

OVERVIEW

introduction:

Agriculture sustains life and is closely integrated with the environment, its sustainability and the quality of life. Agriculture is maintained through the cyclical provision of seedlings, water, soil nutrients and sunlight.

Traditionally, agriculture is maintained through the use of effective pesticides, fungicides and fertilizers.

As an alternative to traditional agriculture, organic farming, as a new modality to agriculture was founded. With this introduction, the options for agricultural sustenance was expanded to provide a farmer or a grower with an alternative to the dependence on chemical supplements.

As complementary to these two agricultural modalities, and as a third viable option, we are introducing a novel medium that is based upon Functional Electrolyzed Water.

functional electrolyzed water:

Restructured water produced through a controlled electrolysis process is referred to as Functional Electrolyzed Water. Based upon electrolytes and the application of electrical current to tap water, the controlled electrolysis process transforms tap water into a functional agricultural water.

The term “functional” describes a newly-designated descriptor. The term describes the ability of a generic element or component to possess secondary benefits that were previously unknown. When an element that triggers a beneficial result is researched and found, this mechanism is designated as a “functional” contributor to a beneficial result.

As an example, grapes are commonly known to be a small, round, juicy berry found in clusters growing on a grape vine. Grapes have historically been consumed as a fruit or known to be a key element in the production of an alcoholic beverage: wine.

In recent years, it has become scientifically known that wine, a byproduct created from grapes, possessing an antioxidant element, polyphenols, provides valuable antioxidant properties effective in the controlling of excess free radical damage within the human body.

Based upon this finding, grape and wine are now considered to be a “functional” fruit and a “functional” beverage, in other words an effective “functional” medium that collaterally provides a benefit as an end result.

Likewise, resulting from the unique properties that are instilled into tap water, through the controlled electrolysis process, we have been able to produce a “functional” water capable of controlling mildew and fungus along with serving as an effective soil nutrient and plant wellness medium. The end results that are attained are larger plant yields, more effective root systems, stronger plants and minimal usage of chemicals.

FUNCTIONAL ELECTROLYZED WATER

AS AN OPTION

providing of options:

In accordance with all life processes, the farmer, grower, agronomist, plant pathologist, hobbyist and the average person is on a continual quest to seek out a next-generation concept, which further refines current growing and plant maintenance systems, to provide unique and efficacious solutions to today's agricultural-related concerns.

Functional Electrolyzed Water is a new and promising option that is now available to us.

conventional modality:

During the past 60 years, triggered by industry's search for higher plant yields, stronger plant structures, year round growth, increased specialization and programmable seed-life cycles, the agricultural industry had embarked on the road to chemical and scientific-based gene-altering processes. Successfully, ongoing research and development have led to the achievement of the original objectives.

These accomplishments have been major achievements that could only have been theorized 100 years ago; yet today, it has become a reality and a standard set for global agriculture.

organic modality:

With the advent of a higher consciousness towards the environment, health, and sustainable safety, during the past 20 years, an optional modality to conventional agricultural processes had emerged.

This modality opted to rely upon natural means and a departure from conventional chemical-based agriculture to introduce an "organic" mode of farming.

Not unknown to the agricultural movement, but refreshingly basic in its approach and objectives, organic farming resorted to retrospective agricultural processes utilized prior to the introduction of chemical-based agriculture with the addition of innovative processes learned over the 40-year period.

The organic movement has created a new level of consciousness towards the concerns that have been raised by conventional agricultural practices.

functional electrolyzed water:

This new formula involves tap water, with electrolytes, exposed to controlled electrolysis for the production of functional electrolyzed water. As amazingly simple as this process appears, functional electrolyzed water, with its unique properties instilled through controlled electrolysis, has created a new medium that can be successfully utilized in agriculture.

FUNCTIONAL ELECTROLYZED WATER

WHAT IT DOES FOR AGRICULTURE

provides an option:

a. an option free of chemicals

Utilizing restructured tap water, Functional Electrolyzed Water is able to minimize a grower's dependence on chemical-based pesticide, fungicide and fertilizer.

b. an option that is anti microbial, anti fungal

Based upon the redefined parameters of tap water, Functional Electrolyzed Water provides an environment that controls and eradicates microbes and fungi in a totally effective, safe and sustainable manner.

c. an option that strengthens the plant's structure and its immune system

Relying upon the ability of Functional Electrolyzed Water to be a highly effective electron donor, the immune system is continually - reinforced with healthy electrons.

