



# Getting Digital Recordkeeping Done

Phil Tocco

NW Orchard and Vineyard Show  
January 14, 2015



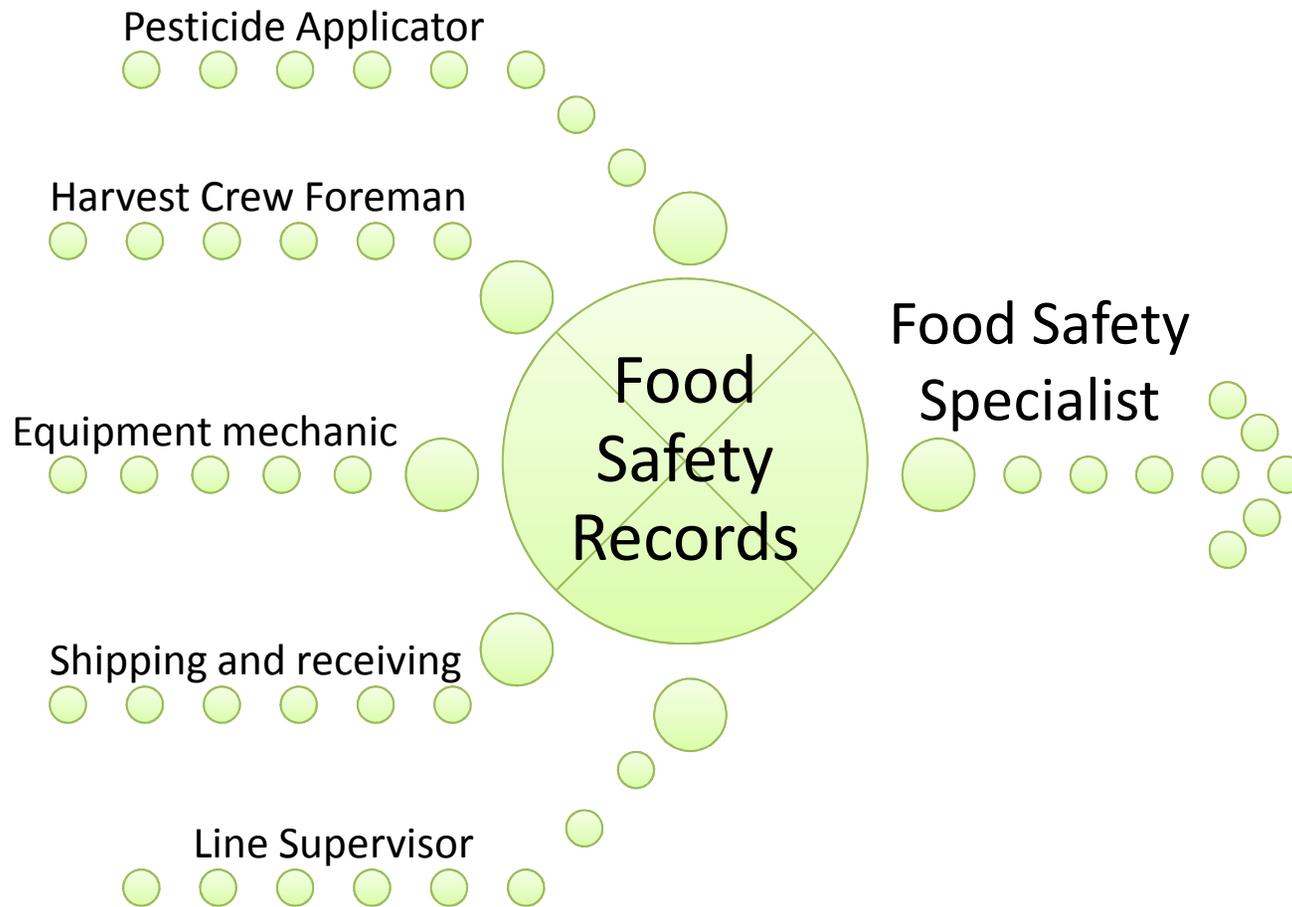


## First things first...

- Initial target was food safety digital records.
- As time wore on, the net widened.
- One size does not fit all.
- Findings are not an endorsement or condemnation of the product by MSU.
- No guarantees of acceptance by auditors.
- Size matters.



# The Ideal Situation





# Grower Considerations

- What records are currently kept?
- Is there economic/managerial benefit?
- Auditor acceptance?





