

# Omega Holdings USA

“The Right Thing to Do”



- Omega Holding USA is a parent company of subsidiary 3 companies that sole purpose is develop technology for the food industry which would be environmentally safe sustainable processes that would reduce the need for chemicals and in most cased use no chemical at all.
- - Better Fresh Technology LLC
- - AquaFew USA LLC
- - Better Fresh Chill LLC
- AquaFew is a bio-tech company that has been in business for 16 years. Our focus is on food safety for many aspects of agriculture, commercial food processing, foodservice, government, hospital, and many other industries for sanitation and pathogen control with food products.

## Commitment From Us To You

1. Food Safety – From farm and ocean to table.
2. Corporate Social Responsibility.
3. Work with growers and food processors to provide safe and healthy foods for consumers.
4. Consult and train Quality Control personal in processors the proper application that will exceed demands of conventional manufacturing.
5. Eliminate harsh chemicals.
6. Safe pathogen control program naturally.

***The statement below we took it to heart.***





## *The right thing to do.*

*“Since the  
molecular  
structure of water  
is the essence of all  
life, the man who  
can control that  
structure in  
cellular systems  
will change the  
world.”*

-Albert Szentt-  
Gyorgi, Nobel Prize  
Winner for Chemistry  
in 1937

## Who Are we?

AquaFew USA provides sustainable and environmentally friendly advance water technology that offers a safe and chemical free solution.

*electrolyzeIT one drop at time...*

Simply put, our mission is making you, your business and customers healthy by providing effective environmentally friendly products.

# Benefits for Fruit and Vegetable Industry



- Extend Fresh life.
- Hydrate cells. (replace water that is loss during processing)
- Reduce decay due to loss of hydration which helps control pathogens.
- Eliminate use of chemicals.
- Low cost.
- Environmentally safe.
- No harmful effects to humans during processing.

# Natural Process through Electrolysis:



- Smaller Clusters Due to Electrolysis
- \*Electrolysis is a simple, safe, consistent and user-friendly process to formulate an advanced-form of functional water.
- Through the process of electrolysis, original tap water clusters that were made up of 11~13 water molecules have been restructured into smaller clusters made up of 5~6 water molecules. *This fact is verified with the use of a Nuclear Magnetic Resonance device or a Raman Spectroscopic Meter.*

# What is electrolyzed Water

- Low pH Acidic Water
- pH between 2.5 to 4.5
- ORP 1000+ mV Stable
- Hypochlorous Acid (HOCl)

- High pH Alkaline Water
- pH 10 to 11.5
- Sodium Hydroxide

# Plant Sanitation



- Our AquaFew water application is a complete plant sanitation using both waters. Equipment, cutting tables, knives, floors, walls, gloves, plastic totes and trailer wash.
- Brush beds, rollers, belts, stainless, conveyers, knives, saw blades, slicers, .

# Processing Facility

- **Alkaline water pH 10 + 11.5, ORP -600. (Oxygen Reduction Potential)**
- Use AquaFew AL water at a temperature of 120 degrees to 160 degrees F (49 to 71 degrees C) for general cleaning and degreasing applications. Use AquaFew AL water at a temperature of 120 degrees to 140 degrees F (82 to 100 degrees C) as an extreme degreaser and cleaner for heavily soiled equipment and service areas.

- **Acidic (AC) Water pH 2.5 to 3.5 ORP +1100. (Oxygen Reduction Potential)**
- Use Aqua Few AC as a hard surface sanitizer at room temperature for general cleaning, sanitizing and disinfecting. Kills listeria, E'Coli 0157 and salmonella and other pathogens.

# Drain Maintenance

- AquaFew AL water at temperature of 120 to 160 degree F (49 to 71 degree C) for degreasing and cleaning solids that collect in food preparation areas. AL water will loosen solids due to lesser surface tension and pH of 11.5.
- Use AquaFew AC water at ambient temperature. Eliminates pathogens that build in drains where food preparation is done. Eliminates salmonella, E Coli, Listeria and other pathogens and fungi.