Relying upon the electrons, nutrients and an expanded root system that is produced through Functional Electrolyzed Water, the plant structure is considerably strengthened as a result of these ongoing reinforcements.

d. an option that provides a mechanism to rejuvenate plants exposed to inclement weather or excessive heat

Relying upon the strengthened plant structure and coupled to the ability for Functional Electrolyzed Water to provide ample amounts of electrons, plants are able to rejuvenate themselves from adverse weather conditions.

e. an option that provides a grower with the ability to reverse the aging process of plants

Relying upon the ample amount of electrons that are donated to the plant through Functional Electrolyzed Water, the ability is present for aged plants to retard and reverse the aging process.

f. an option that provides a grower to achieve a combination of the following benefits:

- increased yields
- increase to yearly harvests
- consistency to product quality, size and yields

sample accomplishments: Double harvesting of Earl's Knight Melons

The objectives were to accomplish the following benefits through the use of FEW in the growth and maintenance of Earl's Knight Melons:

1. Disease prevention in a non-chemical mode
2. Double harvesting of melons
3. Consistent product quality, quantity, appearance and yields

Disease prevention is maintained through the use of low pH Functional Electrolyzed Water possessing anti-microbial and anti-fungal properties.

Double harvesting is accomplished through the use of high pH Functional Electrolyzed Water that promotes a continuous flow of electrons and nutrients to the plant which creates a balanced environment in which plant growth thrives.

Consistency in key areas of quality, appearance and yields is attained through the effective anti-microbial and anti-fungal activity that maintains the plant in an optimal environment while the effects of high pH water provides consistent levels of highly-beneficial electrons and nutrients to the plant.

Comparison of melons treated or non-treated with FEW:

<u>SPRAY MEDIUM</u>	<u>MELON WEIGHT</u>	<u>SUGAR CONTENT</u>	<u>FLESH THICKNESS</u>	<u>MELON TASTE</u>
FEW	2.0 kg	15.8	3.8 cm	5.0*
NON-FEW	1.8 kg	15.0	3.7 cm	3.5

*Taste was based upon a scale of 0~5

Handling of Functional Electrolyzed Water with no protective clothing or apparatus

Due to the fact that Functional Electrolyzed Water is basically restructured tap water, there is no necessity for special safety procedures to be in place for the handling of this medium.

The water is absolutely safe to the handler, environment, plant and any surface that the medium comes into contact with.

Bactericidal effect of Functional Electrolyzed Water:

EXPOSURE:	0 SEC	5 SEC	10 SEC	30 SEC
MRSA COLONIES:	352	176	140	10

HOW FUNCTIONAL ELECTROLYZED WATER IS CREATED

the process:

Utilizing tap water and adding an electrolyte, such as potassium chloride, blended well and processing it through a controlled electrolysis process, the following properties of tap water are restructured.

a. **Original tap water.**

The original tap water is a mixture of electrolytes and non-electrolytes. Electrolytes are those elements which conduct electricity and non-electrolytes are those elements which do not conduct electricity. The electrolytes allow a separation process to occur.

b. **Added electrolyte.**

Through the use of a small amount of potassium chloride, the ability of processing the tap water with a more intense level of electrical current becomes possible. This potassium chloride also serves as a nutrient.

c. **Combination of the tap water and an added electrolyte.**

Through the blending of the two elements, the tap water is ready to be processed through controlled electrolysis.

d. **Utilizing a state-of-the-art, computer-controlled electrolysis device.**

The tap water is exposed to positive and negative electrical currents as the tap water flows through the electrolysis chamber.

e. **Through this exposure.**

The electrolytes found in the tap water are re-concentrated into clusters of alkaline and acidic electrolytes with a higher energy level provided to the newly-formed functional electrolyzed water.

f. **The following parameters found in the tap water have now been restructured and redefined.**

pH level: -the potential of hydrogen level for the acidic water has been lowered to < 2.7
-the potential of hydrogen level for the alkaline water has been raised to > 11.2

