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THE AQUATIC PLANT MANAGEMENT SOCIETY, INC.  
POST OFFICE BOX 2237  
FORT MYERS, FLORIDA 33902

NEWSLETTER #5 - L. V. Guerra, Editor

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1978 MEETING SITE:

This is scheduled for the Jacksonville Hilton in Jacksonville, Florida, U. S. A., overlooking the St. Johns River. Joe Joyce has already sent some of the literature on the hotel and it has all the possible guest services we could want. Joe also promises there will be no red tide on the St. Johns River this time. Make your plans now to attend! Grits will be on the menu for all us southern boys.

FIRST CALL FOR PAPERS:

The papers presented at the Society meetings get better and better, if that's at all possible. Plan your paper now and submit your title and other pertinent information to the Program Chairman, Mr. Julian Raynes. Remember, some papers had to be refused last year. Don't be in that group, get them in early.

COMMITTEE REPORTS AND REQUESTS FOR HELP, INFORMATION, ETC.:

(From Ron Stanley, of the Bylaws and Resolutions Committee)

Proposed changes in the Certificate of Incorporation and Bylaws should be made to the January meeting of the Board of Directors to be enacted at the 1978 meeting of the Society. Suggestions sent to the Bylaws and Resolutions Committee by October 15, 1977, will be incorporated into a set of recommendations for the Board of Directors. This package will include changing the first Vice President to President-Elect to conform to current policy, changing fiscal year to match the calendar year, and completing the conversion from "Hyacinth Control" to "Aquatic Plant Management". Comments on these and other suggestions can be sent to:

Ronald A. Stanley  
U. S. EPA (WH-568)  
401 M Street, SW  
Washington, DC 20460

FROM THE DESK OF THE EDITOR:

This year the 1977 issue of the Journal of Aquatic Plant Management was delayed, but was sent to the membership just after the meeting. During this coming year a greater effort will be made to have the Journal in the hands of the membership before the 1978 annual meeting.

This past year 41 manuscripts were considered for publication in the 1977 issue. Of the total number, 18 were printed in the Journal, 10 were rejected, and 13 are in the process of being considered for publication in the 1978 issue.



FROM THE DESK OF THE EDITOR (Continued):

Dr. Vernon Vandiver and Mr. Bill Maier updated the herbicide list and also changed the format slightly. We are trying to keep this list current so that it will be a useful guide for identifying those herbicides which are available for controlling aquatic weeds. Reprints of this list are available at no charge upon request to the Editor, Vernon, or Bill. Also, the membership is encouraged to point out additions or corrections to this list. The herbicide list will be updated annually.

If you plan to have a manuscript considered for publication in the 1978 issue, please send it in as soon as possible. Copies of the directions for writing a manuscript are available from the Editor. Also, do not hesitate to contact me if you have questions concerning your manuscript or any other item relating to the Journal.

Several of our members have indicated a willingness to help in the preparation and writing of manuscripts. If for one reason or the other you require help in preparing a manuscript, please let me know and I'll fill you in on the details. This help includes typing, grammar, as well as the organization and technical writing of the manuscript. We are interested in getting ideas, methods, and practices for managing aquatic plant problems into the Journal. We are particularly interested in those management practices which are currently being used, but may not lend themselves to be easily written into manuscript form. Management practices which are routine to some individuals may be new concepts to others.

The Journal is one form of communication by the Society. The aim of the Journal is to present those concepts and ideas which will be effective in managing aquatic plant problems. The Journal also strives to print those papers which will help to increase our understanding of aquatic plant problems as to their causes and impact on the aquatic environment in relation to present and future management practices. A better understanding of the growth of aquatic weeds will help pinpoint weaknesses so that control methods can be used during those periods when the weeds would be most vulnerable. The Journal will not publish previously published information. A limited amount of previously published material could of course be used for a review manuscript. The Journal is not a medium for advertising or endorsing products. A review of previous issues will indicate the type of articles considered for publication.

If you have any suggestions or comments concerning any item relating to the Journal, the Editor will be glad to receive it. The Editor is always looking for help to review manuscripts and help with various parts of the Journal. If you have an interest in helping with the Journal, please let me know.



FROM THE DESK OF THE EDITOR (Continued):

There has been some discussion as to the possibility of printing two issues of the Journal each year. At the present time we are not receiving sufficient manuscripts to go to two issues for one volume. Your effort in submitting more manuscripts will help us reach that goal of two issues in one year.

Again, I would like to remind you that if you would like to have a manuscript considered for the 1978 issue, I need to receive it as soon as possible.

We have no deadline for submitting manuscripts; however, if I have not received yours by January 1, 1978, I doubt if it will be printed in the 1978 issue. Manuscripts processed too late for the 1978 issue, of course, will be carried over to the 1979 issue. Your effort and cooperation in submitting articles early will help us to get the Journal printed early.

