

The background of the slide features a large, faint, circular seal of Rutgers University. The seal contains the text "RUTGERS UNIVERSITY" and "1823" around a central emblem.

RUTGERS

New Jersey Agricultural
Experiment Station

GAPs for Organic Production of Fruits and Vegetables

January 9, 2016

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Rutgers NJAES Cooperative Extension of Mercer County

Why Worry about Food Safety?

HUNT FOR SOURCE OF BAD SPINACH CARRIES ON

The New York Times

PACKAGED SPINACH SALAD DISAP-
PEARED FROM STORE SHELVES ACROSS
THE COUNTRY SATURDAY, AS INVESTI-
GATORS SEARCHED FOR THE SOURCE
OF BACTERIAL CONTAMINATION THAT
AS NOW SICKENED MORE THAN 100
PEOPLE. OFFICIALS SAID SATURDAY
HAT THE NUMBER OF PEOPLE AF-
FECTED BY THE E. COLI OUTBREAK
WAS STOOD AT 102, UP FROM 94 THE
DAY BEFORE. DR. DAVID ACHESON, DI-
RECTOR OF FOOD SAFETY AT THE FOOD
AND DRUG ADMINISTRATION, SAID

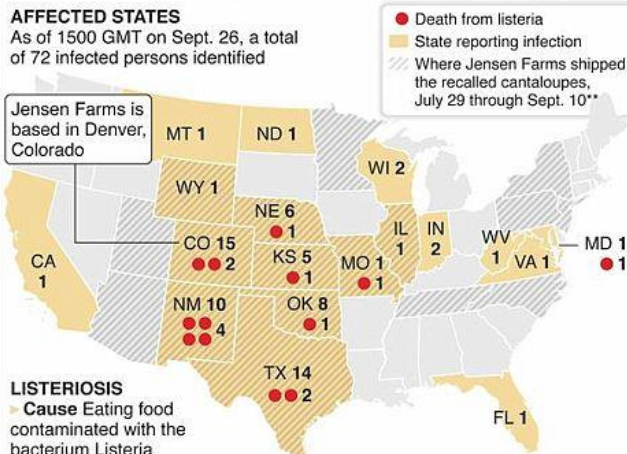
U.S. LISTERIA OUTBREAK

The Centers for Disease Control and Prevention said 18 states have reported infections from one of the four strains of listeria involved in the outbreak

AFFECTED STATES

As of 1500 GMT on Sept. 26, a total
of 72 infected persons identified

Jensen Farms is
based in Denver,
Colorado



LISTERIOSIS

- Cause Eating food contaminated with the bacterium *Listeria monocytogenes*
- Symptoms Fever and muscle aches, often preceded by diarrhea or other gastrointestinal symptoms
- Other symptoms Headache, stiff neck, confusion, loss of balance, convulsions

Sources: Centers for
Disease Control and
Prevention, U.S. Food
and Drug Administration

REUTERS

Spinach Pulled From Stores Across U.S.

AP

SHOPPERS CHANGED
BUYING HABITS
AS SPINACH
WAS PULLED FROM
STORES
AFTER THE OUTBREAK
KILLED

THE SPINACH, GROWN
IN CALIFORNIA, COULD HAVE BEEN
THE FIELD OR DISTRIBUTION
ACCORDING TO THE
EASE CONTROL AND
ABOUT 74 PERCENT
MARKET SPINACH
COMES FROM CALIFORNIA

Lettuce Suspected

AP

HEALTH OFFICIALS ON
WEDNESDAY ZEROED IN
ON LETTUCE AS THE
LIKELY SUSPECT IN THE
E. COLI OUTBREAK LINKED TO TACO
BELL, THOUGH TRACING THE VEGETA-
BLE'S SOURCE MAY PROVE DIFFICULT.
THE OUTBREAK APPARENTLY HAS RUN
ITS COURSE AFTER 71 CONFIRMED
CASES OF THE DISEASE IN FIVE STATES.
PRIMARILY NEW JERSEY, NEW YORK
AND PENNSYLVANIA, OFFICIALS SAID.

AND NOT TO EAT BAG SPINACH

The New York Times

CONSUMERS SHOULD AVOID EATING
FRESH BAGGED SPINACH AFTER AN
OUTBREAK OF E. COLI IN EIGHT STATES

F OUTBREAK EAT BAG SPINACH

THE VICTIMS MANY QUESTIONS ABOUT
WHAT THEY ATE OVER THE PREVIOUS
WEEKS BAGGED FRESH SPINACH
THE ONLY FOOD THAT PATIENTS SO F

CONTAMINATION RISK



Why Focus on Food Safety?

