Food Safety Efforts in Produce Production
Hank Giclas,  
Western Growers

Senior Vice President of Strategic Planning,  
Science and Technology

Since 1926, WGA has represented local and regional family farmers growing fresh produce in Arizona and California. Our members provide half the nation’s fresh fruits and vegetables including a third of America’s fresh organic produce.
A History of Food Safety by the Produce Industry

• Early 1990s – Farm groups created task forces and committees to focus on food safety prevention on fruit and vegetable farms.

• 1995 – WGA joined with International Fresh Cut Produce Association and published the first ever Good Agricultural Practices (GAPs) for food safety.
A History of Food Safety by the Produce Industry

1998

• USDA/FDA published “Guide to Minimize Microbial Contamination in Produce” based upon the industry’s 1995 GAPs. This became the basis for food safety standards throughout the produce industry, including FSMA’s pending produce rule.

• WGA, national produce associations, commodity boards, cooperative extension began conducting food safety education workshops for fruit and vegetable farmers and shippers. (These education efforts continue today.)
Early 2000s

• Commodity boards and groups created “commodity specific guidance” to address risks and mitigation techniques unique to production systems and growing regions.

• Customer driven food safety requirements and private audits to verify compliance became commonplace for fruit and vegetable producers.
2004

- FDA asked the produce industry to collaborate with government to create commodity specific guidance for cantaloupes, green onions, leafy greens, tomatoes and culinary herbs.

- Florida became the first state in the country to launch an initiative to adopt a comprehensive food safety program with mandatory government inspection and audits for tomato handling, production and packing. These Good Agricultural Practices (GAP’s) and Best Management Practices (BMP’s) were adopted as state regulations, effective July 1, 2008.
A defining moment for the produce industry – a nationwide e.coli outbreak associated with fresh spinach.

- A whole new conversation began with public health officials which resulted in definitive action by the produce industry.
- Worked with scientists, industry experts, farmers to develop more definitive food safety standards or metrics for leafy greens.
- Creation of a new research foundation – Center for Produce Safety.
After 2006 Outbreak

• More groups recognized need to prioritize food safety and drafted commodity specific guidance. Today, commodity specific guidance documents have been developed for many of the fruit and vegetable crops grown in the U.S. as well as internationally.

• These are living documents that are updated and improved as new food safety research and information becomes available.
What the Produce Industry Has Learned Over the Last 20 Years

- Prevention is the best course of action and should be the basis of any strong food safety program.
- There are common risk areas that are key to prevention of food contamination:
  - Worker hygiene
  - Water
  - Wildlife intrusion
  - Soil amendments
  - Equipment sanitation
What the Produce Industry Has Learned Over the Last 20 Years

• Food safety needs to be tailored to risks associated with growing each commodity by region/geography.
• Food safety on the farm is now, and must continue to be, a priority.
• We need to prioritize food safety throughout the supply chain – from the farm to the consumer.
Food Safety Modernization Act

- Establishes standards for growing, harvesting, packing and holding
- Covers select farms and commodities
- Addresses all key areas of risk
- Modeled after “best in class” industry programs
Limitations of FSMA

- Extended compliance schedule
- Does not cover all producers
- Will be difficult to change
- Lacks flexibility
A Model for Producing Safe Food by Establishing a Culture of Food Safety on the Farm

By changing the culture – making sure that everyone involved in growing, harvesting and shipping leafy greens is making food safety the highest priority – we protect public health.
September 2006

205 Illnesses
4 deaths
26 states

This is one of the victims – Kyle Allgood, a two year old who died after contracting HUS during the outbreak.

From 2006 forward, the California leafy greens industry vowed they would do everything possible to make sure that the tragedy of 2006 would never happen again.
How to Respond?

But exactly how to do this was not clear at the time. Several possible solutions were considered from introducing new legislation; developing regulations or establishing a marketing order to help the industry regulate itself.

In the end, what was created was a the California Leafy Green Products Handler Marketing Agreement, or as commonly known, the LGMA. This is a Marketing Agreement which is available for use via California in 1937. It had been used for marketing purposes in the past, but this was the first time anyone had ever tried to use this vehicle as a means of regulating food safety.
The result: the California Leafy Green Products Handler Marketing Agreement, or as commonly known, The LGMA

• Created in 2007, was in place for the next season following the outbreak

• Shortly after that, Arizona created its own LGMA, based on the CA model
Mandatory Government Oversight

Voluntary to join, then mandatory
The LGMA is a handler-based organization. Our members are the shippers who put the leafy greens grown in the State into commerce, rather than the growers. This system basically puts handlers in charge of making sure that all of the people who are part of the production process—growers, harvesters, and other suppliers of services—are doing everything required to ensure that proper food safety practices are being implemented.
Products Covered

