



2020/2021 ANNUAL REPORT





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OVERVIEW

Arizona farmers grow approximately 25% of the total U.S. lettuce supply each year. The desert climate provides a short growing window from November to March, and as a result Arizona is often called the winter lettuce capital of the United States.

Organization

The Arizona Leafy Greens Marketing Agreement (LGMA) is a food safety program for lettuce and leafy greens. Arizona LGMA members are required to use a set of food safety guidelines which detail the best practices for keeping leafy greens produce safe. The Arizona LGMA guidelines require agricultural water risk assessments, field personnel training, environmental risk assessments, field and transport sanitation, evaluation of soil amendments prior to use, equipment cleaning and sanitation, food safety practices for harvest, and more.

Members

Leafy greens farming in Arizona is big business that involves the work of many family farms. Arizona farmers are committed to growing and harvesting safe lettuce and leafy greens through the Arizona LGMA food safety certification program. Arizona LGMA members are shippers of Arizona leafy greens who utilize strict food safety best practices to ensure the integrity of leafy greens grown, harvested, and shipped from Arizona. The program aims to mitigate potential food safety issues through an intricate system of checks and balances and is administered by the Arizona Department of Agriculture. In 2020/2021, Arizona LGMA members represent 99.4% of leafy greens grown in Arizona.



Audits & Compliance

To be certified and to use the Arizona LGMA service mark, shippers must complete multiple audits each growing season. Audits are conducted by United States Department of Agriculture (USDA) certified auditors that verify compliance with the best practices document, Commodity Specific Guidelines for the Production and Harvest of Lettuce and Leafy Greens, also known as the Metrics.

Funding

The Arizona LGMA operates solely using collected fees from its members. The Arizona LGMA assessment fee can vary from year to year depending upon projected costs. In the 2020/2021 year the assessment rate per standard carton was set at \$.006 from July 1, 2020, to June 30, 2021.

The Arizona LGMA is accountable to its members, the fresh produce industry, and consumers for providing and enforcing the highest food handling and safety standards. The program also values education and is driven to improve the knowledge and practices of everyone in our industry. We understand and appreciate the role that each individual plays in every step of the leafy greens production process.



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YEAR IN REVIEW

Enhanced Guidelines for the 2020-2021 Growing Season

Effective August 18, 2020, the Arizona Leafy Greens Food Safety Committee adopted an updated version of the food safety guidelines (metrics) for the 2020/2021 growing season. The updates related to the water standards impact everything from the type of irrigation, the management of irrigation water delivery systems and enhanced water sampling. Updates related to the field require more stringent processes for cleaning and sanitizing harvest equipment.

Canadian Food Inspection Agency Requires Arizona LGMA Certification

The Canadian Food Inspection Agency (CFIA) now requires Arizona LGMA certification for the importation of leafy green vegetables from Arizona. The CFIA announced this [new regulation](#) in August of 2020 following a tour of the Yuma, Arizona region and review of the Arizona LGMA food safety program requirements.

New Arizona LGMA Compliance Officer

Longtime Compliance Officer Jonathan Field retired in 2020 and [Kevin Watson](#) was appointed as Arizona LGMA's new Compliance Officer. Watson joined just prior to the winter harvest season in 2020 and brings more than 20 years of experience to the position. The Compliance Officer is a critical role that helps to implement the program's comprehensive, science-based food safety standards.

FDA Multi-year Study to Enhance Food Safety in the Yuma Region

The U.S. Food and Drug Administration (FDA) launched a [new initiative](#) in 2019 with support from the Arizona Department of Agriculture, and in conjunction with the University of Arizona Cooperative Extension, the Wellton-Mohawk Irrigation and Drainage District (WMIDD), and members of the Yuma area leafy greens industry to better understand the ecology of human pathogens in the environment in the Yuma agricultural region. This multi-year study continued in 2020 and 2021 with the goal of learning more about how these pathogens survive, move, and possibly contaminate produce prior to harvest.

FDA Microbiological Surveillance Sampling of Romaine Lettuce at Yuma, AZ Coolers

[This FDA assignment](#) called for the collection and testing of 500 samples of romaine lettuce for STEC's and Salmonella spp. The samples were collected at cooling operations in Yuma County, AZ during February and March of 2021. All 504 samples were negative for Salmonella spp. The FDA detected one STEC, an E. coli O130:H11. The romaine lettuce associated with the positive had been voluntarily held or recalled and the product never reached consumers.