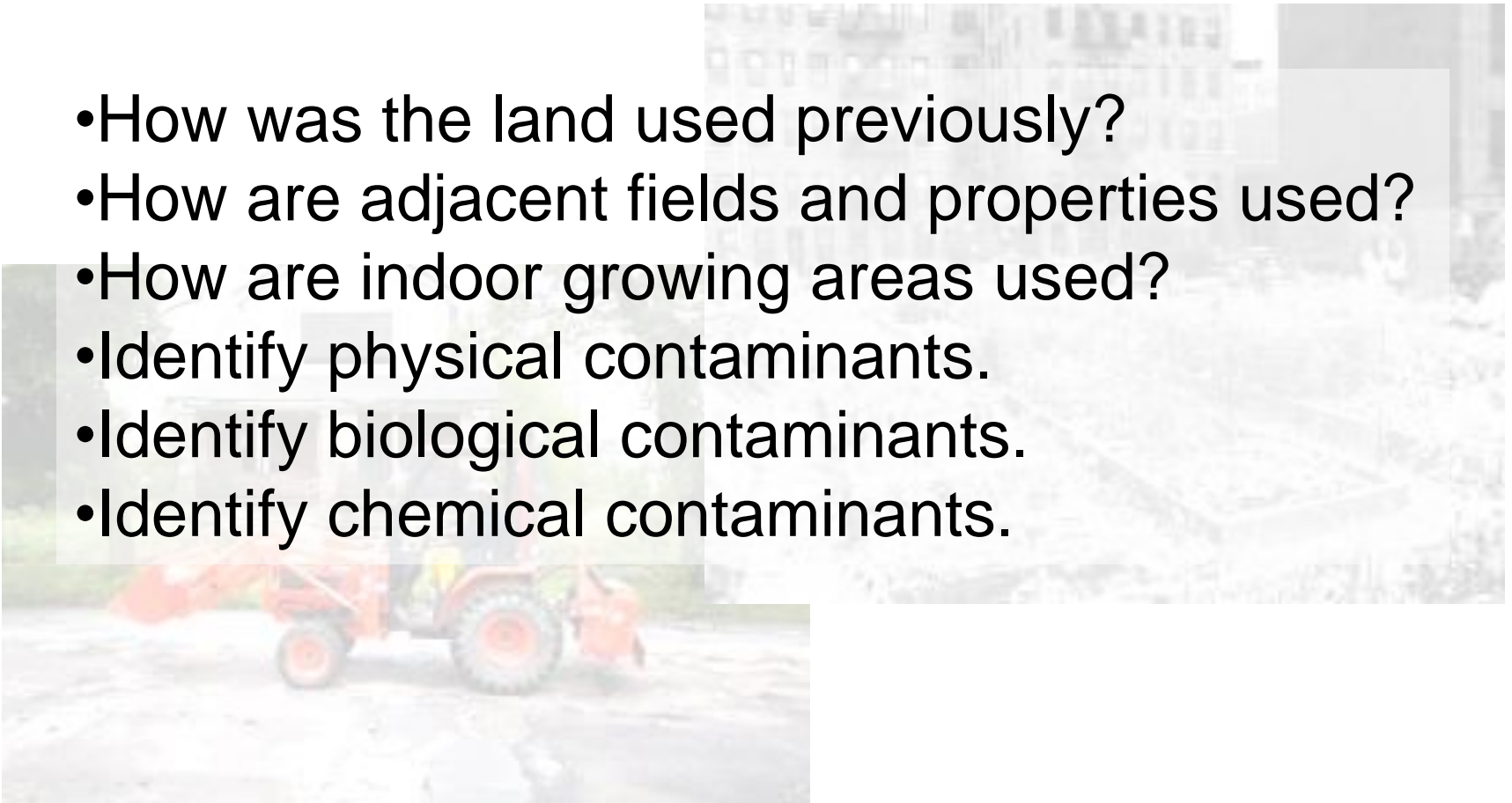


Assess Risk On Your Farm



Land Use History(as far as you can see)

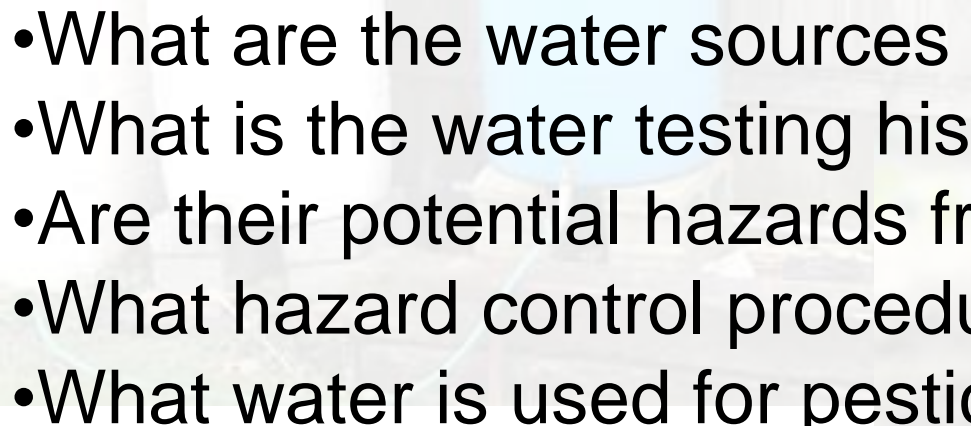
- How was the land used previously?
- How are adjacent fields and properties used?
- How are indoor growing areas used?
- Identify physical contaminants.
- Identify biological contaminants.
- Identify chemical contaminants.



