Oakwood Fruit Farm
Starting over after 100 years
History:

- 1904: Albert Louis buys farm and starts Nursery
- 1934: Bill Louis (my grandfather) joins farm and starts planting apple trees
- 1955: John Louis (my father) joins farm and starts the dairy
- 1993: I return from college and join operation
- 2010: Fire on October 10 destroys entire packhouse and retail operation
The Old:
Original building still functional
A lot of wood; hard to clean
Many additions; flow not very good
Retail cut up into 3 spaces
Had just added bakery
The Old:
Old FMC sizer
Only sorted by weight
Had to go from biggest to smallest
A lot of stopping to catch up
The Old:

All sorted by workers
All done by hand
Lots of grey area
The Fire
10/10/10
Day After
Day After
October 15th
History:

- 2010- December- Start building new facility
- 2011- July- Move into new facility
- 2011- Sept – Labor Day weekend- Grand reopening
New Facility
New Facility
Retail Store

- 50% bigger
- All one big open space
- All displays are moveable
- Lighting much better
Retail store:
Bought most of our displays at grocery store auctions
Tried to keep the farm market look
Retail Store
Bakery

- A tremendous addition to our business
- People come back more often, has increased sales of apples
- Twice the size of old one
- This past year we sold over 18,000 dozen doughnuts
Bakery
Packing Shed

Layout: Must be efficient and flow must be easy, as little two way traffic as possible
No storing of packed and unsorted products together
Food safety: must be easy to clean and constructed of easy to clean materials
Packing Shed

- 120 wide by 180 long
- 3 coolers, one for packaged products, one with smart fresh room
- Hope to add another to have higher temp/ preprocessing for honeycrisp types
- Refrigeration all setup on rack system for easy expansion and energy efficiency
- Packing area is also dehumidified and cooled, Much nicer working conditions and easier to get apples dry
Packing Shed

- Loading Dock
- Finished Cooler
- Cooler
- Large Cooler
- Retail
Coolers:
Two coolers for picked apples
Can store about 60,000 bushel
Have one Smart Fresh room
Packing Shed

- Fabric ceiling
- Really cuts down on noise
- Very glad we added it
Mezzanine:
Great addition
Make boxes above and slide down right where they are needed
Created a lot of extra work space
Float Tank
Packing Line: Float Tank
Heat exchangers:

Take hot gas from refrigeration racks and heats water in float tank

Set on thermostat

Needed in food safety

Get it done for free
Packing Line
Packing Line:

Brush bed:

- Dries apples
- Polishes apples
Packing Line:

Machine fills bags and trays now

Workers just do final inspect

Very consistent; same on Monday morning as Friday afternoon
Sorting

- Looked into 3 different companies
- Went to see different lines in operation in Wisconsin, Michigan, and Pennsylvania
- Decided on Compac: liked their carriers, speed at which they could process product, and software
- We have been very happy
- Very steep learning curve
Two computers

One runs the Invison programs: does the color and defect sorting

One runs the sizer: does the allocation of drops and sets up products (i.e. 3 lb. bags, tote bags, different size trays)
Compac:

Does:
- Weight
- Color
- Size
- Defects
- IR (great for cuts/ stem holes)
Compac:
Cameras overhead and sideview
Apples rotating as they go through
Takes 40-60 pictures of each apple
Makes 3-D model
Gets color and any defects
Compac

- 28 outlets
- Pack by weight, number or both
- Has optimizer to “stretch” target packs
- When packing by weight it looks
  - For right apples to hit target weight
Compac: Invision

- You setup all color maps
  - Nothing preset; big learning curve
- You setup all grading standards
  - What defects and size
  - Set your color standards
  - Number of grades
  - Can also add internal defect sort
Compac: Sizer

You create your products
   Example = 5lb bag
Create the elements that make up the product
   Example = 125 ct., 88 ct
Can share elements between products
Warms you if you leave out an element
Compac: Sizer

Decide where products are dropped

Endless combinations

Easy to “click” and add or subtract

Have up to the minute totals to watch so you can move elements to avoid overloads
Food Safety

- This facility is mostly metal and all equipment is stainless and very easy to clean.
- Use a foamer for cleaning hard to reach places like brushes, walls, or corner belts.
- Fogger for sanitizing rooms.
- Electronic monitoring system for dump tank sanitizer chemical levels.
- Hooked up a hose on dosatron for dispensing sanitizer. Can walk around packing line and sanitize without having to mix solution.
Food Safety:
Hand washing station very close to packing area
First aid station
All food contact surfaces wiped down every day
Food safety:
Continuously monitors sanitizer level in float tank
Automatically adds chemical if not in set range
Food Safety:
Logs chemical levels automatically for food safety records
Also monitors the sanitizer level in the spray bar and logs them
We use SaniDate: very user friendly and Organic approved
Conclusion

- New retail store has allowed us to grow our business substantially
- Bakery has been a great addition
- Packing line is much more complicated but much more powerful and much more consistent. The same Monday morning as it is on Friday afternoon
- We are getting about 70% out of our line. Could have full time person working on it to get all of the benefits it could give us
- Food safety is much higher and much easier
- Insurance? How many of you review this yearly and then look at it in August after you know crop size and value. Our fire was at the absolute worst time.
- Future?: Extend packing season to take advantage of packing line
- May add pick-your-own: Parking?
- Look at adding Ozone for sanitation
- Add another cooler: precondition Honeycrisp and Pazazz; store at higher temps