**Lettuce:**
Butter, Iceberg, Red Leaf, Green Leaf, Romaine and Baby Leaf

**Spinach**

**Cabbage:**
Green, Red and Savoy

**Spring Mix**

**Arugula, Chard, Escarole, Endive, Kale**
Industry Funded

$.0125 per 24-count carton
Diverse Farms

The program covers farms of all types and sizes – conventional, organic, sustainable, large and small…
Commitment

99% of CA Production
The Government's Role:

- LGMA is a government agency, so activities have force of law.
- All audits are done by government inspectors, trained and licensed by USDA.
Audits

- Average 5 per year
- Regular and Random
- Announced + Unannounced
- 100% Compliance Required

All members are audited regularly – several times a year, and we have unannounced as well as announced audits. Under the LGMA system, all findings identified by government auditors must be corrected, if a company is to remain in compliance with the program.
Compliance Certification

Ultimately, all of this leads to a program of certification. LGMA members in good standing are certified by the program, and use this mark on their bills of lading and other documentation.
We also maintain a list of certified members at all times on our website. And, when we decertify a company for a flagrant or repeated violation of the marketing agreement that is also public information.
BASED ON BEST PRACTICES
And Sound Science
Science-Based
Developed by Experts
Updated W/New Info
Key Risk Areas:

- Water
- Soil Amendments
- Environment
- Workers/Hygiene
General Requirements

Each LGMA Member is required to have a written compliance plan that details how the company will ensure that all LGMA requirements are being met. Other general requirements include providing a current grower list, and a demonstrated Traceback plan that meets federal requirements.
Water

Regular testing of all water sources
Soil Amendments

Verification of Process/Treatment

Soil Amendments – compost and fertilizers and such – are another possible source of contamination with pathogens. The LGMA metrics require that growers obtain verification that any and all soil amendments used have been properly treated or composted to ensure that any pathogens have been eliminated.
Environment

Pre-Season, Pre-Harvest, Daily Harvest Assessments

E. Coli, Salmonella and other pathogens originate in the environment, and looking for any signs of animal encroachment or other environmental risk is fundamental to the program.

We require three thorough environmental assessments of each field – one before the field is even planted, the second a week prior to harvest, and the third on the day of harvest.
Worker Hygiene

SOPs Written and Followed
Field Observations

All other risk areas
Continuous improvement – by all LGMA members – is one of the program’s key objectives. So the LGMA program includes many efforts to educate and train its industry members so that they can better comply with the food safety requirements.
In fact, we publish an annual accounting of the findings of the program, with detailed breakdowns on all findings and corrective actions…

Audit Results

The LGMA launched its audit program on July 23, 2007. From that point through March 31, 2008, CDFA inspectors conducted 424 audits. All audit results were reviewed by the LGMA. Audit results showed that 58 percent of all farms inspected had either no citations or Minor Infractions that were corrected on site while inspectors were present. Forty-two percent of farms inspected required corrective action.

Another way of looking at the audit results is to examine compliance with all checkpoints reviewed by the government inspectors. The table below shows there were 78,016 total audit checkpoints examined during the 424 individual audits conducted in 2007/08. When looking at total checkpoints examined during these audits, LGMA members were in compliance with 99.25 percent. This means that, while 42 percent of operations audited were found to have citations requiring corrective action, over 99 percent of the total audit checkpoints were found in compliance with the LGMA food safety practices.

<table>
<thead>
<tr>
<th>Audit Area</th>
<th>Checkpoints</th>
<th>Audits</th>
<th>Checkpoints Verified</th>
<th>% in Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Requirements</td>
<td>14</td>
<td>424</td>
<td>5,936</td>
<td>99.23%</td>
</tr>
<tr>
<td>Environmental Assessments</td>
<td>35</td>
<td>424</td>
<td>14,840</td>
<td>99.66%</td>
</tr>
<tr>
<td>Water Use</td>
<td>24</td>
<td>424</td>
<td>10,176</td>
<td>98.27%</td>
</tr>
<tr>
<td>Soil Amendments</td>
<td>18</td>
<td>424</td>
<td>7,632</td>
<td>99.19%</td>
</tr>
</tbody>
</table>
Education and Continuous Improvement
What’s Next?
Our Objective: Align LGMA with FSMA

Avoid additional audits and compliance requirements
Since 2007:
6 Years of operation
Over 3,000 Farm Audits
Mandatory Compliance
Penalties/Decertifications
Most important, in that time, we’ve seen over 175 billion servings of CA and AZ leafy greens produced under the program consumed by Americans.
There is a great deal more information at our web site located at www.lgma.ca.gov.
Investing in People: Reducing Risk
Top to Bottom Risk Assessment

- Nurseries to distribution centers
- Identify key risk areas
- Determine best practices to address highest risks
Food Safety Fundamentals

• Basic practices for harvest workers
• Communicating good practices to harvest workers
Introduction to Food Safety