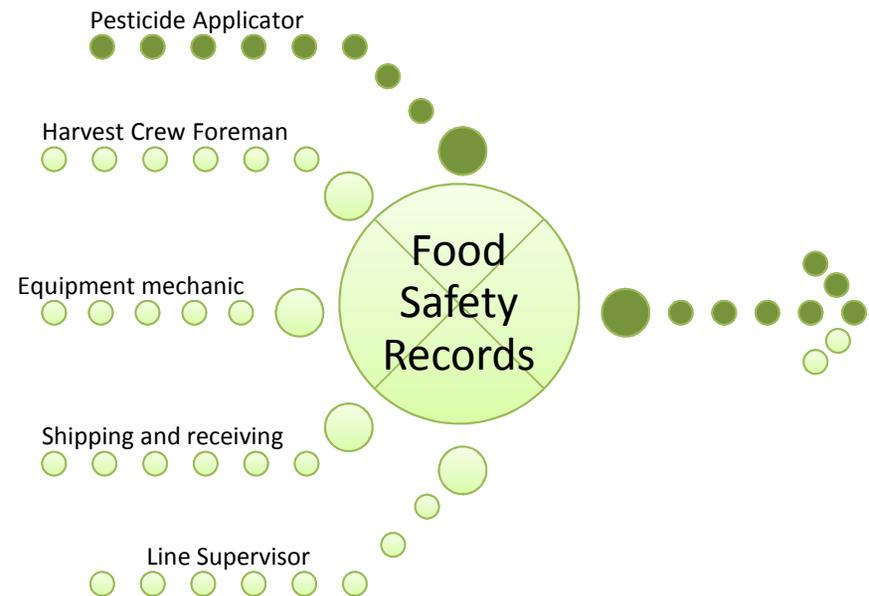
# Recordkeeping Software Types

- Pesticide recordkeeping.
- Food Safety Plan Creator.
- On-Farm Data Integrator.
- Traceability
- Compliance Monitoring



# ApRecs

- Highly modular system.
- Tailored to Spray Recommendations.
- Made to work in tandem with scouting and spray data from large custom applicators.
- Target: Large Growers with many fields





[Records](#) [Reports](#) [My Account](#) [Help/Contact](#) [KnowledgeCenter](#) [Log Off](#)

Select Create Record View/Print Archive Edit Rec Upload

Customer  Location  Title  Recommendation #  [Search](#) [Show All](#)

Recommendations 0   Status **All Current** Product Type **All** Crop **All** Page 0/0 << First < Previous Next > Last >>

Name	Number	Ship Name	Ship Address	Account Name	Note	Entry Date ▼1	Status

Select New Edit View/Print Complete Delete Archive Create Recommendation Work REI Rec

Customer  Location  Title  Recommendation #  Application #  [Search](#) [Show All](#)

Application Records 0   Status **All Current** Product Type **All** Crop **All** Page 0/0 << First < Previous Next > Last >>

Name	Number	Recommendation #	Ship Name	Account Name	Note	Entry Date ▼1	Record Date	Applied Date	Status



Records Reports **My Account** Help/Contact KnowledgeCenter Log Off

**Customer: Michigan State University Extension** Profile Report **Locations 2** Page 1/1 << First < Previous Next > Last >>

Name	Michigan State University Extension	Address 1	1715 Lansing Ave.	Edit Location	Name	Contact	Email
Contact	Phil Tocco	Address 2		<a href="#">Edit</a>	Rogers Farm	Phil	tocco@msu.edu
Email	tocco@msu.edu	City	Jackson	<a href="#">Edit</a>	<NEW LOCATION>	<PLEASE UPDATE>	<PLEASE UPDATE>
Phone		State	MI				
Mobile	(517) 788-4292	Zip	49202				
Fax		<input type="button" value="New Location"/> <input type="button" value="Update"/>					

Logins Equipment Applicators Work Detail Template Binders [Your ApRecs e-mail address is: UID\\_3161\\_B12D6E@ApRecs.com](#)

Name	Email	Active
Phil Tocco	tocco@msu.edu	Y

First name

Last name

Email

Password

Confirm

Signature

[For Help With Signatures, Click Here.](#)



