# Midsouth Aquatic Plant Management Society

# Newsletter

Volume 29 Number 3

September 2011

#### **BOARD OF DIRECTORS**

#### **Officers**

HARRY KNIGHT - President

**SHERRY WHITAKER** - Secretary

#### **Directors**

TOM BROADWELL

CRAIG AGUILLARD

GERALD ADRIAN

**CLIFF YOUNG** 



## To the Membership:

Folks, times are changing fast; regulations, research and industry are just a few of the things you will catch up on at the upcoming 30<sup>th</sup> annual MidSouth Aquatic Plant Management Society Meeting. Come join us at Lake Guntersville State Park Lodge, Guntersville, AL for our annual meeting October 4-6, 2011. With all the change, and sometimes turmoil, in the industry this will be the best regional opportunity to educate yourself on how it will all affect your operations. As in previous years, we will hold an aquatic plant management workshop on Tuesday, October 4, in the afternoon to earn CEU credits towards applicator licensure.

As our 2011 application season comes to an end, our industry is just ramping up for the 2012 season. All of the upcoming meetings keep many folks busy, which is all voluntary work in addition to our real jobs. Meetings like the MidSouth cannot happen without the efforts of many folks. I would like to thank three of them because they are the leading edge of this meeting. Sherry Whitaker, Ryan Wersal and Troy Goldsby have made this an easy job for me this past year as your president. Easy for me and hectic for them; I owe them my thanks and most likely an apology or two.

This meeting will provide a great amount of information and those valuable CEU's we all need. Come and see us for a great meeting this October at Lake Guntersville State Park.

Sincerely,

Harry Knight

Harry Knight President



## **Preliminary MSAPMS Annual Meeting Agenda**

### Tuesday, October 4th

## Tuesday's Agenda-at-a-Glance

9:00 am - 12:00 pm	Board of Directors Meeting (Boardroom)
1:00 pm - 5:30 pm	Aquatic Plant Management Workshop (Camellia)
3:00 pm - 6:00 pm	Meeting Registration (Grandview Ballroom)
3:00 pm - 6:00 pm	Exhibits Setup (Grandview Ballroom)
7:00 pm - 9:00 pm	Welcoming Social (Grandview Ballroom)

## Wednesday, October 5th

## Wednesday's Agenda-at-a-Glance

7:15 am - 8:15 am	Breakfast (Grandview Ballroom)
7:30 am - 5:00 pm	Meeting Registration (Upper Foyer)
7:30 am - 5:00 pm	Exhibits Open (Grandview Ballroom)
8:15 am - 12:00 pm	Session One (Camellia)
9:45 am - 10:15 am	Refreshment Break (Grandview Ballroom)
12:00 pm - 1:15 pm	Lunch (Grandview Ballroom)
1:15 pm - 4:45 pm	Session Two (Camellia)
3:00 pm - 3:30 pm	Refreshment Break (Grandview Ballroom)
4:45 pm - 5:00 pm	Business Meeting (Camellia)
6:00 pm - 10:00 pm	Banquet (Grandview Ballroom)

## **Session One** (Camellia)

Moderator: Troy Goldsby, Aqua Services, Inc., Guntersville, Alabama

8:15 am	Opening Remarks and Announcements
8:25 am	Presidential Address Harry Knight Applied Biochemists, Cullman, Alabama
8:45 am	<b>Keynote Address Representative Wes Long</b> <i>Republican 27<sup>th</sup> District of Alabama – Marshall County</i>
9:05 am	Aquatic Plant Management Society Update Tyler Koschnick President, Aquatic Plant Management Society
9:25 am	Developing Integrated Pest Management Priorities fo Ryan Wersal <sup>1</sup> , John Madsen <sup>1</sup> , Robert, Richardson <sup>2</sup> , and

or Aquatic Plant in the MidSouth Ryan Wersal<sup>1</sup>, John Madsen<sup>1</sup>, Robert. Richardson<sup>2</sup>, and Steve Hoyle<sup>2</sup>

Geosystems Research Institute, Mississippi State University, Starkville, Mississippi

