

# FRESH SALAD

## INCREASE THE FOOD SAFETY, REDUCE DECAY, EXTEND SHELF LIFE AND MEET HACCP REQUIREMENTS

Food safety concerns, reducing decay and extending storage life without the dependency of chemicals have increased the demand of safe, proven alternatives such as OZONE.

**Thanks to PC Engineering ozone generators, ready to eat fresh fruits and vegetables producers are able to extend product life, decrease decay and enhance food safety naturally, without altering the organoleptic properties and meeting HACCP standards.**

## SCIENCE-BASED SOLUTION

PC Engineering solutions provide a safe and proven alternative for ready to eat fresh fruits and vegetables.

The ozone, efficiently dissolved into the water used during washing procedures and/or fumigated inside the package, helps to kill almost all pathogens responsible for the fast produce decay.

It reduces cross-contamination and extend the produce shelf-life, without affecting its quality.

## OPTIMUM SAFETY AND EFFICACY

The unique closed-loop concentration control and remote monitoring capabilities provide optimum safety and efficacy. The measurement sensors and on-board computer maintains ozone concentration at desired set-point. The solution includes fail-safe ambient air sensors and water sensors, which constantly ensure the safety of working area and the constant efficacy of the system.

The remote monitoring service constantly tracks system performance and provides detailed reports and automated alerts.

## KEY FACTS

### Reduce decay:

- Kill surface and airborne microorganisms
- Stop nesting of decay
- Extend shelf-life

**USDA and FDA approved**



Microflora on salad (control), salad washing with chlorinated water (group 1), salad washed with ozone-enriched water (group 2), salad washed with ozonated water and packed with ozone-enriched atmosphere (2 min. fumigation for group 3 e 5 min. fumigation for group 4).

CFU/g	Control	Group 1	Group 2	Group 3	Group 4
Mesofils	$1,9 \times 10^6$	$1,4 \times 10^5$	$9,8 \times 10^4$	$3,6 \times 10^4$	$7,5 \times 10^2$
Psicrofils	$8,3 \times 10^4$	$7,3 \times 10^4$	$2,0 \times 10^3$	<10	<10
Coliforms	$8,3 \times 10^3$	$7,4 \times 10^3$	$1,0 \times 10^2$	$5,0 \times 10$	<10
E. coli	<10	<10	<10	<10	<10
L. monocytogenes	-	-	-	-	-
Salmonella spp.	-	-	-	-	-

After 7 days storage at 4°C, the ozone treated salad is compliant with the relevant standards used for ready to eat fresh fruits and vegetables. On the contrary, control sample and salad washed with chlorine is not compliant just after 4 days storage.

#### OZONE TECHNOLOGY BENEFITS

	OZONE SYSTEM
MICROFLORA CONTROL	Ozone efficiently kills yeasts, mould and bacteria and prevents the cross-contamination.
CHEMICAL PERSISTENT MOLECULES ELIMINATION	Significant reduction of chemical residue
RESIDUES	None
ORGANOLEPTIC PROPERTIES ALTERATION	None
HACCP	No requested authorizations
CORROSION	None