Name	Rogers Farm	Address 1	8072 S. Jackson Rd	
Contact	Phil	Address 2		
Email	tocco@msu.edu	City	Clarklake	
Phone		State	MI	Zip 49234
Mobile				
Fax				
<input type="button" value="Update"/>				



Fields
Field A
Field B
Field C

Name	Field A	GPS	
County	Jackson	Acres	4.30
Township	Liberty	Farm Unit	
Range		Crop	Other
Section		Variety	
Tax Parcel		Root stock	
<input type="radio"/> Organic	<input checked="" type="radio"/> Conventional	Growing Season	7 - 7
<input type="radio"/> Buffer Zone	<input type="radio"/> Transitional		End Season
Packer	Grower Number		
Add Delete			

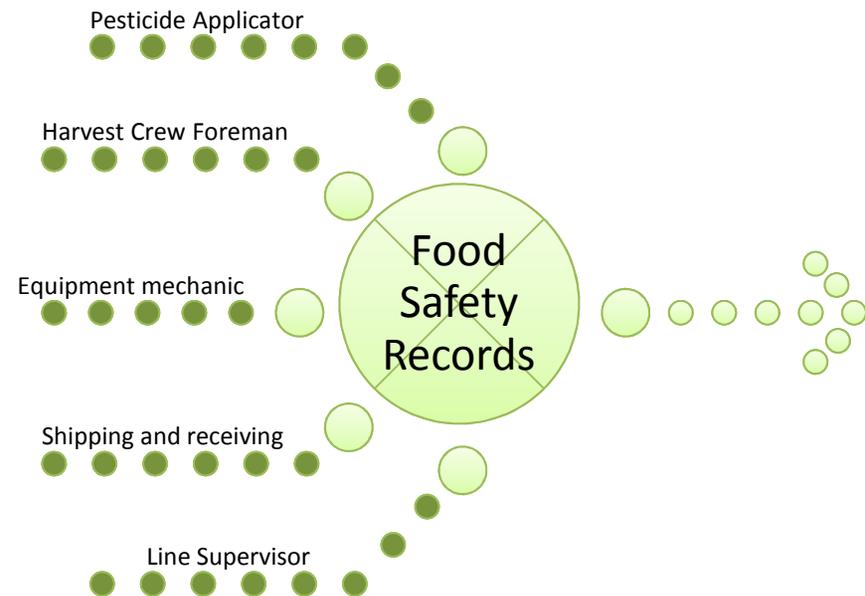
Adjust Field Level < > AddField AddChild Node Update Delete Node





# On-Farm Food Safety Project

- Highly customizable.
- Tailored to Food Safety Manual creation.
- Not a data storage application
- Target: Small to mid-sized growers.





# On-Farm Food Safety Project

[About](#) [How to Use the Food Safety Tool](#) [How to Get Food Safety Certified](#) [Create a Food Safety Manual](#) [Forms/Training Materials](#) [Resources](#)

Create a Food Safety Manual General Requirements

[Logout](#)

[Corrective Action Procedure](#)

**General Requirements progress**

## Question 6

[Back](#)

[Next](#)



Do you have a documented corrective action procedure?  Yes  No



# On-Farm Food Safety Project

About How to Use the Food Safety Tool [How to Get Food Safety Certified](#) [Create a Food Safety Manual](#) Forms/Training Materials Resources

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[Corrective Action Procedure](#)

**Question 6**

[Back](#)

[Next](#)

**General Requirements progress**



Do you have a documented corrective action procedure?  Yes  No

Corrective action is required whenever an observation or audit indicates a non-conformance with food safety requirements. Non-conformance may result from deviations to normal operation – such deviations can be minor, such as those which are not a major food safety concern (e.g., spilled product on the floor) and which can be rectified immediately by the employee. Deviations can also be major such as those deviations which could lead to a major food safety concern. For major deviations, employees must advise the producer, storage intermediary, and/or packer immediately of the problem.

[View Best Practice information](#)

Include these best practices in your manual?

Are all employees aware that when they identify a **minor deviation** from normal operation, they should:

1. Take immediate corrective action?  Yes  No

2. Communicate the minor deviation and corrective action to their supervisor?  Yes  No



# On-Farm Food Safety Project

[About](#) [How to Use the Food Safety Tool](#) [How to Get Food Safety Certified](#) [Create a Food Safety Manual](#) [Forms/Training Materials](#) [Resources](#)

## Forms and Templates

The following are commonly used food safety forms and can be formatted to suit the needs of your farm operation. For additional resources and useful templates, visit the [CanadaGAP](#) website.

