Program

FOURTEENTH ANNUAL MEETING

THE HYACINTH CONTROL SOCIETY

to become
THE AQUATIC PLANT MANAGEMENT
SOCIETY, Incorporated
on January 1, 1976



LANGFORD HOTEL

WINTER PARK, FLORIDA

JULY 14-17, 1974

Sunday through Wednesday

BOARD OF DIRECTORS

OFFICERS

Dr. Alva P. Burkhalter, President

Department of Natural Resources Larson Building, Room 595 Tallahassee, Florida 32304

Ray A. Spirnock, First Vice President

Central & Southern Florida Flood Control District 7259 Oakmont Drive Lake Worth, Florida 33460

L. V. Guerra, Second Vice President

Texas Parks & Wildlife Department 535 Main, Room 310 San Antonio, Texas 78204

Brandt G. Watson, Past President

Naples Mosquito Control District Post Office Box 725 Naples, Florida 33940

Dr. Robert W. Geiger, Treasurer

The 3M Company 400 N. E. 27th Street Pompano Beach, Florida 33064

Dr. David L. Sutton, Editor

University of Florida 3205 S. W. 70th Avenue Fort Lauderdale, Florida 33300

T. W. Miller, Jr., Secretary

Lee County Hyacinth Control District Post Office Box 2237 Fort Myers, Florida 33902

DIRECTORS

C. Brate Bryant

Aquamarine Corporation Box 616 Waukesha, Wisconsin 53186

Herbert J. Friedman

Southern Mill Creek Products Company Post Office Box 1096 Tampa, Florida 33601

J. Clarke Hudson

Department of Natural Resources 4849 Brittany Boulevard Tallahassee, Florida 32303

Donald V. Lee

Louisiana Wildlife & Fisheries 636 Maxine Drive Baton Rouge, Louisiana 70808

W. L. McClintock

City of Winter Park 1815 Pineview Circle Winter Park, Florida 32789

Julian J. Raynes

United States Army Corps of Engineers 1567 Knob Hill Drive, N. E. Atlanta, Georgia 30329

THE HYACINTH CONTROL SOCIETY

DEDICATED TO THE CONTROL OF
NOXIOUS AQUATIC WEEDS

FOUNDED 1960

OBJECTIVES

To assist in promoting controls of noxious aquatic weeds.

To provide for the scientific advancement of members of the society.

To encourage scientific research.

To promote university scholarships.

To extend and develop public interest in noxious aquatic weed problems.

THE PROGRAM

*

FOURTEENTH ANNUAL MEETING of

THE HYACINTH CONTROL SOCIETY

July 14-17, 1974

LANGFORD HOTEL

WINTER PARK, FLORIDA

SUNDAY, JULY 14, 1974

1:30 P.M.—Board of Directors Meeting—Presidential Suite

3:00 P.M.-6:00 P.M.—Registration—Lobby 6:30 P.M.-7:45 P.M.—Hospitality Hour—Poolside

MONDAY, JULY 15, 1974

8:00 A.M.-5:00 P.M.—Registration—Lobby Exhibits—Room D

GENERAL SESSION

Rooms A & B

Presiding: Dr. Alva Burkhalter, President The Hyacinth Control Society

9:00 A.M.—Call to Order

Invocation—Reverend Joe McClure
Welcome to Winter Park
The Honorable James Driver, Mayor
Presidential Address: Dr. Alva Burkhalter,
President, The Hyacinth Control Society

10:00 A.M.—Coffee Break

PRESENTATION OF PAPERS

10:15 A.M.-12:00 Noon

Presiding: Dr. Alva P. Burkhalter, President The Hyacinth Control Society

10:15 A.M.—"Role of the Department of Natural Resources in Aquatic Plant Control," Harmon Shields, Executive Director, Department of Natural Resources, Tallahassee, Florida

10:45 A.M.—"EPA, Present Status of FEPCA and Compound Labeling," Charles L. Smith, Acting Assistant Director, Regulation Division, EPA, Washington, D.C.

11:00 A.M.—"Aquatic Weed Control: A Subject of Controversy," Robert D. Blackburn, Botanist, Joyce Environmental Consultants, Inc., Fort Lauderdale, Florida

11:30 A.M.—"Next Year's Meeting Site—San Antonio,
Texas," Louis Guerra, Director, Statewide
Noxious Vegetation Control Program, Texas
Parks and Wildlife Department