# AquaFew (Functional Electrolyzed Water)



## Electrolyzed Aqueous Solutions

AquaFew's electrolyzed products, offer a unique benefits by reduce pathogens, provide cell hydration, or as a degreaser/cleanser. These benefits can be applied to wide array of industries.

Vegetable processing

Fruit processing

Plant sanitation and disinfectant



# Applications

Significantly extends shelf life freshness up to 4 – 5 days longer than current expectancy

## SEAFOOD



- Reduces cross contamination
- Prolongs Shelf Life
- Ice produced for display cases is antimicrobial
- Degreases processing facility drains

## MEAT



- Reduces cross contamination in cutting rooms
- Disinfects food preparation surfaces, processors and equipment
- Prolongs Shelf Life
- Degreases processing facility drains

**Reduces potential harmful pathogens by 99.99%**

## Fruit/Produce



- Disinfects produce and product prior to packaging
- Keeps display case clean and odorless
- Misting retail grocery produce reduces pathogens, improves appearance and prolongs Shelf Life
- Reduces cleaning and maintenance labor

## Food Service

- Disinfects incoming and rinse water
- Disinfects food preparation surfaces, processors and equipment
- Provides sanitary hand cleaning and disinfection

100% Biodegradable & Chemical Free



**Go Green!**

Through electrolysis each water is molecularly restructured



- Acidic Water:
  - Oxygen Reduction Potential (ORP) shows the level of antimicrobial properties that are in water. Most water ORP level is between 200 to 240+mV. Through our process we raise this level to 1000 to 1150+mV. Very antimicrobial.
  - Hypochlorous Acid is the active ingredient that is produced in low pH water. HOCl is free chlorine that is up to 50 to 100 times stronger than chlorine. In a enclosed water tank it has a strong chlorine odor. When used to sanitize and disinfect there is no smell or taste.
  - Acidic water kills pathogens within a second on contact.

# Two Waters used at Hansen Fruit

## Alkaline high pH and Acidic low pH water



- **Alkaline** water is used as a first step application that will remove natural wax and calcium spotting due to hard water during watering fruit trees. The pH of the alkaline water is at 11.5 and a lesser surface tension due to our electrolysis process. This application is similar to detergent used for same process. This causes the natural wax and calcium spotting on apples to loosen off of apples. Apples are then rinsed with potable water prior to our acidic aqueous solution.
- **Acidic** water is used for the second step application for pathogen and fungus control. The pH of our acidic water is between 2.5 to 3.0 with an ORP “oxygen reduction potential” of 11.5 to 12.0 + Mv, and Hypochlorous acid level between 40 ppm to 50 ppm “parts per million”. The apples flow through a drying stage using fans to dry the apples off prior to waxing. For bacterial kill our water only takes less than a 1/2 second. We still have residual kill during drying and waxing. What this gives the consumer is an apple that has a longer fresh life. Pathogen and pesticide free.



# Hansen Fruit Company



- Hansen Fruit Company is based out of Yakima Washington. We installed equipment for their postharvest application on cherries. HFC used our water process for pathogen and fungus control on cherries as well as plant sanitation. In most plant operations if a little water does the job then a lot of water will do a better job. Using our two distinct waters HFC decreased their water volume approximately 97,000 gallons per week. Instead of high volume of water our applications only need surface contact. This is due to lesser surface tension and our antimicrobial properties. One of the issues with cherries is keeping the stem from decaying. The decaying causes pathogen growth along with cherries being discounted after delivery. This happens within a few days after processing. When HFC started using AquaFew application we reduced the decaying of the stems due to hydration and pathogen control. When the stem is hydrated the cherry shelf life increase up to three to four additional weeks. Cherries that usually are shipped by air freight overseas were shipped by water. Difference in shipping cost was significant.

# Back of Electrolysis Unit



# Front of Electrolysis Machine and Cherries



# How EO Water is Applied



# Reduction of Water