[Leer en Español](#)

### Search

### General Requirements

- [Food Safety Plan Audit Log](#)
- [Standard Operating Procedure Worksheet](#)
- [Deviations and Corrective Action Log](#)
- [Example Traceback Log](#)
- [Form 1: Recall Information](#)
- [Form 2: Product Information](#)
- [Form 3: Contact Information](#)
- [Form 4: Recall Notification](#)
- [Form 5: Product Retrieval](#)
- [Form 6: Follow-Up Plan](#)
- [Employee Training Log](#)

### Select a Risk Area

- [General Requirements](#)
- [Worker Health and Hygiene](#)
- [Previous Land Use and Site Selection](#)
- [Agricultural Water](#)
- [Agricultural Chemicals](#)
- [Animals and Pest Control](#)
- [Soil Amendments and Manure](#)
- [Field Harvesting](#)
- [Transportation \(field to packinghouse\)](#)
- [Packinghouse Activities](#)
- [Final Product Transport](#)

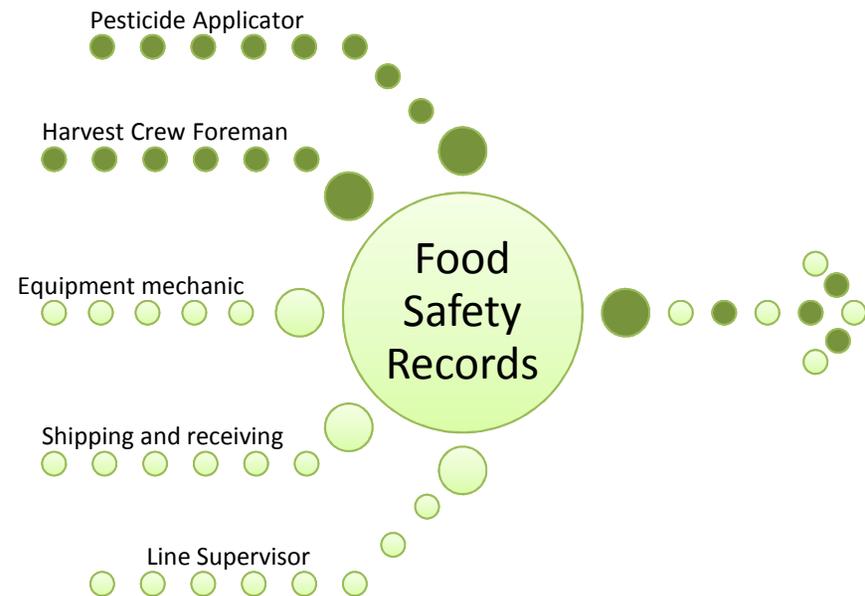
### Worker Health and Hygiene

- [Employee Training Log](#)
- [Accident/Injury Form](#)
- [Sewage & Septic Systems Equipment Inspection Log](#)
- [Personal Hygiene Facility Cleaning Log](#)



# Ag Squared

- Fairly customizable.
- Tailored to very general agricultural recordkeeping.
- No traceability component
- Target: Small to very small growers





Home

Places

Crops

Calendar

### Workbench Home



#### Major Software Update!

We've launched a new set of resource management and cost tracking tools to help you run your farm more profitably. Learn more about them [here](#), or try them out by signing up for a free trial of AgSquared Plus on your [account settings page](#). You can also join us at a [webinar](#) to see the new features in action!

#### Getting Started

Are you new to AgSquared? Here are a few support articles to help you get started.



#### Map your farm.

Use the Places tool to map fields, buildings, greenhouses and landmarks on your farm.



[Watch a video tutorial](#)



#### Create your planting plan.

Plan your planting schedule, calculate your seed order, lay out your fields, and project your harvests.



[Watch a video tutorial](#)



#### Manage your schedule.

See all of your farming tasks in one place, and adjust quickly to changing conditions to make sure everything gets done.



[Watch a video tutorial](#)



Meeting grower needs and exceeding their expectations for generations.

Sponsor



Your independent, farm-based organic seed company since 1996.

Sponsor



Helping Families, Friends, and Communities Feed One Another Since 1973.

Sponsor



Looking for Help?

The [AgSquared Help Center](#) is full of handy reference guides & articles.

