

More Than One Way To Skim Pond Scum

UNIVERSITY PARK (Centre Co.) — Homeowners and farmers with ponds, streams or waterways on their property don't necessarily have to apply pesticides if aquatic plants become a nuisance, according to an expert in Penn State's College of Agricultural Sciences.

"Most bodies of water support some kind of plant life," explains Winand Hock, professor of plant pathology and director of the Pesticide Education Program. "Aquatic plants become weeds when they impair or prevent use of the pond or waterway."

Mark Hartle, biologist for the Pennsylvania Fish and Boat Commission, says aquatic plants vary according to the environment they are placed in, and control measures are dictated by what type of plant life is choking off the pond. Surrounding land use also can influence aquatic plant growth, either by acting as an effective filter for excess water and nutrients, which limits growth, or by failing to filter nutrients, which can cause excessive aquatic plant growth.

Scientists divide aquatic plants into four groups:

- **Algae.** The most widely distributed of all aquatic plants,

algae can be subdivided into three types.

- **Plankton:** Also called phytoplankton, these microscopic single-cell plants cause water to appear pea-soup green or reddish brown.

- **Filamentous:** These plants, often mistakenly described as moss or slime, use filaments of plant material to form dense mats of growth on rocks or other underwater objects.

- **Attached branched algae:** Known as Chara and Nitella, these two varieties resemble flowering plants, but they have no root system. They have a skunky odor when crushed.

- **Submerged Aquatic Vegetation.** Most plants in this category grow in deeper and are rooted on the bottom. Most of their leaves remain underwater until flowering. Common types include coontail, pondweeds, common elodea and milfoil.

- **Emergent Plants.** These varieties grow along the edges of the water body, with just a short portion of their stems under water. Most of these plants do not cause problems for water users. Problem emergent plants include cattails, purple loosestrife and common reeds.

- **Floaters.** Most of the structure of these plants float on the water surface. Most are rooted plants such as water lilies and spatterdock. Other varieties, such as duckweed, absorb nutrients by dangling roots in the water.

Experts say aquatic weed control can be approached using three methods, singly or in combination.

Physical or Mechanical Control

"This technique means cutting, mowing, raking, digging or pulling vegetation out of the water," Hartle says. "Most aquatic plants can reproduce by fragmentation, so cleanup will have to be repeated several times to eliminate new growth."

Hartle explains that physical removal is effective only for small quantities of shoreline plants but reduces the rate of regrowth as well as the availability of nutrients.

Mechanical plant harvesting is used only on large lakes.

Landowners also can alter a pond's environment to control vegetation. Lowering the water level, called a "drawdown," exposes sediments and plants, which can be killed if tempera-

tures dip below freezing. Hartle says drawing down any pond larger than an acre require a permit.

In small ponds, aeration can partially control the growth of blue-green algae, but is ineffective on other plants.

Biological Control

Introducing vegetation-eating fish into a pond system can be very effective, particularly for submerged plants.

Filamentous algae can be reduced somewhat as well.

Hartle says the triploid grass carp, a fish genetically altered so it cannot reproduce, is the only effective biological vegetation control. He adds that pond owners must get permits from the Fish and Boat Commission before stocking the triploid grass carp. The pond outlet also must be screened to prevent escape. Koi, common carp and Israeli carp are not exclusive herbivores, and fish experts do not recommend their use.

"The drawback to the grass carp is the defecation of the consumed plant material, which recycles nutrients back into the water," Hartle says.

Chemical Control

Herbicides are effective con-

trols, but Hock warns that mis-handled chemicals will cause many more problems than they solve. Hartle also says algae is the most common problem Pennsylvania pond owners encounter, and control of nutrients entering the pond must accompany chemical treatments to effectively control algae.

"Choose the correct chemical for the problem plant," Hock says. "Make precise water volume and chemical measurements, and read the product label directions carefully. Over-application can damage other plants and wildlife."

Chemical applications also can kill fish indirectly because too much oxygen is consumed by the rapid decay of dead plants. Hock suggests treating just one-third or half the pond at a time. "Start applications in shallow water and work out to deeper water," Hock says. "This will let fish escape the chemical."

All aquatic pesticides require a permit, which must be approved by the fish and Boat Commission and the Pennsylvania Department of Environmental Protection before the pesticide is used. For more information on this subject, visit the Website <http://www.pested.psu.edu> and read the publication "Pond Management & Aquatic Plant Control."

You Ask, You Answer

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QUESTION — Ruth Zimmerman, 225 Conestoga Rd., New Holland, PA 17557-9777, would like to buy a good used or new 4 or 5 thread serger sewing machine.

QUESTION — To trace her roots, Naomi Gocheaur, Willow Street, is looking for a book "Eberly Family History 1700-1974." Call her at (717) 464-4369.

QUESTION — Lizzie Ann, Honey Brook, wants to know if it's possible to find little girl bobby pins. Previously, she could find them in three sizes. The size she wants is a little longer than 1/2 -inches. She does have a size that is 1/4 -inch inch in length but that is too small for her use.

QUESTION — Walter Zimmerman, 245 Cabin Road, Ephrata, is interested in a 1006 Bernina sewing machine or any sewing machine that includes an overlock.

QUESTION — A reader wants the words to the poem "A City," which includes the lines: A city that is set on a hill. A city where there is no night. . .

QUESTION — Bruce Wise, Middletown, wanted information and the value of a wooden airplane propeller: Sensenich, 84-inches long, one end damaged. Serial #64583 H.P. 185, 3-inch hole RPM 2550.

QUESTION — A reader wants exact directions to make sachet mixes from dried flowers, pine cones, etc.

