

Garden centers often have many different plants with differing irrigation needs packed together into small spaces, making hand watering a popular option.

By Elizabeth Petersen

Watering plants at a retail garden center, and doing it right, is no small trick. In fact, according to Val Tancredi, irrigation specialist for Stettler Supply Co. in Salem, Ore., garden centers are "the most difficult segment of the industry to irrigate."

Why? Retailers have a unique set of challenges. To keep plants looking good, they have to provide the appropriate amount of water for every plant at just the right time.

This task is complicated, since garden centers stock many different types of plants with many different water requirements in many different pot sizes.

Besides caring for plants, retailers, unlike production growers, must deal with the needs of the gardening public. This presents a batch of aesthetic, safety and liability concerns that impact the times and ways they can water.

Overhead and drip irrigation, typically used by growers, are only used as secondary or supplemental methods in most garden centers, which rely more on watering by hand with a hose.

"I water inefficiently, because I haven't found any good way other than hand watering from a hose," said Ellen Egan, owner of Egan Gardens, a retail garden center and grower in Salem, Ore. "The huge range of plant types and sizes in the retail house make a one-volume-fits-all automatic system very difficult to design."

How much, how often, which ones?

The hand-held hose-to-plant method works, but it is not without problems. Training seasonal employ-

ees to read the needs of plants and to apply the appropriate amount of water presents an ongoing challenge for retail garden centers.

"The biggest training problem is teaching retail staff, the inexperienced waterers, not to over-water plants that don't need water every day," Egan said.

The difficulty is increased by rotating schedules. "We are open seven days a week, but employees don't work every day," Egan said. "One person doesn't know for sure whether anyone watered a certain plant the day before or not."

Mark Leichty and Ann Detweiler, owners of Fry Road Nursery in Albany, Ore., consider watering to be one of the hardest skills to teach. They propagate and sell plants both wholesale and retail, from liners in tiny cells to large trees, and watering needs run the gamut.

Training employees to know when and how much to water is critical. "It comes down to a judgment call: does the

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plant need water or not?" Detweiler said.

A trained eye can spot the various shades of brown that denote wet and dry soil, but "even though it seems like common sense, it is hard to pick up on the shades," she said.

Since the garden center is open year round, watering needs change with the weather, too. When the weather is darker and colder, the danger of overwatering increases. "Cloudy and cold are a deadly combination," Leichty said. "When it is sunny and warm, plants are more forgiving of over-watering."

How much water a plant needs depends on several factors, including the weather. "We hardly water during cold weather," said Mark Bigej, third generation manager of Al's Garden Center, which operates three retail sites and five growing facilities in Oregon.

But the development of the plant and the amount of soil in relation to its root mass also impact the need for water, Leichty said. If roots fill the pot, the plant will forgive excess water; if the roots don't, and the soil gets soggy, more water will cause problems.

Employees tend to be either "gushers who want to douse everything just in case" or "dribblers who are afraid to water," Detweiler said.

To help employees water correctly, Detweiler and Leichty have implemented a number of plans, including a flagging system. "We go through the houses and flag everything that does and doesn't need water that day," Detweiler said. A blue flag means "stay away/don't water."

The problem with this is "they don't make enough flag colors for all the conditions," she said.

"If an employee is having trouble over or under-watering, we have them go through the houses and flag the plants," Detweiler said. "It's usually an eye opener for the employee and changes how they water, at least for that day."

Fry Road uses checklists to help educate employees about the nuances of watering, too. If an item on the list is marked with initials, it has been

watered; if marked with a check, it has been examined and determined not to need watering.

To help keep track, specific "areas of responsibility" are defined by the reach of a hose. That way, managers can check the results after employees have finished watering, and if problems arise, they can coach for improvement.

As plants are sold and new ones replace them, confusion about watering needs can come up. "I often have to remind retail staff who've brought in plants from as-yet-unwatered houses to water those," Egan said.

"They can forget that the watering crew's done and gone and won't come back until the next morning."

Production mentality

According to Bigej, retail nurseries that are also production growers seem to have an advantage in solving issues with watering since they bring "a grower mentality" to bear. "Hand watering is

a huge labor sink, so we try to come up with systems to reduce it," he said.

Al's newest garden center in Sherwood, Ore. was originally the site of a production growing operation, so it already had an underground system for capturing and retaining water. As a result, the garden center has sloping floors with floor drains.

"Virtually all water from the roof, the greenhouse and outside goes back into the irrigation pond," Bigej said. That water is used to irrigate plants, which keeps water on site and reduces the need for more.

A system of overhead sprinklers augments hand watering there, too. Each sprinkler has its own valve, so all are completely adaptable to need. Managers can "blanket water" or turn off areas depending on how the display tables are arranged.

"We treat the one gallon and larger containers like a growing operation," Bigej said. Sprinklers on timers come on at night, and every hanging basket has a drip emitter. Hanging basket lines are arranged over the aisles, so water does not drip on other crops. As baskets are sold and others replace them, the emitters serve as spacers and markers for spots where more baskets can be hung.

Outdoors, all larger shade trees and Japanese maples are watered directly with pot-in-pot spray sticks, which provide slow, drenching drinks to the root

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Al's Garden Centers

zones. Plants along the street and parking areas are also watered that way.

About 90-95 percent of the landscape plants in outdoor areas are watered by overhead sprinklers at night, Bigej said.

"Spray sticks make sense in pots 5 gallons and up and for trees," Tancredi said. "But the spaghetti tubing is problematic when the pot

is sold, since it requires turning off the individual emitter. There is also a tripping hazard to be aware of."

Another option suggested by Tancredi is capillary mats for tables.

Detweiler offered another grower tip that Fry Road Nursery has used for ten years: include coconut coir in the potting mix. The coir breaks up surface tension, which reduces watering time by about one third, she said.

Clear aisles for safety and aesthetics

Named Garden Center of Year by the Garden Centers of America in 2006, Al's has strict rules about keeping walkways safe and clear for customers and their shopping carts. Besides safety, clear aisles have everything to do with aesthetics and image, Bigej said.



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Al's Garden Center in Sherwood, Ore. uses drip tube irrigation spikes to water containerized trees. When the tree is sold, the spike can be turned around to block the water flow.

Hand watering is done early in the morning to minimize inconvenience for shoppers. Hoses are "never left out in an aisle," Bigej said. They aren't supposed to cross aisles, either, even if the closest hose is just across the aisle. Instead, to achieve the goal of watering without pulling a hose across an aisle, every table at the Al's Woodburn store has faucets on both sides. Quick release couplers allow employees to move hoses quickly and easily. The Sherwood store is adding faucets to facilitate the no-hose-acrossan-aisle rule, too.

At Egan Gardens, the crew waters the retail house first thing in the morning, so nothing's dry when customers come. "They're rarely done before we open, though, so there are usually hoses to warn people about and dripping baskets," Egan said, even though the garden center keeps enough hoses to cover all areas without moving them.

Part of the challenge of watering is that it is such a tedious task. Employees at Fry Road Nursery are able listen to books or music while they water, but cell phones are not allowed. "Talking on the phone appears to use the part of the brain that is needed for watering," said Detweiler.

"Watering is a difficult prospect with the labor expense and training the irrigator," Tancredi said. "(These are) good arguments for having your most skilled employees do the watering."

Elizabeth Petersen writes for gardeners and garden businesses, coaches students and writers, and tends a one-acre garden in West Linn, Ore. She can be reached at gardenwrite@comcast.net.

