EDGEWATER FARM:
AN OPEN PACKSHED FOR EFFICIENCY AND FSMA COMPLIANCE

Challenge: Preparing for the Food Safety Modernization Act
Solution: Tackling changes in phases

Farm: Edgewater Farm, Plainfield, NH
Operators: Pooh and Anne Sprague and family
In operation since: 1974
Size of farm: 170 acres (including 70,000 sq. ft. of greenhouses)
Markets: 25% wholesale, 75% retail
Number of farmworkers: 6 full-time year-round, 25 in high season
Size of wash/pack area: 2,000 sq. ft.
Time to renovate: In stages over 15 years
Type of wash systems: Triple-rinse greens in stainless sink, root scrubber, wash line for other produce

Risk Management Agency
This Institution is an Equal Opportunity Provider
GENERAL DESCRIPTION

Pooh and Ann Sprague have farmed the land at Edgewater since 1974. They sell their produce and horticultural products at a nursery and stand at the farm, as well as through other retail and wholesale channels and CSA pick-ups at different locations. They have 10 acres of U-pick strawberries, blueberries and raspberries. In recent years, they added a commercial kitchen and catering business as an additional means of sharing their food with the local community.

Although not selling to any buyers who require GAPs certification, the Spragues were early adopters of Good Agricultural Practices, educating themselves and making changes to enhance their infrastructure each year. They have opened their farm to help others in the region learn about produce safety by hosting mock GAPs audits, well as hosting a farm visit for the FDA during the Food Safety Modernization Act (FSMA) rule-making process. Due to the size of their operation, Edgewater Farm will be subject to the Food Safety Modernization Act. Below is an account of a few of the upgrades made to the farm building which serves as a semi-open packshed for produce in the growing season, and an enclosed storage area for pots and other items for the horticultural business in the winter. The shed has two open walls in the warm months to keep the space cool and well-ventilated. In October they put up polycarbonate walls for a warmer space for end-of-season work.

The Spragues were fortunate in that they were starting with a space that was already well-ventilated and easy to clean. The packshed did not need many changes to make it meet GAPs standards.

Most of the changes they made have been little tweaks that have improved flow and efficiency as much as ease of sanitation.

The only changes made to the structure itself strictly for produce safety were the drop ceiling to prevent birds from nesting in the rafters, and putting protective covers on all of the light fixtures.

Other small tweaks included installing a dedicated hand-wash sink with foot-operated pedal, and adding a Dosatron pump so sanitizer can be added to the washline if needed.

The other structural change adding a back door to the cooler was made as much to improve efficiency as for hygiene. Now produce enters the cooler from the packshed side and they can load product directly out the street side, making for a more efficient flow of product.
Hung hoses up on guy wires to keep them off the floor where the nozzle could get dirty and people could trip on them, and added a quick release sprayer nozzle.

They also made some great purchases at auctions:

**Restaurant greens spinner:** Edgewater does not do a large quantity of leafy greens. What they do grow can be easily washed in the double bay stainless sinks, and is spun dry in a restaurant greens spinner.

**Stainless shelving on wheels:** They went to a lot of auctions and purchased rolling stainless steel shelves. “It is really nice to be able to load bins or boxes onto shelving units and then roll each unit directly into the cooler. They also create a more efficient use of space in the cooler as the shelving units can be lined up across the width of the cooler and just moved around if someone needs to find something.”

**Bin washer:** An automatic washer that was initially designed to wash plastic milk crates works perfectly well for washing a lot of harvest bins at one time. “This is a huge time saver over having to pressure wash each bin.”

**Plastic shipping containers.** Edgewater is one of many farms that sell to a large local grocery cooperative. The growers and the cooperative went in together on a bulk order of plastic crates for shipping products. Each of the growers painted their crates different colors to ensure that they get their crates back after delivery to the coop.
COSTS

COSTS OF COMPONENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>Cost</th>
<th>Source/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plywood to cover rafters</td>
<td>$1,200 plus labor</td>
<td>(local lumber yard)</td>
</tr>
<tr>
<td>Protective light covers</td>
<td>Came with new fixtures, $80/fixture plus labor</td>
<td>(local electrical supply)</td>
</tr>
<tr>
<td>Wire and pulleys for overhead hoses</td>
<td>$200 plus labor</td>
<td>(hardware store)</td>
</tr>
<tr>
<td>Used stainless shelving on wheels</td>
<td>$50 (auction)</td>
<td>(If purchased new from restaurant supply house would likely cost $300-400)</td>
</tr>
<tr>
<td>Custom made stainless steel table</td>
<td>A local welder reconfigured used stainless steel into 2 long tables for $250 apiece</td>
<td></td>
</tr>
<tr>
<td>Dosatron for wash line</td>
<td>$1200. Special units with seals to withstand highly caustic materials (from Bio Safe Systems company that makes sanitizer))</td>
<td></td>
</tr>
<tr>
<td>Back door for cooler</td>
<td>$250 (when purchased with the unit)</td>
<td></td>
</tr>
<tr>
<td>Lift gate</td>
<td>Came with used truck (maybe approximately $2,000-$3,000 as an add-on)</td>
<td></td>
</tr>
<tr>
<td>Floor scale</td>
<td>$200-400 (used old floor grain scale, fixed up and sealed by the state weights and measures)</td>
<td></td>
</tr>
<tr>
<td>Milk crate/bin washer</td>
<td>$50 at restaurant auction</td>
<td></td>
</tr>
<tr>
<td>Plastic shipping crates for co-op</td>
<td>$1,200 (Cost shared with our grocery co-op)</td>
<td></td>
</tr>
<tr>
<td>Restaurant greens spinner</td>
<td>$1,200 (new, found on internet)</td>
<td></td>
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</tbody>
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Any reference to commercial products, trade names, or brand names is for information only, and no endorsement or approval is intended.

ADVICE FOR OTHER GROWERS

Figure out your flow: “If you are going to be building new, figure out how your product flows through the space first, that will save you a lot of time and energy. Design the layout to maximize the efficiency and flow of your work, and so that product is going as much as possible in one direction: from dirty to clean.”

Pay special attention to drains: “Consider diverting waste water from your produce washing to a catch-basin to avoid having water pool or puddle near where you wash.”

Smooth floors & slip proof boots: “Concrete floors allow you to put all of your equipment on wheels and re-configure your space as needed.” While a smooth concrete floor is great for moving items on wheels, when it is wet it can be treacherous so Edgewater’s crew all wear slip-proof boots.

Lift gate and floor scale: “After figuring out that each person was lifting about 1,600 pounds each day, we bought a used box truck with a liftgate.” They also installed a used floor grain scale (fixed and sealed by the state weights and measures department). “The floor scale allows us to drive a loaded cart onto the scale and weigh the whole thing without having to load and unload the cart to weigh items.”

Whenever possible, find dual uses for spaces: the space used to store tomatoes in the summer becomes potato storage in the winter.