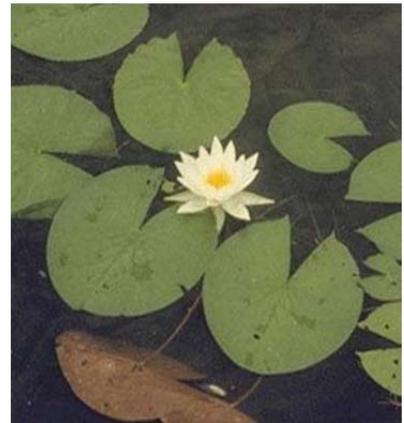


**Evaluation of Diquat and Rodeo® Aquatic Herbicide(s)  
On White Water Lily In Local Farm Ponds  
Cooperator – Chris Conley - Longview, Texas  
Authors - Randy Reeves\*  
Year - 2016  
Gregg County**

**Summary:**

Aquatic weeds can be a valuable asset to the general farm pond ecology and serve as a benefit to aquatic life. Many times aquatic weeds can also become a burden and interfere with farm pond recreation and management when left to proliferate and grow unchecked.

The white water lily is a perennial plant that often form dense colonies. The leaves arise on flexible stalks from large thick rhizomes. The leaves are more round than heart-shaped, bright green, 6 to 12 inches in diameter with the slit about 1/3 the length of the leaf. Leaves usually float on the water's surface. Flowers arise on separate stalks, have brilliant white petals (25 or more per flower) with yellow centers. The flowers may float or stick above the water and each opens in the morning and closes in the afternoon. The flowers are very fragrant. White water lily can spread from seeds or the rhizomes.



White water lily was the main focus of this demonstration, but other aquatic weeds were also present in the demonstration plot area, those were; duckweed, softtrush and water primrose.

**Objective:**

To evaluate the performance and ability to control white water lily with aquatic herbicides containing diquat and glyphosate, which are readily available to landowners and easy to find locally.

**Materials & Methods:**

On Friday, April 15, 2016 applications of Rodeo® (Glyphosate) and WeedPlex Pro®

(Diquat) were applied to the pond. The weather was sunny, 75 degrees and calm winds. A pump-up sprayer was used for this demonstration. The flowing rates and surfactants were added;

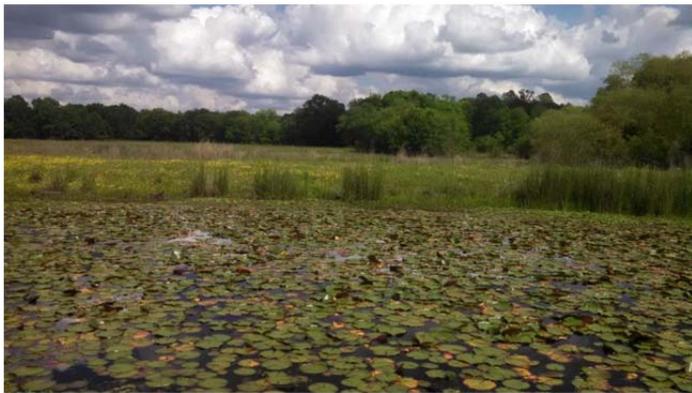
<b>Product</b>	<b>Rate</b>	<b>Amount of Surfactant</b>
<b>Weedplex Pro®</b> (Diquat)	4 oz. per gallon	10 oz. per gallon
<b>Rodeo®</b> (Glyphosate)	4 oz. in 1.5 gallon (2% Solution)	15 oz. in 1.5 gallon

**Results & Discussion:**

Evaluations were made at 24 and 48 hours, one week later, on Friday, April 22, 2016 and again, 3 weeks later on Thursday, May 5, 2016. The following photographs are available. Note that the WeedPlex Pro® (Diquat), showed results after just 24 hours after treatment, the Rodeo® (Glyphosate), was slower to act.



**WeedPlex Pro® (Diquat) 24 Hours Later...**



**Rodeo® (Glyphosate) 24 Hours Later...**



**WeedPlex Pro® (Diquat) 48 Hours Later...**



**Rodeo® (Glyphosate) 48 Hours Later...**



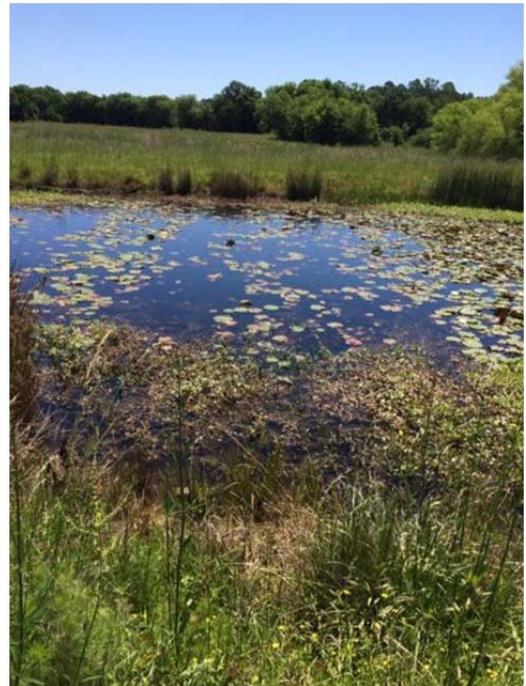
**WeedPlex Pro® (Diquat) 1 Week Later...**



**Rodeo® (Glyphosate) 1 Week Later...**



**WeedPlex Pro® (Diquat) 3 Weeks Later...**



**Rodeo® (Glyphosate) 3 Weeks Later...**

**NOTE:** The treated plots had 3 days with no notable rainfall on them, results were mixed and it might be noted that diquat is listed as “poor” in treating white water lilies to begin with, so we somewhat expected this. A rainfall event occurred three days after treatment. The Rodeo® product however, we expected better results, the plants look effected, but not controlled. After three weeks, the Rodeo product was slowly still killing weed growth.

It might also be noted we had fair to good control on other aquatic weeds in this demonstration and are noted as follows;

**After One Week – April 22, 2016**

<b>Aquatic Weed</b>	<b>% Control - Diquat</b>	<b>% Control - Glyphosate</b>
White Water Lily	20%	10%
Duckweed	100%	0%
Softrush	100%	0%
Water Primrose	80%	30%

**After Three Weeks – May 5, 2016**

<b>Aquatic Weed</b>	<b>% Control - Diquat</b>	<b>% Control - Glyphosate</b>
White Water Lily	0% (Regrowth)	70%
Duckweed	100%	100%
Softrush	100%	80%
Water Primrose	0% (Regrowth)	90%

**Conclusions:**

The Texas A&M AgriLife Extension Service demonstrations have shown that small farm ponds are capable of producing 1000 pounds of edible size fish per surface acre per year at a retail value of \$1.60 per pound live-weight or \$1600.00 per acre. Complete aquatic weed coverage decreases pond un-useable for recreational (sport) fishing.

**Acknowledgments:**

We would like to thank Chris and Paula Conley for the use of his pond, as well as furnishing some of the herbicide that was used in this demonstration.

**Disclaimer Clause:**

Trade names of commercial products used in this report are included only for better understanding and clarity. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by the Texas A&M University System is implied. Readers should realize that results from one experiment do not represent conclusive evidence that the same response would occur where conditions vary.

*\*County Extension Agent AG/NR, Gregg County, East District 5*