tips that I'm certain if unheeded would cost me big bucks and lots of aggravation. I've got one last question that hopefully you can come up with the answer. My wife uses a chlorine type product to bleach the grass stains and dirt out of the children's clothing. Would this chemical be a danger to my septic system?" "No problem with normal use Fred, however chlorine used for pools is about 6 times stronger and could damage your septic system, and the same applies for water drained from pools."

"Thanks once more John, see you in the spring!!"

*presented by Robert Roessle*

**Travel the Internet with us!!! For all the computer buffs it is possible to contact the NYSFOLA Office by E-mail. We try to check the mail box every day for messages or questions that you have. We can be emailed at ;- fola@cecomet.net or: fola@nysfola.org**
**or check-out the NYSFOLA homepage at;- http://www.nysfola.org**
**NALMS can be reached at: www.nalms.org**

*From page one*

## *Algae control using Barley straw*

There are a number of concerns regarding the use of barley straw for algal control. Some of these concerns are as follows:

1. How much nutrients are released via barley straw decomposition? If the use of straw is eventually discontinued, will increased nutrient levels in lakes result in even larger algal blooms and high quantities of filamentous algae?

2. To what extent does the use of barley straw affect in-lake dissolved oxygen levels?

3. Does the release of anti-algal chemical inhibitors released by barley straw have adverse or detrimental impacts on other aquatic organisms, such as fish and aquatic insects?

4. What are the optimal application rates of barley straw for algal control?

In any event, the literature does indicate that the use of barley straw does actually inhibit the growth of algae. But remember, there are a number of concerns regarding the use of barley straw that still need to be fully investigated before it becomes routinely used as a safe in-lake management tool.

***Editors note:*** There are articles about barley straw on the internet and an excellent location is:

http://www.execpc.com/~aqsys

At this location much information is available on all forms of lake management.

Steve LaMere also sent us an article on this same subject and I even saw it in a magazine article about backyard waterponds. A firm in the Canandaiqua area also sells straw wrapped in netting for that application.

Ed Molesky is President of the Pennsylvania Lake Management Society (PALMS) and has been to our conferences many times. PALMS is also a chapter of NALMS. You can contact Ed at: emolesky@erols.com

## Why do geese attack me? Why don't they leave me alone?

Canada geese usually start choosing mates and selecting a territory for nesting in late February to early March. The females start laying eggs anytime from mid-March to mid-May. Incubation by the female begins as soon as all her eggs are laid. The gander's job during nesting season is to defend the female, their nesting territory and eggs. If a person or another goose enters the territory, the gander will usually give a warning call to the intruder before chasing it away. Some geese can be very aggressive and will only stop their attack when the intruder has left or the goose's life is threatened.

# There are no white lines for jet skis

I mentioned to a friend of mine, who lives in a lakeside cottage on weekends, that the worst may be yet to come.

In this case the worst may involve those high-powered whining mean machines known as jet skis. Watercraft engineers built them to cruise at high speeds, weave "S" turns, and leave behind them a wake guaranteed to bounce nearby boaters and swimmers.

Pennsylvania and New York water control agencies have moved rather modestly in throwing a lasso around the jet ski cowboys. Not true of some southern states such as Florida, where accidents have forced officials to tighten up licensing and training of jet ski operators.

Jet skis have two major problems. They are built for thrill-seeking and pushing the edge of the safety envelope.

Also, operators are so young they are without much fear and knowledge of potential consequences of crashes. Jet ski drivers let their thrill-seeking emotions override safety precautions. For that matter there is little to guide the jet skiers other than possibly a police patrol cruising by.

Motorcycles also are pretty dangerous vehicles but they at least have a white line in the middle of the highway to leave a dividing line between vehicles.

There are no white lines on lake waters.

This leaves a novice jet skier to his own whims and desires as to where he wants to take his high-speed craft. Put 50 jet skis out on a lake and it is not beyond probability that you might have 50 traffic patterns ripping and roaring over a placid lake on a quiet Sunday afternoon. The odds are, without tightening of watercraft rules and licensing, there will some day be a high-speed crash involving a jet ski on a nearby lake.

