

SINCE 1873

# RENDELMAN

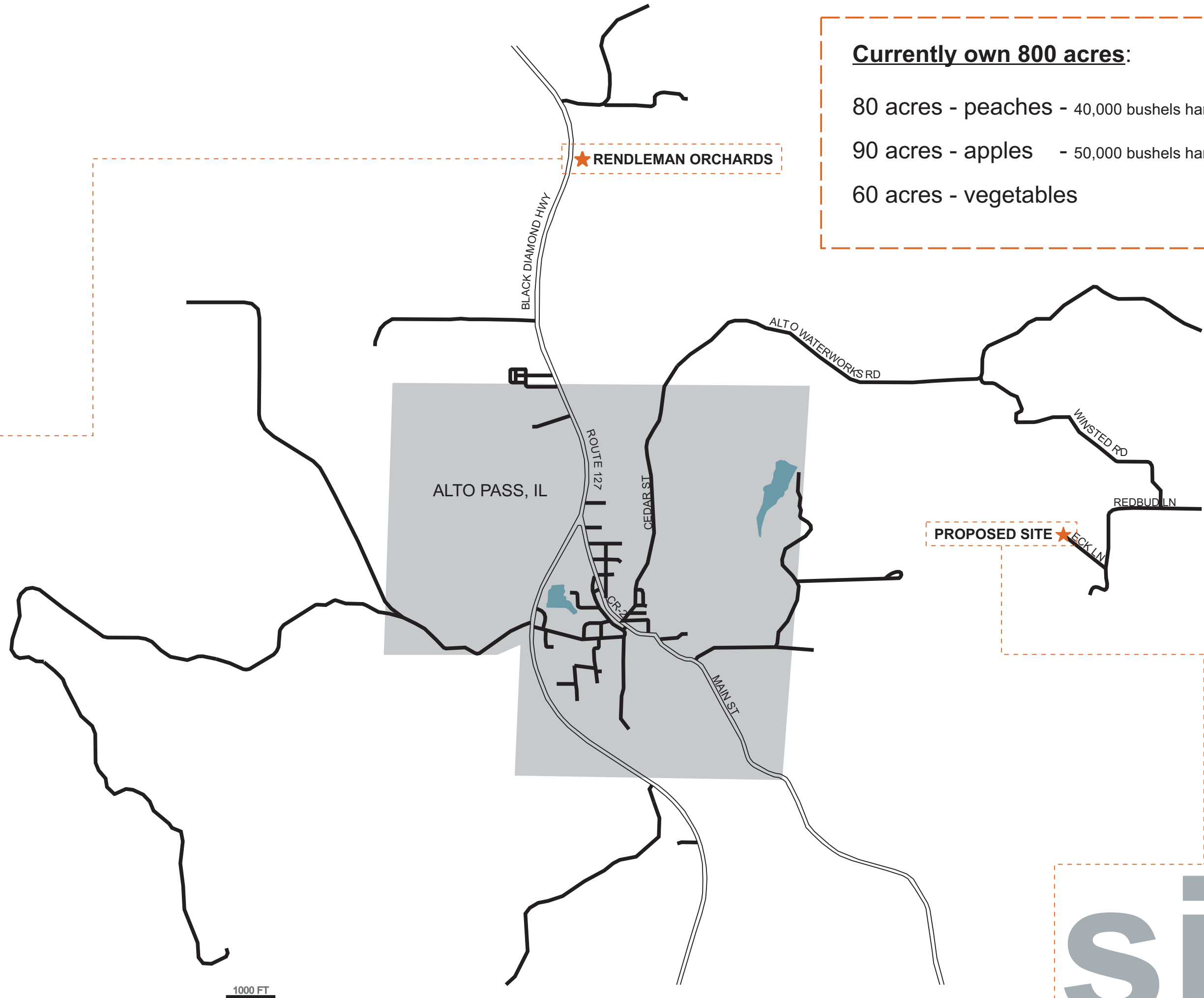
## ORCHARDS

“It takes kind of a very crazy person to be an orchard grower, to be very honest with you. You have to be nuts!”  
- Wayne “Ren” Sirles

| KYLE MILLER |

| COLLEEN O’MALLEY |

| JAKE AMADOR |



**Currently own 800 acres:**

- 80 acres - peaches - 40,000 bushels harvested per year
- 90 acres - apples - 50,000 bushels harvested per year
- 60 acres - vegetables