Help Center



- Name
- Chemical Shed
- Field A
- Field B
- Field C
- Main Barn
- Septic Field
- Wellhead

Address 8072 S. Jackson Rd, 49234

Map Satellite

**ES**  
1881 -  
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Sponsor

**? Looking for Help?**  
The **AgSquared Help Center**  
is full of handy reference  
guides & articles.  
Help Center



Places Map

- Name A-Z
- Chemical Shed
- Field A
- Field B
- Field C
- Main Barn
- Septic Field
- Wellhead

Address 8072 S. Jackson Rd, 49234

Map Satellite

**Field A**  
Field

Description Chestnut Blocks

Calculated Area 4.73 Acres

- Edit Mapped Shape
- Edit Place Detail
- Remove From Map
- See all details in the places manager

**WINGS**

needs and expectations

Sponsor

**WING**

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Sponsor

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e 1973.

Sponsor

**?** Looking for Help?

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Help Center



# Sapphire

- Highly customizable.
- Tailored to organizing and recording food safety monitoring reports.
- No traceability component
- Target: Small to large growers and packers.



Signed in successfully.

Archive (Selected)

Export (All Unarchived)

Refresh

1

2

Next >

Last >>

Page 1 of 2

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<input type="checkbox"/>		Logged At	All Locations	All Logs	Inspector
<input type="checkbox"/>		08/28/2014 09:57:26 AM (CDT)	Packing Shed - Watermelon Line	Sanitation	Michael Jackson
<input type="checkbox"/>		08/28/2014 10:50:00 AM (EDT)	Packing Shed	Daily Pre-Op Inspection.	Michael Jackson
<input type="checkbox"/>		08/19/2014 05:26:57 PM (EDT)	Shipping/Receiving	Monthly Inspection	demo
<input type="checkbox"/>		08/11/2014 04:55:20 AM (EDT)	Shipping/Receiving - Sanitation	Testlog500	demo
<input type="checkbox"/>		08/11/2014 04:49:05 AM (EDT)	Packing Shed - Sanitation	Monthly Facility.	demo
<input type="checkbox"/>		08/11/2014 04:47:53 AM (EDT)	Field - South Pepper Field	Irrigation System Inspection	demo
<input type="checkbox"/>		08/11/2014 04:30:07 AM (EDT)	Packing Shed	Cooler Tempeture	Michael Jackson
<input type="checkbox"/>		08/11/2014 04:28:09 AM (EDT)	Packing Shed - Sanitation	Monthly Facility.	Michael Jackson
<input type="checkbox"/>		08/11/2014 04:27:23 AM (EDT)	Packing Shed - Sanitation	Monthly Facility.	Michael Jackson
<input type="checkbox"/>		08/11/2014 04:24:18 AM (EDT)	Shipping/Receiving	Monthly Inspection	demo
<input type="checkbox"/>		08/08/2014 10:12:57 AM (EDT)	Shipping/Receiving	Receiving Log	demo
<input type="checkbox"/>		08/08/2014 10:12:02 AM (EDT)	Packing Shed	Daily Pre-Op Inspection.	Michael Jackson
<input type="checkbox"/>		08/08/2014 10:08:19 AM (EDT)	Packing Shed - Sanitation	Monthly Facility.	Michael Jackson
<input type="checkbox"/>		07/02/2014 12:19:27 PM (EDT)	Packing Shed - Sanitation	Monthly Facility.	Chad Dykstra
<input type="checkbox"/>		07/02/2014 11:24:30 AM (EDT)	Packing Shed - Sanitation	Monthly Facility.	Chad Dykstra
<input type="checkbox"/>		06/03/2014 07:09:15 AM (EDT)	Shipping/Receiving	Monthly Inspection	demo

Signed in successfully.