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LEADERSHIP & STAFF

The Arizona LGMA is managed by the Arizona Leafy Greens Food Safety Committee, a five-member committee of signatory shippers or their designated representative. The members have three seats that represent the Yuma area and the other two seats are for any other leafy greens growing areas. The volunteer leadership consists of industry professionals who are shippers or designated representatives of shippers. The Arizona LGMA has the Arizona Leafy Greens Technical Subcommittee overseeing and maintaining the science-based Metrics. The Arizona Leafy Greens Communications Subcommittee then oversees public relations for both the consumer and industry.

Food Safety Committee Members	
C.R. Waters – Chairman	Duda Farm Fresh Foods, Inc.
Clint Duke	Ippolito International
Alex Muller	Steinbeck Country Produce
Kristina Nunes	The Nunes Company, Inc.
Kami Weddle	Pacific International Marketing

Technical Subcommittee Members	
Amanda Brooks	Harrison Farms
Lupe Camarena	Nature Fresh Farms
Jesus Canchola	Fresh Express
Bob Mills	Misionero
Kristina Nunes	The Nunes Company
Jeremy Vanderzyl	Duncan Family Farms
Kami Weddle – Chair	Rousseau Farms
Michael Menes – Alternate	True Organics
Valentin Sierra – Alternate	Amigo Farms
Alternate Vacancy	

Communications Subcommittee Members	
Amanda Brooks – Chair	Harrison Farms
Kelly Miller – Co Chair	Griffin Ranches
Joanne Kidd	Mellon Farms
Valentin Sierra	Amigo Farms, Inc.
Kelly Williams	Smith Farms
Kami Weddle – Alternate	Rousseau Farms

Staff	
Teressa Lopez	Administrator
Vicki-Lynne Scott	Technical Assistant
Kevin Watson	Compliance Officer



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MEMBERS

2M Sales

Amigo Farms, Inc.

Andrew Smith Co.

Beachside Produce

Bengard Ranch, Inc.

Bonipak Produce

Braga Fresh Family Farms

Church Brothers, LLC /
True Leaf Farms

Coastline Family Farms

Classic Salads, LLC

D'Arrigo Bros Co of California

Dole Fresh Vegetables, Inc.

Duda Farm Fresh Foods, Inc.

Dynasty Farms, Inc.

Everkrisp Vegetables, Inc.

Field Fresh Farms, LLC

Fresh Express, Inc.

Fresh Kist Produce, LLC

Gold Coast Packing, Inc.

Harbinger Group dba
Misionero

Ippolito International, Inc.

Mann Packing Company, Inc.

Muzzi Family Farms, LLC

Ocean Mist Farms

organicgirl, LLC

Pacific International Vegetable
Marketing, Inc.

Ratto Bros., Inc.

Ready Pac Foods, Inc.

Sabor Farms, LLC

The Salad Farm, LLC

Salad Savoy Corporation

Silva Farm

Steinbeck Country Produce

Tanimura & Antle Fresh Foods,
Inc.

Taylor Farms California

TLC Custom Farming Company,
LLC

Zada Fresh Farms



Certified Members of Arizona Leafy Greens Marketing Agreement are growers and shippers who are committed to adhering to the food safety practices set forth.














View the current member list at:
www.arizonaleafygreens.org



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CROP STATISTICS

The Arizona LGMA food safety program covers 15 different types of leafy greens and members reported shipping the following 24lb cartons or carton equivalents:

Commodity		2019/2020	2020/2021
	Iceberg	23,230,811	21,279,340
	Romaine Hearts	12,257,743	12,785,960
	Romaine	10,741,267	10,116,454
	Green Leaf	4,223,500	3,969,961
	Red Leaf	899,251	844,009
	Butter Leaf / Boston	3,426,040	3,029,194
	Spinach (Teen & Baby)	9,790,305	10,505,312
	Baby Leaf Items (Spring Mix)	5,575,043	6,687,261
	Cabbage (Green, Red, Savoy)	3,426,040	3,029,194
	Kale	743,583	770,800
	Arugula	674,643	695,954
	Chard	109,266	92,899
	Escarole	36,841	48,560
	Endive	26,271	14,233
	Radicchio	88,273	108,411
Total Cartons*		71,619,361	72,556,718



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AUDIT REPORT

The Arizona LGMA food safety program is a part of the Arizona Department of Agriculture (AZDA). The ADA uses United States Department of Agriculture (USDA) certified auditors that verify compliance with the best practices document, Commodity Specific Guidelines for the Production and Harvest of Lettuce and Leafy Greens, also known as the Metrics.

The annual goal for the Arizona LGMA is to conduct two scheduled and one unannounced audit with each shipper, and to audit each grower at least once. There are some shippers that only ship from Arizona a few weeks a year and therefore will only receive one scheduled audit and one unannounced audit.