JOHN  
&  
ISABELLE

1873

88 ACRES

FAMILY FARM



WAYNE "REN"  
SIRLES

1979

800 ACRES



GROVER RENDLEMAN & SON

GROVER RENDLEMAN

1930

540 ACRES



LOADING & SHIPPING



WAYNE "REN" SIRLES

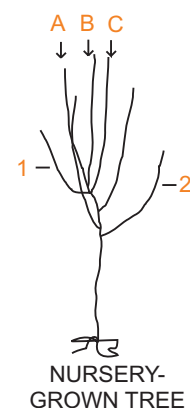
2012

HISTORY  
a sixth generation buisness

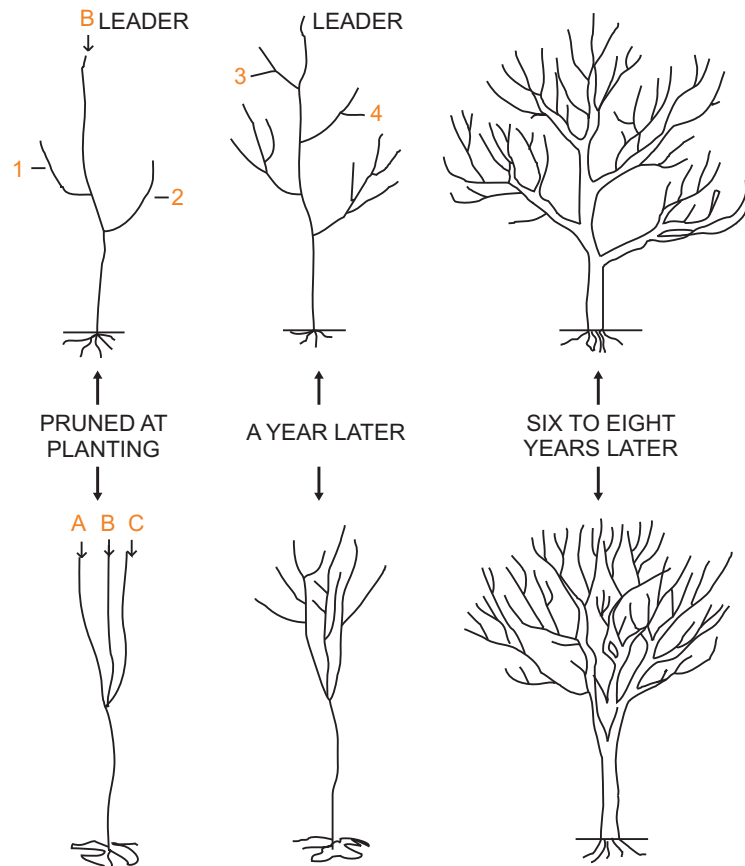


1

### CORRECT PRUNING



### INCORRECT PRUNING



Prune the trees: Start pruning in the spring to allow the trees to get air and have good vigor to growth.

2



Fertilize the trees: Give the trees a very short and light fertilizer.

3



Spraying Cycle: Start the spraying cycle as soon as the trees start budding because when the budding starts, the diseases start.

4



IPM: As soon as the trees bloom you have a variety of pest to look for and monitor.

5



Thinning the tree: One peach per 4 inches is the common rule to ensure a good crop. Excess fruit will impact the size of the fruit and the health of the tree.

6



Mowing the orchard: A clean cultivate is never done; grasses and fescue are kept. The grass is mowed down, but yet it does not take the nutrients in the water away from the trees.

“We use an integrated pest management program. We work with beneficial insects. We use certain chemicals at certain times. We follow degree days, that is when an insect will be most vulnerable for a spray. We just don’t go out and spray discriminately because that’s not good. Two reasons why it’s not good: it’s not good for the environment as far as that’s concerned; and number two, it’s not very good for our pocketbook, because that stuff is very expensive. So in all there’s about eight to ten insects we really have to watch, and there’s about eight or ten fungus diseases that we have to watch.”

“There are good insects like a certain kind of beetle that eat mites, you know, they’re more vulnerable to an insecticide. I have even had predator mites, which were good mites to eat bad mites, I had em shipped in straws and we’d go around and blow them into trees. There are certain things that you do to try to know how to build up the better part of the insect, the predators onto the bad insects. But again, it’s all a science; it’s not just to say, "Well, today’s Monday, I think I will spray this, this, and this." No, you know when and what.”

before harvest

PROCESS



1



**Harvest the crop:** Hand picked with a ladder and a picking sack around their neck.

2



**Transported from orchard:** A tractor brings the hand picked crop to the packaging/ cleaning facility.

3



**Hydro-cooling:** Cold water is pumped over the crop that comes in from the orchard to remove the field heat in order to get more shelf life or shipping time. The crop is then put into refrigeration storage.

4



**Hydro-dumping:** The bins are brought from the refrigerator and are dumped them into a water system to help clean the crop and get them on top of the main line without bruising or damaging the it.

5



**Straining:** Leaves are removed from the water and any crop that is damaged is removed.

6



**Grating:** the crop goes through a grating system to dump the smaller ones because they are not marketable.

7



**Washing:** The crop then goes into a washing system that has various brushes and gets a small coat of wax.

8



**Drying:** The crop travels through a drier to ensure the wax is dry.

9



**Inspection:** The crop travels on a 360 degree roller to allow for a full inspection and then is separated by a certain grade.

10



**Weighing:** Computerized weight sizer is used to separate the crop. The weight is determined by what the customer orders.

