

Narrow pallet system

If you currently hand carry boxes of produce, switching to a narrow pallet system may save you time and money. With a hand pallet truck you can move up to 16 half-bushel boxes at a time. This system can cut your time spent moving boxes more than 60% and will dramatically reduce the stress on your body.

What is a hand pallet truck?

A hand pallet truck is similar to a regular hand truck (dolly) except that the base uses pivoting forks instead of a fixed plate metal shoe. If you stack your load on a small plastic pallet (14 x 24 inches), you can position the forks underneath and move as many as 16 half-bushel boxes. A hand pallet truck can be tilted (by releasing the forks) for loading and unloading and locked into an upright position to tip back and roll the load.

Why not use a regular hand truck?

With a regular hand truck, you need to push the stack of boxes forward to squeeze the shoe underneath. This can make the stack unstable. A pallet system keeps the load upright and stable while you position the truck and lock it into position for moving. Standard stackable containers tend to slide around on a regular hand truck when full, because the bottom of the container has a smaller footprint than the top. The pallet system eliminates sliding.

Why not use a regular pallet?

Many small-scale growers store and pack produce in converted barns, older buildings, and coolers with tight spaces and narrow doorways. A full-sized pallet and pallet jack require a very flat, smooth, hard surface to roll easily. Hand pallet trucks with their narrow size and pneumatic wheels roll easily through narrow doorways and over rough surfaces.

Benefits of using a hand pallet truck



This hand pallet truck was retrofitted with an extra-wide back. The pivoting forks are designed for picking up plastic pallets.

Efficient.

A hand pallet truck lets you move loads of up to 500 pounds with far less effort than it would take to hand carry loads of 75 pounds. Furthermore, where you can hand carry four half-bushel boxes at a time, a hand pallet truck can handle 16 boxes.

Less stress on body.

Hand carrying heavy loads forces you to adopt awkward carrying positions. By contrast, using a hand pallet truck, you can easily roll a load to its destination. Pallet systems involve less stooping, bending, and lifting than hand carrying items.



WORK EFFICIENCY



Tip Sheet

A series of tip sheets on labor efficiency for fresh-market vegetable growers.

*Astrid Newenhouse
Bob Meyer
Marcia Miquelon
and Larry Chapman*

Safer. Many packing boxes have poor handles, making them difficult to carry and at risk of being dropped. Pallet trucks offer better carrying grip with less weight at the handles.

Boxes last longer. Boxes stored directly on the floor will pick up dampness and are more likely to rip when the shoe of a regular hand truck is wedged underneath. With the pallet system, boxes are stored off the floor, keeping boxes dryer.

How much time and energy will it save me?

A hand pallet truck will increase your efficiency relative to hand carrying by cutting in half the number of times you handle a box. If you would normally carry three or four boxes at a time, you can cut your total number of trips by 75% to 82%. A hand pallet truck will also cut the time you spend carrying boxes by 60%.

Cost analysis

A custom-made hand pallet truck and pallets costs approximately \$750. At \$7.00 per hour, you'd need to save 107 hours for the system to pay for itself. If you saved 30 minutes per weekday (10 hours per month), the system would pay for itself in less than 11 months. The pallet truck system also saves money in reduced back pain and therefore fewer visits to a chiropractor or a massage therapist. If you saved yourself 15 visits (at \$50/visit), the system would pay for itself.

Where can I find a hand pallet truck?

Hand pallet trucks are commonly used for feed and seed sacks. Look in feed mills and coops for used hand pallet trucks which you can retrofit with a larger back frame to support two stacks of boxes. Valley Craft custom makes hand pallet trucks with the wider frame. Look under "materials handling" in your phone book or contact the following companies. This list is provided as a convenience for our readers. It is not an endorsement by the University of Wisconsin, nor is it extensive.

Fastenal Co.

1117 Ashwaubenon St.
Green Bay, WI 54304
(920)432-9181

Reynolds Sales and Equipment

4255 Sunset Ridge,
Cottage Grove, WI 53527

Stoffel Equipment

P.O. Box 23341
Milwaukee, WI 53223
(414)354-7500

Valley Craft

2001 South Highway 61
Lake City, MN 55041
(800)328-1480
carts@valleycraft.com

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/>

Material is not copyrighted. Feel free to reproduce; please mention source: University of Wisconsin Healthy Farmers, Healthy Profits Project, December, 2000; Second Edition.

Authors: Bob Meyer, Astrid Newenhouse, Marcia Miquelon and Larry Chapman: Healthy Farmers, Healthy Profits Project, Department of Biological Systems Engineering, College of Agricultural and Life Sciences, University of Wisconsin, 460 Henry Mall, Madison, WI 53706.

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: Narrow pallet system