In 2020/2021 auditor staffing and COVID challenges resulted in a shortage of audits conducted. Each member had at least one scheduled and one unannounced audit, but not all members had two scheduled audits. Nearly all growers underwent an audit. In the 2021/2022 the auditor staffing issue has been resolved and normal auditing is expected to resume.

	2019/2020	2020/2021
Scheduled Audits	70	51
Unannounced Audits	32	36
Total Audits	102	87



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COMPLIANCE

After an audit is conducted, the Arizona LGMA Compliance Officer conducts a review of the audit and sets each citation at one of four violation levels. The Compliance Officer works with each LGMA member to ensure that all violations are corrected in a timely manner. Additionally, the LGMA Technical Assistant conducts an annual review at the end of the season for member to assess compliance and address recurring issues.

Violation Level	2019/2020	2020/2021
Flagrant	0	1
Major Deviation	3	7
Minor Deviation	462	520
Minor Infraction	99	67
Total	564	595

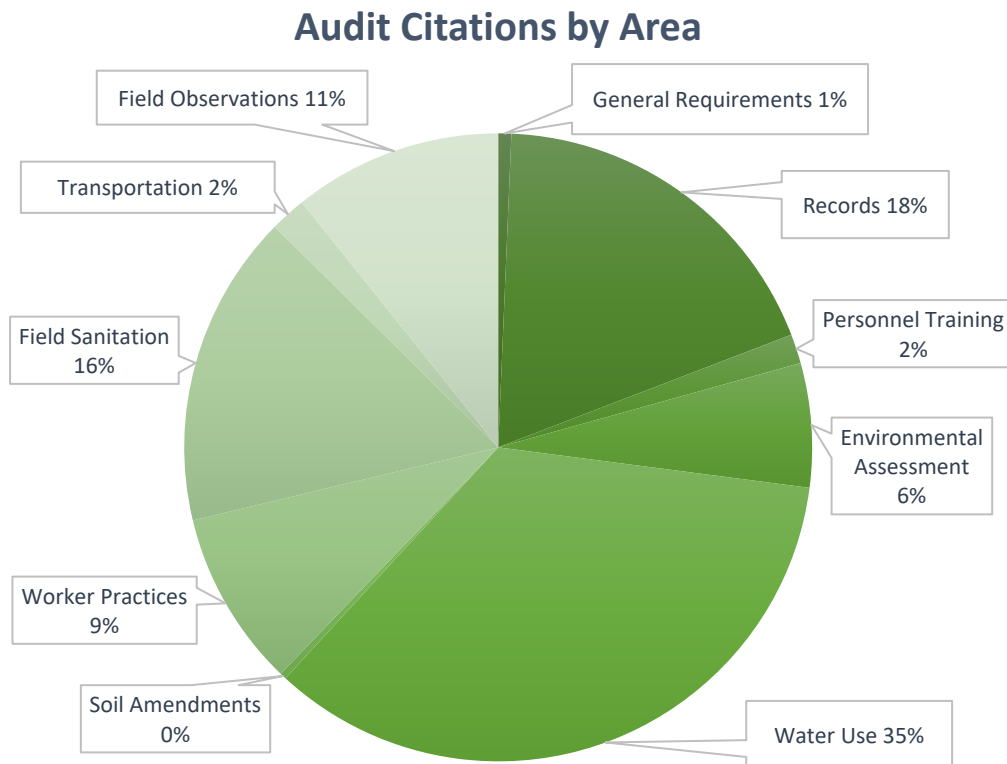
- A **Flagrant violation** occurs when the signatory shipper buys, consigns, or otherwise accepts or handles a leafy green product and knows or should have known the product was grown, packed, shipped, processed, or handled in violation of the best practices and the violation significantly increased the risk of delivering unsafe product into commerce. A single flagrant violation leads to a loss of the privilege to use the LGMA service mark.
- A **Major Deviation** is a violation of the best practices that may inhibit the maintenance of food safety, but that does not necessarily result in an unsafe product. A signatory who commits a major deviation must submit a corrective action plan to the Food Safety Committee or its designee, within five business days of receipt of the inspection report, noting the deviation. The Food Safety Committee may consider a major deviation to be a flagrant violation if the signatory fails to provide a timely corrective action plan. Once the Food Safety Committee or its designee accepts the signatory's corrective action plan, an unannounced audit will be performed.
- A **Minor Deviation** is a violation of the best practices that the signatory can correct within five business days and that does not necessarily increase the risk of a food borne illness. A signatory who commits a minor deviation must submit a corrective action plan to the Food Safety Committee or its designee, within five business days of receipt of the inspection report noting the deviation. A minor deviation does not require a follow-up inspection within three business days of submitting the corrective action plan. Instead, the inspectors will ensure compliance at the next regularly scheduled inspection.
- A **Minor Infraction** is a violation of the best practices that is corrected before the inspector leaves the inspected premises and that does not necessarily increase the risk of a food borne illness. The Food Safety Committee or its designee may treat an otherwise minor infraction as a minor deviation; if there have been multiple similar minor infractions over the past twelve months.