ORP level: -the oxidation reduction potential level for the acidic water has been raised to $> +1000$ mV
-the oxidation reduction potential level for the alkaline water has been lowered to < -700 mV

active free chlorine: -active free chlorine levels of 20~30 ppm have been safely created in the acidic water

HOW

FUNCTIONAL ELECTROLYZED WATER IS CREATED - continued

Water clusters: through the re-concentration of the acidic and alkaline electrolytes found in the original tap water, the original tap water cluster has been restructured into smaller water clusters of acidic and alkaline concentration

Dissolved oxygen: through the realignment of the oxygen and hydrogen levels, on account of the controlled electrolysis process, the oxygen level has increased in the acidic water and lowered in the alkaline water while the hydrogen level has also been increased in the alkaline water

necessary components:

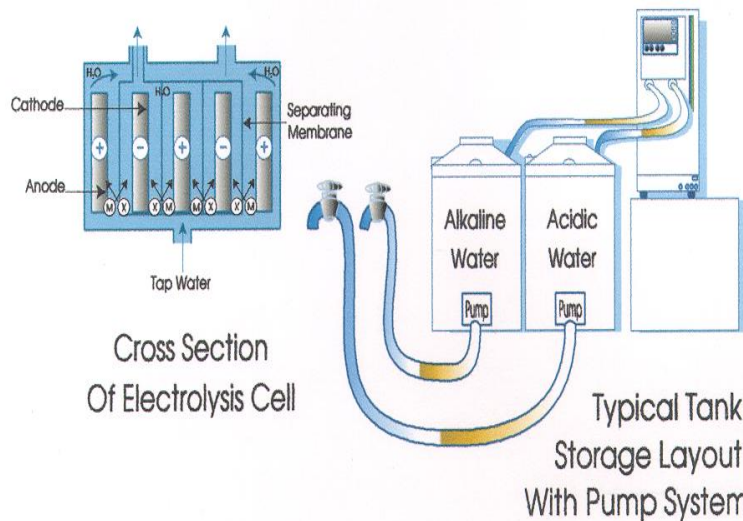
In order for controlled electrolysis to occur, the following components are necessary.

- Municipally certified safe tap water.
- Electricity
- Potassium chloride electrolyte
- Controlled electrolysis processing system
- Storage tanks

setup:

DIAGRAM OF HARDWARE AND STORAGE TANKS

A Typical Set Up For A Continuous-Flow System:



PROPERTIES OF FUNCTIONAL ELECTROLYZED WATER

acidic~alkaline concentration: As a first step towards the creation of functional electrolyzed water, the critical separation of electrolytes is performed.

The byproduct of this separation creates a functional water that is acidic based and a functional water that is alkaline based.

The use of a pH meter will verify the acidity and alkalinity levels of pH.

smaller water clusters: The separation process has restructured the original tap water clusters and have formed two separate water cluster formations.

The byproduct of this separation has created functional water that is more permeable and hydrating.

The use of Nuclear Magnetic Resonance and Raman Spectroscopic devices will verify the small clustering presence.

oxidation reduction potential: The controlled electrolysis process has restructured the levels of oxidation potentials for both functional waters that have been produced.

The byproduct of the restructured oxidation potentials have created an oxidizing water and a reducing water. Oxidation is able to remove electrons while the reduction property provides electrons.

The use of an Oxidation Reduction Potential reading meter will verify the respective oxidation reduction potential levels.

active free chlorine: The anode side of the controlled electrolysis process, through the combined effect of the electrical current and electrolyte, is able to produce a safe level of active free chlorine.

MECHANISM OF FUNCTIONAL ELECTROLYZED WATER AND ITS SYNERGISTIC EFFECTS :

1. Smaller water clusters with a lower surface tension provides improved permeability of functional water.
2. Acidic levels below 2.7 pH combined to the oxidation reduction potential $> +1000$ mV with a presence of active free chlorine in ranges of 20~30 ppm create an environment in which various forms of bacteria, fungi and virus perish.
3. Alkaline levels $>$ than 11.0 pH, combined to the reduced state, create an environment that is rich in beneficial alkaline minerals and with the ability of donating electrons. These two elements provide the necessary plant nutrients and the ability of strengthening its immune levels.