QUESTION — Sharyn Ziegler-Maier, York, writes that she purchased two blacksmith prints and one mill print by artist Paul Detlefsen. She would like any type of information a reader has about this artist.

QUESTION — A reader wants to know where to find replacement paddles for a 2-quart Sears and Roebuck ice cream freezer, Model No: 238 1968.

QUESTION — Kenneth Hixon, Warfordsburg, wants a sure method to keep birds from picking cherries.

QUESTION — Paul Dowie writes that his father's LeCoultre watch has lost the back and watch repair people in his area can't fix it. Is there a watchmaker who has parts for a watch Model 481 automatic? It needs cleaning and lubrication also. Call him at (610) 827-7561.

QUESTION — A reader from Quarryville would like books written by Theodore Epp. If you have extra copies, answer through this column.

QUESTION — Mary Leiber of Dalton asks a question often answered in this column: How can she get rid of scum or algae on a pond. At one time it was a cow pond. Now it's been dug out more and seeded around the edges. The Leibers have tried copper-sulfate, aqua shade, and 5-10-10 fertilizer without results. According to the oft-time discussions in this column, barley straw seems to be one of the easiest and most effective solutions. However, as I recall, it must be used in early spring. What is most effective at this time of the year?

QUESTION — E.J. Beaver, Ringtown, bought a drill press at a auction. The item looks like a two-person press. It is about 42 1/2 -inches long with a wheel on top that measures 15 1/2 -inches in diameter. It has a smaller wheel below it. On the side it has stamped Boynton & Plummer makers Worcester, Mass. Patented Feb. 4, 1873.

It is very heavy weighing about 100 pounds. Does anyone know anything about it or the company? Any source such as a person, book, or website that could offer information about the press?

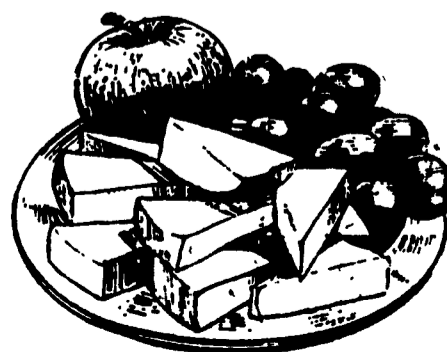
QUESTION — Dixie Fix, 5847 Pleasant Ridge Rd., Harrisonville, PA 17228, recently acquired a Singer treadle sewing machine 128-3. It has a long bobbin and she would like to know if any readers would sell her long bobbins.

QUESTION — A reader writes that after seeing a sandstone water trough sold at a farm sale, she has some questions: Is sandstone still mined? Do people still buy and sell sandstones and are they used for anything in particular?

QUESTION — John Zehner farms in Somerset County. He previously purchased a Perma-Flex leg band, but can no longer find them in locally, or advertised in farm magazines and catalogs. Perma-Flex is similar to other bands but has a black band over the end to hold in place.

QUESTION — J. Melvin Koser, Narvon, would like to know where to find The Lennon Sisters Paper Dolls," made in the 1960s.

QUESTION — Geneveile Reese, Newburg, wants to know how to rid infested antique furniture of post-hole beetles or worms.



ANSWER Violet Cassner, Newburg, wanted information on how tomatoes are grown in water. Thanks to Robert Shaub, Shrewsbury, for sending information: Several techniques can be used but the most practical is subirrigation, in which plants are grown in trays filled with gravel, cinders, or other coarse materials and periodically flooded with nutrient solution. The solution is allowed to drain off after each flooding and reused as long as sufficient minerals remain in it. Shaub writes that detailed information can be found on the Internet at <http://www.funkandwagnalls.com/encyclopedia/low/articles/h/h01100749f.html>. Your county Penn State Extension office should also have free information.

ANSWER — A reader inherited a "cigar silk throw pillow" and wanted information about cigar silks. Thanks to Richard Knouse, Liverpool, who writes that years ago all cigars were handrolled and bundled to be shipped to stores and tobacco shops. The bundles were held together by silk ribbons with the brand name on them. The shop usually sold cigars by the piece so the consumer did not receive the ribbons. Either someone in the reader's family could afford to buy a bundle of cigars at a time or they were involved with selling tobacco products. Either way, there is a demand by collectors for the ribbons. The reader may want to contact a local antique dealer or inquire about collectors clubs to find out how much the cigar silk throw is worth.

ANSWER — A Hamburg reader asked why people are buying generators to use for home electric. This is a controversial subject, but Janice Groff, Honey Grove, wrote that the Y2K computer shutdown on Jan. 1, 2000 will result in no electric, no heat, and no water so people are buying generators to use during this time. Another reader wrote that the powers that be are going to pull the plug on the nation's power grid on that date. He believes the Y2K computer crisis is a totally planned and orchestrated event to create chaos so that the president can officially declare a national state of emergency and institute martial law in order to fulfil a New World Order. Please check with your local Penn State Extension office and with the Red Cross who have more extensive information on this controversial subject. In fact, a workshop on Y2K consumer readiness will be held at the Berks Co. Ag Center, Leesport, on Oct. 5, 1 p.m.-3 p.m. and repeated at 7 p.m.-9 p.m. Advance registration is required. To register, send a check for \$1 made payable to Berks County Cooperative Extension Special Account and mail to Consumer Readiness for Y2K, Berks Co. Ag Center, P.O. Box 520, Leesport, PA 19533.

ANSWER — Fran Westfall, New Oxford, writes that to keep cats and dogs away from flower beds, she sprinkled red pepper in a circle around the area, not on the flowers, intended to keep out the pets. Cats and dogs would go to the edge of the circle but would not walk over it.