11



**Packaging:** The boxing process includes a final inspection and then are put into waxed boxes either by hand or mechanically by weight

12



**Stacking:** The boxes are then stacked and stored in a cooler until a order comes through.

after harvest

PROCESS



RENDLEMAN is a COMMERCIAL orchard on the GLOBAL MARKET set up on SUPPLY AND DEMAND. It is a VERY DELICATE BALANCE even with a city as big as ST. LOUIS or CHICAGO.

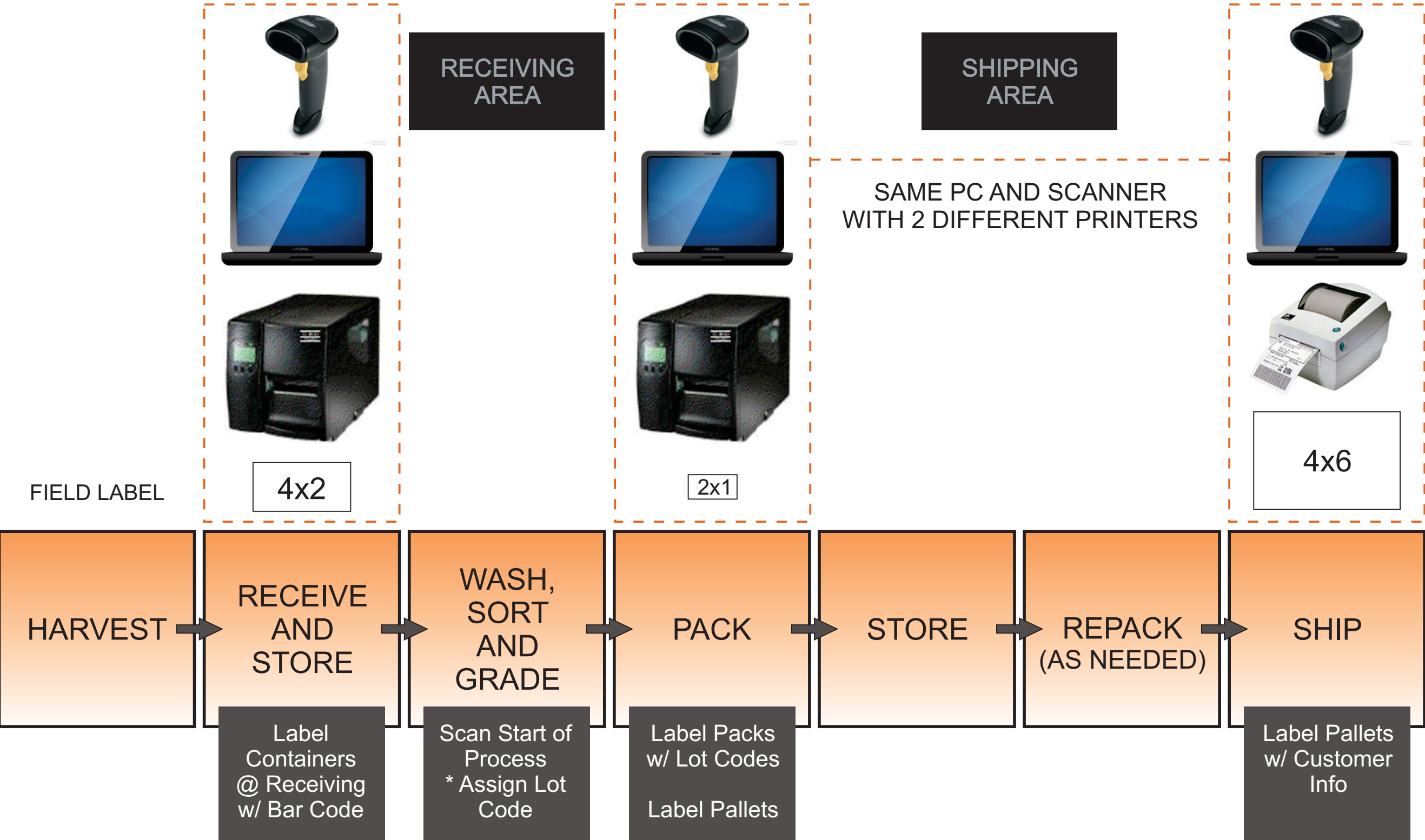
Sirles has seen actually one trailer load or two trailer loads of too much of one thing can DRIVE THE MARKET DOWN drastically. also he has seen it the other way; if it's one or two trailer loads short, it can go up. mainly our market is mainly set by SUPERMARKET CHAINS."