• Flipchart content review
• Using flipchart for training
Teaching Food Safety

Tips for effective training

Practice using the flipchart
Implementing Food Safety on the Ranch

- Practice on-farm assessment
- Techniques for working with ranch manager and grower
Current Issues in Food Safety

- Class changes annually
- Content includes:
  > Lessons learned from *E. coli* outbreak in strawberries in Oregon in 2011
  > Innovations in practices, tools, science
  > Troubleshooting difficulties in implementing food safety program on ranch
Food Safety Certificate Program

- Introduction to Food Safety 2010
- Teaching Food Safety 2009
- Food Safety for the Harvest of Processing Strawberries 2010
- Tracking Food Safety on Your Farm 2011
- Implementing Food Safety on Your Farm 2012
- Current Issues in Food Safety 2011
Program Impact

- 85% of CA ranches have participated
- 2000 trained since 2009
- 25 classes
- 1,500 participants
California Cantaloupe Advisory Board
Public Member

Bonnye Whamond
Jenson Farms Outbreak
California cantaloupe industry adopts food safety program to reassure consumers

FRESNO, Calif. (KFSN) -- The cantaloupe industry has taken a hit in recent years because of deadly listeria and Salmonella outbreaks in Colorado and Indiana.

But California growers have raised the food safety bar to restore consumer confidence.

The cantaloupe harvest is now in full swing in Western Fresno County. Crews find their rhythm with each row - often tossing the melons up and onto the conveyor belt.

Steve Patricio of Westside produce said, "The real trick is keeping people and animals away from them. Melons are one thing we can safely say the less you do the better."
Food Safety Practices are backed by 20 years of research.
Consumers want information!

- Consumers are more aware than ever before about food safety.
- They ask a lot of questions.
- Industry needs to be strong in crisis communications.
- Need to speak openly about risk reduction strategies.
- Growers need to minimize risk through GAPs.
- Be prepared to answer difficult questions.
- Educate consumers about industry standards.
- Government is still most respected information source.
RESPONSIBLY GROWN CALIFORNIA CANTALOUPES

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.

PHOTO FROM Instagram

LATEST FROM

APRIL 19, 2013 | 8:49PM | BY GEOFF JOHNSTON
California Cantaloupe safety record taking center stage at Fresh Summit in New Orleans

CONNECT WITH US

!! Food Safety Alerts !!

APRIL 19, 2013 | 8:49PM | BY GEOFF JOHNSTON
The Climate Prediction Center is expecting a warmer than normal El Nino pattern this Winter. http://wwe.gis.miol.com

RESERVE OUR NEWSLETTER

email
SIGNUP

APRIL 19, 2013 | 8:49PM | BY GEOFF JOHNSTON
The Climate Prediction Center is expecting a warmer than normal El Nino pattern this Winter. http://wwe.gis.miol.com

APRIL 19, 2013 | 8:49PM | BY GEOFF JOHNSTON
The Climate Prediction Center is expecting a warmer than normal El Nino pattern this Winter. http://wwe.gis.miol.com

APRIL 19, 2013 | 8:49PM | BY GEOFF JOHNSTON
The Climate Prediction Center is expecting a warmer than normal El Nino pattern this Winter. http://wwe.gis.miol.com

Allian
The Cantaloupe Story

HIGHEST LEVEL OF SAFETY & QUALITY

1. Mandatory Government Inspections
2. Science-Based Food Safety Standards
3. Industry Wide Commitment

Honest to Goodness

Food Safety Video Series

Our Fruit

How We Grow ‘Em

How We Pack ‘Em

How You Eat ‘Em
We are going to take a moment now to take a quick look at one of these videos.
The site also includes some great recipes and information for consumers on how to select, store, handle and ripen cantaloupes. Of course, you can follow the cantaloupe board on Twitter, Facebook, Pinterest and other social media sites. The Board is planning to conduct some social media promotions in the coming season all designed to drive people to the website where they can find information on how to enjoy cantaloupes along with the story of the California industry's food safety efforts.
Jensen Farms in Colorado Positively Identified as Source of Listeria Outbreak.

Jensen Farms in Colorado Positively Identified as Source of Listeria Outbreak: The U.S. Food and Drug Administration has identified the source of a listeria outbreak that has sickened over 100 people in 26 states to a single cantaloupe farm in Colorado. The cantaloupe is packed under the Jensen Farms label and has been removed from marketing channels. According to the FDA, cantaloupe currently available for sale in grocery stores across the country are not linked to this outbreak.
Q & A
Also visit these food safety resources:

- [FightBac.org Produce Safe Handling](#)
- [safefruitsandveggies.com/food-safety-farmers-markets](#) resources for kids
- [www.teamfoodsecurity.org](#) Team Food Safety LinkedIn

And these key fruit/vegetable sites:

- [www.PBHFoundation.org](#)
- [www.MoreMatters.org](#)
- [www.SafeFruitsAndVeggies.com](#)