<sup>2</sup>Crop Science Department, North Carolina State University, Raleigh, North Carolina

9:45 am **Refreshment Break** (Grandview Ballroom) 10:15 am **Aquatic Plant Management in GPC Reservoirs Tom Broadwell** Georgia Power Company, Smyrna, Georgia 10:35 am **Aquatic Plant Distribution and Management in APC Reservoirs Jason Carlee** Alabama Power Company, Calera, Alabama 10:55 am **Aquatic Plants in the Tennessee River System David Webb** Tennessee Valley Authority, Muscle Shoals, Alabama **Aquatic Plant Distribution and Management in PRVWSD** 11:15 am **David Stodgehill** Pearl River Valley Water Supply District, Ridgeland, Mississippi 11:35 am "Galleon SC/Aquathol K Treatment in Spring Creek, Lake Seminole". **Brent Mortimer** Environmental Compliance Coordinator, ACF Rivers Project, USACE, Mobile District, Mobile, Alabama 12:00 pm **Lunch** (*Grandview*) **Session Two** (Camellia) **Moderator: Ryan Wersal,** Geosystems Research Institute, Mississippi State University, Starkville, Mississippi Variations in Water Exchange Characteristics Among Hydrilla Sites in the Ross Barnett 1:15 pm **Reservoir** (Student Presentation) Bradley Sartain, Ryan Wersal, and John Madsen Geosystems Research Institute, Mississippi State University, Starkville, Mississippi 1:30pm Sensitivity of Native Aquatic Plant Species to Imazamox and Penoxsulam Ryan Wersal and John Madsen Geosystems Research Institute, Mississippi State University, Starkville, Mississippi 1:45 pm Predicting Plant Dispersal Using GPS Tracking (Student Presentation) Amanda Fernandez and John Madsen Geosystems Research Institute, Mississippi State University, Starkville, Mississippi 2:00 pm Laboratory and Field Evaluation of New Solutions for Phosphorus, Algae, and Water **Quality Management** West Bishop<sup>1</sup> and Todd Horton<sup>2</sup> <sup>1</sup>SePRO Corporation, SePRO Research and Technology Campus, Whitakers, North Carolina <sup>2</sup>SePRO Corporation, Anderson, South Carolina

Pond Management Approaches and Effects on Trophic-Dynamics (Student Presentation) 2:15 pm Michael Sherman<sup>1</sup>, Eric Dibble<sup>1</sup> and John Madsen<sup>2</sup> <sup>1</sup> Department of Wildlife, Fisheries and Aquaculture, Mississippi State University, Starkville, Mississippi <sup>2</sup>Geosystems Research Institute, Mississippi State University, Starkville, Mississippi 2:30 pm Response of Lyngbya wollei to a Combination of Herbicides in the Laboratory and Field (Student Presentation) James Herrin D. B. Warnell School of Forestry and Natural Resources, University of Georgia, Athens, Georgia Attempts at Preventing the Growth Submersed Aquatic Vegetation in Arkansas Bait and 2:45 pm Ornamental Fish Culture Ponds: Year 2. George Selden Aquaculture/Fisheries Center, University of Arkansas at Pine Bluff, Pine Bluff, Arkansas 3:00 pm **Refreshment Break** (Grandview Ballroom) **Alternative Shoreline Protection Strategies for Lakefront Properties** 3:30 pm **Chris Boyd** Coastal Research and Extension Center, Mississippi State University, Biloxi, Mississippi 3:45 pm Aquatic Community Responses to Different Plant Control Strategies in the Mississippi Alluvial Valley (Student Presentation) **Jonathan Fleming**<sup>1,2</sup>, Matthew Spickard<sup>1</sup>, Eric Dibble<sup>1</sup>, and John Madsen<sup>2</sup> <sup>1</sup>Department of Wildlife, Fisheries, and Aquaculture, Mississippi State University, Starkville, Mississippi <sup>2</sup> Geosystems Research Institute, Mississippi State University, Starkville, Mississippi 4:00 pm Clipper Case Studies by a Private Company Norman Halev III Fisheries Biologist, Aqua Services, Inc., Guntersville, AL 4:15 pm **Nutrient Fluctuations Induced Through Manipulation of Aeration in a South Florida Retention Pond Amanda Ouillen** Vertex Water Features, Pompano Beach, Florida Efficacy of Harpoon Granular Applications on Guntersville Reservoir 4:30 pm **Brvan Goldsby** Aqua Services, Inc., Guntersville, Alabama **Business Meeting** 4:45 pm 5:00 pm Adjourn