SUPPORTING DATA

efficacy:

ERADICATION OF:	INITIAL LOAD	0 SEC	20 SEC	30 SEC	1 MIN	10 MIN	30 MIN	60 MIN
<i>Staphylococcus a.</i> IFO 12732	4.5x10 ⁵	2.0x1	0	0	0	-	-	-
<i>Staphylococcus a.</i> ATCC 43300 MRSA	1.4x10 ⁵	1.7x10	0	0	0	-	-	-
<i>Staphylococcus a.</i> MRSA (isolated strain)	8.3x10 ⁵	1.0x1	0	0	0	-	-	-
<i>Staphylococcus pyogenes</i> GROUP A	3.2x10 ³	0	0	0	-	-	-	-
<i>Streptococcus agalactiae</i> GROUP B	3.4x10 ⁵	0	0	0	-	-	-	-
<i>Shigella flexneri</i> 2a	1.8x10 ⁵	0	0	0	-	-	-	-
<i>Shigella sonnei</i>	3.5x10 ⁵	0	0	0	-	-	-	-
<i>Escherichia coli</i> (ETEC : 08)	4.2x10 ⁵	0	0	0	-	-	-	-
<i>Salmonella sp. (1)</i> serovar Typhi	4.9x10 ⁵	0	0	0	0	-	-	-
<i>Salmonella sp. (1)</i> serovar Typhimurium	4.1x10 ⁵	0	0	0	0	-	-	-
<i>Vibrio parahaemolyticus</i> K37	1.8x10 ⁴	0	0	0	0	-	-	-
<i>Vibrio cholerae</i> INABA	2.0x10 ⁴	0	0	0	0	-	-	-
<i>Campylobacter jejuni</i> JCM2013	3.6x10 ⁵	0	0	0	-	-	-	-
<i>Pseudomonas aeruginosa</i> IFO 3445	8.2x10 ⁵	0	0	0	-	-	-	-
<i>Neisseria gonorrhoea</i> HD 835	1.7x10 ⁶	0	0	0	-	-	-	-
<i>Bacillus cereus</i> IFO 13494 (vegetable cell)	2.7x10 ³	1.0x10	3.6x10	3.1x10	5.5x1	-	-	-
<i>Bacillus cereus</i> IFO 13494 (spore)	1.2x10 ⁵	>1.0x10 ³	>1.0x10 ³	>1.0x10 ³	>1.0x10 ³	3.6x10 ²	1.1x10	0
<i>Bacillus subtilis</i> IFO 13721 (vegetable cell)	6.8x10 ²	1.0x1	0	0	0	-	-	-
<i>Bacillus subtilis</i> IFO 13721 (spore)	1.0x10 ⁵	>1.0x10 ⁵	>1.0x10 ⁵	>1.0x10 ⁵	>1.0x10 ⁵	>1.0x10 ⁵	4.0x1	0
<i>Clostridium Perfringens</i> JCM 1290	2.3x10 ⁵	0	0	0	0	0	0	-
<i>Clostridium Botulinum</i> A type	7.5x10 ³	0	0	0	0	0	0	-

SUPPORTING DATA - continued

efficacy:

ERADICATION OF:	INITIAL	0 SEC LOAD	20 SEC	30 SEC	1 MIN	10 MIN	30 MIN	60 MIN
<i>Clostridium tetani</i> 11D 524	4.5x10 ²	0	0	0	0	0	0	0
<i>Mycobacterium tuberculosis</i> H37 Rv	3.2x10 ³	>5.0x10 ²	>9.0x10	4.0x10	8.0	0	0	0
<i>Mycobacterium terrae</i>	8.0x10 ⁴	>2.0x10 ⁴	80	34	16	0	0	0
<i>Candida albicans</i>	2.4x10 ³	0	0	0	0	0	0	0
<i>Trichophyton mentagrophyics</i>	1.4x10 ³	2	0	0	0	0	0	0
<i>Trichophyton rubrum</i>	2.0x10 ³	1	0	0	0	0	0	0
<i>Microsporum gypseum</i>	2.5x10 ³	3.5x10	0	0	0	0	0	0
<i>Herpes virus type 1</i> H.F.	4.2x10 ⁴	0	0	0	0	-	-	-
<i>Polio virus type 1</i> Lsc2ab	4.6x10 ⁴	0	0	0	0	-	-	-
<i>Coxsackie virus</i> Type B6 Schmitt	4.3x10 ⁴	0	0	0	0	-	-	-

safety:

SINGLE DOSE ORAL TOXICITY

LD₅₀ with dose of 50ml/kg was non-toxic.