commercial  
DISTRIBUTION



# ATS HARVEST2SHIP SOLUTION COMPONENTS AT RENDLEMAN ORCHARDS

ATS Process Software - Label, Scan, Record, Analyze, & Report



ATS harvest2ship

DISTRIBUTION

## Label Example on an ATS Harvest2Ship System:

Print Wizard   Prompt Dialog

<p><b>A. Select Variety-Cultivar</b></p> <p><input type="radio"/> Ambrosia;</p> <p><input type="radio"/> Cameo;</p> <p><input type="radio"/> Fuji;Auvil</p> <p><input type="radio"/> Fuji;Sun</p> <p><input type="radio"/> Fuji-Sept. Wonder;Granny Smith</p> <p><input type="radio"/> Gala;Buckeye</p> <p><input type="radio"/> Gala;Gala/Buckeye</p> <p><input type="radio"/> Golden Delicious;Smoothie</p> <p><input type="radio"/> Golden Supremes;</p> <p><input type="radio"/> Goldrush;</p> <p><input type="radio"/> Honeycrisp;</p> <p><input type="radio"/> Jonagold;Rubinstar</p> <p><input type="radio"/> Jonathons;Thorne</p> <p><input type="radio"/> Jonathons;Ruby Jones</p> <p><input type="radio"/> Red Delicious;Its</p> <p><input type="radio"/> Red Delicious;Dixie Reds</p> <p><input checked="" type="radio"/> Red Delicious;Adams Apple</p> <p><input type="radio"/> Red Delicious;Scarlet Spurs</p> <p><input type="radio"/> Red Delicious;Red Chief</p>	<p><b>B. Identify Field Location:</b></p> <p><input type="radio"/> RO-2   <input type="radio"/> RO-17   <input type="radio"/> RO-19</p> <p><input type="radio"/> RO-21   <input type="radio"/> RO-23   <input type="radio"/> RO-25</p> <p><input type="radio"/> RO-28   <input type="radio"/> RO-29   <input type="radio"/> RO-30</p> <p><input type="radio"/> RO-31   <input checked="" type="radio"/> RO-38   <input type="radio"/> RO-39</p> <p><input type="radio"/> RO-40   <input type="radio"/> RO-41   <input type="radio"/> RO-42</p> <p><input type="radio"/> RO-43   <input type="radio"/> RO-44   <input type="radio"/> RO-45</p> <p><input type="radio"/> RO-46   <input type="radio"/> RO-47   <input type="radio"/> RO-48</p> <p><input type="radio"/> RO-49   <input type="radio"/> RO-50   <input type="radio"/> RO-51</p> <p><input type="radio"/> RO-52   <input type="radio"/> RO-53   <input type="radio"/> RO-54</p>	<p><b>C. Select Incoming Container:</b></p> <p><input type="radio"/> Short RO - 18 Bu.</p> <p><input type="radio"/> Cross RO - 18 Bu.</p> <p><input checked="" type="radio"/> Tall RO - 20 Bu.</p> <p><input type="radio"/> Tall Plywood - 20 Bu.</p> <p><input type="radio"/> Tall Plastic 26 - 22 Bu.</p> <p><input type="radio"/> Boyds - 20 Bu.</p>
<p><b>D. Select Container Fill Amount</b></p> <p><input checked="" type="radio"/> Full   <input type="radio"/> 3/4 Full   <input type="radio"/> 1/2 Full   <input type="radio"/> 1/4 Full</p>		
<p><b>E. Enter Comments (pests, temp, etc)</b></p> <p>67 Deg F</p>		
<p><b>4 X 2 Label</b></p>		

## Information Configured to **Your** Farm

- Crops
- Crews
- Containers
- Locations
- Lot Code Nomenclature
- Resulting bar code has all data in specific format

**Use Bar Code Cheat Sheet  
To Speed Data Entry as  
Well as Menus to Pick Info**

### All Labels are Saved in a Log & Collated in ATS Process

**4 X 2 Label**

**Rendleman Orchards**  
Apple; Red Delicious; Adams Apple 01/05/12  
RO-38  
Tall RO - 20 Bu.  
Full  
023149150052003  
67 Deg F