#### Thursday, October 6th

#### Thursday's Agenda-at-a-Glance

7:15 am - 8:15 am	Continental Breakfast (Grandview Ballroom)
7:30 am - 12:00 pm	Meeting Registration (Upper Foyer)
7:30 am - 12:00 pm	Exhibits Open (Grandview Ballroom)
8:15 am - 11:45am	Session Three (Camellia)
9:45 am - 10:15am	Refreshment Break (Grandview Ballroom)
12:00 pm - 2:00 pm	Board of Directors Meeting (Board Room)

## **Session Three Regulatory** (Camellia)

Moderator: Josh Yerby, Aqua Services, Inc., Guntersville, Alabama

8:15 am **NPDES Update** 

**Carlton Layne** 

Aquatic Ecosystem Restoration Foundation, Marietta, Georgia

8:45 am Florida

Jeff Schardt

Florida Fish and Wildlife Conservation Commission, Tallahassee, Florida

9:15 am Tennessee Permitting – 11 Years and Counting

**Troy Goldsby** 

Aqua Services, Inc., Guntersville, Alabama

9:45 am **Refreshment Break** (Grandview Ballroom)

10:15 am Responsible Industry for a Sound Environment (RISE) Update

**Permitting in South Carolina** 10:45 am

11:15 am **Industry Updates** 

11:45 am **Closing Remarks and Adjourn 30th Annual Meeting** 

**Troy Goldsy** 

Aqua Services, Inc., Guntersville, AL



## Aquatic Plant Management Applicator Workshop, October 4, 2011

We will hold a four-hour pre-conference workshop on aquatic plant management for applicators covering integrated pest management, herbicide application methods, pesticide label restrictions, application gear, compliance, and aquatic plant identification. The fee for this workshop will again be \$50. The workshop will be held on the afternoon of October 4, 2011. Please plan to attend!

For more information, contact Dr. John D. Madsen, Associate Professor, Mississippi State University, jmadsen@gri.msstate.edu

## **Aquatic Plant Management Applicator Workshop Agenda**

1:00 pm	Welcome and logistics
	Dr. John Madsen
	Mississippi State University Extension Service, Starkville, Mississippi
1:15 pm	Biological control of aquatic weeds: Integrated Pest Management
	Dr. Michael Grodowitz
	US Army Engineer Research and Development Center, Vicksburg, Mississippi
2:15 pm	Chemical control of aquatic weeds
	Dr. Ryan Wersal
	Geosystems Research Institute, Mississippi State University, Starkville, Mississippi
3:15 pm	Break
3:30 pm	Federal and state pesticide label restrictions, personal protective gear, and compliance Mr. Carlton Layne
	Aquatic Ecosystem Restoration Foundation, Marietta, Georgia
4:30 pm	Identification of common aquatic plants and weed problems in the MidSouth
	Dr. John Madsen
	Mississippi State University Extension Service, Starkville, Mississippi
5:30 pm	Workshop Ends

MSAPMS Board of Directors will hold their next board meeting at Lake Guntersville State Park on October 4, 2011.







syngenta.

## 2011 H<sub>2</sub>O Pro<sup>™</sup> Aquatic Herbicide Performance Guarantee

QUALIFYING PARTICIPANT: Professional aquatic applicators with total purchases of Qualifying Products during the 2010 Program Period (October 1, 2009 through September 30, 2010) of \$7,500 or greater OR total purchases of Qualifying Products during the 2011 Program Period of \$7,500 or greater.