Looking back and laying blame is of little good at that time. Looking ahead and putting a check rein on those powerful engines might be good for starters.

A comparison of learning to drive an automobile is found in private training schools years ago which had governors on their training vehicles. They took them off when they thought the embryo driver had progressed into a personal safety zone.

Would governors work on jet skis? Probably not. Lobbyists for the manufacturers would work hard to see they never became part of our laws.

*Editor's note: This is a reprint of a* ***Viewpoint*** *by George Sample in the Corry Journal, July 31,1999.*

"WATERWORKS" would appreciate information on your Lake Association. I plan to have a page set aside each issue for a different Association. Let's make yours next! Forward your write-up to the office by mail, fax, E-mail or pony express, but start now.

# Ask Dr. Lake

***Just how "normal" is algae?. Frankly, my little lake in the southern part of the state turns greenish at the end of the summer, and it doesn't look like the swimming pool water quality which I want to swim in. Isn't there some way to treat it so it is crystal clear all summer? By the way, my children love watching the turtles, birds and frogs near the water's edge.***

It sounds like you want to have your lake and treat it too! You may have the best of both -- a clear lake in spring and early summer to enjoy good swimming and the fishing and wildlife which require that green stuff to live.

***So, what's the link here?***

Algae. Phytoplankton (algae) is the bottom part of the food web platform - the primary producers and support system, for life at your lake. Phytoplankton is a remarkable life form - - it has "plant " characteristics, in that it is autotrophic, producing its own food, (not eating others) via the photosynthetic process of using sunlight and nutrients in the water. Freshwater algae is categorized into several groups with almost 500 types of species of algae noted as important as to their occurrence in water, for various reasons. There are many kinds of algae, but more on that later.....

Algae is needed at your lake because it provides food for small life, zooplankton, the primary consumers - those little bugs which in turn are food for the invertebrates (having no skeletons) which are food for little fish, and so on up past the food web of frogs, turtles, and the bigger fish. In fact, a well balanced ecosystem can self-regulate itself, with good balances between zoo- and phyto- plankton populations. This gives the clear water periods you describe, and the cycles when the plant (phytoplankton) population peaks, and (ideally) followed by the rush of zooplankton enjoying their feast! While the absence of phytoplankton may make for a lovely clear swimming pool, it has serious implications for a lake's variety of life. For example, acid rain has lowered the pH of some Adirondack lakes to levels which most often do not support small life, with loss or changes in types of phytoplankton species and plant species-- as well as to the trout. Another example: consumption of algae by zebra mussels may have "cleared" those lakes, but with the resultant loss of an important food source for fish and other animals. But of course, "blooms" can indicate problems of accelerated eutrophication at the lake, too, but ....we'll deal with one thing at a time here.

***So we need some algae and it sounds like there's a lot to know about algae. You talk about diversity-but it all looks green to me. I'm curious how so many types can live together in my lake. Is this diversity good?***

Yes I'll give you some general basic information, but keep in mind, this is an adventuresome scientific field with new observations and findings always on the horizon (or under the scope!)

The phytoplankton communities in your lake are very diverse, comprised of hundreds of species within the major groupings, all having varying needs for nutrients, temperature and light. For instance, species in the Diatom group, which are abundant in the spring and become less proportionate in summer, require silica for their cell walls. Chlorophyta (green algae) (as you note, so visible in mid summer) have cell walls composed of cellulose. Some Cyanobacteria (blue green algae) have little to no need for nitrogen in the water, being quite capable of "fixing " it themselves by taking nitrogen from the atmosphere to use in photosynthesis, and are more limited by the availability of phosphorus. (That's why when phosphorus is more available in the water, the blue greens, if present, *and* with other right conditions, may proliferate and "bloom". ) Different types of algae appear at different times of the season reflecting their

continued next page

temperature (and nutrient) needs. When the lake warms over summer, green algae (*Chlorophyta*) take advantage of the greater amounts of nutrients, particularly nitrogen and the nice warm water, (like us humans!) and become a larger proportion of the overall algae population. Actually, the presence of some green algae species may help to inhibit growth of other blue greens. But maybe more about that another issue.... When nitrogen levels fall and phosphorus becomes more available Cyanobacteria, or blue green algae may move on in for the season, if other conditions are right. As a matter of fact, excess phosphorus alone often is not enough to cause a proliferation of algae.