12:00 Noon-Recess for Lunch

RESEARCH SESSION

1:00 P.M.-3:25 P.M. Room A

Presiding: Neal Spencer, USDA, ARS, University of Florida, Gainesville, Florida

- 1:00 P.M.—"Studies on the Population Dynamics of Eichornia crassipes 1. influence of some ecological factors on flowering and vegetative propagation in the growth chamber," Koch and Gunter, Hyacinth Control Project in the Sudan
- 1:15 P.M.—"The Ability of the Water Hyacinth to Invade Five Different Ecosystems on the Payne's Prarie State Preserve," Thomas Morris, Graduate Student, University of Florida, Gainesville, Florida
- 1:30 P.M.—"Studies on Some Factors Affecting Fruitsetting of <u>Eichhornia crassipes</u> in the Sudan," Lufti A. Gadir, and M. Obeid, Botany Department, University of Khartoum, Sudan
- 1:45 P.M.—"Determination of the Feeding Mechanism of Orthogalumna terebrantis Wallwork with 134 Cs-Injected Water Hyacinth," Ernest S. Del Fosse, Department of Entomology & Nematology, University of Florida, Gainesville, Florida
- 2:00 P.M.—"Fungi Associated with Insect-Damaged Water Hyacinths in Florida and their Possible Effects on Plant Host Populations," R. Charudattan and B. D. Perkins, Plant Virus Laboratory, University of Florida, Gainesville, Florida
- 2:20 P.M.—"Fungi Associated with Water Hyacinths,"
 Dr. Kenneth E. Conway, Department of Plant
 Pathology, University of Florida, Gainesville,
 Florida
- 2:40 P.M.—"Preliminary Evaluation of Two Plant Pathogens for Biological Control of Water Hyacinth," T. E. Freeman, University of Florida, Gainesville, Florida
- 2:55 P.M.—"The Future Utilization of Water Hyacinth for Proteins and Energy," Harry I. Leon, Ph.D., and George Evangelos, Bio-Aquatic, Inc.
- 3:10 P.M.—"Preliminary Results of Glyphosate on Aquatic and Ditchbank Grasses," Elroy Timmer, Richard Elliston, and Robert Blackburn, ARS, Fort Lauderdale, Florida

3:25 P.M.—Adjourn

5:00 P.M.—Buses to Disney World

APPLICATOR'S SESSION

1:00 P.M.-3:10 P.M.

Room B

Presiding: Robert Gates, Director of Field Operations, Southwest Florida Water Management District, Brooksville, Florida

- 1:00 P.M.—"A Summary of the Southeast Asian Workshop on Aquatic Weeds, 1974," Mohamad Soerjani, Juan V. Pancho and Nguyen-Van-Vuong, Tropical Pest Biology Program, BIOTROP, Bogor, Indonesia
- 1:15 P.M.—"Aquatic Weed Control—Orange County," C. W. Sheffield, P. A. Sager, Pollution Control, Orange County, Florida
- 1:30 P.M.—"Boating and Aquatic Weed Problems,"
 Lowell L. Trent, Regional Aquatic Botanist,
 Division of Game & Fresh Water Fish Commission, Fort Lauderdale, Florida
- 1:45 P.M.—"Improved Application Techniques for Aquatic Herbicides," William D. Hogan, Product Development Representative, Chevron Chemical Co., Orlando, Florida
- 2:05 P.M.—"Weed Control Program of Central and Southern Florida Flood Control District," Gordon Baker, Biologist, C. & S. Florida Flood Control District, West Palm Beach, Florida
- 2:20 P.M.—"NALCO-TROL, A New Concept in Drift Control," George E. Wortley and Ivan Rash, NALCO Chemical Company, College Park, Georgia
- 2:40 P.M.—"Control of Unicelluar Algae by Induced Aeration and Mixing," Charles E. Gilbert, Regional Mgr., Allied Biological Control Corp., Gladstone, N. J.; Jason M. Cortell, Environmental Consultant, J. M. Cortell & Assoc., Wellesley, Massachusetts
- 2:55 P.M.—"A Unique Means of Algae Prevention,"
 J. L. Williams, T. J. Denike and R. W. Geiger,
 3M Company, Lakes and Waterways Management Service, Pompano Beach, Florida
- 3:10 P.M.—Adjourn
- 5:00 P.M.—Buses to Disney World

TUESDAY, JULY 16, 1974
GENERAL SESSION

8:30 A. M.-10:45 A.M.

Rooms A & B

8:30 A.M.—"Identification and Control Options of Common Noxious Aquatic Plants," R. L. Lazor, Botanist, Department of Natural Resources, Tallahassee, Florida and R. D. Blackburn, President, Florida Aquatic Weed Control, Inc.

