
Food Safety Begins on the Farm
Risk Management Education
Fresh Produce
Food Safety Training
for
Farm and Shed Managers
Complied by:
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TAMU AREC @ Weslaco, respectively
EXTENSION
INTRODUCTION
TO
FOOD SAFETY

INTRODUCTION TO FOOD SAFETY

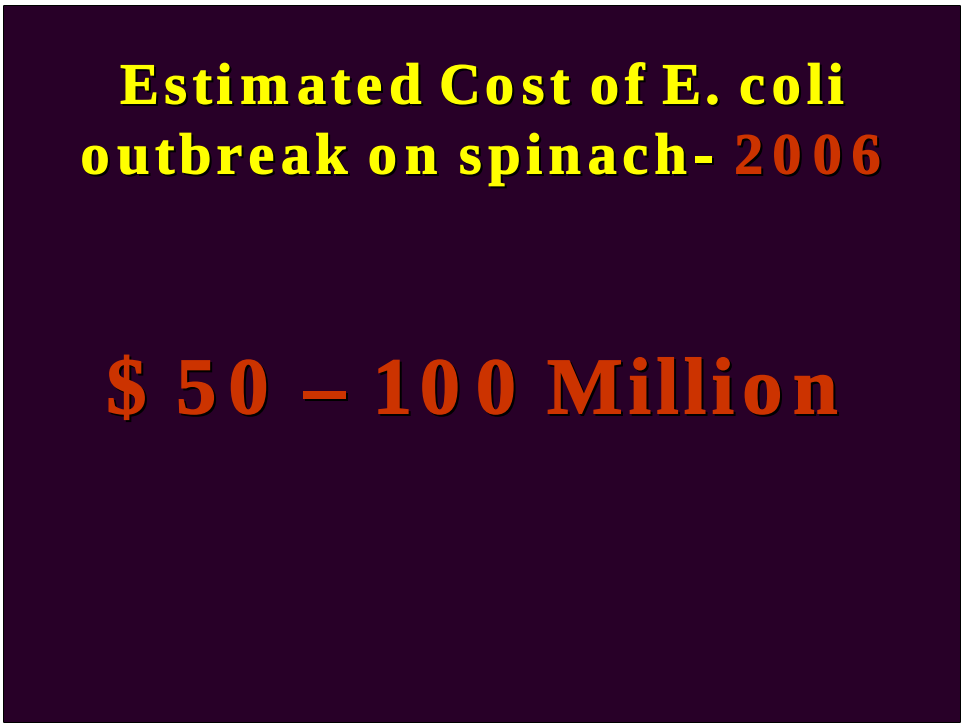
Acknowledgement:

for the development of this presentation -

Dr. James Rushing,

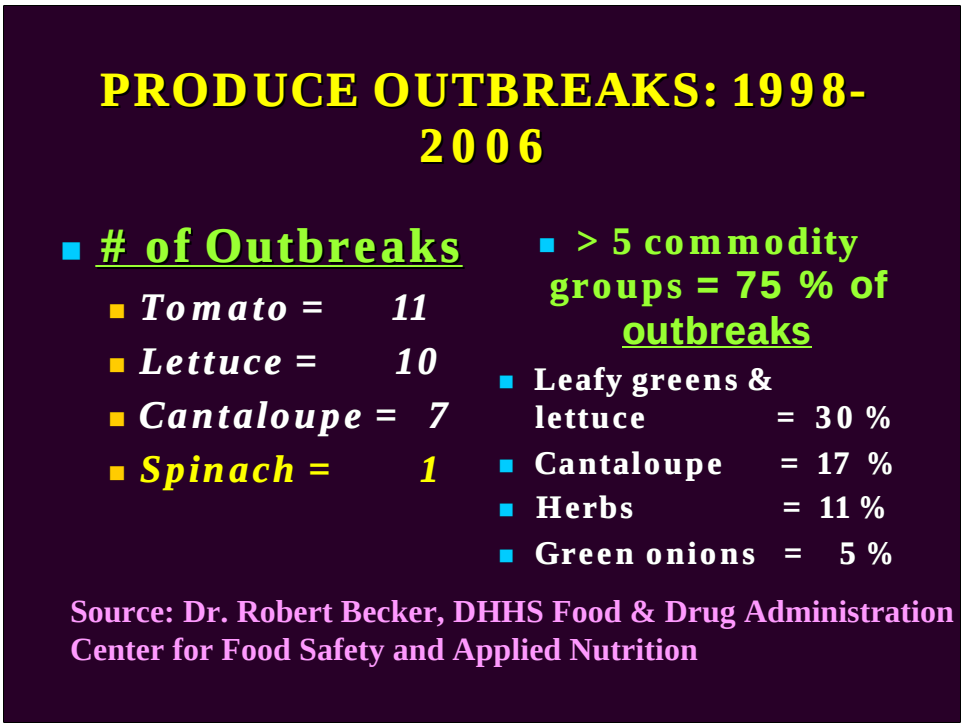
Clemson University

The center for disease control has indicated that as many as 5000 deaths occur in this country each year due to some form of food borne illness.

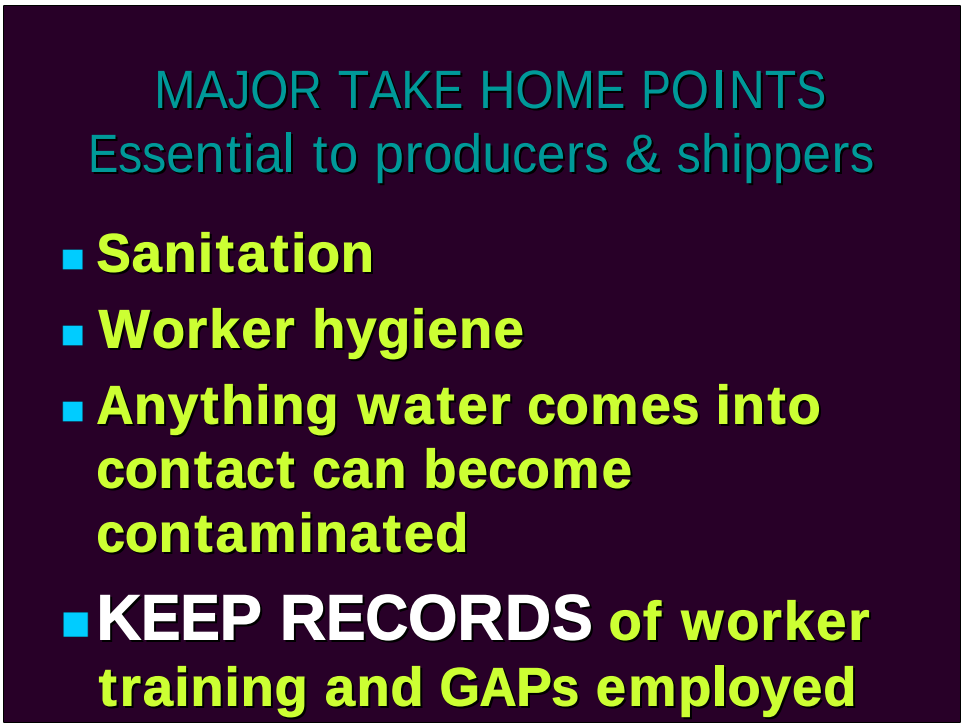


Food borne disease outbreaks can be extremely costly as evidenced by the cost of the California spinach outbreak of 2006. This figure represents total economic impact to the California economy.

On the individual farm basis, it can become quite costly to the individual farm owner as law suite usually arise from such outbreaks. As a result the farm can be lost.



This table indicates the major produce items and their rank as to outbreaks associated with fresh produce.



Upon completion of this training these are the key elements needed to be grasped if a producer or shipper is to develop a sound food safety for his operation.

The first three has to do with the safe production and handling of produce.

The last one is essential in the event of an outbreak that is traced to his operation. Without it, serious monetary losses can occur.

Often growers get busy and do not take the time to document every thing that they need to. Remember, if it was not documented, it didn't happen.