28-DAY REPREATED DOSE ORAL TOXICITY

Oral administration testing indicated non toxicity.

PRIMARY EYE IRRITATION

In accordance with the AFNOR scale (1982) testing standards, indicated non-irritant.

OVERALL BACTERICIDAL EFFECT

Results of comparison between Functional Electrolyzed Water and Sodium Hypochlorite indicated a greater bactericidal effect.

The bactericidal effectiveness of the Functional Electrolyzed is brought about by the synergistic effects of the various parameters constituting Functional Electrolyzed Water and not only derived from the residual chlorine.

BACTERIAL REVERSE MUTATION

Results of testing performed on *Salmonella typhimurium* strains TA1535, TA1537, TA98 and TA100 and *Escherichia coli* strain WP2 uvrA using the pre-incubation method with and without metabolic activation indicates it to be non-mutagenic.

5-DAY CUMULATIVE SKIN IRRITATION

Tests conducted on 2 intact and 2 abraded skin sites over a 5-day period showed no cumulative skin irritation effects.

CONCLUSION

Functional Electrolyzed Water is generally accepted as safe (GAAS).

environmental impact:

Functional electrolyzed water has no negative impact on the environment. The functional water reverts back to normal water after its intended purpose is complete.

storage ability:

Functional electrolyzed water can be stored in PVC-grade containers with an outer-coloring that shields the water from sunlight and with an air-tight set-up. Functional water stored under these conditions will maintain efficacious levels for a period of 30 days.

HARDWARE SPECIFICATIONS

site preparation:

As outlined earlier, the following components are necessary:

1. Municipally-certified safe tap water.
2. Electrical outlet.
3. Potassium chloride electrolyte.
4. Controlled electrolysis processing system.
5. Functional electrolyzed water storage tanks (2 tanks).
6. Well ventilated area.

installation:

The installation process for the functional electrolyzed water processing unit and the hookup of the hoses for the flow of the functional electrolyzed water to the storage tanks is simple and straightforward. Average installation time of 45~60 minutes with minimal tools required.

product specifications:

	<u>MODEL PL-1</u> CONTINUOUS	<u>MODEL PL-2</u> CONTINUOUS	<u>MODEL PL-3</u> BATCH TYPE
DIMENSIONS:	w: 10" d: 16" h: 18"	w: d: h:	w: d: h:
WEIGHT:	10 lbs		
PRODUCTION RATE:	1.5 liter per minute acidic 1.5 liter per minute alkaline <u>continuous flow</u>	3.5~5.0 liter per minute acidic 3.5~5.0 liter per minute alkaline <u>continuous flow</u>	2.0 liter per 10 min acidic 2.0 liter per 10 min alkaline <u>batch system</u>
HOURLY PRODUCTION:	90 liters acidic 90 liters alkaline	210~300 liters acidic 210~300 liters alkaline	8.0 liters acidic 8.0 liters alkaline
8-HOUR PRODUCTION:	720 liters acidic 720 liters alkaline	1680~2400 liters acidic 1680~2400 liters alkaline	not intended for 8 hour production
24-HOUR PRODUCTION:	2160 liters acidic 2160 liters alkaline	5040~7200 liters acidic 5040~7200 liters alkaline	not intended for 24 hour production
pH LEVELS:	2.5 ~ 2.7 pH acidic 11.2 ~ 11.8 pH alkaline	2.5 ~ 2.7 pH acidic 11.2 ~ 11.8 pH alkaline	2.5 ~ 2.7 pH acidic 11.2~11.8 pH alkaline
ORP LEVELS:	> +1000 mV acidic < -800 mV alkaline	> +1000 mV acidic < -800 mV alkaline	> +1000 mV acidic < -800 mV alkaline
FREE CHLORINE LEVELS:	20~30 ppm	20~30 ppm	20-30 ppm
ELECTRODE CLEANING:	self cleaning	self cleaning	self cleaning
SUGGESTED RETAIL:			
SHIPPING COSTS:	To be determined	To be determined	To be determined
WARRANTY:	one year limited	one year limited	one year limited

VISUAL

AIDS of HARDWARE
(not currently available)



HELICOPTER SPRAYING AGRICULTURAL CHEMICAL

This is where the environmental and social concerns begin.