QUALIFYING PRODUCTS: All Syngenta Products labeled for aquatic use and purchased from a Syngenta Authorized Distributor/Retailer/Agent, including but not limited to all package sizes of Reward® Landscape and Aquatic Herbicide and Refuge™ Herbicide.

#### TREAT WITH CONFIDENCE:

During the 2011 Program Period—October 1, 2010 through September 30, 2011:

 Apply Qualifying Products at the maximum labeled rate for the treatment area and in accordance with the product label(s). Use Qualifying Products in combination with any approved tank-mix partner in accordance with the label. For your convenience, the tank-mix partners for Reward are listed below.

#### ...AND YOU'RE COVERED:

. If the Qualifying Product does not perform as stated under the Guarantee Terms and Conditions below, Syngenta will share up to 50% of the total cost of the Syngenta Qualifying Product used for retreatment.

#### **GUARANTEE TERMS AND CONDITIONS:**

- The Qualifying Product will control at least 70% of the treated, labeled weed(s) as compared to untreated areas with similar weed infestation, environment, weather, and other conditions.
- . Claims must be filed within thirty (30) calendar days of application so that the claim may be verified and evaluated.
- Any claims under the H<sub>2</sub>O Pro "Aquatic Herbicide Performance Guarantee must be received by Syngenta on or before October 30, 2011. Go to www.syngentavm.com to file a claim.
- · Only licensed professional aquatic herbicide applicators may participate in the H<sub>2</sub>O Pro Aquatic Herbicide Performance Guarantee Program.
- To qualify, Claim Form must be filled out in its entirety.
- Syngenta reserves the right to verify all purchases. Syngenta reserves the right to add or delete Qualifying Products at its discretion.
- Syngenta will reimburse up to 50% of the cost of the Qualifying Product for one (1) retreatment. Claim subject to verification by Syngenta territory manager or other party designated by Syngenta. Reimbursement is at the sole discretion of Syngenta. Cost and reimbursement amount is based on price of the Qualifying Product used at the time of treatment. Syngenta may, at its discretion, reimburse with product or cash.

- · Syngenta will not pay for the application or other costs of retreatment. The maximum benefit any individual claimant may receive for the 2011 Program Period is a \$50,000 contribution toward the cost of the retreatment.
- · Program benefit is for weed control only; Syngenta will not pay for any other service, product, loss, or damages.
- · Surface application of floating weeds (including surface algae) and submersed weeds (excluding subsurface algae) on Reward label are covered by the 2011 H<sub>2</sub>O Pro Aquatic Herbicide Guarantee.
  - -Minimum application rates for Reward are listed in the accompanying chart.
  - For very dense submersed populations of weeds, it is recommended to use Reward in combination with a copper-based aquatic herbicide or an endothall product from the approved tank-mix partner list set forth herein.

#### PERFORMANCE GUARANTEE RATES FOR REWARD\*

Weed species	Gallons per surface acre
Algae (Spirogyra spp. & Pithophora spp.)	2
Bladderwort (Utricularia spp.)	2
Coontail (Ceratophyllum demersum)	2
Duckweed (Lemna spp.)	1
Elodea (Elodea spp.)	2
Frog's Bit (Limnobium spongia)	.75
Hydrilla (Hydrilla verticillata)	2
Naiad (Najas spp.)	2
Pennywort (Hydrocotyle spp.)	.75
Pondweeds (Potamogeton spp.)	2
Salvinia (Salvinia spp.)	.75
Waterhyacinth (Eichhornia crassipes)	.75
Waterlettuce (Pistia stratiotes)	.75
Watermilfoils (Myriophyllum spp.)	2

<sup>\*</sup>Always follow product label use directions. The Performance Guarantee is valid only when Reward is applied at the rates identified above

#### APPROVED TANK-MIX PARTNERS FOR REWARD\*\*

Clearigate® copper-herbicide/algaecide	Nautique™ herbicide
K-Tea" algaecide	Captain" algaecide
Komeen <sup>™</sup> herbicide	Aquathol® herbicide
Cutrine*-Plus herbicide/algaecide	Hydrothol® herbicide

<sup>\*\*</sup>Other tank-mix combinations must be approved by a Syngenta territory manager prior to use to retain eligibility for the HoO Pro Aquatic Herbicide Performance Guarantee.

