



COMMUNITY



4-H & YOUTH



ENVIRONMENT



AGRICULTURE



FOOD

CENTER FOR SUSTAINABLE AGRICULTURE



UNIVERSITY OF VERMONT

EXTENSION

CULTIVATING HEALTHY COMMUNITIES

# Building Open Packsheds for Efficiency & Produce Safety



An area for washing and packing produce does not need to be enclosed or expensive to be functional and easy to clean. Unenclosed packsheds have the advantage of natural light and good ventilation. The most important aspects to include in terms of efficiency, ergonomics, hygiene and sanitation are:

- A barrier between you and the soil that can be hosed down to keep mud and cross-contamination to a minimum.
- A “roof” to keep workers and produce cool and dry.
- Sufficient space for at least 2 dunk tanks (if washing greens), spray tables, grading and packing tables, root washer (if using), and workers



Smooth surfaces are preferable to gravel for flooring as you can use wheeled equipment such as hand trucks and save your back. Gravel will also trap bits of food and water and attract rodents.

- Heavy duty nursery ground cloth provides a smooth surface, can be sprayed clean, and will last a couple years.
- If you build a wooden floor, leave wide spaces between the floor boards for water to drain, and have good drainage under the floor.
- A cement pad that slopes towards a drain at least 6” wide will last longest and be easiest for moving equipment.





**Size:** Growers often say they wish they built their packsheds bigger. When planning yours, think about: How many people will be using the space? What type of equipment will you need to process your crops? Will there be enough room for all the people, equipment and activities that could go on at the same time, during the cold months too? Will you be able to have both a wet space for processing produce, and a dry area for cardboard boxes and other items that should be kept dry? Will you want to have zoned storage someday and more than one cooler?

- 10 x 10 is probably the smallest area you would want to start with for packing and washing, but that would not give you much area to grow into, so think carefully before building a permanent structure that small.
- Use at least two dunk tanks for rinsing leafy greens. Food grade plastic is ok, you can find used stainless sinks on craigslist or at auctions.



A 15' x 45' wash/pack area has room for all the equipment below and 5-7 workers

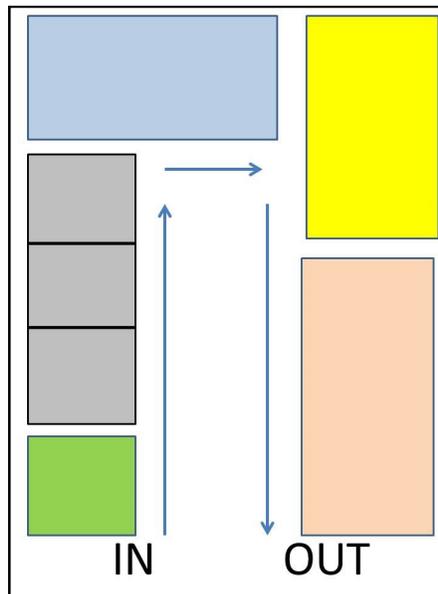
- Where will you load and unload vehicles? Make sure the opening is wide enough to back in.
- Overhangs should be wide enough so that workers and produce do not get wet on rainy days.
- Equipment, tables and shelves that are on wheels or movable will give you flexibility with the flow and design of your packshed as uses change over time.

Typical Packshed Equipment & Space Needs	Average Minimum Size
3 stock tanks, tubs or sinks for washing crops	(x3) stock tanks = 5' x 3'
Spray tables or drying tables	5' x 2'
Weighing, packing & grading tables	5' x 2'
Dry area for storing packing containers and tools	At least a couple 4' x 4' pallets or vertical shelving
Barrel root washer	9' x 3' plus sorting table at least 3 ft long
Designated sink for cleaning non-food items	2' x 2'



**Flow:** Consider how product will flow from the field, through the wash and pack areas to coolers, or to transportation vehicles. Design the flow so that as much as possible produce is moving in one direction from “dirty” to “clean” areas, so that you are reducing steps and back-tracking. In small spaces, you may need to have a “U” rather than a linear flow.

- Make sure you have a sink dedicated for washing hands and other non-food items to avoid potential cross-contamination from washing non-food items in dunk tanks.



- Keeping produce moving in one direction from “dirty” to “clean,” and minimizing back-tracking will reduce the chances of cross-contamination.



- Keep packing materials and harvest bins off the ground and protected from birds and rodents.



- Put dunk tanks up on pallets or blocks to prevent back strain and make the area easier to keep clean.



- Hardware cloth or netting can be used to discourage birds from nesting in rafters in open packsheds.
- If birds are a serious problem, the sides of an open packshed can be wrapped or hung with netting to keep birds out.



- Keep items that will come in contact with washed product up off of the ground.
- Lightweight plastic nursery tables can be easily moved and used for many purposes .



- Hoophouses can be used for washing and packing during colder months if equipment is movable.

### Additional Resources

Leopold Center Designs for Two Wash Stations: [http://www.leopold.iastate.edu/cool\\_tools/wash\\_stations](http://www.leopold.iastate.edu/cool_tools/wash_stations)

New Entry Sustainable Farming Project Modifications to Leopold Center Wash Station <http://go.uvm.edu/g6t80>



*UVM Extension helps individuals and communities put research-based knowledge to work.*

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the United States Department of Agriculture. University of Vermont Extension, Burlington, Vermont University of Vermont Extension, and U.S. Department of Agriculture, cooperating, offer education and employment to everyone without regard to race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or familial status.