GROWER SPRAYS FUNCTIONAL ELECTROLYZED WATER (FEW) WITHOUT ANY PROTECTIVE CLOTHING OR BREATHING APPARATUS

The safety of FEW has been long established as being absolutely safe for the grower and the environment.



GROWER PERFORMING ROUTINE SPRAY OF FEW

There are no special delivery equipment that are necessary for using FEW.



GROWER WITH STANDARD ORCHARD SPRAYER DELIVERING FEW IN MIST FORM

This sprayer was formerly used for the delivery of chemical pesticides and fungicides and now utilized for delivering FEW.



GREENHOUSE WITH BUILT-IN SPRAY SYSTEM FOR DELIVERING FEW

A typical green house where piping is installed overhead for the alternating delivery of FEW on a predetermined spray schedule.



GROWER DEMONSTRATING THE TYPE OF DELIVERY NOZZLE UTILIZED IN THE DELIVERY OF FEW TO THE ROOT SYSTEM

The grower utilizes this type of a delivery nozzle to deliver the FEW near the root system of a plant. This delivery method is utilized in conjunction with delivering FEW in mist form.



COMPARISON OF A ROOT SYSTEM OF A RICE PLANT GROWN WITH AND WITHOUT THE USE OF FEW

The root system on the left has been grown without FEW and utilizing standard growing practices. The root system on the right has been grown with FEW. Special notice is made to the level of greenness that is present on the plant on the right along with the considerable increase in the number of plant stalks that are present.



COMPARISON OF ROOT SYSTEM OF AN ASIAN POTATO PLANT GROWN WITH AND WITHOUT THE USE OF FEW.

The root system on the left has been grown with FEW. Special notice is made to the higher yield and the more extensive root system of the plant on the left.



DISPLAY OF EXTRAORDINARILY LARGE LEAVES BELONGING TO THE ASIAN POTATO PLANT GROWN WITH FEW

The size of the leaves, plant structure and the height of the plant is 2 times that of a standard Asian Potato Plant. The side by side comparison indicates the superior plant condition of the plant produced with FEW.



EARL'S KNIGHT MELONS GROWN WITH THE USE OF FEW

The growers have succeeded in making near-picture-perfect melons growing throughout the entire green house. The melons were higher in sugar content and product thickness. Special note is given to the fact that 2 near-perfect melons are grown from each branch, a feat that is very difficult to perform under current growing methods.



GROWER SHOWING SLICED PEAR WITH MINIMAL OXIDATION EVEN AFTER EXPOSURE TO THE AIR

Oxidation through the "browning" effect of exposed fruits is minimized with fruits that are grown with FEW, furthermore, the moisture content of these plants are higher thereby keeping the fruit sweet and juicy.



PICTURE-PERFECT EGGPLANT DESPITE ITS EXPOSURE TO A SEVERE HAIL STORM AT THE END OF THE GROWING SEASON

The grower had anticipated his entire harvest to be damaged due to a late-season hailstorm that the acreage was exposed to. Through the spraying and soil injections of FEW, the entire harvest was saved with the superior properties of the eggplant, grown with FEW, intact. Special note is given to the deep purple coloring of the eggplant.

In summary, we have provided you with an insight into a new modality-Functional Electrolyzed Water.

In providing this insight, based upon our years of experience and knowledge of this technology and its far-reaching implications, our only aspirations and objectives are to introduce you to a new paradigm in thinking.

We have to date, as end users of modern and evolving technology, science, new breakthroughs and as satisfied recipients to what the legal, financial and corporate institutions have provided to us, we have generally utilized these processes with the belief that these processes were on the cutting-edge of science and sustenance. These current processes are actually at the cutting-edge of our quests, not only on a domestic basis but equally on a global basis.