To learn more about the 2011 H<sub>2</sub>O Pro Aquatic Herbicide Performance Guarantee, contact Melissa Barron at 407.257.8043 or melissa.barron@syngenta.com.

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## 30<sup>th</sup> Annual Meeting of the MidSouth APMS **Registration Form**



#### **Delegate/Student Information**

Name:						260 14
Affiliation:						
Address:						
City: State:			_ Zip	Code:		
E-mail Address:						
Phone: Fax: _						
Registration (Includes Reception, Lunch, Banquet, and Refreshment Breaks)		E <b>arly</b> ptember 9, 2011		the Door		
□ Delegate Registration (Includes 2011-2012 Regular Membership Dues)	10/15/10	100.00		125.00	\$	
☐ Student Registration (Presenting Paper)	\$	0.00	\$	0.00	\$	0.00
☐ Student Registration (Not Presenting Paper)	\$	35.00	\$	35.00		
(Includes 2011-2012 Student Membership Dues)						
☐ Guest Registration Name:	\$	50.00	\$	75.00	\$	
(Spouse, partner, child over 12 years-of-age)						
☐ Aquatic Plant Management Workshop	\$	50.00	\$	50.00	\$	
2011-2012 Membership Dues	ø	<b>5</b> 00			<b>c</b>	
□ Student	\$	5.00 50.00				
□ Sustaining  *** PLEASE NOTE that Sustaining membership dues are paid with an Exhibit	0.550	77.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0			ъ	
Meeting Sponsorship	ree					
□ Platinum			\$	1500.00	\$	
□ Gold			7.000	1000.00		
□ Silver				750.00		
□ Bronze				500.00		
□ Contributing				250.00	2000	
Exhibitor Space (Includes 1 booth space, 1 free registration and 1 Sustaining	Member	rship for 2011-	-2012)			
☐ Exhibit Booth Space (8'x 10')			\$	450.00	\$	
Electricity Required for Exhibit $\square$ Yes $\square$ No A 6-foot table is included with the booth space, and electrical hook-up can Allocated on a first-come, first-served basis. Please note that one free region Membership are included in the Exhibit Fee.						
<b>Donation to the Scholarship Fund</b>					\$	
Total Amount					\$	

Early registration accepted if form and payment received by Sept. 9, 2011.

Please mail completed form and payment to:

Judy Shearer MSAPMS

P.O. Box 822792 Vicksburg, MS 39182 Ph: 601-634-2516

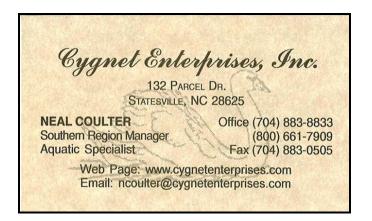
Cancellation/Refund Policy: Registration fees are fully refundable prior to September 16, 2011. No refund of any fees will be issued if cancellation of participation is received after September 16, 2011. Notice of cancellation must be received by MSAPMS via mail, fax or e-mail. Phone cancellations will not be accepted.

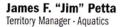
## **Keep Your Membership Current**

The MidSouth Aquatic Plant Management Society wants to ensure that everyone is being kept up-todate on issues facing our Society, industry, and research. In order to accomplish this, we need to have updated information regarding our membership, most notably email addresses. The best way to stay involved with Society issues is to renew your membership and maintain your membership status each year. Renewing your membership can be accomplished via sending payment to the treasurer or, easier yet, to attend the annual meetings. Please take time to update your membership status, contact information, and encourage colleagues to join the MidSouth Aquatic Plant Management Society.

If you are a current member in good standing please email any updated contact information to Secretary Sherry Whitaker at:

sherry.l.whitaker@usace.army.mil.