Water use



Water Use

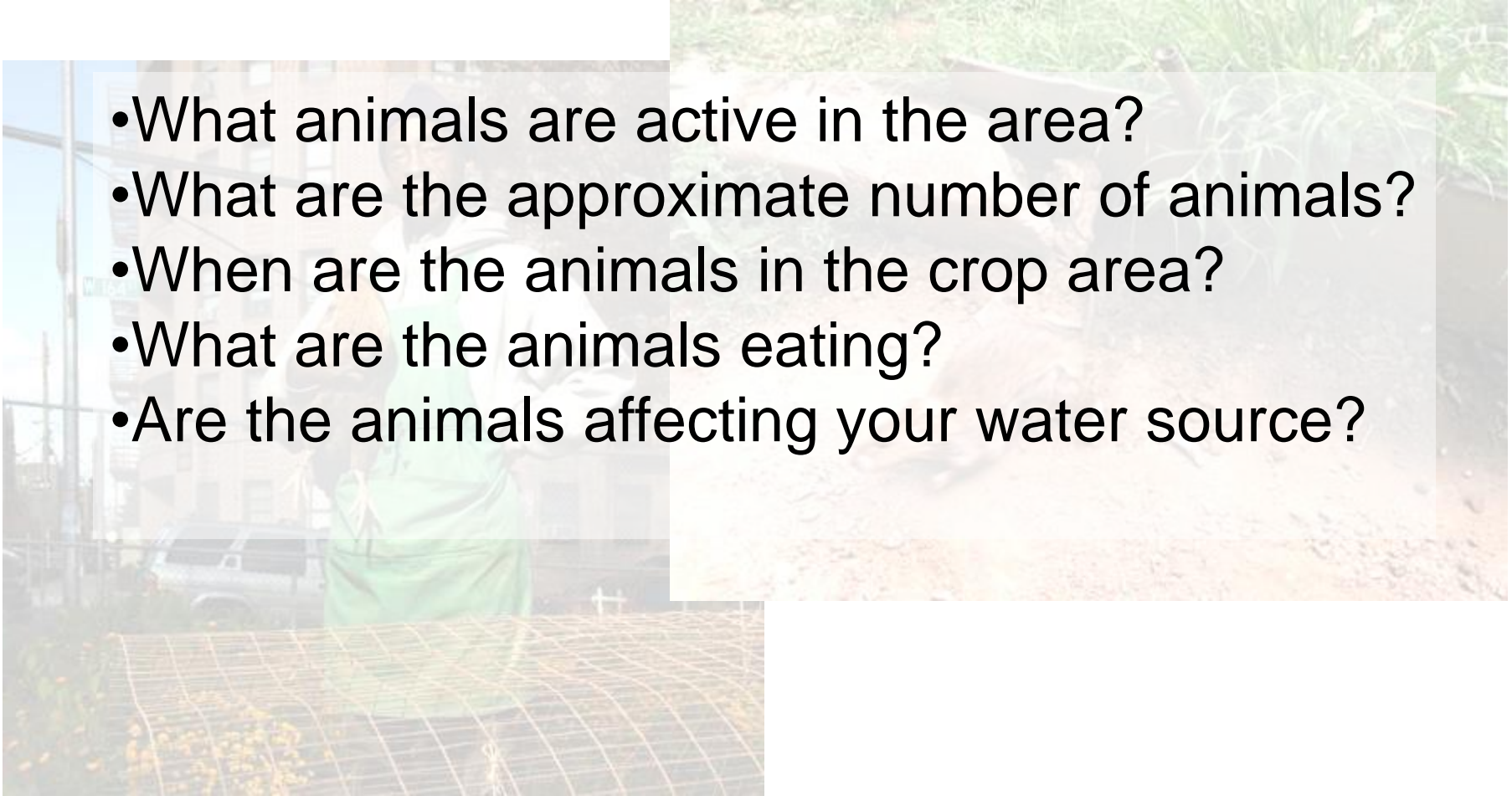
- 
- What are the water sources used?
 - What is the water testing history of the water?
 - Are there potential hazards from on or off the farm?
 - What hazard control procedures are already in place?
 - What water is used for pesticide application?