***This sounds interesting, but a little complicated. If they require different things to live, they must look different. What do they look like? How do they move?***

Under a microscope, they really look like something from the Metro museum of art, and you can see up close their different and ingenious physiology. Some web sites offer nice pictures....start with www.microbeworld.org/mlc .. But aside from the 'beauty of nature' part...This life form is also really remarkable in how they can move in the water (or rather, slow their descent in the lake). Phytoplankton can be somewhat mobile, for just being a 'plant" and indeed they don't exactly fit plant characteristics in spite of their greening ability. Some can move around, trying to bump into what they need by changing their density; some species of algae can adjust their cell walls, giving them buoyancy as they move up and down in the epilimnion (warmer, upper layer of the lake), in "search " of their nutrient needs. Some, particularly the blue green algae, are able to use their gas vacuoles (tiny pockets or holes, within their cell walls) to move a little in the epilimnion, in response to changing environmental conditions. Some algae are actually flagellated, that means they have little tiny 'propellers' or hairs on the outside of their cell walls which aid them moving to a better niche in the water column to help their survival. Some just rely more on luck, floating with changing upper currents, which may enable them to lengthen their otherwise short life span.

***How can I find out more about the algae in my lake?***

Algae can be measured several ways. Perhaps the simplest way is to take Secchi disk readings periodically over the summer. The depth at which the disk disappears from view is a measure of water clarity, which in many New York lakes is related to the amount of algae in the lake (unless you have one of New York's highly tea- colored lakes). The CSLAP - Light program offers this method of measuring clarity. For most lakes participating in the full CSLAP program, chlorophyll *a,* a pigment found in all green plants, is analyzed twice a month to estimate the total amount of algae in the lake. When used in conjunction with nutrient (phosphorus) measurements, Secchi disk and chlorophyll a readings can help assess the trophic status (productivity) of the lake. That is why these three are an important part of the CSLAP summer sampling program.

Of course, this does not tell us about the variations in the population of this important aspect of lake life. A microscopic phytoplankton analysis can provide a profile of algae which may be indicative of pollution (taste and odor ) problems, or pristine conditions, but such analyses are best conducted by trained biologists with the laboratory tools necessary to isolate these microscopic plants.

Keep in mind that for most waters, comparatively low concentrations of a variety of algae reflects favorably on the healthy biodiversity of the lake. For more about CSLAP ,see article in this issue.

***The best times for fishing are just before you get there and right after you leave.***

# MAPS, MAPS, MAPS...

Many people do not know that lake bottom contour maps have been available for many NYS lakes through the NYSDEC Division of Water since the early 1980s. These maps are available as a collection of lake maps titled New York State: A Morphometric Atlas of Selected Lakes, divided by NYSDEC Regions. A single volume is available for NYSDEC Regions 1 (Long Island), 2 (NYC), and 3 (Lower Hudson Basin) all together, and single volumes are available for each of NYSDEC Regions 4 (Capital District), 5 (Eastern Adirondacks) and 6 (Western Adirondacks). Most of the lakes with maps in these atlases are medium (> 100 acres) to large lakes with some form of public access. The lake listings, one per page, include bottom depth profiles, identification of primary access points and inlets and outlets, and some limited information about lake and watershed size, lake classification, existence of a dam, and a limited identification of sports fish. Individual maps are also available for select lakes in the rest of the state, as well as smaller lakes within primarily the Adirondack Park, although most of these do not include the additional information provided in the atlas lake listings. While the primary audience for these maps have been fisherpersons, and while they are usually not accurate enough for precise navigational guidance, the maps can serve a multitude of other uses.