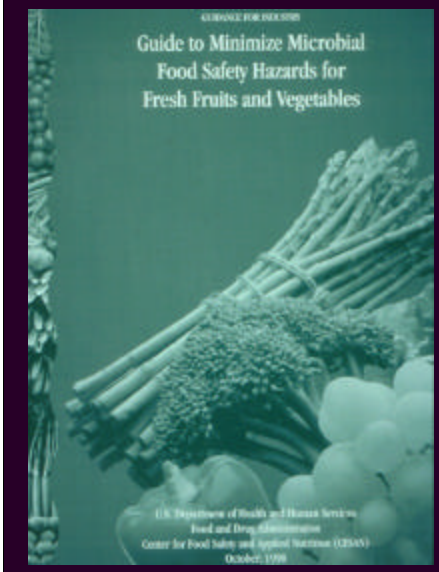
GET A COPY!!

READ IT!!

FOLLOW IT !!

Food Safety Initiative Initiative Staff, HFS-32
US FDA Center for Food Safety & Applied Nutrition
200 C St. S. W. Washington, DC

The official food safety guidelines are presented in this publication. Everyone involved in the production, handling and distribution of produce should have a copy of it on hand and employ the guidelines contained within .



7 MAJOR FOOD SAFETY GUIDELINE PRINCIPLES

Basically, there are 7 major principles than if followed will go a long way to insure the production and distribution of a safe food supply. Each are described in this FDA publication and will be emphasized in this training.

FDA Guidance Principle # 1

- *Prevention of microbial contamination of fresh produce is favored over reliance on corrective action once contamination has occurred.*

It is always easier and less costly to prevent a problem than to fix a problem.

FDA Guidance Principle # 2

- ***To minimize microbial food safety hazards in fresh produce, growers, packers, and shippers should use good agricultural and management practices in those areas that they have control over.***

Agriculture is essentially an outdoor system. As such, many of the sources and factors that cause food borne illness are out of the control of a producer. Therefore it is imperative that those conditions over which a grower does have control should not be neglected.

FDA Guidance Principle #3

- ***Fresh produce can become microbiologically contaminated at any point along the farm-to-table food chain (plow to the plate).***
- ***The major source of microbial contamination with fresh produce is associated with human or animal feces.***

Insuring a safe food supply requires an effort on everyone's part from the producer to the consumer. One practice that everyone can follow to reduce food borne illness is sanitation.

FDA Guidance Principle #4

- ***Whenever water comes in contact with produce, its quality dictates the potential for contamination.***
- ***Minimize the potential for microbial contamination of water used with fresh produce.***

Water is the major means of moving and distributing food borne pathogens.

FDA Guidance Principle #5

- ***Practices using animal manure or municipal bio-solid wastes should be managed closely to minimize the potential for microbial contamination fresh produce***

Remember the major source for food borne pathogen is feces, animal and human.

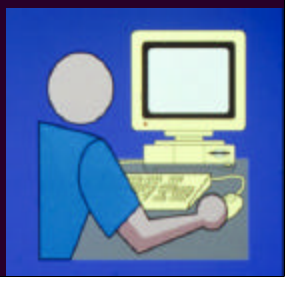
FDA Guidance Principle #6

- ***Worker hygiene and sanitation practices during production, harvesting, sorting, packing, and transport play a critical role in minimizing the potential for microbial contamination of fresh produce.***

In addition to water, humans are another conveyor of microbial contaminants. Field hands and packing shed workers come into contact with produce as a part of their jobs. Often times any given piece of produce may have multiple contacts with several workers before it leaves the farm or shed. Therefore it is common sense to educate workers on personal hygiene and sanitation practices that limit or prevent produce contamination.

