

LESSONS LEARNED FROM 13 YEARS OF GROWING STRAWBERRIES ON OUR FAMILY FARM

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Van Meter **Family** Farm
Clarkson, KY







Five absolutes for successfully growing strawberries

- ▣ Good location, soil prep, and firm tall beds
 - ▣ Disease free tips and plugs
 - ▣ Correct planting date
 - ▣ Deer and vole control
 - ▣ Frost control

Trying to decide **WHERE** to put your patch??

- ▣ LOCATION!

- ▣ What is the definition of U-pick?



Site Selection (cont.)

- ▣ We need to pay attention to the following issues:
 - Field Location
 - Field Orientation
 - Soil Type
 - Air Drainage
 - Water Drainage

Field Location

- ▣ Wind breaks on the North or Northwest side of the field can aid in reducing cold injury.
 - However, too much wind protection can reduce air movement, increase humidity, and subsequent disease.
- ▣ Close proximity to water
 - Runoff from field, replenish irrigation supply
 - ▣ Disease issues
- ▣ U-Pick Considerations
 - Visible, accessible from the road
 - Parking

Field Orientation

- ▣ Beds (rows) should be oriented in a North – South direction to encourage more uniform plant development and berry ripening.
 - East – West orientation results in plants in the North row being shaded by plants in the South row.
 - Therefore, plants in the North row are generally smaller and fruit ripens slower.
 - Greater yields from South row than North row.

Field Orientation (cont.)

- ▣ Exposure
 - A South facing slope will warm sooner
 - ▣ Advantage – earlier harvest
 - ▣ Disadvantage – earlier frost protection
 - A North facing slope will warm slower
 - ▣ Advantage – delayed frost protection
 - ▣ Disadvantage – later harvest
- ▣ Ideal – NE or SE

Air Drainage

- ▣ Locate fields for use in the annual plasticulture production system, where cold air will drain off of the field.
- ▣ This is especially critical when dealing with a Southern exposure.
- ▣ A slight slope with lower elevation below the field works very nicely.

Challenges of the Annual Plasticulture Production System

- ▣ **START SMALL** and grow as market grows
- ▣ Significant capital investments!
 - \$8,000 to \$10,000 / A establishment costs
 - \$10,000 + / A production costs
- ▣ Intensive management!
 - Make time to do it right the first time!
 - Mistakes will greatly cost you!
- ▣ Significant labor investments!

Expected Income: Plasticulture

Quantity	Price (\$ / pound)		
(pounds, density)	\$2.50	\$3.00	\$3.50
10,052 (6.5', 0.75)	\$25,130	\$30,156	\$35,182
13,403 (6.5', 1.00)	\$33,507	\$40,209	\$46,911
10,890 (6.0', 0.75)	\$27,255	\$32,670	\$38,115
14,520 (6.0', 1.00)	\$36,300	\$43,560	\$50,820
13,068 (5.0', 0.75)	\$32,670	\$39,204	\$45,738
17,424 (5.0', 1.00)	\$43,560	\$52,272	\$60,984

Summary

- ❖ The Annual Plasticulture Strawberry Production System: **U-Pick can reduce total costs!**
 - ❖ Requires a significant capitol investment!
(\$7,000 to \$10,000/A establishment costs)
(\$12,000+/A total production costs) **U-Pick 50% less?**
 - ❖ Requires excellent management practices!
 - ❖ Producers excellent potential returns!
(\$25,000 + /A potential gross returns)

Attention to Fall Details

- ▣ Site Selection
- ▣ **Soil Sampling**
- ▣ Site Preparation
- ▣ **Fall Fertilization**
- ▣ **Soil Fumigation**
- ▣ Bed Formation
- ▣ Mulch Laying
- ▣ Variety Selection
- ▣ Seeding Cover Crop
- ▣ Transplanting

Breaking ground



Plastic mulch layer



Mechanical Transplanter Bedder designed for vegetables



Beds tall, full, and firm





Beds are ok, but.....



This is better!!



Can punch holes by hand but...







September 12, 2014
Sweet Charlie



Harvest tool works great for planting







Plug depth is **CRUCIAL!!**



September 18, 2014
Camarosa





October 2, 2014
Sweet Charlie



November 1, 2014
Chandler







Row covers a must



March 5, 2015 **18 inches!!**











Grower's meeting in March 2013



























March



Mowing Annual Rye





Option instead of mowing??



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April







Overhead plus row covers

Double row covers



Call TV stations when you are going to frost protect 4/11/12



















May



FRESH
STRAWBERRIES

JUST RIPE FOR YOU!

Fabricated by farmer



Strawberry Expo 2013



Purchased Easy Pick Harvest Assistant August 2014













Record breaking day!!