# Logs

	Name	Location	
+ New Entry   Entries	Monthly Facility	Packing Shed - Sanitation	Export
+ New Entry   Entries	Daily Pre-Op Inspection	Packing Shed	Export
+ New Entry   Entries	Cooler Tempature	Packing Shed	Export
+ New Entry   Entries	Sanitation	Packing Shed - Watermelon Line	Export
+ New Entry   Entries	Daily Inspection/Sanitaion	Packing Shed - Watermelon Line	Export
+ New Entry   Entries	Dump Tank Anti-Microbial Testing	Packing Shed - Packing Line 1	Export
+ New Entry   Entries	Restroom Cleaning	Packing Shed - Sanitation	Export
+ New Entry   Entries	Growing Area Risk Assessment	Packing Shed	Export

Back

Entry Data

Issues (0)

Comments (0)

Activity (6)

Shipping/Receiving - Monthly Inspection

demo

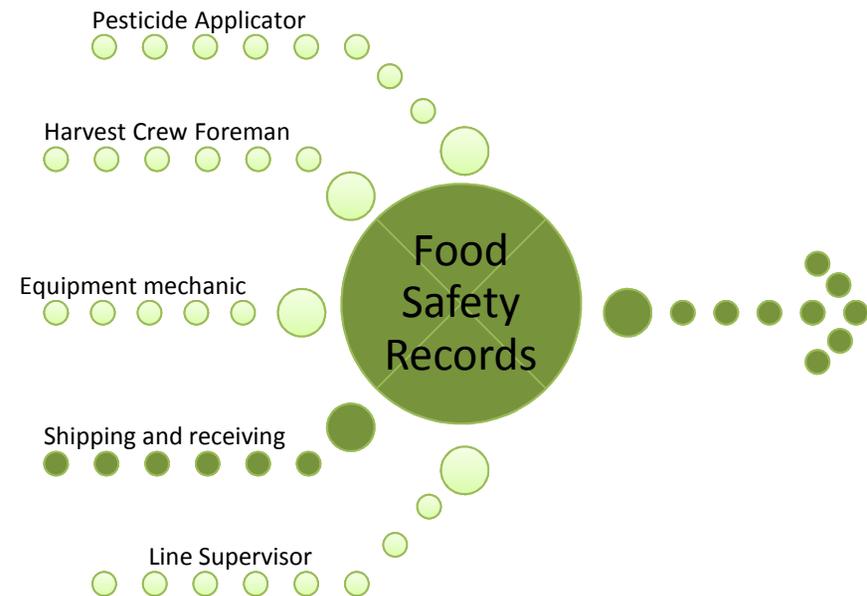
08/19/2014 05:26:57 PM (EDT)

Employees wearing appropriate work attire? :	yes
Employees not chewing gum, eating, or drinking anything other than water? :	yes
Employees wearing hairnets, gloves, and aprons as needed? :	yes
Employees wearing all PPE as needed? :	yes
Bathrooms clean? :	yes
Facilities clean and in good repair? :	yes
Break areas clean? :	yes
All cooling units clean and in good working order? :	yes
No standing water? :	yes
All cooler temperature within tolerances? :	yes



# T3 Technologies

- Covers traceability from receipt to the final buyer.
- Highly configurable.
- Steep learning curve.
- Good tech support.
- Target: Packhouses



