

Ann Adams and Liz Brensinger

Founders of Green Heron Tools

by Therese Ciesinski, Photography by Colin Coleman

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On a rural back road in bucolic New Tripoli is a small business with a big goal. Green Heron Tools sells gardening tools designed specifically for women. Ann Adams and Liz Brensinger founded the company in 2007 with a mission to keep women healthy, injury-free and gardening for their entire lives.

Green Heron Tools began as many businesses do, as an idea stemming from the founders' personal history. Adams had been a nurse educator, and Brensinger a former journalist with a master's in public health. Their experiences moonlighting as farmers and market gardeners prompted the switch from the health care field to tools.

Since 1995, Adams and Brensinger had been partners in Green Heron Farms, growing heirloom produce to sell to restaurants and farmers' markets. While the work was rewarding, it was physically punishing, and the tools they used didn't seem to make the work much easier. From their health backgrounds, they knew they needed tools made specifically for the way women use their bodies, but had trouble finding ones that weren't cheaply made or "for women" by virtue of being painted pink.

While men's upper body strength and body weight means they can use brute force to perform a task, women rely on the design of a tool for help. Though they searched world wide, there were no tools designed specifically to accommodate a woman's hand size, center of gravity, shoulder and hip widths or strength. Seeing an untapped market, they founded Green Heron Tools, named for the herons that visited the farm, and, they were to later find, one of the few birds that uses tools to find food.

The HERShovel

Since they couldn't find the tools they needed, Adams and Brensinger decided to design their own. Four years, two USDA Small Business Innovation Research Grants and countless surveys, studies and tests later, the HERShovel made its debut. The tool is a combination spade and shovel, with features to safely aid and support a woman when digging in the garden.

Green Heron Tools sells hand tools, gloves and other gardening essentials as well, but the jewels in the company's crown are the HERShovel and the companion digging fork. Both are designed to prevent the kinds of musculoskeletal disorders that can occur when working the soil. Adams and Brensinger describe the tools as "hergonomic," a term they coined meaning ergonomics for women.

"[What] sets our tools apart from the vast number of garden tool companies is we use actual science," Brensinger says. When developing the HERShovel, test subjects at Penn State wore oxygen sensors to measure the effort involved in using the shovel prototype versus other manufacturers' tools. The results were clear: the HERShovel was less taxing to use.

Sourced almost entirely from U.S. materials (the tines of the digging fork are forged in Austria), the tools are assembled in Pennsylvania. They are available at greenherontools.com, Edge of the Woods Nursery in Orefield and via mail order at Lee Valley Tools (leevalleytools.com).

The idea for the digging fork arose from homegrown necessity. "The fork is good for shale, which we have a lot of in the Lehigh Valley," Adams says. "It's easier to start digging with a fork than a shovel. You use the fork to break up the shale, and the shovel to remove it."

Rethinking Garden Tools

Statistics show that women have up to 75 percent less upper-body strength, and as much as 30 percent less lower-body strength than men. A woman's handgrip strength is usually weaker than that of a man. Women's shoulders are narrower, and hips wider, which creates a lower center of gravity. Women as a whole are shorter than men, with proportionally shorter legs and arms. All these differences affect how efficiently women use gardening tools, which are designed for a man's build.

Since women don't have the upper body strength of men, nor the body weight that allows them to power a tool deep into the ground, they tend to use tools differently, taking small bites of soil when digging a hole, rather than heavier shovelfuls. Using tools made for men—tools that are heavier, bigger and angled for a man's center of gravity—increases the possibility of misuse, strain and injury. Until a woman uses a tool designed to accommodate her size and the way she works, she may not realize how much stress standard tools have been putting on her muscles and joints.

The patented D-grip handles on the shovel and fork are polypropylene, and almost unbreakable. "I drove my car over one to be sure it wouldn't break," Adams says. The shafts are ash for strength, while the steel blade of the shovel is 14-gauge, and angled to make it easier for a woman to drive into the soil. And as far as long tools go, they are lighter than most. The shovel weighs less than four and a half pounds, the fork, about five pounds.

"We get great feedback as to the quality of our tools, mostly from guys!" Brensinger says. "Often a man will buy the shovel for his wife or mother, and then come back and buy one for himself." Both the shovel and the fork are available in three lengths, a rare option in garden tools.

Regardless of sex, using a size that's right for a person's height makes a tool more efficient and easier to handle.

"These tools are as good as we can get them," Adams says. "I want to see people pass these tools down from generation to generation."

Choosing & Using Tools

Adams & Brensinger's tips to using tools smartly and safely:

Make sure a tool fits your body, that it isn't too large or too small. Out-of-proportion tools can cause injury and make a task more difficult.

Look for tools that are ergonomic, that is, designed to be comfortable to hold and easy to use. A tool shouldn't be so heavy that using it will cause fatigue or strain.

Look for textured handgrips to minimize clenching and keep hands from slipping. A "D"-shaped grip allows you to vary your hand position.

Look for large treads on tools such as shovels and digging forks to keep your foot from sliding off.

Handle extensions or auxiliary grips can be added to tools to reduce the need for bending and stooping.

Don't fight gravity; use kneepads or a kneeler, or sit on a low, stable bench when doing close to the ground activities.

Using Your Body

“It’s all about prevention, to keep from getting injured in the first place,” Adams says.

Some do’s and don’ts for working in the garden:

Do vary your tasks and body positions. Don’t twist from the waist; it’s a sure way to injure yourself. Avoid awkward postures that can cause strain or set you off balance.

Don’t grip items tightly or torque your wrist when using pruners or other hand tools. If you need to twist your wrist to put more force behind a task, then the tool is too small for the job.

Don’t work with your hands above your head or your elbows above your shoulders.

Do lift with your knees, not your back, and hug heavy loads close to the body to preserve your balance. Keep your elbows tucked in, and a slight bend in your knees when lifting.

Don’t stoop—keep a low center of gravity, bend at the knees and hips, not from the upper back. If your knees can handle it, squatting on your haunches is safer on the body than stooping.

Up next for Green Heron Tools? Adams and Brensinger have redesigned the rototiller, a notoriously unwieldy machine that both sexes find difficult to use. Theirs is electric, lighter in weight and has less vibration than tillers on the market now. They own the patent and are

looking to license the technology. They've also completed a study of female livestock farmers, who have a high rate of serious injury, in the hopes of designing safer equipment and tools. What they learn from the study will ultimately help anyone who has to lift or move heavy loads.

Green Heron Tools isn't just a way for Adams and Brensinger to make a living. Creating safe gardening tools for women has become their mission. "This is more than just a retail business," Brensinger says. "We feel like there's a small-scale public service aspect to what we're doing. If there [weren't] a greater good, we wouldn't be doing it."

And their eyes are always on that bigger prize. "I hate to see people give up gardening due to injury or getting older," Adams says. "Gardening provides such wonderful benefits. It can actually help people live longer. Our goal is to prevent injuries and to help people garden for their entire lives."

greenherontools.com

INSIGHT

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