



**PLANET FRIENDLY®**  
Est. 1994

## **Growers Benefit with ECOsmarte Instead of Reverse Osmosis**

By: Mike Dewar

In 2004 Scott Wagner was prepared to spend nearly \$250,000 for a reverse osmosis system to treat his problem well water at his annual flower growing operation in Ham Lake, MN. He was not prepared, however, to absorb the \$30,000 annual operating cost in membranes, salt and increased electricity expenses and was acutely aware of the environmental issues.

***“The ECOsmarte irrigation system has proven a cost effective solution to our 3 part iron and 2 full part manganese well water,” Scott Wagner.***

Wagner also noted the carbonate calcium alone was over 20 grains (350ppm) and his flow rates reached as high as 60 GPM. He is now changing the media and anodes on his six filter tanks at a cost after four years of around \$4,000.

The Wagner system features six Pentair 2850 1-1/2” water valves that communicate with the ECOsmarte control boxes and have performed without issue for nearly five years.

It should be noted that the Minnesota growing season runs from May through September and that Pentair recommends valve rebuilds every three years for growers operating in more temperate climates.

ECOsmarte points to the other side of the Minneapolis, MN market, Apple Valley, to the growing operation of Pahls Nursery which has treated all of its growing water since early 2000.

Gary Pahl, President, also points out his second “hex” (six tank 60 GPM) ECOsmarte system has six seasons of firm irrigation operation without a maintenance event or filter/valve update.

“We knew when we purchased our second ECOsmarte irrigation system for our expanded operation in 2003 this was both the fiscally and environmentally responsible approach to premium water,” Pahl emphasized.

**Seed germination studies have confirmed quicker and higher rates with oxygenated and ionized water according to ECOsmarte.**



Irrigation models available  
20-120 GPM.



1600 East 78th St. Richfield, MN 55423  
(612)866-1200 (800)466-7946 US, Canada, Mexico  
[www.ecosmarte.com](http://www.ecosmarte.com)  
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## TECHNICAL SPECIFICATIONS

### MECHANICAL & PLUMBING

Operating Press. Max. 150 PSIG  
 Operation Temp. Max. 120° F  
 Tank listing and structural integrity requirements only.

### OXYGEN ELECTRODES

Proprietary composite material

### IONIZATION ELECTRODES

100% Pure Copper

### ELECTRICAL

Input Voltage: 110 to 267 Volts, Specify  
 Output Voltage: 100 VA Class UL CSA  
 Compliance Power Supply  
 GPM: Each Unit 22 GPM to 200 GPM

Irrigation Systems May Require More  
 Than One Electronics Package.

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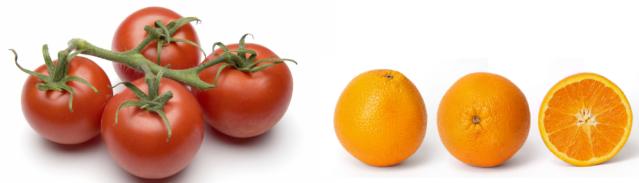
Watercheck ETL Lab Analysis with every system sold since 1994



60 GPM Sch 40 Wellwater Configuration at Wagners Greenhouses, Mpls., MN.

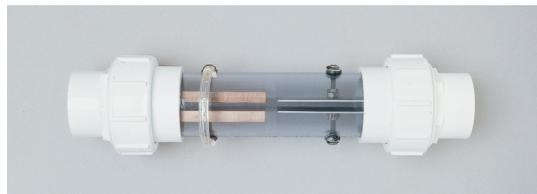
## HYDROPONICS

In hydroponic environments ECOsmarte is able to control both the dissolved oxygen (DO) and ionic copper levels to control both aerobic and anaerobic bacteria.



## FUNGICIDE

Topical ionization has been used to prevent fungus on oranges and tomatoes and allow more time on the vine.



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