The following names are proposed for consideration for officer and/or Director positions for 2011-2012:

#### **President-Elect**

Gerald Adrian, United Phosphorus, Inc.

#### Secretary

Sherry Whitaker, USACE, R&D Center

#### Treasurer

Craig Aguillard, WinField Solutions

#### **Editor**

Dr. Ryan Wersal, Mississippi State University

#### **Directors**

Josh Yerby, Aquaservices, Inc. Director (1yr term to replace Craig Aguillard)

Jim Petta, Valent USA Corporation Director (1 yr term to replace Gerald Adrian)

Tom Warmouth, Cygnet Enterprises, Inc. Director (2 yr term)

Cliff Young, Alabama Power Co. Director (2 yr term)

Also: Troy Goldsby – President Harry Knight – Past President



Jeremy Slade Accounts Manager, Aquatics

United Phosphorus, Inc. 4003 NW 65th Avenue Gainsville, FL 32653 www.upi-usa.com

Mobile: 662-617-4571 Email: jeremy.slade@uniphos.com

### **Proposed By-Laws Changes**

Jason Carlee

#### Currently the By-laws read as follows:

#### ARTICLE XI: COMMITTEES

Standing committee chairs shall be recommended by the President and approved by the Board of Directors to serve during his term as President as follows:

- 1. Membership Committee: This committee shall consist of not less than three (3) members, one of whom shall be the Secretary. This committee shall promote memberships in the Society.
- 2. Editorial Committee: This committee shall consist of at least three (3) members who shall assist the Editor in generating and distributing newsworthy and educational items of the Society.
- 3. Program Committee: The program committee shall consist of the members of the Board of Directors, chaired by the President Elect and its duty shall be to provide programs for each annual meeting.
- 4. Nominating Committee: The nominating committee shall consist of not less than three (3) members, one of whom shall be the Immediate Past President, who shall serve as chair of this committee and recommend to the Society candidates for election to the several offices.
- 5. Special Committee: Such other committees as from time to time may be deemed necessary shall be appointed by the President with the concurrence of the Board of Directors.
- 6. Internal Audit Committee: This committee shall consist of at least two (2) members who shall audit all books and fiscal documents of the Society annually, prior to the annual meeting.
- 7. Scholarship Committee: This committee shall consist of a chair and at least two (2) other members. Duties of the committee shall include promoting awareness of scholarships to worthy candidates and their major professors, review and determination of qualified applicants and to make recommendations to the Board as to how scholarship(s) should be awarded.

The following additions in italics are proposed:

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- 8. Website Committee: This committee shall consist of at least three (3) members, one of whom shall be the Editor, who shall serve as chair of this committee. Duties shall include maintaining the

Society's website to provide information and newsworthy items relevant to the mission of the Society and ensuring that all links and information are current and functional.

9. Sponsorship Committee: This committee shall consist of a chair and at least two (2) other

members. Duties of the committee shall include soliciting and securing donations / sponsorships for meeting functions from vendors and other potential donors, coordinating with Program Committee regarding funds available for annual meetings, and communicating possible changes to sponsorship levels.



# Applied Polymer Systems, Inc. The Originator of Floc Log, Silt Stop, and Pond Log Products

established 1997







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## Pond Logs





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Check the website for society updates at: www.msapms.org





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# Too Many Weeds Spoil the Fishing



Exotic invasive aquatic plants such as Hydrilla, Eurasian Water Milfoil, Curlyleaf Pondweed, Water Chestnut and Water Hyacinth can be detrimental to a healthy fishery in lakes across the country.

These invasive plants when left unmanaged can alter the ecosystem of lakes and reservoirs, causing a decline in the fishery, as well as interfering with other valued uses of waterbodies.

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## Refuge<sup>TM</sup> Herbicide: Syngenta's latest addition and the most concentrated glyphosate in aquatics

#### Melissa Barron

One of the most commonly used herbicides in aquatics and vegetation management today is glyphosate. Over the years, several formulations and products containing glyphosate have entered the marketplace, and it's sometimes confusing to understand the differences among them all.

