

Why Use Booms?

Automating irrigation through the installation of boom irrigation can help lower operational costs and improve consistency.

By Tim Hodson



Automated boom irrigation systems can help control water application rates. (Photo: Cherry Creek Systems)



Monorail boom irrigation systems work well in smaller greenhouses. (Photo: Solaris, a Division of McConkey Co.)

As energy costs, materials and labor expenditures, and insurance premiums continue to rise, growers must find innovative ways to make money. Shrinking profit margins are forcing growers to look at every aspect of their businesses to unearth any additional dollars they can plant on their bottom lines.

Automation is just one way growers can squeeze additional profits out of their operations. Water/chemical delivery — more specifically, boom irrigation — is one area where automation can really benefit growers.

Growing Profits

Boom irrigators allow growers to deliver water and chemicals to their plants in a consistent and timely manner. "Because of their versatility, [boom systems] can be used for more than just irrigation," said Kathy Lewis, inside sales at Solaris, a Division of McConkey Co. Boom systems can be used for fertilizing, irrigating, misting and spraying. They also can be used for other tasks like moving products from one part of a greenhouse to another or to aid pest monitoring.

These efficient systems take the guesswork out of water/chemical delivery because they always deliver the same amount of product with each application. A boom system can also be programmed to perform multiple tasks at any time of the day or week, and they can be designed for just about any kind of growing operation — indoors and out.

Savings

Boom irrigation systems are efficient. Because they are automated, boom systems ▶

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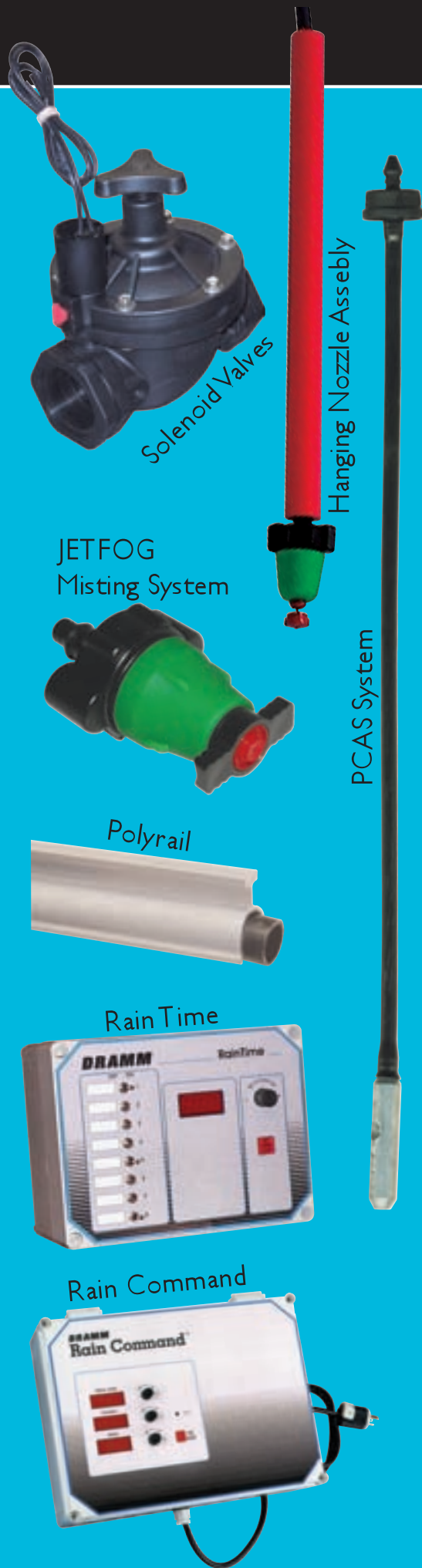
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only apply the desired amount of water or chemicals, eliminating overwatering or excess fertilizing. According to some reports, runoff and chemical costs can be reduced by as much as 30-50 percent by using a boom system.

