



EXTENSION

Dyes for Pond Weed Management

September 2023

Marley Beem
Extension Specialist for Aquaculture

Oklahoma Cooperative Extension Fact Sheets
are also available on our website at:
osufacts.okstate.edu

Introduction

Aquatic dyes (Figure 1) reduce the growth of submerged plants and algae by reducing light levels. They are a preventative measure and should not be applied when submerged plants or algae are abundant. Dyes should only be applied in the early spring, before plants or algae begin growing or after a herbicide has been applied to greatly reduce plant or algae abundance. When considering use of herbicides, work with your Extension educator to identify the problem plant and take the precautions described in L-455 (<https://extension.okstate.edu/fact-sheets/print-publications//aquatic-herbicides-essential-information-for-new-applicators-l-455.pdf>).

Dyes are usually most effective when used together with other management measures. These are recommended by your county Extension agriculture educator, based on your pond's characteristics and your situation.



Figure 1. Pond dyes come in both liquid and powder forms. (Mention of a product name or inclusion of a product image does not constitute endorsement. Failing to do so does not imply anything negative about a product.)

Application is relatively simple. Apply the amount directed by the label. It will spread and diffuse across the pond. Take care not to apply more than the label recommends: it is simple to add more but usually impractical to dilute if you overapply. Applying from a boat along the midline of the pond can be considered if there are animals who might be drinking the water. This will allow it to dilute before it reaches shoreline areas.

After the dye has been applied and allowed to fully diffuse throughout the pond:

- Consumption by livestock is permitted.
- Irrigation from dye treated ponds is allowable.
- Swimming is allowable.
- Fish from dyed ponds are safe to consume.

Avoid these Common Mistakes

1. Do not apply when a pond has a dense green color due to algae. When this is done, unsightly algal scums often result, and sometimes a low oxygen fish kill will occur as the algae decays.
2. Do not use in ponds that frequently overflow.
3. Do not use dyes in ponds where fishing is important. Lower light levels reduce the production of insects and other food items essential for fish.
4. Take steps to protect your skin and clothes when applying the product.
5. Do not forget to reapply as the label directs. Dye breaks down over time and/or is flushed out of ponds when there is an overflow. A spring, summer, fall application schedule is typical. Failure to reapply on the recommended schedule is a common cause of complaints about dyes not working.

To help you know when a dye reapplication is needed, follow these steps:

- Make the first application using the amount that the label directs.
- After the dye is fully dispersed, slowly submerge a weighted white object in the pond on a sunny day.
- Measure the number of inches at which it disappears. This is your reference number.
- Whenever you wonder if a reapplication is needed, submerge that same white object and see how the depth of disappearance compares to the reference number. If the measured depth is 25% or higher than the reference number, add more dye to restore the original concentration.
- Aquatic dyes are labeled products approved for use in ponds by the EPA. Read and follow all directions in the label. The applicator assumes responsibility for any application.

The Oklahoma Cooperative Extension Service

Education Everywhere for Everyone

The Cooperative Extension Service is the largest, most successful informal educational organization in the world. It is a nationwide system funded and guided by a partnership of federal, state and local governments that delivers information to help people help themselves through the land-grant university system.

Extension carries out programs in the broad categories of agriculture, natural resources and environment; family and consumer sciences; 4-H and other youth; and community resource development. Extension staff members live and work among the people they serve to help stimulate and educate Americans to plan ahead and cope with their problems.

Some characteristics of the Cooperative Extension system are:

- The federal, state and local governments cooperatively share in its financial support and program direction.
- It is administered by the land-grant university as designated by the state legislature through an Extension director.
- Extension programs are nonpolitical, objective, and research-based information.
- It provides practical, problem-oriented education for people of all ages. It is designated to take the knowledge of the university to those persons who do not or cannot participate in the formal classroom instruction of the university.
- It utilizes research from university, government and other sources to help people make their own decisions.
- More than a million volunteers help multiply the impact of the Extension professional staff.
- It dispenses no funds to the public.
- It is not a regulatory agency, but it does inform people of regulations and of their options in meeting them.
- Local programs are developed and carried out in full recognition of national problems and goals.
- The Extension staff educates people through personal contacts, meetings, demonstrations and the mass media.
- Extension has the built-in flexibility to adjust its programs and subject matter to meet new needs. Activities shift from year to year as citizen groups and Extension workers close to the problems advise changes.

The information given herein is for educational purposes only. Reference to commercial products or trade names is made with the understanding no discrimination is intended and no endorsement by the Cooperative Extension Service is implied.

Oklahoma State University, as an equal opportunity employer, complies with all applicable federal and state laws regarding non-discrimination and affirmative action. Oklahoma State University is committed to a policy of equal opportunity for all individuals and does not discriminate based on race, religion, age, sex, color, national origin, marital status, sexual orientation, gender identity/expression, disability, or veteran status with regard to employment, educational programs and activities, and/or admissions. For more information, visit <https://eeo.okstate.edu>.

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Director of Oklahoma Cooperative Extension Service, Oklahoma State University, Stillwater, Oklahoma. This publication is printed and issued by Oklahoma State University as authorized by the Vice President for Agricultural Programs and has been prepared and distributed at a cost of 20 cents per copy. September 2023 KG.