The NYSDEC would also like to develop a larger electronic database of lake maps, and ultimately issue Atlases for NYSDEC Regions 7 (central NY), 8 (Finger Lakes), and 9 (Western NY). Any Waterworks readers with electronic maps, in any format, available for any NYS lakes are encouraged to send an electronic copy of this map to the following email address: sakishba@gw.dec.state.ny.us. Keep tuned to Waterworks for future availability of these electronic maps, but in the meantime, anyone interested in more information about these maps is encouraged to contact the NYSDEC Lake Services Section at 518-457-0734.

# "Clean" lawns can make dirty lakes

Traditional lakeshore landscaping methods strive for the "clean" look of a golf course or a Hawaiian beach. Yet, besides eliminating fish and wildlife habitat, this type of landscaping also creates problems for homeowners such as:

* **Green water:** A mowed lawn sends rain runoff carrying fertilizers, pet waste, and lawn clippings to the water, where they fuel algae blooms that make swimming less enjoyable.
* **More erosion:** Water plants such as bullrushes, cattails, and coontail soften erosive effects of waves along the shores.
* **Nuisance wildlife problems:** Traditional lawns attract geese, which are grazers. In one week, an adult goose can produce 15 pounds of slippery, smelly droppings.

The combined effect of shoreline alterations by many property owners on a lake destroys habitat and causes declines to fish and wildlife populations. It's ironic that many lakeshore property owners buy their lots because they enjoy nature and then unknowingly harm habitat by altering the natural landscape. Most species of fish and wildlife don't thrive along sandy swimming beaches or on mowed lawns. They do best within the tangles of aquatic "weeds" and shoreline brush that lakeshore owners frequently remove.

**What can you do?** A growing number of lakeshore owners are switching from traditional mowed lawns to native grasses and wildflowers. In addition to helping wildlife, native plants require little to no maintenance. That frees up more time to go fishing, watch wildlife, and otherwise enjoy being at the lake.

# CSLAPPENINGS

Although we have not yet suffered the locusts, fire and brimstone or other bellwethers of celestial disfavor, the summer droughts and the fall hurricanes (not to mention the pestilence of fair-going bacterial contamination and mosquito scares) were sufficient to disrupt not a few sampling sessions. Perhaps, after being fed a steady course of sunny, clear mid-summer weekends, the erratic fall has perhaps been (un)just reward for a summer too wildly enjoyed. As such, we attempt to move past yet another CSLAP sampling season and into the dormancy of an uncertain winter.

However, in marked contrast to this meteorological pendulum, CSLAP stayed the steady course. The significant laboratory problems encountered in 1998 were entirely avoided with an internal decision to utilize limited NYS Department of Health resources to assure renewed reliability in CSLAP results, resulting in a comfort with the 1998 CSLAP data-set most reassuring to those of us who lose sleep over such matters. Despite continuing losses in resources devoted to analytical services and equipment, CSLAP staff managed to maintain a full monitoring program on all "continuing" CSLAP lakes and still expand the program to include 12 lakes on the waiting list. This brings the ballooning list of CSLAP participants since 1986 to more than 170 NYSFOLA lake associations. Widespread participation in the Great American Secchi Dip-In continued to place NYS among the top half-dozen lake monitoring states in the country. CSLAP data are being utilized even more extensively by lake associations and local watershed partners to better characterize and assess water quality conditions in lakes throughout the state.

Occasionally, of course, the process has overwhelmed. With more participating lakes, the Annual Reports have been delayed for many lakes (they are forwarded to participants upon completion), and it may still be a few weeks before all 1998 participants receive their reports. It is hoped and perhaps naively anticipated that continuing automation and more staff time devoted to the 1999 reports will help to accelerate the data-to-report trajectory. We continue to hope that these reports and the program itself are useful, and we welcome your constructive comments and honest criticisms to make the next round of reports even more useful. Please direct all questions, comments, and profundities to us at (518) 457-0734 or -3345, or via email at sakishba@gw.dec.state.ny.us.