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COMPLIANCE

Another way to look at Arizona LGMA compliance is by the area of the food safety practices, or metrics, where audit citations are frequently occurring.



The chart above shows that the top three areas for audit citations in the 2020/2021 year were Water Use (207 citations, 35% of the total), Records (110 citations, 18% of the total) and Field Sanitation (96 citations, 16% of the total). The larger number of citations in these areas are likely related to recent changes to the requirements of the Arizona LGMA. Throughout the season, Arizona LGMA staff monitors audit citation trends and provide targeted training to help improve compliance.



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TRAINING

The updated food safety guidelines / metrics were in effect for the Arizona growing season beginning in August 2020. Outreach training and education on these topics was mainly informational. Also identified through audit trends was the need to provide some assistance with correction action plans. The following special topic presentations were held:

- Good Neighbor Practices on Date and Produce Production – October 8, 2020
- Current Research: Effects of Fertilizer Use on Water Treatment Efficacy – February 2, 2021
- Harvester Sanitation: Current Efforts, Best Practices and Trends – February 17, 2021
- Harvester Sanitation – Field Demonstration – February 18, 2021
- Creating Effective Corrective Action Plans – March 4, 2021



Participants learn about cleaning and sanitizing at an Arizona LGMA training (Feb. 21).

Arizona Leafy Greens Food Safety Training Kit

The Arizona Leafy Greens Food Safety Training Kit (FSTK) was developed by the Arizona LGMA and Food Safety Consultation & Training Solutions, LLC to provide basic food safety training resources to leafy greens harvesters and growers. The material can be used by food safety professionals, harvest crew foremen, extension agents, and/or industry consultants who wish to conduct food safety training at leafy greens farms. The full kit includes hard copy and electronic versions of the lessons in English and in Spanish. In addition, the kit includes PowerPoint slides, posters, tests and additional resource documents. The following Train-the-Trainer presentations were held:

- Arizona Leafy Greens FSTK (SPANISH) November 12 and December 3, 2020
- Arizona Leafy Greens FSTK (ENGLISH) November 13 and December 4, 2020
 - The ABC's of Leafy Greens Safety | The ABC's of Green Leafy Vegetable Safety
 - Prevention and Control of Leafy Greens Contamination | Prevention and control of contamination of green leafy vegetables
 - Personal Hygiene Practices in the Field | Personal Hygiene Practices in the Field
 - Handwashing and Glove Usage, Cross contamination in the field, Environmental Risk Assessments: Pre-Harvest and Daily Harvest
- Cleaning and Sanitizing of Harvest Equipment (ENGLISH) February 17, 2021
- Cleaning and Sanitizing of Harvest Equipment (SPANISH) February 17, 2021

The Arizona LGMA provided multiple opportunities for members to obtain information, ask questions, and hear from others in the industry through a series of virtual outreach events entitled “office hours”. Office hours had a diverse section of the industry participating and received positive feedback as to benefits received.



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COMMUNICATIONS

Arizona Leafy Greens Month

The Arizona LGMA once again celebrated Arizona Leafy Greens Month in November. As part of the special month, Governor Ducey made an official proclamation that served in the development of a press release. The Arizona LGMA built on the awareness generated from the press release on social media through a promotion on Facebook. Ultimately, the #AZLeafyGreensMonth campaign reached 12,800 users, increased followers by 1.8% and produced 296 comments.

Social Media Outreach

Arizona Leafy Greens Month was also utilized as part of a comprehensive social media strategy. The Arizona LGMA partnered with two influencers to help tell the Arizona Leafy Greens food safety story. Alexandra Rae (@Harvest.Joy) and Jon Dinsmore (@TheFarmerJon) created content for their various social media platforms including their Facebook, Instagram, Twitter, and a blog related to Arizona Leafy Greens. The result of these partnerships was 9,600 impressions, a reach of 7,300, engagement of 1,894 and 58 new followers. Also worth noting, this year Arizona LGMA launched a new Instagram page (@AZLeafyGreens) which received 372 followers between November to June.

Newsletter Launch

The *Harvest Times* newsletter was launched during this year. This newsletter is designed for Arizona LGMA stakeholders and serves as a quarterly platform to share the latest news, showcase people in the industry and to share new programs and initiatives.





ARIZONA LEAFY GREENS FOOD SAFETY COMMITTEE

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