

**ONE-YEAR PRE-HARVEST TESTING PROGRAM
FOR ROMAINE LETTUCE
CA LGMA Data Collection/Analysis Considerations**

This document includes recommendations from discussions of members of the California Leafy Green Marketing Agreement regarding the Data Task Force Proposal.

Below are suggestions associated with testing parameters and data collection.

Testing Parameters

The parameters listed below are primarily based on the original Preharvest Testing Working Group proposal, with a few adjustments, which include the target organism and the confidence in detecting 1CFU/lb. Note: Revision of these parameters was not the focus of the Data Task Force members.

- **Sampling Timeline** – Prior to scheduled harvest (no greater than 10 days).
- **Target Organisms** –Test for *E. coli* O157: H7
- **Sampling Lot Size** – Lot definition may vary depending on the ranch/farm operation but should not be more than 40 contiguous acres.
- **Sample Size** – Total sample mass per lot must equal at least 1,500 grams (4 composite subsamples of 375 g each) weighed and recorded by the third-party service laboratory.
- **Sampling Method** –Stratified randomized sampling within a designated lot. Consider stratifying by the number of composite sub-samples collected to reach the 1,500 g total mass. For example, collecting 4 composites of 375 g from roughly 1/4 of each defined lot area.
- **Number of Grabs** –A minimum of 60 grabs per sample (1,500 g). More individual grabs per lot improve the probability of detecting contamination. When deciding on sampling plans, see Appendix L for sampling plan options.
- **Sampler** – Samples must be taken by a trained sampler. Implement mandatory training on the sampling protocol for personnel conducting the pre-harvest product sampling.
- **Periodic Data Analysis** –Analyse the data collected through your program periodically. Data analysis can provide valuable insights to help you enhance your food safety system performance and inform a broader industry understanding of risk potential and prevention efforts.

This program's proposed definitions for positive results are noted here. Presumptive positive results mean molecularly confirmed positives without culture confirmation. Positive results mean culturally confirmed positives. Both types of results could be recorded as positives or captured separately.

Program Objectives for the 1-Year Romaine Test and Learn Program.

Vision/Goal:

Develop a standardized pre-harvest romaine testing program that enables the leafy greens industry to learn from personal and aggregated data that contribute to industry knowledge and informs food safety programs. It is not the goal to justify a long-term, mandated, pre-harvest testing program on romaine or other leafy greens. This is a test-and-learn program to determine the best next steps.

To accomplish this goal, the following objectives are defined:

1. Set a standard for pre-harvest testing that is followed by all LGMA-certified handlers
2. Obtain standardized data on pre-harvest pathogen tests and food safety factors related to romaine production, aggregate, and analyze the data
3. Develop learnings from analysis of the data that inform on food safety factors related to positive and negative pre-harvest test results
4. Develop learnings from the data that indicate support for current food safety practices or indicate the need for a review of current food safety practices
5. Obtain learnings that inform the program and help determine the next steps.

Long term Goals

1. Identify hazards, potential risks, and best practices that can drive updates to the LGMA-approved metrics.
2. Drive learning, fill knowledge gaps, and assess the value of pre-harvest testing, the overall program, and the next steps.
3. Offer a learning opportunity from real-time support through access to SMEs during industry investigation activities (Root Cause Analysis – RCA)
4. Share collective learnings with others beyond romaine lettuce operations (once the program has been assessed and insights are gained)

Suggested Industry Data Collection Points. -

1. Commodity
2. Acres Sampled (both total lot size and sub-sample acres)
3. Target Organism
4. Test Result
5. Sample Date
6. Regionality

Industry Questions to consider for the data collection/analysis of this program. -

1. How many romaine lettuce acres are tested?
2. How many tests, presumptive positives, positives, and negatives (product tests)?
3. What is the prevalence rate per month and season, and region?