

Container Stabilization Systems

Do you have problems with plants blowing over in your container yard? Container stabilization systems can help save you time and effort, and reduce losses from damaged plants and spilled fertilizer.



How do they work?

There are a variety of container stabilization systems on the market for perennials, shrubs, and trees. Some rely on stakes that anchor each container to the ground, others use rods that link containers together to form heavier units, and others use an insert system where the container sits in a molded socket or sleeve pot.

Benefits:

Save time. Each time a container blows over, workers have to spend time tipping the plants back up. Our University of Wisconsin survey found that growers spend an average of 50 hours a year righting containers. Since most blow overs occur during the growing season, this is especially valuable work time that could be saved if you use a container stabilization system.

Save money. With a container stabilization system you eliminate the need to right tipped containers. If you save 50 hours a year at labor costs of \$15 per hour, you'll save \$750 the first year you use a container stabilization system. You'll also save money by preventing the spills that waste fertilizer and add chemicals to runoff.

Improves product quality. Plants are easily damaged when they fall over. Even if the main trunk is unscathed, outer branches can break and ruin the shape of the plant. Irrigation lines may be displaced and the plant will begin

to dry out. If fertilizer spills out, the plant loses potential nutrients. Plant quality and marketability suffers. Some stabilization systems also help you organize your plants in units so you can better keep track of inventory, which helps you maintain quality. The plastic insert systems also help prevent weed growth by keeping containers off the ground.

Easier on your body. Usually people stoop and bend to right a tipped container, working in cramped quarters and awkward positions. They repeatedly grip the edges of containers with their fingers. Fatigue and soreness can lead to time off work, increased medical costs, and reduced productivity. A container stabilization system eliminates the task altogether and prevents these risks to your body.

What system should I choose?

Review the different container stabilization systems to see which is best for your situation. Consider how much space you have available for each container, what size containers you have, and whether you want stakes, connectors, or an insert system. Some insert systems make moving individual pots easier. Although adding sand to your media will also help weight containers, often this method is not enough to prevent blow over and can decrease drainage in bark based media.

Types of container stabilization methods.

Stakes: Secure each pot by driving a hooked stake in the ground next to it. Oregon Wire makes galvanized steel "pot hold-down stakes" which have a loop in the top that fits over the lip of the container. Standard stakes are ¼" diameter and 24" or 30" long, and also come in custom lengths. Stakes cost approx \$280 per 1000. Find a local distributor by contacting Oregon Wire in Portland, OR: 800-458-8344 (www.oregonwireproducts.com).

You can make your own stakes by bending lengths of rebar. Some growers stake pots by driving rebar through the pot itself.



WORK EFFICIENCY



Tip Sheet

A series of tip sheets on labor efficiency for nursery field work

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Connectors: Pot-to-pot hold-down stakes are 1/4" diameter galvanized wire stakes in an upside down "U" shape that you insert into the media of two adjoining pots. The stakes come in widths of 11 5/8" to 29" with legs 8 1/2" to 14" long. They cost 40-90 cents apiece in bundles of 50. Available through Central Landscape Supply in St. Cloud, MN 800-772-3888, www.centrallandscape.com.

You can also connect rows of containers together with lengths of rebar or 1"x 2" wood that you lay down on top of the pots and secure on each end with hook or "L" shaped stakes pounded into the ground (sold as "citrus stakes" by Oregon Wire). Horizontal connectors laid over pots in a row are not as effective in strong winds as individual vertical stakes for each plant¹.



Wire Basket type stabilizers:

Cherokee Manufacturing makes individual wire baskets that stabilize pots. An upper ring holds the pot just below the lip and a wide lower ring on the ground gives the pot a bigger footprint to anchor it. These baskets come in sizes to fit 1 gal to 25 gallon pots, and come in two styles: above ground (for hard ground) and multiple leg with 12" wire extensions that you step on to stake in the ground. Prices range from \$1.35 to \$7.75 apiece, depending on size, style, and pallet quantity ordered. Find a local sales rep by contacting Cherokee Manufacturing in St. Paul, MN: 800-798-9473, www.cherokeemfg.com.



Plastic Insert Systems: Tree/ Plant Stabilizers sit on the ground and have rigid plastic uprights to hold 3-5, or 7-15 gallon containers. Use a short length of 3/8" rebar to stake the stabilizer to the ground, and then lift the potted plant or tree in and out of the container holder. Find a local distributor by contacting Amaroo Enterprises in San Diego, CA: 619-294-9689, www.amaroot-reeboxes.com.



The Container Slik is a 54" x 54" molded plastic form that has a grid of sockets for 1,2, or 3 gallon pots. Place it on the ground or on a bench and set a potted plant in each socket. The trade gallon size holds 49, 1- or 2-gallon containers and the 3-gallon configuration holds 16 containers. You can interlock adjoining container sliks. They cost \$13.23-\$15.26 each, depending on quantity ordered. Most often sold by the case (24 units). Find a local distributor by contacting Container Slik in Georgetown, KY: 866-867-7545, www.containerslik.com.



These references are provided as a convenience to our reader. They are not an endorsement by the University of Wisconsin.

Even if you are not yet ready for a container stabilization system, you can use a simple tool to help you tip up containers without stooping. A lightweight aluminum watering wand without its breaker head has just the right lip and angle to hook blown-over pots and right them. Remove the breaker and hold the wand by the hose connector end to gently hook the plant or the edge of the container and pull it upright.

This material was developed by the Healthy Farmers, Healthy Profits Project, whose goal is to find and share work efficiency tips that maintain farmers' health and safety and also increase profits. For more information, call (608) 262-1054 or visit our website at [http:// bse.wisc.edu/hfhp/](http://bse.wisc.edu/hfhp/)

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Sources: Richard Parish, Nursery Engineering, Louisiana Agriculture Magazine, May 16, 2005, www.lsuagcenter.com

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Work Efficiency Tip Sheet: Container Stabilization Systems

