



Safety of Fresh Fruits & Vegetables



Ozone Advantages

The most powerful oxidizer available.

Environmentally friendly.

No chemical storage required.

Three-thousand times more germicidal than chlorine.

Instant pathogen destruction & no harmful chemical residual.

Ozone generator for fruit and vegetable washing

Ozone is a universal disinfectant that can oxidize organic matter and inorganic compounds, destroy viruses, bacteria and other pathogens. For over a century, ozone has been used in water treatment processes and only recently it has started to play a major role in the food and agriculture industry.

Increased demand from consumers and current regulations have led to an exhaustive overhaul of the types of disinfectants used in the washing processes for fruit and vegetables.

Water for washing precut salads

The use of ozone for washing salads and vegetables produces water with a high degree of purity that is unattainable with other methods. Its disinfection power and the total absence of chemical products in the end-product make this system the ideal choice for this type of process. With 2 ppm of residual ozone in the wash water, a reduction of 99.9% in terms of surface contamination can be obtained. These results are

equal or better than those obtained using 50 ppm of chlorine. Another advantage is that after washing, the water used is not contaminated and there are no alternations in the product's colour, quality or texture. Sometimes, the average product life is even prolonged through this process.

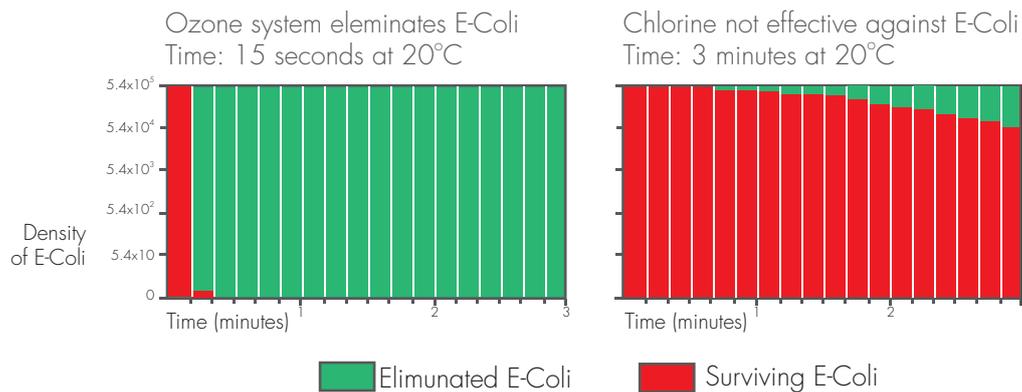
The more we research and learn about ozone, the more impressive Ozone's resume becomes. The amount of applications completely dominated by Ozone is staggering. However, the most important question still remains, "Why is the consumption of toxic chemicals not declining?"



Benefits of Ozone

- Eliminates harmful bacteria
- Neutralizes toxic pesticides
- Food stays fresh up to 3 times longer
- Free sanitizer, use ozone infused water on worktops, cutting boards and much more.

Ozone vs. Chlorine: Disinfection Effectiveness

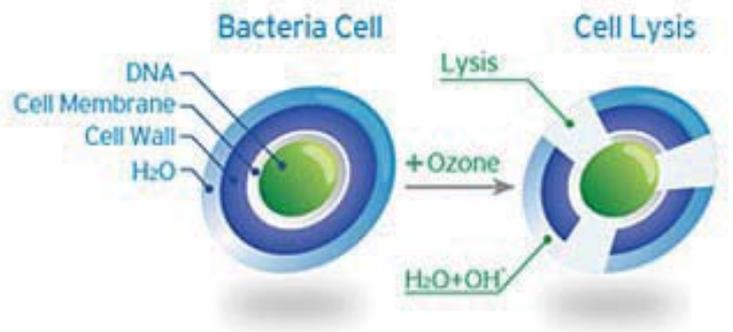


Conclusion:

Ozone kills most bacteria within 15 seconds. After 20 seconds Ozone destroyed all E-coli. Chlorine's efficiency is quite poor compared to ozone.

How Ozone works

- As ozone comes into contact with bacteria, the ozone molecule attacks the cell wall of the organism and breaks it down in a process known as cell lysing.
- Once the cell wall is penetrated, the cell's cytoplasm is released and the cell expires almost instantly. Ozone attacks the microorganism like a shotgun, bursting their membranes and spilling their contents.



Ozone is the strongest food grade antimicrobial agent, 1.0 ppm of ozone = 3,000 ppm of chlorine. While destroying bacteria and viruses, the remaining ozone reverts to oxygen, for a pure, fresh taste without chemical residue or pesticides.

A hand full of 5 star hotels have recently thrown out all of their chemicals and switched to ozonated water throughout.

If you were having spinach salad, and if it was infected with E-coli, washing the leaves with just water would not have helped.

Washing fruits and vegetables with Ozone is quick, simple and effective against not only bacteria, but pesticides, poisons and prolongs the storage life naturally.



The real story behind Ozone is not just its diversity but that it is in a league of its own outperforming all other viable solutions. The fact that Ozone is so environmentally friendly is just a bonus.

Most of the industries have recognized the multiple benefits of ozone. Many fruits and vegetables release ethylene gas that accelerates the ripening process. Ozone rapidly oxidized ethylene yet the produce tastes identical.

There is an abundance of research available as proof that ozone is undoubtedly the cleanest, eco-friendly, safest and most effective agent to eliminate odours and for sanitizing environments. Ozone also keeps us alive - Mankind would cease to exist on this planet without it.