Date \_\_\_\_\_

**2D barcode**  
(holds all info)

## BENEFITS:

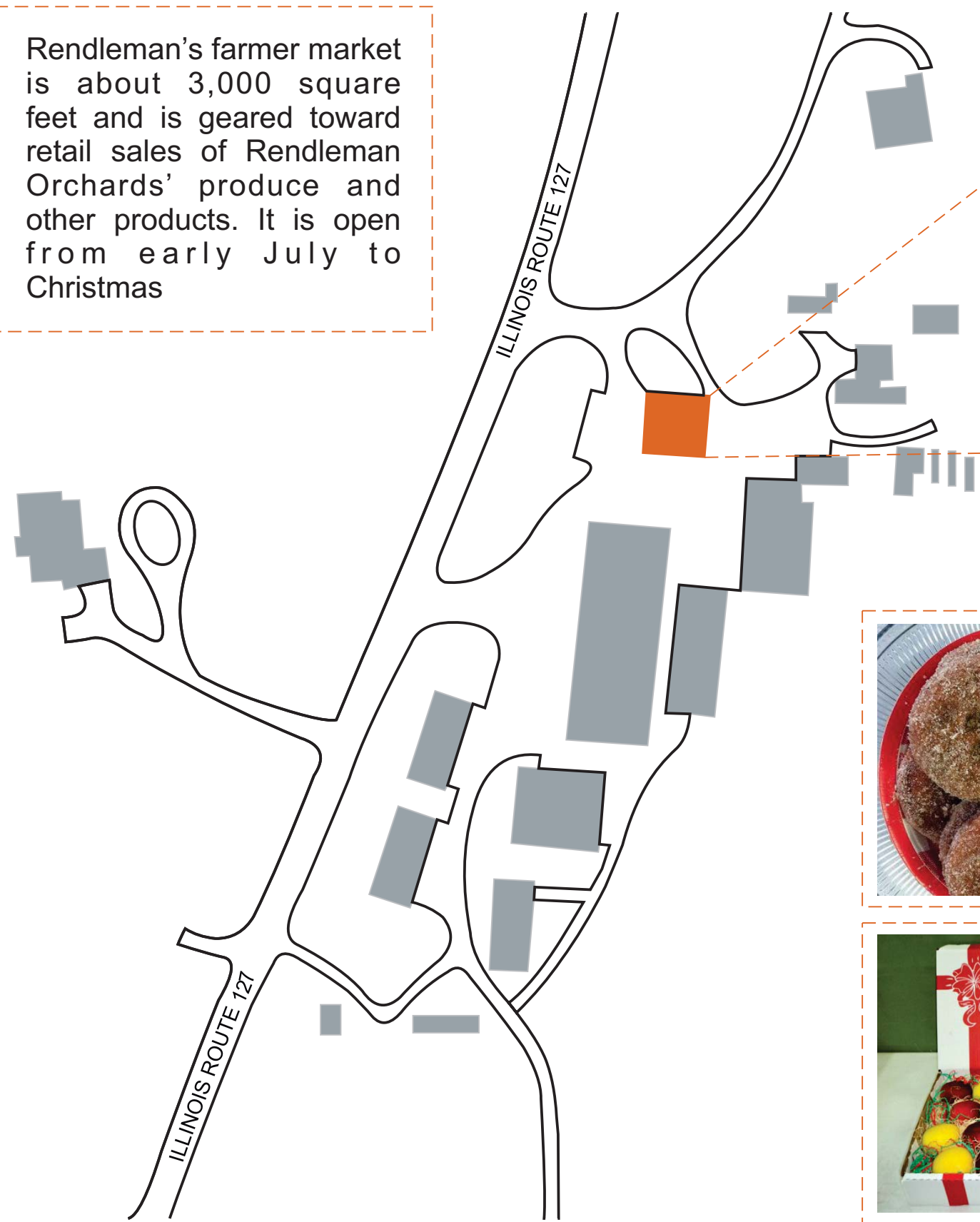
- Enhance Food Safety
- More Efficient Internal Operations-Lower Costs
- Increase Yields & Better Crop Management
- Improve Pesticide and Fertilizer Utilization
- Expand Sales

# harvest2ship

# DISTRIBUTION



Rendleman's farmer market is about 3,000 square feet and is geared toward retail sales of Rendleman Orchards' produce and other products. It is open from early July to Christmas



### AVAILABLE ITEMS AT FARM MARKET:

#### FRUITS:

- peaches
- apples
- nectarines
- blueberries
- cantaloupe
- watermelon

#### VEGETABLES:

- sweet corn
- tomatoes
- green beans
- cucumbers
- zucchini
- squash

#### FALL ITEMS:

- pumpkins
- mums
- cider
- gourds
- fall decor

#### SPECIALTY ITEMS:

- jams & jellies
- baking mixes
- dip mixes
- soup mixes
- snack mixes
- nuts
- salsa

- pickled items
- apple cider donuts
- candies
- ciders
- pasta sauces
- fruit smoothies
- slushes

