

# Try a tree guard zipper

If you use 3" or 4" diameter corrugated plastic tree guards to protect trees on your nursery from deer and other types of trunk damage, consider using a tree guard zipper to install and remove the protective sleeves. You will save time, prevent scarring and scratching of the trunks, and spare your hands the pain and fatigue that comes with gripping and spreading the edges of the guard.

## How does it work?

The zipper is a triangular piece of cast aluminum with a handle at the narrow end of the triangle and channels running down the sides. To install the tree guards, you insert the narrow end of the tool into the slit at the bottom end of the corrugated plastic tube. The wide end of the tool spreads the edges of the guard about 3 inches apart. Place this opening against the tree and draw the zipper up towards the top of the guard, opening the length of the tube and letting it close around the tree as it emerges from the base of the zipper channel. Later, you can quickly remove the guards by inserting the narrow end of the zipper into the slit at the top of the tree guard. Pull the guard up through the tool and away from the tree as the tool opens the slit.

## Benefits:

**Saves time.** Several nursery growers who have used the zipper claim they can install and remove tree guards faster than by hand, because the tool spreads the edges of the guard much more efficiently. In our field trials, workers were 37% faster at installing and 27% faster at removing tree guards with a zipper than they were without one.<sup>1</sup>

**Saves money.** At a cost of \$45-\$50, the zipper can pay for itself if you save just



*Old way: hard on the fingers, hands and wrists.*



*The tree guard zipper saves time, prevents hand strain.*

a few hours in labor costs, and continued use can add to your profit margin.

## Improves product quality.

When you install and remove corrugated tree guards by hand, it's easy to scratch the trees with the sharp edges of the stiff plastic tubes. This can result in trunk scarring and reduced product quality. The smooth edges and wide opening of the zipper prevent this kind of damage.

## Easier on your body.

Pulling the edges of the stiff corrugated plastic guards open with your bare hands strains your hands, wrists and forearms, and can result in carpal-tunnel symptoms. With the zipper, your wrist stays in a neutral position and the tool does the work of holding the edges of the tree guard apart. Installing or removing the guards by hand is also hard on your fingers, as you generally would keep a finger wedged between the guard and the trunk to protect the bark from scratching. Even working with fitted leather gloves, your fingers tend to get sore from the pressure, and if you work without gloves your fingers can develop cuts and abrasions. Using the zipper can reduce stooping and other tiring postures as well. In our field trials, using the zipper resulted in a 59% reduction in time spent in "unacceptable postures when installing tree guards, and a 24% reduction when removing them<sup>1</sup>.

**WORK  
EFFICIENCY**



**Tip Sheet**

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

by Astrid Newenhouse  
Marcia Miquelon  
and Larry Chapman

## How much does it cost?

The tree guard zipper costs \$40-50, and is available through several suppliers. White, 3" x 36" guards cost about \$1.00 each. You may be able to save on the cost of the guards by purchasing the tubing in bulk and cutting it yourself. Use a table saw to cut the slit and a chop saw (compound mitre saw) to cut individual lengths. A saw blade with many small teeth per inch, such as for plywood, will cut plastic.

## How can I get one?

MacKenzie Nursery Supply Inc.  
3891 Shepard Rd. PO Box 322  
Perry, OH 44081  
(800) 777-5030  
www.mnsinc.cc

A.M. Leonard, Inc.  
241 Fox Dr., PO Box 816  
Piqua, OH 45356  
(800) 543-8955  
www.amleo.com

Central Landscape Supply  
4026 Cty. Rd. 74 S  
St. Cloud, MN 56301  
(800)772-3888  
www.centrallandscape.com

*These references are provided as a convenience for our readers. They are not an endorsement by the University of Wisconsin.*



## Using Tree Guards.

Some growers report that voles, wasps and other insects inhabit guards that are left on too long. Guards with a pattern of holes, such as spiral guards, can create a patterned "sun tan" effect on smooth-barked trees if left on during the summer months. Guards cause differences in temperature, water distribution and air circulation which can also affect the health of the tree. To avoid these problems, the best practice is to install tree guards in the fall and remove them in the spring. The slit corrugated tube is meant to expand with tree growth, as is the looser spiral type of guard. However, spiral guards have girdled and killed trees after just one year. Some growers prefer white guards, because they help reflect heat off the tree. Others who install and remove their guards annually prefer black, because the plastic is more durable.

If you review the task flow of your tree guard installation process, you might be able to save steps and time. Even small time savings add up to significant labor savings and cost reduction. One grower who uses tree guards and the zipper delivers all the guards to the field in a wagon, then carries a bundle in a burlap sack on his shoulder while installing them. Your setup might also allow you to drive alongside your tree rows and toss out the guards right near the trees. Or perhaps you can find a convenient and attractive way to store the guards in the field, so as to save time collecting and re-distributing them each spring and fall.

*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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<sup>1</sup>Field research data is based on a case study with the same workers performing the same tasks with and without the tool. Time/motion studies were based on video analysis. Postural data was compiled using the Ovaco Work Analysis System.

**Research for this publication** was funded by the U.S. Centers for Disease Control and Prevention's National Institute for Occupational Safety and Health (NIOSH).

**Work Efficiency Tip Sheet: Try a tree guard zipper**