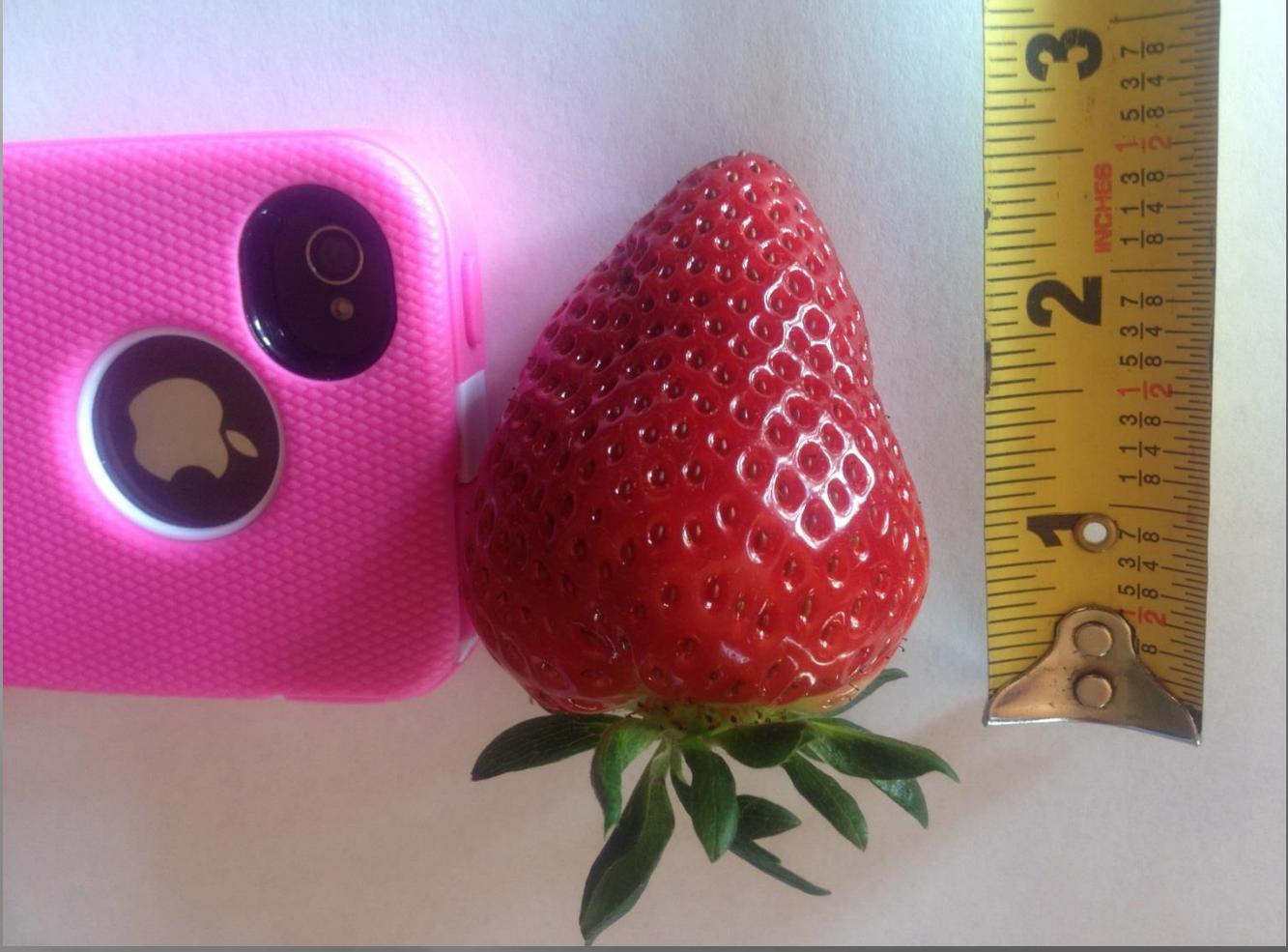
A tough day at the office



Green strawberries-YUCK!











Green strawberries-YUCK!



Don't forget to take pictures



Looks “flavorable” for 2016





Eckert's
HOMEGROWN
STRAWBERRY
SEASON!

Coming Soon!