#### GIFT ITEMS:

- apple gift boxes
- candles
- linens
- gift baskets

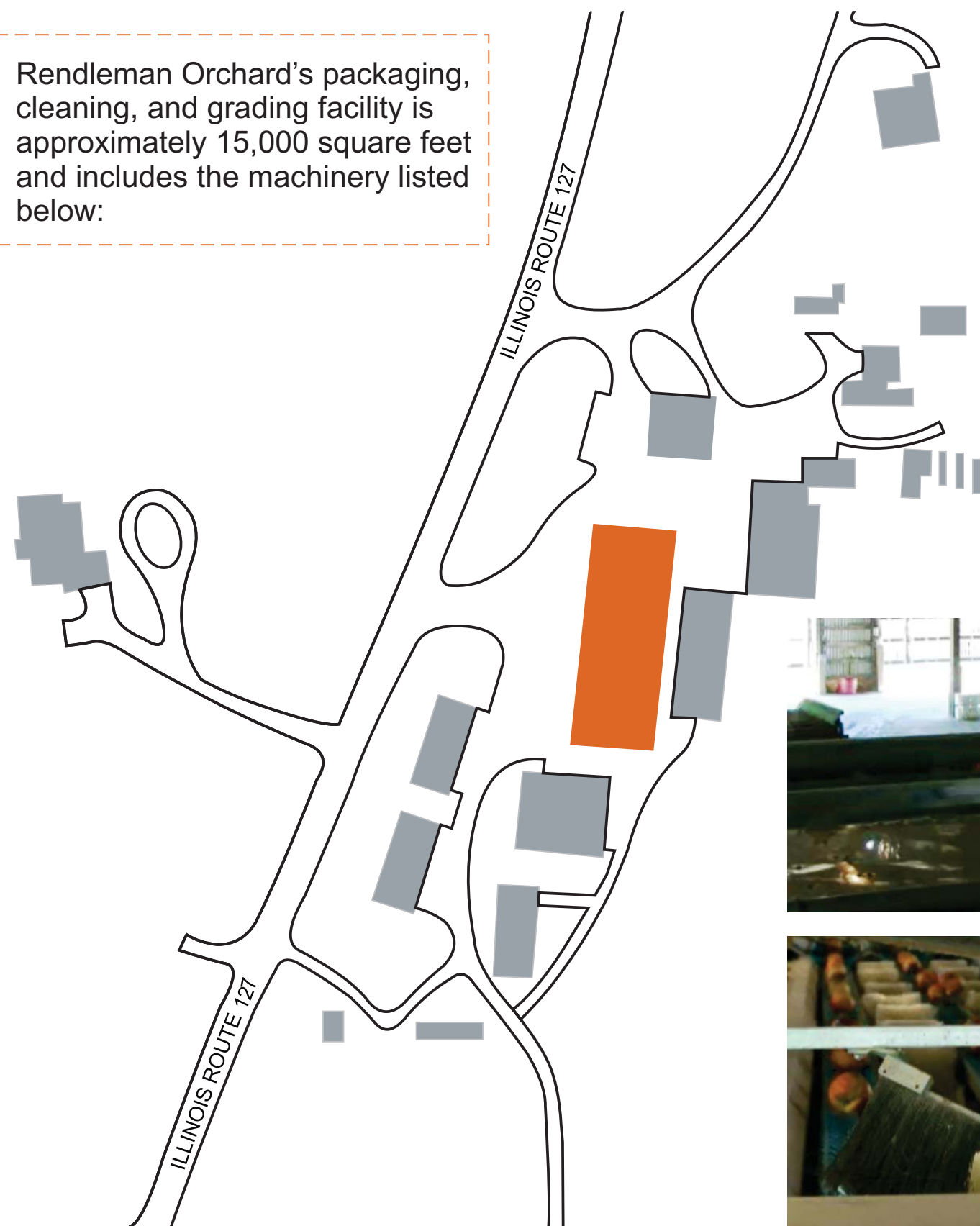


10% of Rendleman Orchards revenue comes from their farm market

farm market  
PROGRAM



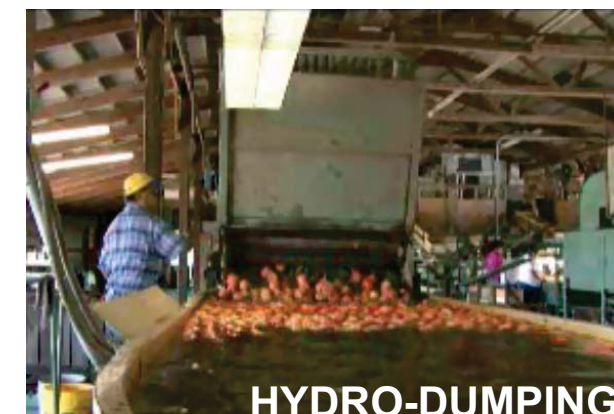
Rendleman Orchard's packaging, cleaning, and grading facility is approximately 15,000 square feet and includes the machinery listed below:



The PACKAGING FACILITY is usually the BIGGEST EXPENSE that you have in an orchard business