However, as our knowledge expands of peripheral issues that arise on account of the use of these cutting-edge modalities associated with plant growth, it is equally important for us to understand and react to collateral issues that arise from the use of these modalities. As we know, life sustenance is an ongoing need for studies, new developments, reactions and counter-reactions to peripheral issues that arise and create environmental and social concerns.

As mentioned earlier, the introduction and furtherance of organic farming was one option that has been introduced as a renewed awareness to the concerns of chemical-based pesticides, fungicides, herbicides and fertilizers and how these modalities, without intent, have unfortunately created peripheral concerns to the farmer, grower, environment and to the general populace who are in close proximity to these mediums.

At the risk of over simplifying the complex interactive processes that are involved with seed germination, soil conditioning, plant growth, plant nutrients, pest and fungal control, harvests, yields, shelf life, food safety and the ultimate concerns that are raised with the continued consumption of produce that are chemically treated, we have presented this new modality of Functional Electrolyzed Water for your review and incorporation.

In presenting our approach to food production and food handling, we have redefined this chain of events to a series of basic components.

a. Instill as much self-sustaining strength into the seed as possible.

This is done to ensure that the seed itself will have self-induced properties to withstand adverse conditions that the subsequent plant will come in contact with.

Functional Electrolyzed Water has a unique ability to provide ample supply of electrons to a plant to strengthen its immune system. A strong immune system allows the plant to prevent and ward off adverse conditions that may come its way.

b. Once the seed is planted and the soil conditions right for its growth, structure the root system with the required size and natural nutrients.

Functional Electrolyzed Water with its unique properties of smaller-clustered water, improved permeability and its balance of natural minerals such as calcium, magnesium, potassium, manganese and iron, allow the root system to develop and strengthen so as to perform the important functions of obtaining the plant's required nutrients.

- c. As the plant starts to grow provide it with a natural-based protectant against fungi, pests and disease.

Functional Electrolyzed Water with its unique anti-microbial and anti-fungal properties effectively reacts to these concerns.

- d. As a collateral process to the prevention of adverse conditions, experienced during plant growth, provide an ongoing nutrient and rejuvenating medium.

Functional Electrolyzed Water with its unique electron donating capabilities coupled to its improved permeability and mineral delivery abilities, provides an optimal situation for the maintenance of plant wellness, strength and vitality.

- e. As a result of the processes that were introduced in steps (a) ~ (d) above, the following attributes have been introduced into the plants.

1. Plants with a larger, stronger and effective root system.
2. Plants with a stronger structure able to withstand adverse conditions such as pests, fungi and inclement weather.
3. Plants with a youthful, invigorating characteristic.
4. Plants with a higher yield and a shorter growth cycle.
5. Plants with a consistent level of superior quality, size, quantity, taste and presentation.
6. Plants with longer shelf lives.
7. An environment which is generally bacterial, fungal, viral and disease free.

After introducing these superior properties and end results in the produce that was treated with Functional Electrolyzed Water, the following applications of Functional Electrolyzed Water will assist in maintaining the safety of the produce.

- a. In order to minimize, if not eliminate, the possibility of introducing certain situation-borne microbial conditions such as *E.coli*, *Lysteria*, *Salmonella* and certain strains of fungi, Functional Electrolyzed Water can be used as a last-step wash to prevent these conditions from occurring.
- b. As an added precaution, all surfaces that come into contact with produce can be treated to an ongoing regimen of Functional Electrolyzed Water washes.

As you can see, we are offering a one-modality process, surrounding the use of Functional Electrolyzed Water to simplify processes, introduce a refreshing level of safety to the grower, handler and end users of these produce. Humanity is a major benefactor of this paradigm.

FUNCTIONAL ELECTROLYTIC WATER BENEFITS ALL OF US . . .



The Farmer
"Superior Growing Methods"



The Farm Worker
"Safer Agriculture to Pick and Handle"



Health Care
"Lesser Complex Ailments"



Agricultural Resource
"Increased Harvests"



The Market
"Better, Safer, Produce with Increased Shelf Life"



The Water and Its Life
"Lesser Chemical Run Offs"



THE PLANET
"Safer Air, Water and Soil, for Its Inhabitants"