10:45 A.M.—Coffee Break

ANNUAL BUSINESS MEETING

11:00 A.M.-12:00 Noon

Rooms A & B

Presiding: Dr. Alva Burkhalter, President The Hyacinth Control Society

12:00 Noon-Recess for Lunch

RESEARCH SESSION

1:30 P. M.-5:00 P.M. Room A

Presiding: Donald V. Lee, Louisiana Wildlife and Fisheries Department Baton Rouge, Louisiana

- 1:30 P.M.—"Hydrilla in Lake Okeechobee," K. K. Steward and R. D. Blackburn, USDA, Ft. Lauderdale, Florida
- 1:45 P.M.—"The Incipient Entry of Florida Elodea (Hydrilla verticillata) in Louisiana," Robert E. Johnson and James H. Manning, Louisiana Wildlife and Fisheries Commission, Baton Rouge, Louisiana
- 2:00 P.M.—"Hydrilla in Iowa," P. F. Guehler, 3M Company News Business Ventures Division, St. Paul, Minnesota and R. D. Blackburn, USDA, ARS, Ft. Lauderdale, Florida
- 2:15 P.M.—"Herbicide Testing for Egeria Control," J. Robert Barry, J. A. Foret, D. P. Viator, S. J. Langlinais and S. L. Solymosy, University of S. W. Louisiana
- 2:30 P.M.—"Competitive Advantage in Photosnthesis of Hydrilla," William T. Haller, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, Florida
- 2:45 P.M.—"Chemical Retardation of Hydrilla Growth,"
 Jane E. Michewicz and David L. Sutton, Agricultural Research Center, University of Florida, Gainesville, Florida
- 3:00 P.M.—Coffee Break
- 3:15 P.M.—"Laboratory Egg Production by Neochetina eichhorniae (Coleoptera, Curculionidae) Imported to Combat Water Hyacinth," B. D. Perkins and W. L. Maier, USDA, Fort Lauderdale, Florida
- 3:30 P.M.—"Feeding by <u>Pomacea australis</u> on <u>Egeria</u> densa in the Laboratory," B. D. Perkins and H. A. Cordo, USDA, Fort Lauderdale, Florida
- 3:45 P.M.—"Food Habits of Hybrid Carp (Ctenopheryngodon idella X Cyprinus carpio)," Dana R. Sanders, Sr., Russell F. Theriot, and Michael C. Windham, Biology Department, Northwest State University, Natchitoches, Louisiana
- 4:00 P.M.—Panel Discussion—"Pros and Cons of White Amur," Chairman John Gallagher, Amchem Chemical Co., Representatives of Department of Natural Resources, USDA, Florida Game and Fresh Water Fish Commission and University of Florida
- 5:00 P.M.—Adjourn

APPLICATOR'S SESSION

1:30 P.M.-3:00 P.M.

Room B

Presiding: Robert Blakeley, President, Plantation Water Control District, Plantation, Florida

- 1:30 P.M.—"On the Use of E-3 for Floating and Emergent Aquatic Vegetation," L. V. Guerra, Director, Statewide Noxious Vegetation Control Program, Texas Parks and Wildlife Department, San Antonio, Texas
- 1:45 P.M.—"Weed Control with Inverts in Broward County," Ross Hooks and Chuck Hargrove, Broward County, Florida
- 2:00 P.M.—"Komeen: A New Herbicide for Hydrilla," Robert D. Blackburn, USDA, Fort Lauderdale, Florida
- 2:15 P.M.—"Treatment of Lake Bell Using the Bifluid Invert System," Porter Lambert, Southwest Florida Water Management District, Brooksville, Florida
- 2:30 P.M.—"Selectivity of Submerge Aquatics Using the Bifluid Invert System," Russell C. Lee, Southwest Florida Water Management District, Brooksville, Florida
- 2:45 P.M.—"Development of the Bifluid Invert System for Control of Submersed Aquatics," John T. Kelso, Southwest Florida Water Management District, Brooksville, Florida
- 3:00 P.M.—Adjourn



Tuesday Evening JULY 16, 1974

6:30 P.M.-8:00 P.M.

Hospitality Hour

Poolside

8:00 P.M.

Annual Banquet

Poolside

Presiding:

Dr. Alva Burkhalter

President, The Hyacinth Control Society

Principal Speaker:

The Honorable William E. Fulford

State Representative, District 40, State of Florida, whose subject will be

"Weeds and Politics"



10

WEDNESDAY, JULY 17, 1974 RESEARCH SESSION

9:00 A.M.-12:00 Noon Room A

Presiding: David Sutton, Assistant Professor, Department of Agronomy, University of Florida