E-Mail

WATERWORKS requests that as many as possible send in your e-mail addresses and your lake association homepage URL's. We will place your homepage on the membership list as a connection and we will only use the e-mail when we have important legislation or other requests of that nature. Thank you

## Internet and You

Most of us have now either purchased our own computer system or have ready access to such. When time is available I'm sure you search for information relative to lakes and their environment. The web has many pages of information on lakes and generally it seems to be accurate.

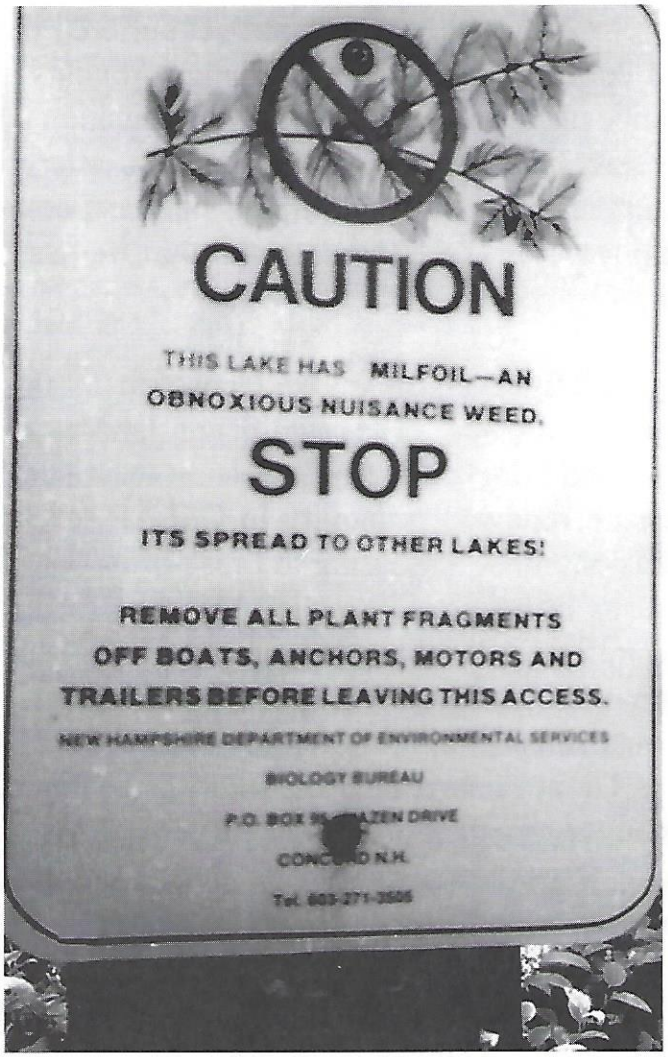
At NYSFOLA's office we try to keep adding new connections whenever they are located. If you have connected to our homepage lately, you will find the icon "Aquatic Ecology" ( Diving Duck ). This connection was originally started by Alice Dossett of Mississippi and her employment did not allow sufficient time to continue this connection. We placed it on our page and it is also on a Canadian homepage.

If you know of other connections that should be on this listing please forward the web address to us and after review we will add it to this listing.

If you have an e-mail address and wish to receive information about government activity and the like please forward that address to us and we will send out only pertinent info relative to the EPA's 314–319 funding, or state legislation activity on boating safety, acid rain etc. We all receive much junk e-mail and I'll promise not to send items that seemingly are of no importance to us as Lake environmentalists.

Does your lake association have a homepage? We can add a link to you from our membership listing. Again, please send the correct URL so that the link will work.

We will be modifying our homepage in the near future and if you have any recommendations for improvements please let us know. Our homepage is used by many and we want it to be the most useful page on the network. **Www.nysfola.org**




This picture was taken by a traveler in our New England states. New Hampshire has at least attempted to stop the spread of Milfoil.