Select Supplier

- Gerald's Vidalias
- Happy Apples

Commodity

Apples

Variety

Jonathan

Package

20 Bushel Bin

Number of Pallets

1

# of Units (IN)

Number of Tags Per Pallet

1

Price

Weight

Weight Adjustment

0

Net Weight

0

External ID

Miscellaneous

Location to Store

Cooler

Clear

Print Tags and Add Inventory

View

Receipts

Search... use \* as wildcard

Date Range

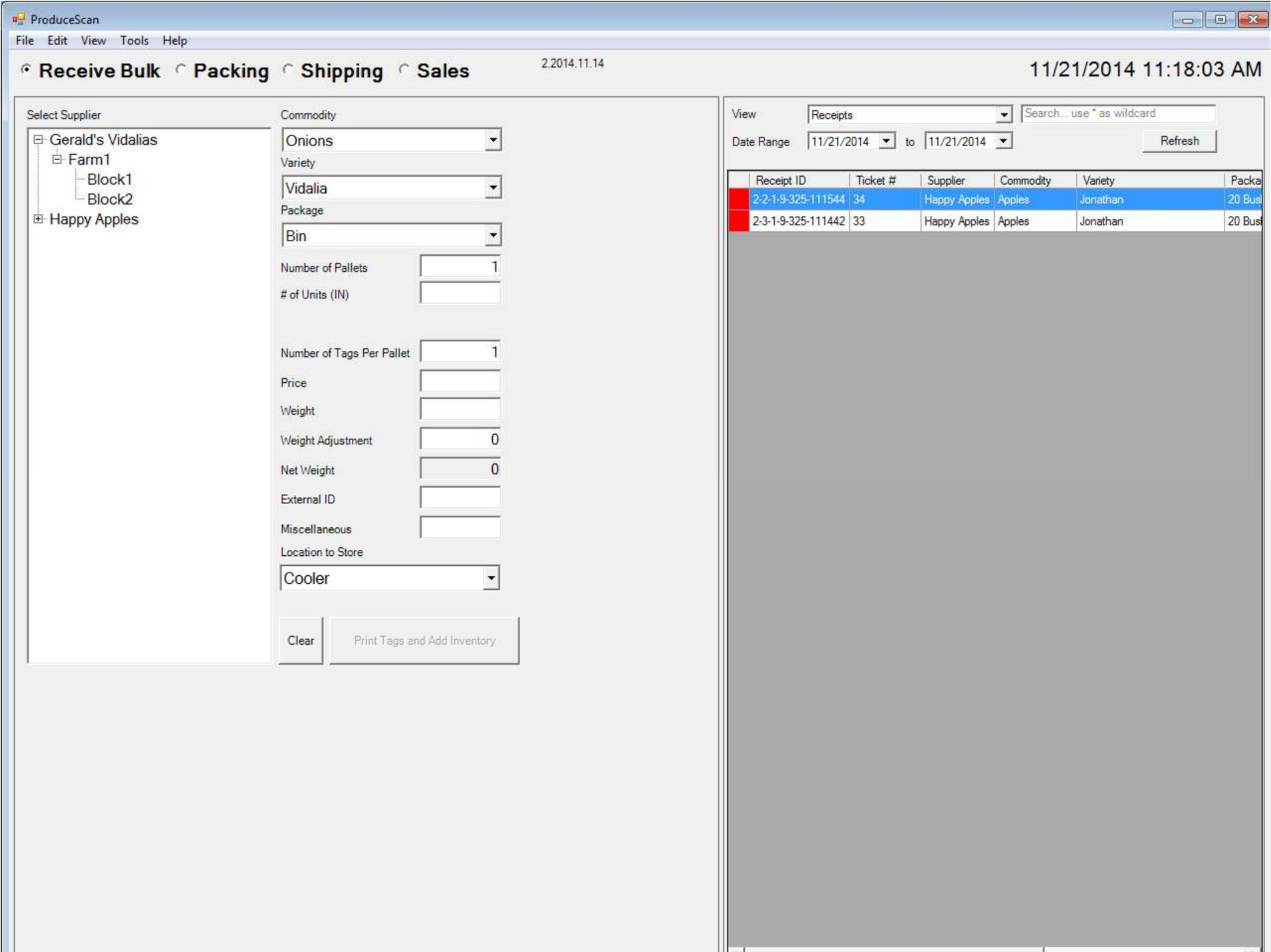
11/21/2014

to

11/21/2014

Refresh

Receipt ID	Ticket #	Supplier	Commodity	Variety	Packa
2-2-1-9-325-111544	34	Happy Apples	Apples	Jonathan	20 Bus
2-3-1-9-325-111442	33	Happy Apples	Apples	Jonathan	20 Bus



Select Supplier

- Gerald's Vidalias
  - Farm1
    - Block1
    - Block2
  - Happy Apples

Commodity

Onions

Variety

Vidalia

Package

Bin

Number of Pallets

1

# of Units (IN)

Number of Tags Per Pallet

1

Price

Weight

Weight Adjustment

0

Net Weight

0

External ID

Miscellaneous

Location to Store

Cooler

Clear

Print Tags and Add Inventory

View

Receipts

Search... use \* as wildcard

Date Range

11/21/2014

to

11/21/2014

Refresh

Receipt ID	Ticket #	Supplier	Commodity	Variety	Packa
2-2-1-9-325-111544	34	Happy Apples	Apples	Jonathan	20 Bus
2-3-1-9-325-111442	33	Happy Apples	Apples	Jonathan	20 Bus





# The Skunkworks Option: Compliance Monitoring



# What You'll Need

- Food Safety Plan
- Tablet for every



# The Skunkworks Option: Traceability



# Overall Lessons Learned

- Buyer beware.
- Food safety recordkeeping software never covers ALL the necessary components well.
- Ask for a test drive on the software with a farm dataset that is your sized operation.
- Usually, as power and configurability increase, ease of use and intuitiveness decrease.



# The End

The presenter wishes to thank:



For their support