Animal activity (wild and domestic)



Animal activity (wild and domestic)

- 
- A collage of three images. The left image shows a person in a green raincoat standing in front of a building. The top right image shows a white dog. The bottom right image shows a person in a green shirt. The text is overlaid on the collage.
- What animals are active in the area?
 - What are the approximate number of animals?
 - When are the animals in the crop area?
 - What are the animals eating?
 - Are the animals affecting your water source?

Animal Based Soil Amendments



Animal Based Soil Amendments



- Is there potential for run off or cross contamination?
- What are the paths of equipment and workers?
- What is the composting process used and is it enough to reduce risk of contamination?

Animal Based Soil Amendments



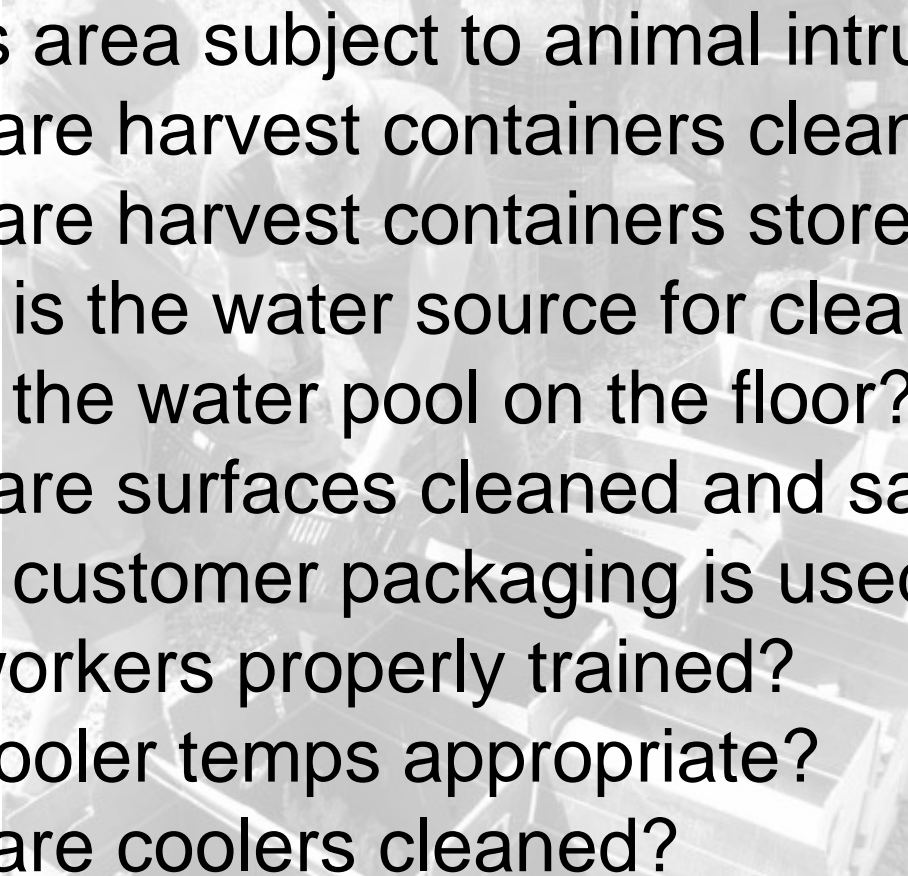
Animal Based Soil Amendments



Packing house/area



Packing house/area

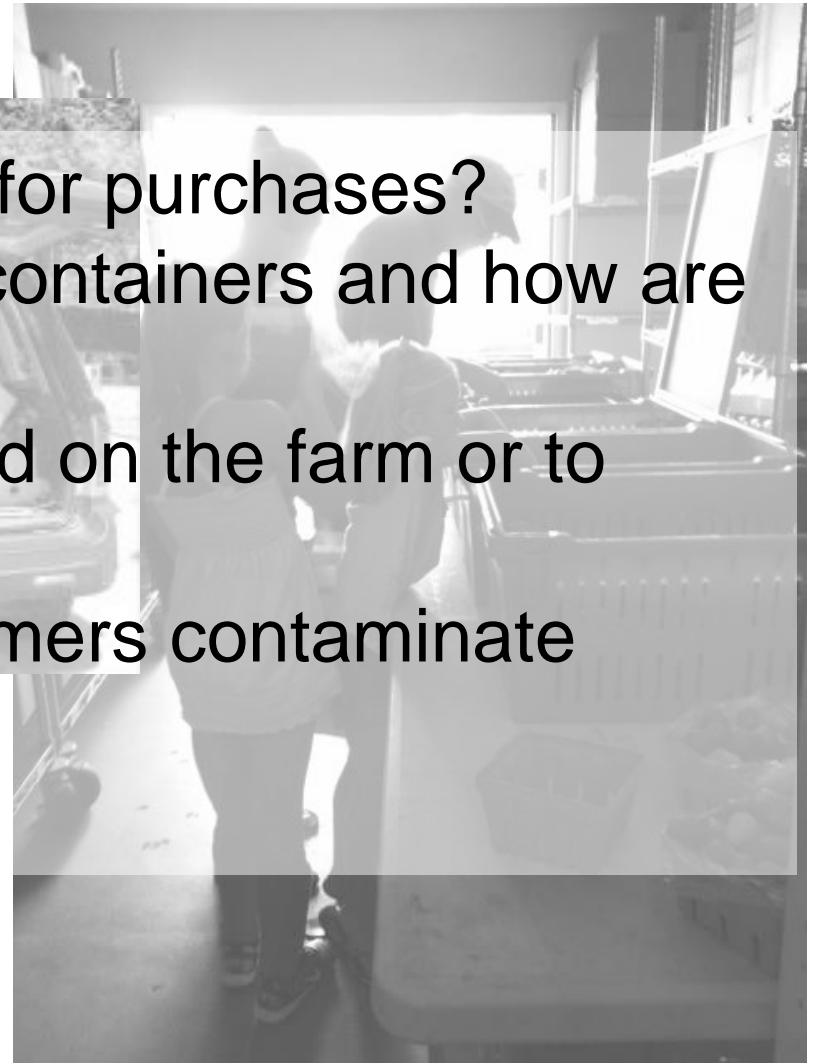
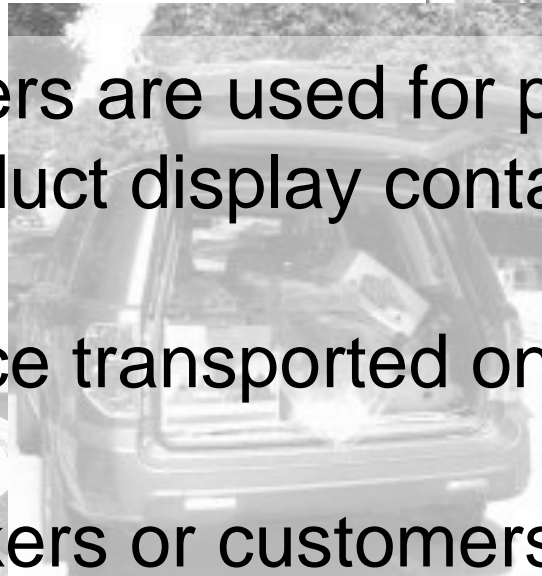
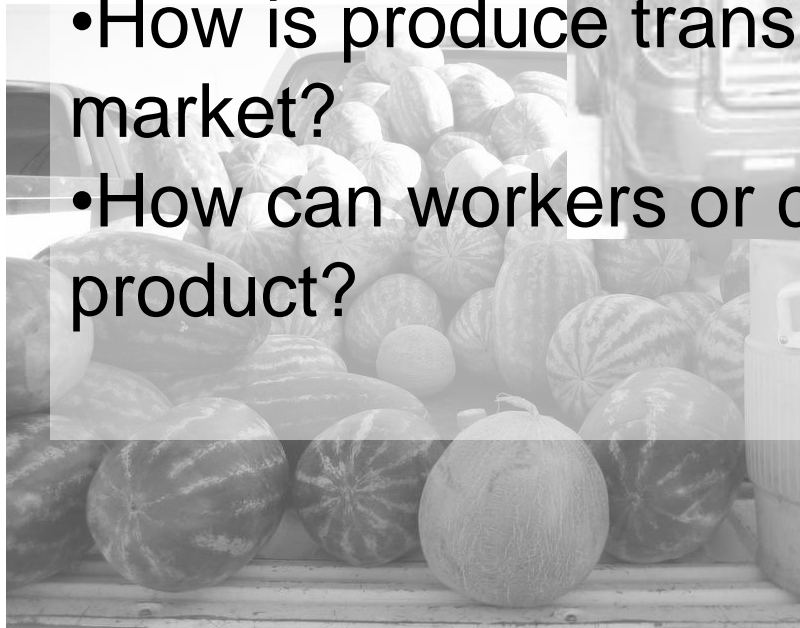
- 
- Is this area subject to animal intrusion?
 - How are harvest containers cleaned?
 - How are harvest containers stored?
 - What is the water source for cleaning?
 - Does the water pool on the floor?
 - How are surfaces cleaned and sanitized?
 - What customer packaging is used?
 - Are workers properly trained?
 - Are cooler temps appropriate?
 - How are coolers cleaned?