HYDRO-COOLING



HYDRO-DUMPING



GRATING



WASHING



DRYING



WEIGHING



SORTING

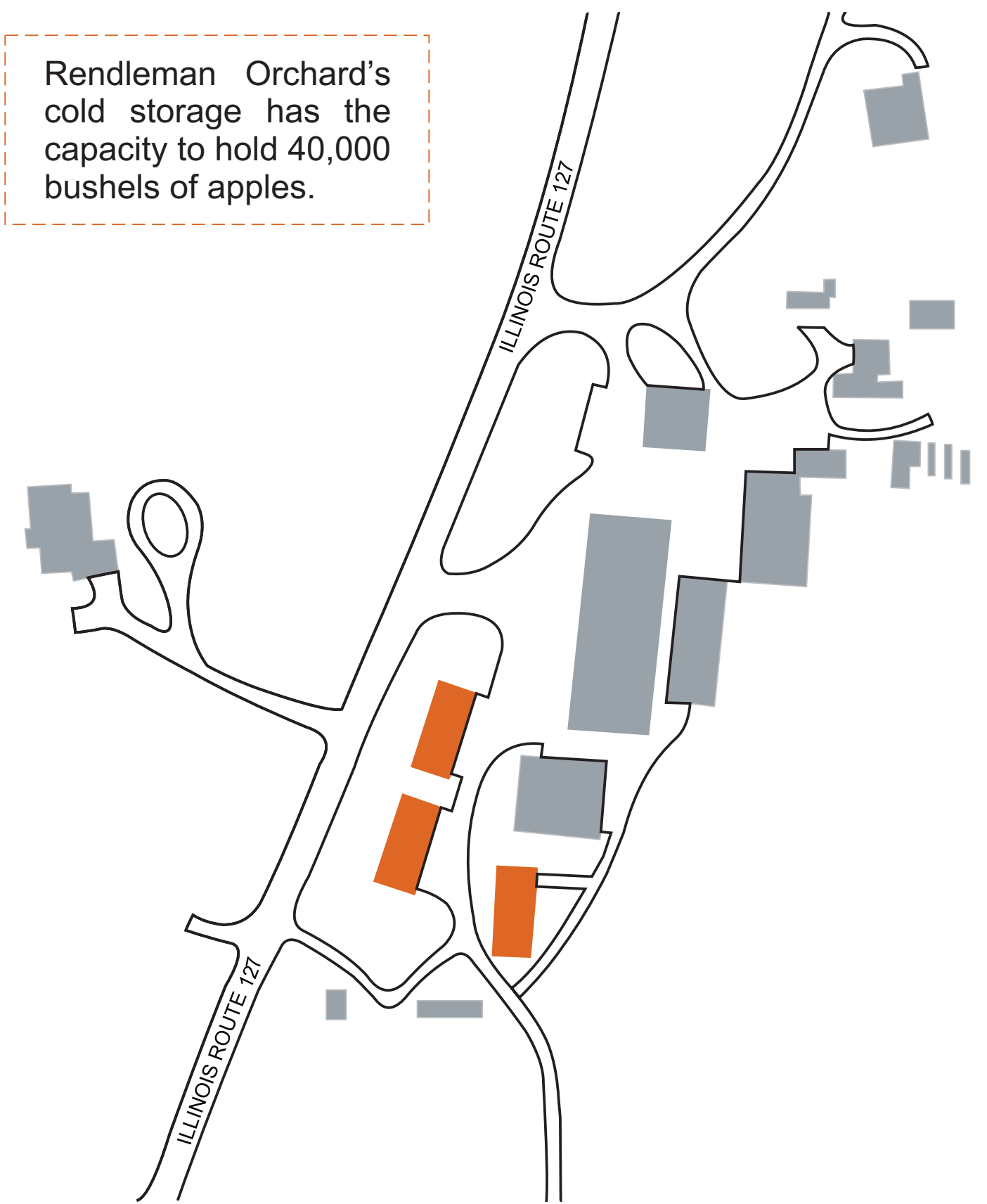


PACKAGING

Overall, over **100** workers will occupy the orchards to harvest fruit and perform other work. During peak harvest time, up to **65** people will work on the farm in one given day and about **25** people year round.

packaging facility  
PROGRAM

Rendleman Orchard's cold storage has the capacity to hold 40,000 bushels of apples.



REFRIGERATION storage is usually the SECOND BIGGEST EXPENSE that you have in an orchard business

TYPES OF TEMPERATURES:	PEACHES	APPLES
Field Heat Temperature	80°	80°
Hydro-cooling Temperature	34°	34°
Cool Storage Temperature	28°	29°

# temperature

TEMPERATURE control is CRUCIAL to storage of fruit. Along with temperature, MOISTURE should be closely watched. The most important thing is WATER.

Refrigeration units act as dehumidifiers. That's why air conditioners are fitted with pipes to DRAIN THE MOISTURE FORM THE FRUIT, growers must keep the rooms hydrated.



The first shipments of fruits under refrigeration were from southern Illinois to Chicago in 1866. To Parker Earle, an enterprising fruit grower of Cobden, IL, receives the credit for pioneering this development.