A glyphosate molecule is composed of two different things: the glyphosate acid - the part that actually kills the plant – and a salt "carrier" that enhances absorption into the plant. This glyphosate acid has a negative charge and is neutralized when positive ions (cations) such as potassium, isopropylamine, or diammonium are added to form a salt. Since these salts have varying molecular weights, they are able to bind with different amounts of glyphosate acid.

When glancing at a glyphosate label, one of the first things you see is the pounds of Active Ingredient (a.i.). The a.i. of glyphosate is the weight of both the glyphosate acid (active) and the weight of the salt formulated with the glyphosate molecule (carrier). It's impossible to compare product strength based solely on this a.i. measurement because you'd be comparing apples to oranges... or, in this case, heavy and light salts.

Because the glyphosate acid is the portion of the formulation that ultimately controls the weed, we should refer to glyphosate rates not in terms of pounds of a.i., but in terms of pounds of Acid Equivalent (a.e.). The a.e. of glyphosate is simply the weight of the glyphosate acid without the weight of the salt – it helps us look at the different concentrations and different salts on an even playing field, and it's crucial when calculating application rates. Ultimately, the higher the amount of a.e. in a glyphosate, the more concentration and strength you'll get.

Recently, Syngenta introduced Refuge<sup>TM</sup>, a new glyphosate in the Aquatics and VM market, and we're excited to say it's the most concentrated glyphosate available. Using Potassium salt as a carrier, Refuge allows for a 20% greater load of glyphosate acid in every jug. Here's a look at how Refuge<sup>TM</sup> compares to other common glyphosate products:

Product	Salt	Pounds A.I./gal	Pounds A.E./gal	
Touchdown Pro	Diammonium	3.7	3	
Rodeo (Dow)	Isopropyl amine	5.4	4	
Aqua Star	Isopropyl amine	5.4	4	
Refuge <sup>TM</sup>	Potassium	6.2	5	

Refuge<sup>TM</sup> is the only 5 lb. a.e./gal glyphosate available for aquatic use, and it offers systemic, non-selective control of more than 170 emerged annual and perennial grass species, broadleaf weeds, and unwanted woody brush and trees. Refuge is reliable weed control that's competitively priced and available in a 2.5-gallon jug, a 30-gallon drum, 250-gallon totes, or in bulk for your convenience.

In this day and age of environmental awareness, Refuge<sup>TM</sup> is a great choice for customers because the greater concentration allows for fewer containers to be used, rinsed, and recycled. Also, less overall product is needed to get the same amount of weed-killing power. Based on recommended use rates, here's how the different products compare if you're making a 2% solution\*:

Product	Pounds A.E./gal	Use Rate*	Gallons of solution you get from a 2.5 gallon container of product
Touchdown Pro	3	2.67 gal.	94
Rodeo (Dow)	4	2 gal.	125
Aqua Star	4	2 gal.	125
Refuge <sup>TM</sup>	5	1.6 gal.	156

Refuge<sup>TM</sup> also has excellent tank-mix compatibility with many other herbicides, and it has a superior rainfastness of two hours. This unique, proprietary formulation will be a great fit for your glyphosate needs.

Refuge<sup>TM</sup> is labeled for use on aquatic and wetland sites, forestry, railroad, utility, and other vegetation management sites.

In addition to competitive pricing, Refuge<sup>TM</sup> herbicide is eligible for 2011 H<sub>2</sub>O Pro Spring Purchase Program incentives. Refuge also qualifies under the H<sub>2</sub>O Pro Aquatic Herbicide Performance Guarantee. Please send an email to Melissa.barron@syngenta.com or visit www.syngentavm.com for any questions you might have.