## Unsolicited mail!

Periodically you receive mail from a vendor knowing that you did not request it. NYSFOLA does not sell our mailing list but periodically a vendor will use our office for a mailing. NYSFOLA does not endorse the services or products offered by the vendor. The vendor has paid a fee to NYSFOLA to mail his material. It is received by bulk mail at the office and all labels are attached and then placed into the postal service. Members should use their own judgement in determining whether to patronize this vendor, and any other vendor of similar services or products.

# Available at the office of NYSFOLA!!!

**"DIET for a Small Lake";** Joint Publication of NYSFOLA and NYSDEC relative to watersheds and lakes. Detailed instructions for preparing a Lake Management Plan; complete descriptions of Lake Restoration and Watershed Management Techniques; Comprehensive discussion of Lake Ecology.
Cost:- $20.00, including shipping and handling

**"Managing Lakes Through Community Participation";** 25 minute video, Why Associations are formed, how they get started, tackling priority issues, case study, ties with local government and lake community.
Cost:- $15.00, plus $2.00 s & h

**"Water Quality Monitoring in Lakes and Tributaries";** video; demonstrates the techniques used for water quality monitoring, based on procedures used for CSLAP. Useful for starting a monitoring program.
Cost:- $15.00, plus $2.00 s & h

**"Through the Looking Glass";** A Wisconsin Lakes Partnership publication containing information on nearly all aquatic plants. For information contact the office.

***Are your dues paid? Services can only be maintained with your help. Please stay current!***

**2000 Membership Dues-** (computed on calendar year)

**Lake, Watershed and other Associations;**

| | |
|---|---|
| Small Association, 10-74 members | $35.00 |
| Medium Association, 75-149 members | $75.00 |
| Large Association, 150 or more members | $150.00 |
| Park Districts (Town, County etc.) | $200.00 |
| Individual Membership | $20.00 |
| Member of Lake Assn. in good standing | $10.00 |
| Corporate Membership | $200.00 |
| Student | $10.00 |

Member Information:-
Lake Association _____
Contact Name _____
Address _____
City, State, Zip _____
Telephone _____

Fee$_____
Donation $_____
Enclosed $_____

Lake location (county) _____

Send payment to NYSFOLA office ;
Phone/fax- 1-800-796-fola
E-mail— fola@cecomet.net

NYSFOLA
2701 Shadyside Rd. PO Box 342
Findley Lake, NY 14736

# Calendar of Events

**Western Regional Meeting:** November 13th, 10:00 A.M. at J. J. Leisure's located at the north end of Conesus Lake in the village of Lakeville. For info contact Don Cook at 716-367-9293

**NALMS Symposium:** Reno Nevada Hilton Hotel. December 1 – 4, 1999. Contact the NALMS office at 608-233-2836. Or www.nalms.org

**Northeast Aquatic Plant Management Society:** Holiday Inn, Suffern, NY January 18-19,2000. Contact Charles Gilbert 908-879-5176 or email: CGILBERT5@compuserve.com

**Water Sensitive Ecological Planning and Design:** Harvard University Graduate School of Design. February 25 – 26, 2000. For info contact Lora Lopes at 617-496-0436.

**NYSFOLA's seventeenth Annual Conference:** Friday May 5, - Sunday May 7, 2000. This conference will be held at White Eagle Conference Center, Hamilton, NY. For information contact the office.

# Copies of WATERWORKS

Does your Board of Directors of your lake association wish for their own copy of "WATERWORKS"? Some associations not only join NYSFOLA as an organization but they also cover the cost of $10.00 each for others that they believe should receive each issue.

This small fee not only furnishes the newsletter but all individual mailings about the conference, governmental activity etc. are sent directly to their home address. We often hear about the fact that the mailing address that we have on file is no longer valid and the mail possibly never is received by the proper individuals. If all of your Board of Directors were members, definitely someone would have the correct information.

Also, bulk copies of the newsletter can be purchased for $1.50 per copy and they will be mailed only to one address for distribution by the lake association. This arrangement can be made by calling the office. Remember, this does not contain other mailings of importance to your Board.

**WATERWORKS**

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**"Diet for a Small Lake" are now available at the office.**
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