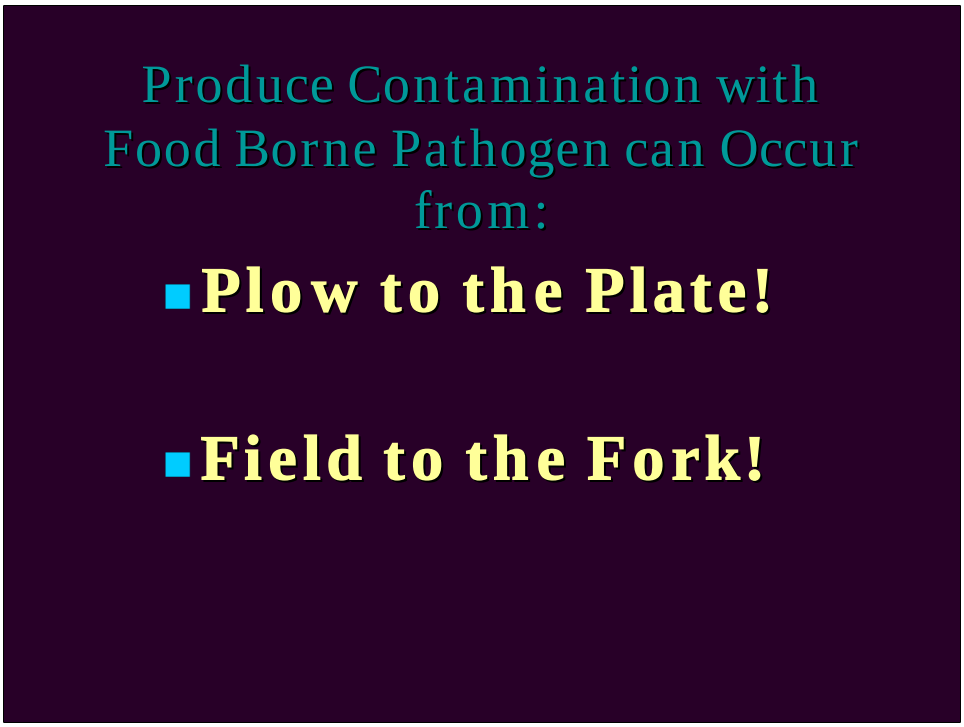
FDA Guidance Principle #7

- ***Follow all applicable local, state, and federal laws and regulations***
- ***Follow corresponding laws, regulations, or standards for operators outside the U.S. for agricultural practices***



Guidelines, laws and regulations were put into place to protect consumers by preventing food contamination. Again it makes sense to follow them in order to preventing your produce from becoming a source of illness or death to your consumers. Following them may also prevent serious fines and or jail time. Remember, if they are followed, don't forget to document your efforts.

Food safety is really about common sense approach to producing and handling food. All producers should strive to produce the best quality and the safest product(s) possible.



Even though this statement is a fact, growers and packers are usually the first people to be blamed for outbreaks!

Food Quality & Safety

- **Good Quality is something we hope for and is the basis of buying practices**
- **Food Safety is an *entitlement***
- ***We have the right to expect that food is safe!***

It is doubtful if anyone would disagree with this statement. We are fortunate in this country to have the ability to achieve both.

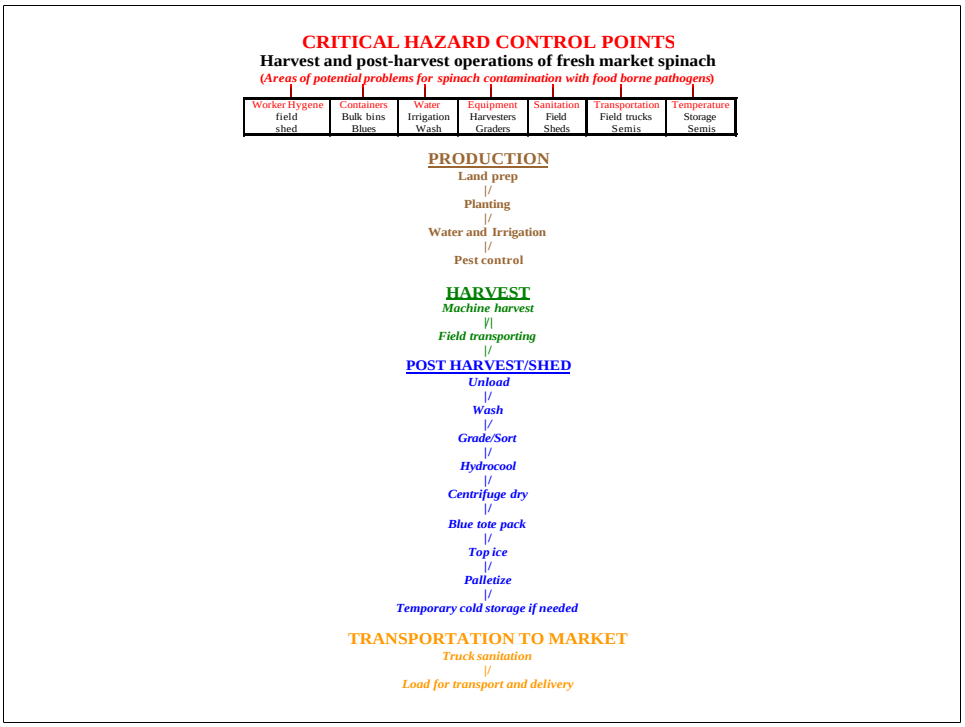
GOOD AGRICULTURAL PRACTICES
for
Production, Handling and Shipping
of
FRESH PRODUCE