Melissa C. Barron Southeast Aquatic Sales Professional Products

Syngenta Crop Protection, Inc. 664 Hempstead Avenue

Orlando, FL 32803 Tel 407-257-8043 Fax 407-358-5389

www.syngentaprofessionalproducts.com melissa.barron@syngenta.com

For further assistance, contact our Customer Service Center at: 866-Syngenta (866-796-4368)





## LittLine<sup>®</sup>

**Littoral Zone Treatment Technology (Patent Pending)** 

#### BEST AVAILABLE TECHNOLOGIES (BAT) TO MEET THE 2011 NPDES PESTICIDES GENERAL PERMIT (NPDES PGP) REQUIREMENTS

The LittLine® is a Patent Pending Littoral Zone Treatment Technology that was developed to support increased efficacy from aquatic pesticide applications for the control of Aquatic Invasive Species (aquatic vegetation, cyanobacteria, mussels and fish). The 2011 NPDES PGP will require that all permittees minimize discharges through the use of the lowest effective amount of pesticides.

Through the use of the LittLine<sup>®</sup> technology, aquatic pesticides applications can target any portion of the water column, rather than the entire water column, thus allowing increased efficacy through the use of the lowest effective amount of pesticides in compliance with the 2011 NPDES PGP requirements.



The LittLine® has been used to control Hydrilla in Florida (25% aquatic herbicide reduction), and Eurasian Watermilfoil in California, Idaho, Montana and Wisconsin with up to a 50% reduction in aquatic herbicide use and increased efficacy in some areas (2008 Pend Oreille System, Pack River Idaho)

On October 28, 2009, the US Army Engineer Research and Development Center, Environmental Laboratory (ERDC-EL), and Clean Lakes, Inc. entered into a Cooperative Research and Development Agreement for the "Research and Testing of a System for Precision Littoral Zone Application of Aquatic Herbicides". The Scope of the Cooperative Research and Development Program is to provide for the joint conduct of research and development investigations related to coupling the LittLine® System (Littoral Zone Treatment Technology) with ERDC-EL Hydroacoustic Submersed Plant Mapping capabilities (SAVEWSTM and related developments). It is envisioned that these two technologies will be used together to achieve precision application of herbicides to submerged, nuisance aquatic vegetation.

The LittLine® is available for hire throughout the U.S., and or through a license agreement to meet your NPDES PGP requirements.

## LITTLINE®

Littoral Zone Treatment Technology www.littline.com P. O. Box 3548 Coeur d'Alene, Idaho 83816

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## **New Student Representative Elected to** the National APMS Society



Justin Nawrocki was elected as the 6<sup>th</sup> student representative to the board of directors of the Aquatic Plant Management Society. Justin was chosen by his peers at the 51<sup>st</sup> Annual Aquatic Plant Management Society Meeting that was held in Baltimore, Maryland, from July 24 to 27. Justin will serve a 1 year term as student representative where he will attend board meetings, vote on society issues, and ensure that students' needs and ideas are heard by the board of directors.

Justin is a PhD student at North Carolina State University where his research focuses on monoecious hydrilla ecology and management, and tuber bank dynamics.



## THANK YOU TO OUR SUSTAINING MEMBERS FOR SUPPORTING THE MIDSOUTH AQUATIC PLANT MANAGEMENT SOCIETY

BioSafe Systems, LLC **Applied Polymer Systems, Incorporated United Phosphorus, Incorporated Phoenix Environmental Care Alabama BASS Federation Nation** Trans America Product Technology, Inc **Cygnet Enterprises Valent USA Corporation** Aqua Services, Incorporated **Syngenta Professional Products SePRO Corporation Kasco Marine Helena Chemical Company** 

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## Calendar of Events

Florida Aquatic Plant Management Society

October 10-13, 2011 St. Augustine, FL www.fapms.org

**North American Lake Management Society** 

October 26-28, 2011 Spokane, WA www.nalms.org

**Texas Aquatic Plant Management Society** 

October 24-27, 2011 Bandera, TX www.tapms.org

**Northeast Aquatic Plant Management Society** 

January 17-19, 2012 New Castle, NH www.neapms.net

Weed Science Society of America

February 6-9, 2012 Big Island, HI www.wssa.net

**Midwest Aquatic Plant Management Society** 

February 26-29, 2012 Milwaukee, WI www.mapms.org

January Newsletter **Deadline December 15, 2011 Send Newsletter Items to:**