Distribution (on farm, market locations, transportation)



Distribution (on farm, market locations, transportation)

- What containers are used for purchases?
- What are product display containers and how are they cleaned?
- How is produce transported on the farm or to market?
- How can workers or customers contaminate product?



Worker Training

**Break this
chain!**



Hygiene Education on the Farm



Hand Washing Facilities



Toilet and Hand Washing Facilities



Emergency Plan



**POR FAVOR, DEPOSITE EL PAPEL
HIGIÉNICO USADO DENTRO DEL INODORO**



**EL PAPEL
HIGIÉNICO NO
ATORA LOS
INODOROS**



**TOILET PAPER
WILL NOT
OBSTRUCT
TOILETS**

**PLEASE PUT USED
TOILET PAPER IN THE TOILET**

This poster was produced by the Food Agriculture Practices Program at Cornell University with support from USDA-CRREES and FNR Agreement No. 29-47555-0B21.

Hygiene Education on the Farm





Smoking and Eating at Work







Good Agricultural Practices





Results for generic *E. coli*

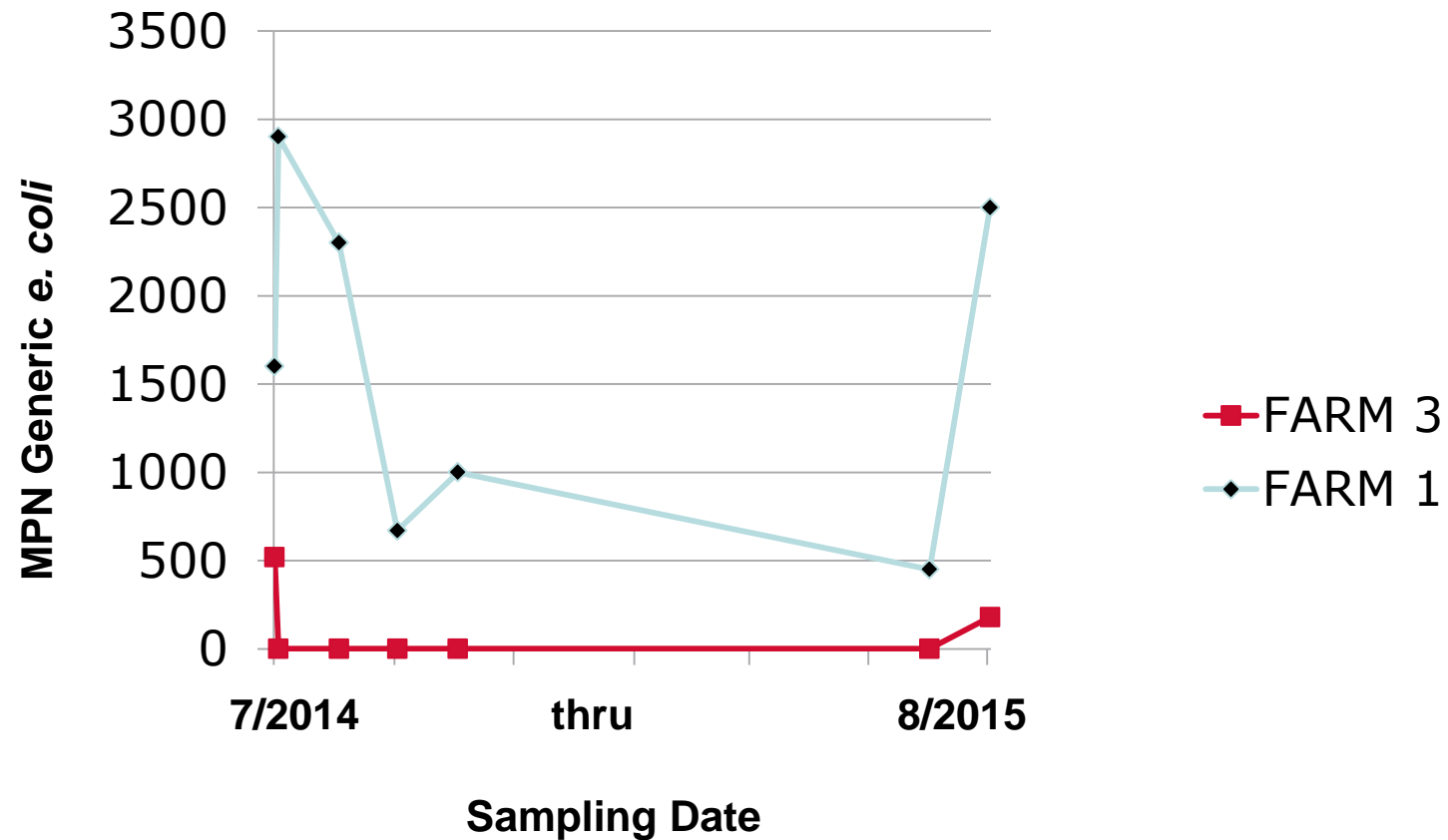
	# of Samples	% Positive
Well water	48	0

	# of Samples	% Positive
Surface water	27	33%



Soil amendment runoff







Harvest Tools and Equipment



Harvest Tools and Equipment



- Appropriate signage?
- Hand washing facilities?
- CSA shareholder contract?
- Visitor policy?
- Work share?
- Events?
- Sourcing product from other farms?