"Because you are watering more evenly, you are going to save more [money]. You are not going to waste as many [plants] like you would if you water too fast or you can't ship them in time," remarked Dan Rothenbury, contract general manager for Cherry Creek Systems.

Lewis said boom systems "will become even more vital as drought and runoff become more critical" to growers. "You can apply only as much water as needed."

Uniform watering helps improve rooting and propagation and can reduce overall crop time. Rothenbury said a grower could grow 8-10 percent more crops by using a tower boom irrigation system. This type of system eliminates the need for a center walkway in the greenhouse and creates that much more growing area.

Labor Pains

Let's face it — labor is expensive. It is one of the most valuable and expensive resources you have. A boom system helps keep down manpower costs or lets you make the best possible use of your manpower by assigning employees more tasks that cannot be automated.

A boom irrigation system does not require supervision, it just does the job the you tell it to do. Systems can be designed to work 24/7/365 — depending on your growing needs. A boom is the ideal employee — it does not over or underwater, call in sick or require employee benefits.

"Many growers believe that a waterer is born and not made," Lewis said. "By taking the human element out of watering, the grower is controlling the amount of water that is going onto the crops."

Another benefit is that boom systems also can safely apply chemicals without putting workers at risk. This makes it easier to comply with EPA worker protection regulations.

Flexibility

Boom irrigation systems provide greenhouses with the versatility they need to meet their unique growing requirements. Some of the configurations available include single rail, double rail and tower systems.

Booms can be suspended from a ceiling, mounted on a bench or operated on the floor or ground, either



Boom systems can provide versatility to a greenhouse by performing additional tasks such as lighting. (Photo: Solaris, a Division of McConkey Co.)

indoors or out. Automated transfer systems allow the boom to be moved easily from one area to another. The systems also can be customized.

Depending on your crops, you can select from a variety of nozzle/sprayer and hose configurations to make sure you are watering your plants in the most efficient way. Some of the options available for boom systems include adjustable height booms, agitators, mixers and transfer dollies.

Taking Control

While boom irrigation isn't necessarily new, it has evolved and adapted over the years. Technology is making boom irrigation even more simple and cost effective for growers.

When it comes to watering systems, the majority of growers "just want to walk up, hit a button and walk away," Rothenbury declared. Today's smart controllers can make this happen. Using a programmable system, "you can fully program and control your booms," and make watering a no-brainer.

According to Rothenbury, the requirements of larger growers are driving the needs for advanced technology. Rothenbury said the controllers that are now available for boom irrigation systems are giving growers unprecedented control over their watering

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Software programs are also available to help support a grower's data management. "You can graphically lay out your bays with the plants and then send that information straight to the boom so it knows where different plants start and stop as far as watering sequences, speeds and all of the parameters it needs," Rothenbury said.

Rothenbury said these "smart" controllers are easy to learn how to use and provide detailed information to help take the guesswork out of watering. Using software, the boom's controller can be programmed so a grower can water each pot in a bay separately.

Some software programs for boom systems can also help with forecasting and scheduling your shipments, Rothenbury said.

Time Is Money

Money doesn't grow in the greenhouse, but you can produce more profits by using a boom irrigation system. Growers need to know what their options are to find the right boom system to meet their growing operational needs. **GPN**

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processes. Using radio frequency (RF) technology, "you can sit at your computer at your desk and actually program, start and stop, and control your booms through a wireless connection, Rothenbury said. "Or you can download [the information] to a PDA and walk out there [in the greenhouse] and control the booms through your PalmPilot."

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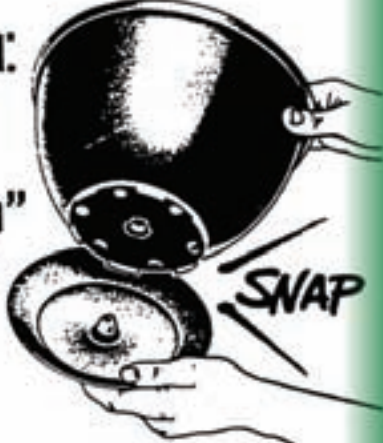
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