# COLD STORAGE program



# ORCHARD MACHINERY



SMALL ROTARY MOWER



SPRAY TRACTOR



MULCH SPREADER



GENERAL PURPOSE TRACTOR



LADDERS & PICKING BUCKETS



WAGONS



PRUNING EQUIPMENT



AUGER



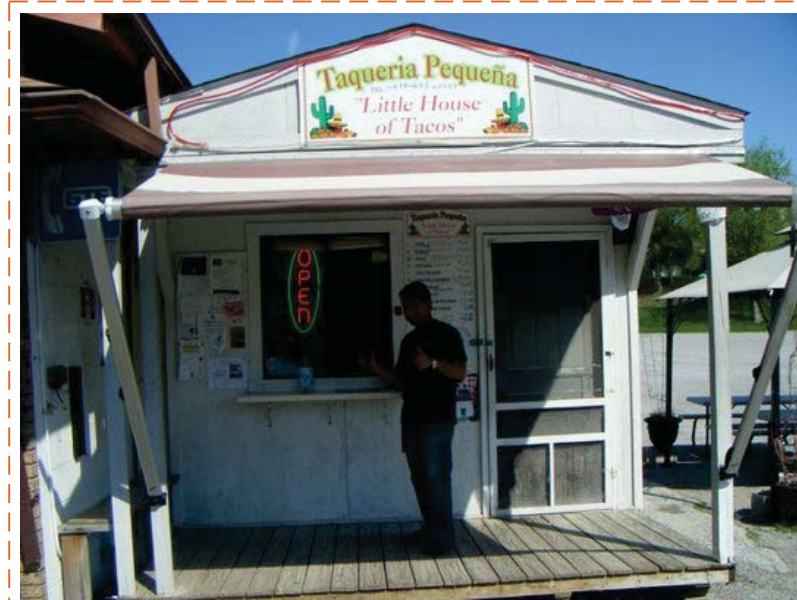
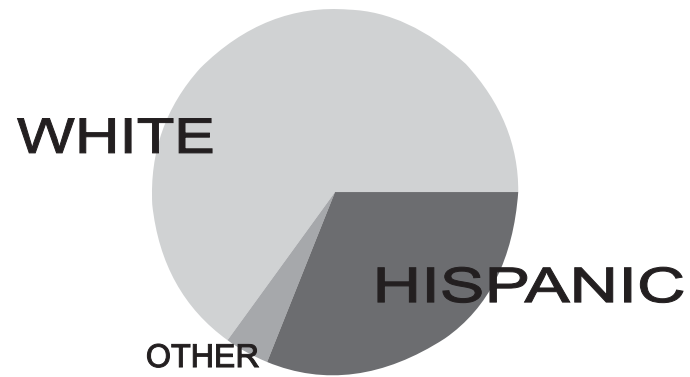
HYDRAULIC POST POUNDER

REGULAR STORAGE



program





TAQUERIA PEQUENA



WORKING AT RENDLEMAN'S



PERHEPECHA FESTIVAL

MIGRANTS

25

"We have some facilities here on our place, but **MOST** of them have bought houses in Alto Pass, Cobden, Anna. They have **SETTLED** into this area, and they have decided to make this **COMMUNITY**, this area, home, and they have raised their children here."

-Wayne "Ren" Sirles

"People who we hire that wants to work for us, in the past everybody said, well, it was a common where they're **MIGRANT WORKERS**, they just come and go; well, they don't do that anymore. **THEY COME AND THEY STAY**. They want to know that they're going to have **EMPLOYMENT** for basically eight or nine months." - Wayne "Ren" Sirles

rendleman's

MIGRANT WORKERS

<http://avbarn.museum.state.il.us/viewclip/2615>

[https://docs.google.com/a/siu.edu/viewer?a=v&q=cache:66qByMEHaKkJ:jhawkins54.typepad.com/files/sirles--rendleman-orchards-using-baracodes-for-traceability--1.pdf+&hl=en&gl=us&pid=bl&srcid=ADGEESgtVeaJ8Qy7Tu14QIRrQvT5N-8rY6YcYgwPH6Yn5kl4pwrzDoVzYLOMxg3PAASIPEaaN8HCwpjd3hhht\\_vDF7OxYr4UT65gZMM98uHnBAkxwUMsRn6UFylc8RnmEm1vNTqfP4He&sig=AHIEtbQNOWN59HdoJM0cQV5IWPaonqQpAQ](https://docs.google.com/a/siu.edu/viewer?a=v&q=cache:66qByMEHaKkJ:jhawkins54.typepad.com/files/sirles--rendleman-orchards-using-baracodes-for-traceability--1.pdf+&hl=en&gl=us&pid=bl&srcid=ADGEESgtVeaJ8Qy7Tu14QIRrQvT5N-8rY6YcYgwPH6Yn5kl4pwrzDoVzYLOMxg3PAASIPEaaN8HCwpjd3hhht_vDF7OxYr4UT65gZMM98uHnBAkxwUMsRn6UFylc8RnmEm1vNTqfP4He&sig=AHIEtbQNOWN59HdoJM0cQV5IWPaonqQpAQ)

[http://www.alplm.org/oral\\_history/agriculture/Sirles\\_WayneD.html](http://www.alplm.org/oral_history/agriculture/Sirles_WayneD.html)

<http://utahpests.usu.edu/ipm/htm/advisories/treefruit/articleID=13054>

<http://www.uvm.edu/~organica/PracticalGuide/OrchardEquipment.html>

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<http://www.rendlemanorchards.com/>

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