# Ladder Safety Notes 

# IMPORTANT! <br> For your safety, read carefully 

Ladders are products built by and for mortals, and consequently they have certain limitations. If ladders were built to withstand every type of abuse and misuse they would be so heavy and laden with guards, safety belts, nets, etc., that they would be unusable!

So, here are a few suggestions on how and how not to handle an aluminum orchard ladder. Please understand that this is not intended to be an exhaustive list. Common sense should prevail. If you are in doubt about the safety of a proposed activity, DON'T DO IT!

## First, the HOW TO'S:

1. When you receive the ladder, inspect it for shipping damage and missing hardware (heaven forbid!). Also, check it each time you get ready to use it to make sure that the joints are tight, that the steps are not covered with mud, snow, ice, or other foreign material, and that there is no damage to steps, side rail, tubing, or braces.

The main thing to remember here is NEVER USE A DAMAGED, BENT, OR BROKEN LADDER.
2. Always face the ladder while standing on it or climbing on it. Use the center portion of the steps.
3. Don't stand higher than the maximum height allowed. For Stokes tripods, the highest standing level is three feet down from the top. We've recently begun to put a red step two feet down from the top as a reminder to STOP before standing on or above it.
4. SPECIAL SECTION ON LADDER STABILITY!! Use the
ladder the way it was intended to be used - for orchard, landscape, and outdoor work. It is specifically designed with a flared base for stability and with a narrow top to enable the user to get inside trees and shrubs.

The three-legged design allows for the greatest standing stability of any selfsupported portable ladder on rough or uneven ground. Anyone who has used a four-legged ladder under these conditions has probably noticed that at best only three of the four legs are on the ground at any one time. Usually it is just two of the legs, while the other two alternate back and forth and you hang on for dear life!

While the three-legged ladder is very stable, it is important to understand the limits to this stability along with the proper use required to stay within these limits.

The ladder should be erected so that the step treads are level, or horizontal, from left to right and from front to back, with the third leg in a stable position straight away from (or in the same plane as) the centerline of the ladder. The third leg may pass through the center of the tree or over a limb, but the ladder should still get its support from the ground, not from any part of the tree.

You should stand in such a way that a plumb bob (or weighted string) attached to your belt buckle and hanging straight down would touch the ground at a point well within the imaginary triangle formed on the ground by the three ladder legs. Due to the law of gravity, the ladder (and you) will fall if you are leaning out so far that the plumb bob falls outside the triangle. So a good rule is: Keep your belt buckle centered between the side rails.

If you still can't reach that nice big pear (apple, cherry, plum, peach, etc.), get down and move the ladder to where you can reach it safely!

Also, don't try to move or jog the ladder while you are on it. Besides being dangerous, this practice tends to loosen rivets and therefore shorten the life of the ladder.

Straight, or lean up, orchard ladders should also be set with the step tread horizontal. Unlike the threelegged ladder, this one gets some added sideways stability from the object it is leaning against. Remember to stick to the belt buckle rule mentioned above, however, because you can never tell how much side support that object is going to give the ladder.
5. Use both hands while climbing the ladder. Let the ladder, not the tree, support you. If you hang onto a branch with one hand, and have one foot on the ladder and the other in the tree, you are complicating the center of gravity rule, and it will usually be to your disadvantage. Keep at least one hand and both feet on the ladder at all times.

WORKING SURFACES
6. Typical tripod orchard or landscape ladders are designed to be used on "soft" surfaces such as tilled soil into which the legs can penetrate to hold them in place. Operating these ladders in situations where one or more of the legs is on a harder surface (such as extremely compacted soil, sidewalks, or driveways) is very dangerous because the legs could slip and the ladder could collapse. Some would contend that a tripod orchard/landscape ladder should NEVER be used around these hard surfaces. We believe, however, that the stability of the tripod still makes it the best ladder for these
conditions, IF AND ONLY IF it is equipped to handle those special conditions. If the ladder is to be used on soil that is very hard or slippery, simply tying a good nylon rope between the third leg and an intermediate step while the ladder is set level will keep the third leg from swinging beyond its normal position, thereby preventing the ladder from collapsing. Stokes manufactures and installs a "Hard Surface Kit" which consists of rubber feet on all three legs, and a cable restraint on the third leg. The rubber feet keep the legs from slipping on sidewalks and driveways, and the restraint keeps the third leg from swinging out too far.

If you plan to consistently use the ladder on hard level surfaces, you should probably use a four-legged ladder with rubber feet for that purpose.

If the ladder is to be used on a slope or terraced landscape, Stokes can provide an adjustable third leg, which will allow the ladder to be set up with the steps level while the third leg maintains a normal contact angle with the ground. The ladder is designed for uphill use, which means that the third leg will be shortened to keep the ladder level. Even in this special situation, it
should still be set up so the steps are level left to right and front to back.
7. The ladder should be hung on a wall or leaned vertically against a wall or tree when it is not in use. The third leg should be resting in the cradle attached to one of the bottom steps.

Ladders left lying on the ground tend to acquire a permanent twist. They also have a habit of being run over by even the most experienced and conscientious equipment drivers.
8. Before you let anyone else use the ladder, let them read these rules. All the hints on ladder use we could think of won't do a bit of good if the actual user doesn't get a chance to learn them. Also, read all labels and warnings on the ladder before you use it. If you have a question, call the manufacturer.

## Now, the HOW NOT TO'S:

1. NEVER USE THE LADDER NEAR LIVE EXECTRICAL WIRING or during an electrical storm. Aluminum is one of the best conductors of electricity. Your body could easily become an integral part of an electrical circuit. In bad weather, the ladder also becomes a very effective lightning rod - never use it during this kind of weather.
2. Never use the ladder for anything but its intended use. It is not designed to be a
bridge, a prop, or a sled, nor is it designed to carry more than one person at a time.
3. Never use the ladder if it has been exposed to extreme heat or a strong chemical. The metal may be greatly weakened without showing any visible signs of damage.
4. Never climb the ladder if: 1) you tire easily, 2) you are afraid of heights, 3) you are subject to fainting spells or dizziness, 4) you are physically handicapped, or 5) you are under the influence of medication, drugs, or alcohol.
5. Never leave the ladder set up and unattended. Children are apt to see it, and boy, do they like to climb?
6. Never sit or stand on top of the ladder. Do your resting on the ground.
7. Never push or pull on anything you are working on. You might tip yourself and the ladder over.