Our crop rotation-Quad cropping

- ▣ Strawberries
- ▣ Watermelons-Cantaloupes
- ▣ Transplanted Sweet Corn
- ▣ Pumpkins
- ▣ Winter Rye
- ▣ Caliente mustard



We hate pulling plastic



Everyone's a comedian



ONLY once every three years!!
Use 15 mil drip & 1.5 mil plastic



Flail mower cuts low



Important part of quad cropping...take care of the plastic



Flail mower does a great job without tearing plastic



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Staggered transplants 2 weeks apart with 3 plantings



July 26, 2014







September 2, 2014

31.65 pounds Crunchy Red



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SWEET CORN



First Crop May 2010

Sweet Rhythm





Seeding March 29, 2014 with 2 seed per cell, 50 count tray













**Goal to harvest by Father's Day
\$8 per dozen?????**



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Pumpkin Chunkin Contest



Air cannon shot cannon ball pumpkin 1371 ft



2013-2014

- ❑ Cold Winter
- ❑ Vole Damage
- ❑ Deer Damage
- ❑ Frost Damage



Put up deer fence **as soon as**
beds are pulled





Double fence “WORKS”



Peanut butter on 1 inch fence tape















Seeded CALIENTE 199 & Arugula 12lbs/acre 6-17-14



CALIENTE MUSTARD

[Caliente Mustard story from RFD-TV](#)



**BIOFENCE
MUSTARD
MEAL &
PROWL H2O
FALL 2014**



Mechanical Transplanter Bedder modified with Cole side dresser





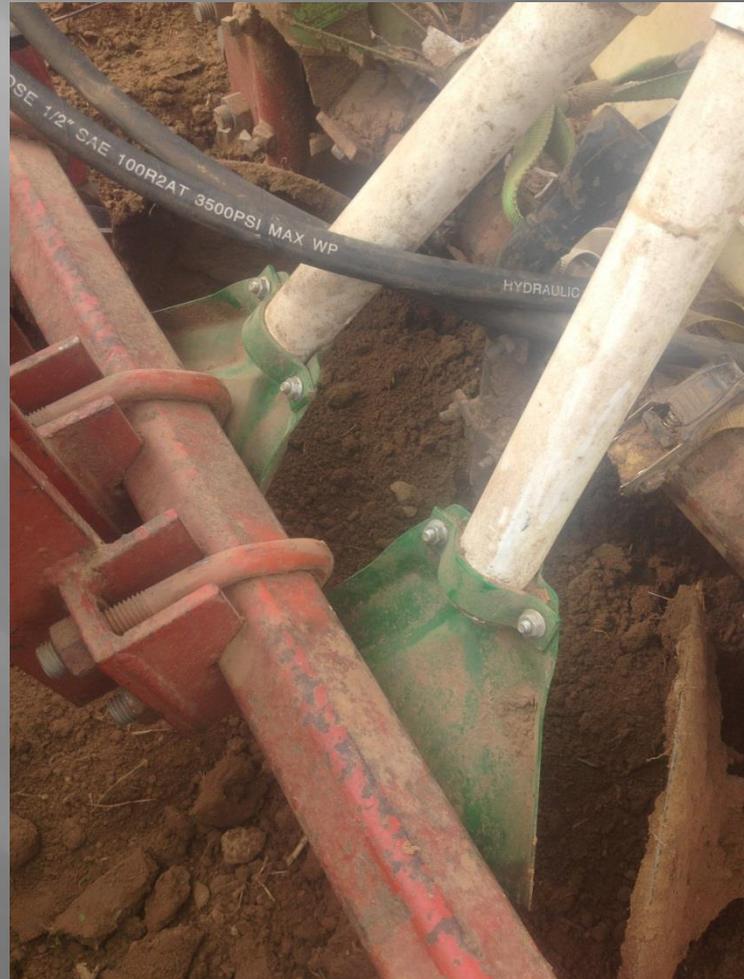








Tubes distribute Bio Sense into
beds. Can be hand spread











Strawberry / BioFence Observations

- Fall 2011-2nd year of use
- Rates
 - 500 lb/A
 - 750 lb/A
 - 1,000 lb/A
 - UTC



UTC



UTC



UTC



Biofence @ 1,000 lb/A



Biofence @ 1,000 lb/A



Biofence @ 1,000/A Oct 2011



February 7, 2012



February 7, 2012



Comparison

UTC

Bio Fence



BioFence weed control



UTC December 29, 2011



BioFence December 29, 2011



BioFence on left May 20, 2012 UTC row on right





Summary of Bio Fence Trial

First time in farm history to reach 2 lbs/plant

Yield increase of .26 lbs per plant vs UTC

750 lbs/acre performed as well as 1000/acre

Return on investment of \$862.50/acre was \$6240 using 12,000 plants/acre and \$2 per lb for strawberries

2012-2013

- ❑ Froze 7 tons of strawberries
- ❑ 2500 Jars of Strawberry Jam
- ❑ Began plug propagation operation



400 plants yielded 301.5 pounds
in one picking!!





Flash freezing facility



Began growing plugs August 2012







Grew 270,000 in 2014





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