The quality of our manuscripts have improved tremendously over the past few years. I look forward to an even greater increase in quantity and quality of manuscripts in the coming year.

STUDENT NEWS:

General - Three abstracts concerning student research were received since the last Newsletter as follows:

"Seeking Super Hyacinths" - Thomas N. Cooley and Dean F. Martin, Departments of Biology and Chemistry, University of South Florida, Tampa, Florida 33620.

Abstract - Three biotypes of waterhyacinth (Eichhornia crassipes (Mart.) Solms) were established on the basis of size: small, medium, and super. The super-hyacinths are not attacked by the weevil, Neochetina eichhorniae Warner. This avoidance by the weevil may be due to a higher content of iron and cobalt in the leaves (20 and 40 percent more, respectively). It has been established that iron is accumulated by the super-hyacinth particularly in the roots (120 ppm/g dry wt. vs. 7.11 ppm for medium plants). Three mechanisms for development of the super-hyacinth are discussed: nutrient load, crowding, and low dissolved oxygen. An excellent correlation has been established between low environmental D. O. (0.53 ppm) and high metal content of super-hyacinths.

This research supported by Fla. Department of Natural Resources, Bureau Aquatic Plant Research and Control.



STUDENT NEWS (Continued):

"Results of Tests on Hydrilla with Fusarium roseum, a pathogenic fungus" - R. Charudattan and D. E. McKinney. 1977. University of Florida, Gainesville, Florida.

Abstract - A fungus from Holland was isolated from diseased Stratiotes aloides, a plant in the same family as hydrilla. The fungus was identified by spore morphology and characteristic pigmentation to be a strain of Fusarium roseum.

In laboratory tests, actively growing hydrilla maintained in containers ranging in size from test tubes to five gallon aquaria were killed when sufficient numbers of spores from this fungus were added to water surrounding the plant. The effects of the fungus on hydrilla were rapid: the inoculated plants lost their chlorophyll usually within ten days and were totally devastated by the end of three weeks.

Tests with local strains of Fusarium roseum on hydrilla resulted in the discovery of a strain isolated from waterhyacinth that was capable of damaging hydrilla similar to the Holland strain. This Florida strain of the fungus is in the process of being tested on a larger scale using ten foot diameter pools containing hydrilla.

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"Preparation of Controlled Release Aquatic Herbicides" - Mary Roxann Dykes, Wright State University, Dayton, Ohio.

Abstract - Fenac acid has been incorporated into polyethylene matrices. The herbicides were released from these formulations by a water leaching mechanism. Herbicide diffusion within the matrix determined the actual rate of release. The rate was affected by the formulation porosity, the herbicide solubility, and by the amount of herbicide loading. Pool tests conducted in Louisiana indicate that a fenac acid/polyethylene formulation is very effective against waterhyacinth, egeria, and water milfoil. The 2-acryloyloxyethyl ester of 2, 4-D (I) has been copolymerized with 5 and 10 mole per cent methacrylic acid (II), i.e. the molar feed ratios of I:II used were 95:5 and 90:10, respectively. The polymerizations were carried out in 2-butanone with azobisisobutyronitrile (AIBN) as the initiator to afford 80-82% yields of the white products. The copolymers are soluble in chlorinated hydrocarbons and have inherent viscosities of 0.12 and 0.14 (0.5 g/dl in 2-butanone at 30°C), respectively. Three samples of each copolymer were immersed in a buffered aqueous solution that was maintained at 30°C. A pH of 8 was used to simulate the pH of natural waters in the South. The amount of herbicide released from the samples was determined periodically by spectrophotometric analysis and varies with the mole per cent methacrylic acid used in the feed ratio.



STUDENT NEWS (Continued):

All student members are requested to send a brief abstract of their work for publication in succeeding Newsletters.

To avoid confusion at next year's meeting, the following guidelines are established for student contest papers. (1) The student must be a member of the APMS (he or she can join during the meeting at which they will present their paper); (2) all eligibility requirements for becoming a student member must be met (see paragraph 3 under Student Membership below); (3) the research presented must be the student's original research; and (4) the paper can be co-authored, but the student must be the senior author.

Student Membership - Since establishing the category of "Student Member" at the 1976 Fort Lauderdale, Florida, meeting, we have enrolled twelve students as members of the Aquatic Plant Management Society. We hope to increase the number of student members this year. All University personnel guiding graduate students in the area of aquatic plant biology or control (or related areas) should encourage their students to become members of the APMS.

As student members, students will receive the Newsletter and the Journal of Aquatic Plant Management, and have full voting privileges. In addition, students pay only \$5.00 per year instead of the \$8.00 annual active membership fee. Only student members can participate in the annual Student Contest, which is held every year during the annual meeting (see below).