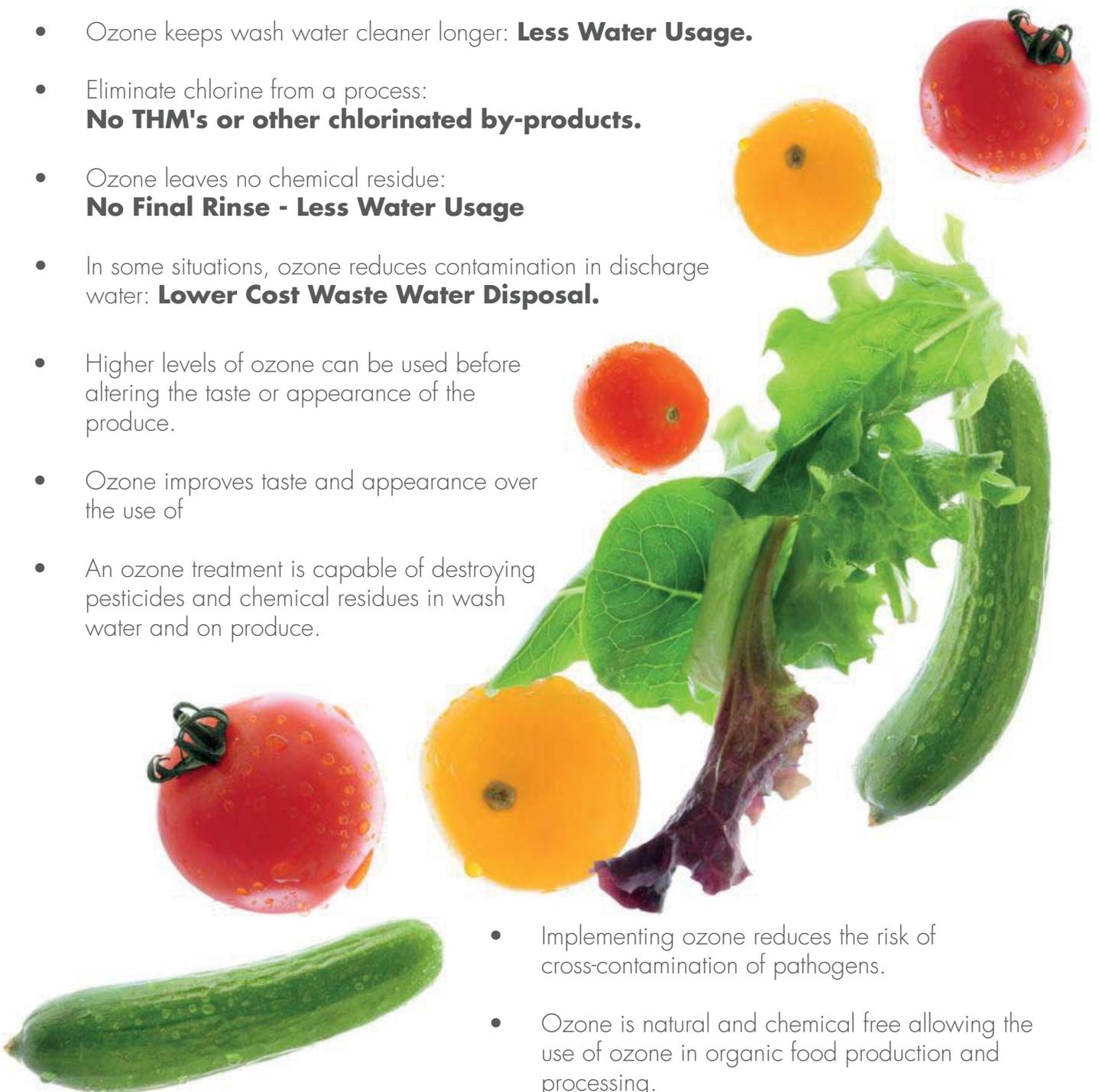
Today, ozone is increasingly used more and more in food, cattle and the agricultural industry, hospitals, laboratories, dental and medical treatment and therapy, water treatment and purification processes, hotels, swimming pools and aquatic arenas, industrial laundries and not limited to environmental cleaning, insect and pest extermination and remedial projects. Ozone has an impressive list of properties that makes it uniquely viable as a natural and an eco-friendly solution.

Washing with water does absolutely nothing



- **Ozone is approved for Use with Food.**
- **The USDA and FDA have approved ozone as an antimicrobial agent for use with food processing. With regulatory approval, ozone has become a great option for cost-effectively disinfecting food.**

- An ozone system mitigates the need for storage, handling, use, and disposal of chemical sanitation agents. chlorination alone: **Better Quality Produce.**
- Ozone lowers counts of spoilage microorganisms in wash water and on produce surface: **Longer Shelf Life.**
- Ozone keeps wash water cleaner longer: **Less Water Usage.**
- Eliminate chlorine from a process: **No THM's or other chlorinated by-products.**
- Ozone leaves no chemical residue: **No Final Rinse - Less Water Usage**
- In some situations, ozone reduces contamination in discharge water: **Lower Cost Waste Water Disposal.**
- Higher levels of ozone can be used before altering the taste or appearance of the produce.
- Ozone improves taste and appearance over the use of
- An ozone treatment is capable of destroying pesticides and chemical residues in wash water and on produce.



- Implementing ozone reduces the risk of cross-contamination of pathogens.
- Ozone is natural and chemical free allowing the use of ozone in organic food production and processing.



Ozonator Models

Ozonated wash water from
500 ltrs/hr to 6,000 ltrs/hr.

TZ-5A
TZ-10A
TZ-20A
TZ-30A
TZ-40A
TZ-50A
TZ-60A



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