- 9:00 A.M.—"Uptake of Lead by Three Species of Aquatic Plants," W. Harold Ornes and David L. Sutton, Agricultural Research Center, University of Florida, Gainesville, Florida
- 9:15 A.M.—"Metabolism and Breakdown of Endothol in the Aquatic Environment," Obren Keckemet, Pennwalt Corporation, Montgomery, Alabama
- 9:30 A.M.—"Dark Submergence Inhibits Alligatorweed Budbreak," P. C. Quimby, Jr. and S. H. Kay, Southern Weed Science Laboratory, Stoneville, Mississippi
- 9:45 A.M.—"A Study of Floating Bladderwort Species," T. J. Denike, J. L. Williams and R. W. Geiger, 3M Company, Lakes and Waterways Management Service
- 10:00 A.M.—"Evaluation of Controlled Release Herbicide Formulations," G. A. Janes, and S. M. Bille, Creative Biology Laboratory Inc., Barberton, Ohio
- 10:15 A.M.—"Ecosystem Modeling of Lake Eutrophication with Special Reference to Aquatic Weed Management," William J. Mitsch, Graduate Assistant, University of Florida, Gainesville, Florida
- 10:30 A.M.—Coffee Break
- 10:45 A.M.—"Use of Models in Developing Aquatic Weed Control Strategies," Katherine C. Ewel, University of Florida, Gainesville, Florida
- 11:00 A.M.—"Alligatorweed: Coordinating Management with Growth," W. C. Durden, R. D. Blackburn, and H. T. DeRigo, USDA, Fort Lauderdale, Florida
- 11:15 A.M.—"A Long-Range Plan for Developing Operational Management of Aquatic Plants," William N. Rushing, U. S. Engineer Waterways Experiment Station, Corps of Engineers, Vicksburg, Mississippi

APPLICATOR'S SESSION

9:00 A.M.-12:00 Noon Room B

Presiding: Bill Hogan, Chevron Chemical Company

- 9:00 A.M.—"Hyacinths in the Atchafalaya Basin Swamp, Louisiana," Sandra S. Thompson, Executive Director, Atchafalaya Basin Division, Baton Rouge, Louisiana
- 9:15 A.M.—"Ways and Means to Fund Aquatic Weed Control Equipment," C. Brate Bryant, President, Aquamarine Corporation, Waukesha, Wisconsin
- 9:30 A.M.—"Productivity and Costs in Aquatic Plant Harvesting—Dane County, Wisconsin, 1973,"
 H. D. Bruhn, Professor of Agricultural Engineering, R. G. Koegel, Research Associate Water Resources, and D. F. Livermore, Professor of Mechanical Engineering, University of Wisconsin, Madison, Wisconsin
- 9:45 A.M.—"Mechanical Harvesting of Water Hyacinth on the St. Johns River," Larry M. Curtis, Extension Service, University of Georgia, Athens, Georgia
- 10:00 A.M.—"Effects of Co² Laser Radiation on Water Hyacinth Growth," John G. Collins, Department of the Army, Corps of Engineers, Vicksburg, Mississippi
- 10:15 A.M.—"Effects and Possible Modes of Action of Laser Radiation on Water Hyacinth (Eichhornia crassipes)," Virginia R. VanSickle and Dana R. Sanders, Sr., Department of Biology, Northwestern State University, Natchitoches, Louisiana
- 10:30 A.M.—Coffee Break
- 10:45 A.M.—"Applicator's Tools, Methods and Precautions," Andy Price, Asgrow Florida Company, Plant City, Florida

FINAL BUSINESS MEETING

11:30 A.M.-12:00 Noon

Rooms A & B

Presiding: Dr. Alva Burkhalter, President The Hyacinth Control Society

- 12:00 Noon—Final Adjournment
- 12:15 P.M.—**Board of Directors Meeting**—Treasure Room

HONORARY MEMBERS

DR. F. L. TIMMONS
Tucson, Arizona
MR. WILLIAM E. WUNDERLICH
New Orleans, Louisiana

COMMERCIAL SUSTAINING MEMBERS

APPLIED BIOCHEMISTS, INC.
Mequon, Wisconsin
ASGROW FLORIDA COMPANY
Plant City, Florida
AQUAMARINE CORPORATION

AQUAMARINE CORPORATION

Waukesha, Wisconsin

THE 3M COMPANY
Pompano Beach, Florida

KERR-McGEE CHEMICAL CORPORATION Jacksonville, Florida

L-R-S CORPORATION
Winter Park, Florida

PENNWALT CORPORATION

Montgomery, Alabama

RHODIA, INC. Atlanta, Georgia

SOUTHERN MILL CREEK PRODUCTS CO., INC. Tampa, Florida

INDIVIDUAL SUSTAINING MEMBERS

CLEAR, INC.

Minneapolis, Minnesota

INDIAN RIVER FARMS DRAINAGE DISTRICT Vero Beach, Florida

MR. DICK JOHNSTON

DeLeon Springs, Florida

MR. JAMES L. McABEE, JR. Atlanta, Georgia

MR. SAM F. McMURRAY Tampa, Florida

MR. JOHN E. MERK Jupiter, Florida

MR. PAUL J. SCHOUBOE Winter Park, Florida

MR. DON E. SEYMOUR Mequon, Wisconsin

MR. CLIFF SUTTON
Lakeland, Florida

MR. NELSON VIRDEN

Jackson, Mississippi