Student members are defined in our Certificate of Incorporation (Article III, Section C) as "...those individuals actively enrolled in a full-time college study of aquatic weeds, or related college level studies approved by the Board of Directors."

Last year 360 letters were sent to colleges and universities, mainly in the United States, that have Departments containing people conducting research in an area involving aquatic plants. This year the list will be expanded to include Mexico and Canada, plus the foreign members of the APMS. Hopefully, this will help increase our student membership.

Students wishing to join the APMS as student members should send a check payable to the Aquatic Plant Management Society in the amount of \$5.00 to Mr. T. W. Miller, Jr., Secretary, APMS, P. O. Box 2237, Fort Myers, Florida 33902.

Student Contest - This year participation in the Student Contest increased dramatically over previous years. As you may recall, in 1975, in San Antonio (the first year of the contest) we had only one participant in the Student Contest. (He won first prize.) Last year in Fort Lauderdale, we had a 100% increase, with two students taking part.



STUDENT NEWS (Continued):

This year we had six students in the Third Annual Student Contest, representing schools from Florida, Iowa, Michigan, Ohio and Wisconsin. This is a 600% increase in only three years, and is indicative of the interest in aquatic plant research in our institutions of higher learning.

Our winners this year include Mr. Darryl D. McKinney (Plant Pathology Department, University of Florida, Gainesville), who took first place for his paper "Results of Tests on Hydrilla with Fusarium roseum, a Pathogenic Fungus"; Mr. Thomas N. Cooley (last year's winner) (Department of Chemistry and Biology, University of South Florida, Tampa), who took second place for his paper "Seeking Super Hyacinths"; and Ms. Mary Roxann Dykes (Department of Chemistry, Wright State University, Dayton, Ohio) who took third place for her paper "Preparation of Controlled Release Aquatic Herbicides". Prize money for first, second and third place was increased this year from \$50.00, \$25.00 and \$10.00 to \$100.00, \$50.00 and \$25.00, respectively. In addition to prize money, each of the above students were presented with Certificates indicating their respective finishes

Honorary Mention Certificates were presented to the other students who participated in the contest, including Mr. Steve Carpenter (Department of Botany, University of Wisconsin, Madison) for his paper "Nutrient Removal by Vascular Plant Harvesting"; Mr. Fred C. Payne (Department of Fisheries and Wildlife, Michigan State University, East Lansing) for his paper "A Control Strategy for Myriophyllum spicatum in the Great Lakes Region"; and Mr. W. Harold Ornes (Botany Department, Iowa State University, Ames) for his paper "Growth Response of Cattail (Typha latifolia) to Sewage Effluent".

All student papers were carefully prepared and presented. If you were unable to attend the Minneapolis meeting, or if you did not see the student presentations, you missed some of the best papers delivered during our meeting. We plan several improvements for next year's Student Contest in Jacksonville, Florida. Watch the Newsletter for further announcements.

LAST PARTING MEMO

Make your plans now! Send the title for your paper as soon as possible.



FIRST CALL FOR PAPERS

1978 ANNUAL MEETING

THE AQUATIC PLANT MANAGEMENT SOCIETY, INC.

You are invited to submit a title for a paper to be presented at the 1978 annual meeting of The Aquatic Plant Management Society, Inc., to be held July 9-12, 1978, at the Jacksonville Hilton, Jacksonville, Florida. Type title, authors, organization and location, exactly the way they are to appear on the program. If more than one author is listed, place an asterisk after the name of the author who is to present the paper. Ten minutes will be allowed for each presentation. Projection equipment for 35 mm slides will be provided. Special requests for additional time or specialized projection equipment should be directed to the Program Chairman, and will be considered on the merits of the individual request.

TITLE:

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AUTHOR(S):

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ORGANIZATION:

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ADDRESS:

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I believe the paper would be best presented as:

- |                                     |   |                                      |
|-------------------------------------|---|--------------------------------------|
| <input type="checkbox"/> Research   | <input type="checkbox"/> Student Presentation | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Operations | <input type="checkbox"/> Regulatory           | _____                                |



FIRST CALL FOR PAPERS (Continued):

Abstract (75 word maximum): \_\_\_\_\_

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TIME SCHEDULE FOR PAPERS

October 1st - April 14th submit titles to:

Julian J. Raynes  
Program Chairman  
United States Army Corps of Engineers  
1567 Knob Hill Drive, N. E  
Atlanta, Georgia 30329

Titles for Student Papers should be sent to:

Dr. Ernest S. Del Fosse  
Post Office Box 2237  
Fort Myers, Florida 33902

May 1st - Speaker notification cards sent to speaker.

May 26th - Printed programs mailed to membership.

DEADLINE FOR SUBMISSION

April 14, 1978