

Clearstream Myco Media Filter

The ins and outs of this system and how growers say it has benefitted them.

By Neda Simeonova

One of the biggest concerns growers face today in irrigation is disease due to water contamination, especially when recycling water. Contaminants such as organic matter drawn into the water with ebb and flow systems can be a big problem, not only because they clog sprinklers and drippers, but because they remove oxygen as they decompose, causing water to become stagnant.

The Clearstream Myco Media Filter is a filtration system developed by Clearstream Filters Inc., and distributed exclusively by T.I.S. Greenhouse Solutions, Tillsonburg, ON, Canada. According to the manufacturer, the Myco filtration system is unique in that it is extremely effective but doesn't require frequent maintenance such as backwashing or cleaning. The Myco filter is completely automated and can handle up to 1,000 gal. of water per minute. We talked to some system owners and asked them to share their experiences.

HIGHLIGHTS

Hans te Grotenhuis, president of Woodhill Greenhouses, Lynden, ON, Canada, purchased the Myco filtration system in September 2003 and is very happy with the performance. Woodhill Greenhouses has almost 120,000 sq.ft. and grows only African violets. "We need to flood benches, and we are very concerned about diseases due to organic matter. All of the water we use is being recycled, so diseases are a very big concern — water has to be absolutely clean," Grotenhuis explained.

The Myco filter works as the contaminated water is pumped into a flood-box, which acts as a manifold and disperses the water evenly across the basin. The water passes

through media paper leaving behind the solid waste. The filtration system is designed so that as debris accumulates, the solid media paper is slowly indexed out the front unit where it can be collected and periodically disposed.

"I really like that the paper roll is automatic, and whenever the paper gets dirty it will advance automatically," Grotenhuis said. "It is a very simple device, and I initially found it to be a bit pricey. I paid \$16,000 Canadian, but I soon realized the benefits definitely outweigh the price point."

PERKS

According to Jim Smith, facilities manager for Fernlea Flowers, Delhi, ON, Canada, "The system is doing exactly what I was hoping it would do, and even surpassing it." Fernlea purchased their Myco filtration system in June 2003. The facility has about 37.5 acres of greenhouse growing space and uses water in excess of about 150,000 gal. per day, said Smith. Fernlea stores its water supply in an open pond, "because of that, you end up with minerals, leaches, plant life, algae and all sorts of things in the water. Needless to say, when you try to break something into a really fine mist that won't disrupt the seed in the tray, it takes a lot of filtering," Smith explained. "We were using a cartilage-style filter, and unfortunately, that was eating up one man's labor, day in and day out, trying to keep the filters clean so the mist nozzles would work." Smith said that with the new system, these frequent filter changes have been eliminated, and there haven't been any problems with bad water pressure or clogged nozzles.

Fernlea purchased a large unit that can handle up to 1,000 gal. of



water per minute. "It was worth the price," Smith explained "because this filter, just in labor, has saved me between \$500 and \$600 Canadian per week."

UPKEEP

Smith also said that the new filtration system has tremendously reduced tank maintenance. "The filter is just ahead of my 30,000 gal. tank, which I used to have to clean every year. I can already see the difference. I expect this summer will be the last time I clean it for at least another two or three years."

Jay Kobylarz, head grower for Metrolina Greenhouses, Huntersville, N.C., has also noticed improvement in the water quality after they installed a Myco filter. Metrolina purchased their first filter about four months ago and have just recently added three more filters. "We use an ebb and flood system on a large scale," Kobylarz explained. "We have 40,000-gal. hold tanks, and we pump about 600 gal. per minute through our filtering system. We wanted to get better water going into the return tanks. We were getting a lot of problems with the water going back in our storage tanks so we wanted to try to filter that out. Our old filter was a standard metal screen system, and we definitely had mud in our tanks that had to be cleaned once a year, but with this one it appears to be very clean."

According to Kobylarz, the Myco filtration system is virtually maintenance free because it has a simple design and very few moving parts. In addition, the roll of paper



The Clearstream Myco Media Filter helps reduce diseases and tank cleaning, and eliminates filter cleaning and backwashing by effectively removing organic contaminants from recycled irrigation water.

advances automatically as the paper gets clogged, "so it needs much less manual labor to keep clean," he said. "And one roll of paper is supposed to last from 9 to 12 weeks."

SUMMING IT UP

Overall, Kobylarz is very happy with the performance of the Myco filter. He said that Clearstream Filters was very helpful and easy to work with: "They may seem a bit pricey but compared to the others are not much more and are really worth it. They have many sizes so I don't want the size or the gallons per minute to scare anybody; they make filters for all sizes." Kobylarz added. "Anyone with recycled ebb and flood water system or any kind of water system where they are recycling would see advantage in keeping the holding tanks clean and organic matter knocked down."

Neda Simeonova is associate editor for GPN. She can be reached by phone at (847) 391-1013 or E-mail at nsimeonova@sgcmail.com.

Write in 1416