Website / CSA Agreement



2013 Fresh 2013 CSA Agreement Form

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Broadfork Farm
Certified Naturally Grown
Produce & Flowers



What we grow:

Arugula
Asian Greens
Beets
Broccoli
Carrots
Chard
Eggplant
Heads of Romaine
Herbs
Kale
MicroGreens
Okra
Onions
Salad Mix
Bell Peppers
Celery
Kohlrabi

Tomatoes
Cherry Tomatoes
Shitake & Oyster
Mushrooms
Garlic
Ginger & Turmeric
Flowers
Green Beans
Snow & Snap Peas
Spinach
Jalapeno Peppers
Potatoes
Sweet Potatoes
Radish
Sweet Turnips
Watermelon
...and more



What is a CSA?

Community Supported Agriculture (CSA) is a system in which members of a community invest in their local farm by paying for a share of the season's harvest in the spring. A farmer therefore gets cash in the beginning of the season when it is most needed, and customers get a share of vegetables and/or flowers each week of the season, usually worth their investment price plus a percentage extra as reward for pre-payment.

Why should I be a Broadfork CSA member?

- We provide you with clean, fresh, seasonal food grown right here in Chesterfield, free from any chemicals.
- Our transparent growing practices allow you to always know what is on and in the food you are eating.
- Multiple Farm Tours per year, plus Member Potluck
- Because local, organic food is the best!

Details will be updated on our website:

www.BroadforkFarm.net

What is a CSA?

A CSA is a partnership between a farmer, for a share of the season's harvest in the spring. A farmer therefore gets cash in the beginning of the season when it is most needed, and customers get a share of vegetables and/or flowers each week of the season, usually worth their investment price plus a percentage extra as reward for pre-payment.

About Us

Lower Meadow Farm, LLC is owned and operated by husband and wife team Mallory Krieger and Paul McGinty. Our farm is situated 1.5 miles east of beautiful Fishhook in Pike County, IL.

Located on 85 acres of a mix of fields and woodland, we are completely chemical free and use only the least

environmentally focus on utilizing improve the soil landscape. We pollinated seahill

We grow an array of herbs, fruit, and vegetables from a local farmer

Springfield
Wed/Sat 7

Jacksonville
Thu/Sat 6:30

369

Ba

(21

lowermeadow

www.lowermeadow.com

farm fresh on greenh

local | fresh |

Hello Neighbors:

If you've received this card it means your neighbors are trying a Greenhearts Family Farm CSA box. Each week this small, coastside farm delivers a selection of hyper-local organic fruits, vegetables and organic pasture raised eggs, beef, pork & chicken, baked goods and surprises to families just like yours in the neighborhood.



* just \$33 a week, delivered

*no contracts, no pick-up locations

CSA CONSTRUCTION, INC.
2314 McAllister Road
Houston, Texas 77092

SUBCONTRACTOR AGREEMENT

THIS AGREEMENT made this ____ day of Month, Year, by and between CSA CONSTRUCTION, INC., a Texas corporation whose principal address is 2314 McAllister Road, Houston, Texas 77092, hereinafter called "Contractor" and Subcontractor, a company whose principal address is _____, hereinafter called "Subcontractor."

PROJECT: _____
Designed By: _____

The Contractor and Subcontractor agree as follows:

I. CONTRACT DOCUMENTS

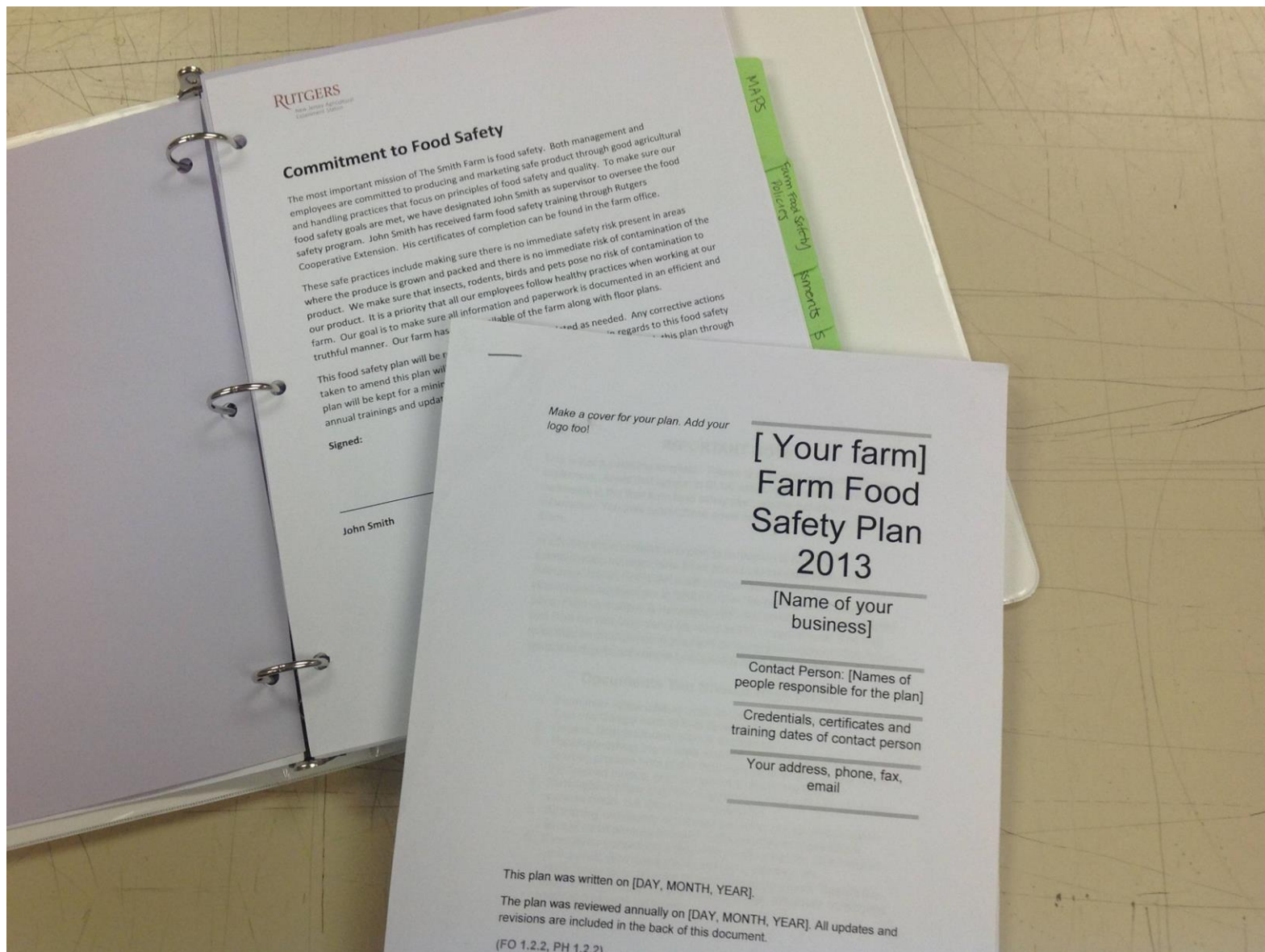
(a) The contract documents for this subcontract consist of this Agreement and any exhibits named herein, the General Contract (including all general and special conditions, plans, drawings, and specifications issued prior to the execution of this Agreement), along with all modifications to this Agreement to which both parties agree in writing.

(b) Subcontractor acknowledges that he has read the contract documents and is familiar with each and every part thereof affecting his Subcontract Work. Subcontractor by examination has satisfied himself as to the nature and location of the Work; the character, quantity, and kinds of materials necessary; the adequacy of any surface or subsurface conditions necessary to assure proper installation of Subcontractor's Work; the kinds and quantity of equipment needed; and other local conditions or matters affecting compliance with the contract documents. Further, Subcontractor is familiar with the respective rights, powers, benefits and liabilities of the Contractor and the Owner under the contract documents and hereby agrees to comply with and perform all provisions thereof which are applicable to the Subcontract Work.

(c) The Subcontractor agrees to be bound to the Contractor under this Agreement according to the same terms and conditions as the Contractor is bound to the Owner under the contract documents. The Subcontractor shall assume and perform all of the obligations and responsibilities of the Contractor under the contract documents, which pertain or relate to the scope of work in this Subcontract as described in Paragraph 2.

What Does A Food Safety Plan Look Like?





A photograph of a woman in a light-colored shirt harvesting vegetables in a field. In the foreground, the bed of a white pickup truck is filled with several orange plastic baskets and a yellow crate, all containing fresh green leafy vegetables and red radishes. The background shows rows of plants in a field with white plastic mulch.

Questions?