Complied by:
Frank J. Dainello **Extension Horticulturist- Commercial Vegetable Crops**
Department of Horticultural Sciences

Sponsored by:
The Wintergarden Spinach Producers Board

Growers and shippers should get a copy of this guide and follow it.

The guide contains good agricultural practices and a check list to be followed to insure the GAPs are in place and their use documented.



The guide follows the above flow chart.

Across the top of this page is the main critical points where produce can become contaminated. Attention should be paid to these items to reduce the incidence of potential contamination.

The items down the page represents all facets of the cultural practices normally employed in the production, handling and shipping of produce. Most of the hazard areas are important within each of the cultural facets.

The guide attempts to address each of these.

The check points outlined within the guide can be modified to reflect each individual operation. A computer spread sheet is helpful to document what and when these items have been affected.

POSTED ON WEB

- GAPs for Fresh Produce Safety
  - Aggie Horticulture
    - Extension
      - Commercial Horticulture
        - Food Processing and Safety

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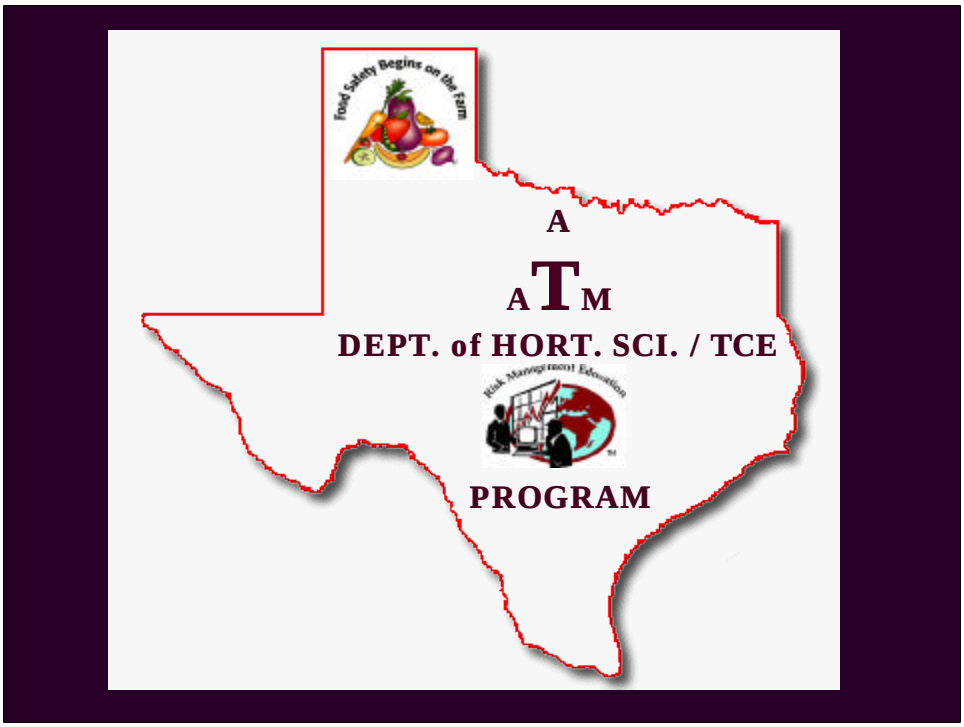
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