

**Quantum Growth VSC**  
**“Sudden and Significant”**  
**Energy for Growth**  
**Chapter II**

The Quantum Growth technology is the understanding and utilization of purple photosynthetic bacteria.

The purpose of this paper is:

1. Describe the spore forming bacteria that may be utilized as symbionts in concert with vegetative purple bacteria.
2. Provide and illustrate selected spore forming bacteria's life cycles and functions.
3. Describe how specific spore forming bacteria, benefit ecosystems when combined purple photosynthetic bacteria.
4. Describe the harmonic relationship between vegetative photosynthetic bacteria, spore forming bacteria and plants.

Quantum Growth (VSC)

VSC is an acronym for “vegetative spore consortium”

The Spore forming bacteria contained in Quantum Growth include but are not limited to “Bacillus subtilis and Bacillus pumilis,” These spore forming bacteria, are able to rearrange hydrocarbon molecules . Thus providing construction materials for both plant construction and operation.

The above is process is called hydrolysis.

How do bacteria rearrange atoms and molecules?

The bacteria Bacillus subtilis and Bacillus pumilis are akin to small

balloons, more specifically balloons within balloons.

These microscopic balloons have small indentations on their surface, dimples, i.e.: (a golf ball) appearance,

The “dimples” are portals; that allow the particles of matter to enter the processing centers of bacteria.

The following is an oversimplified version of the above described process.

Because a single bacterial cell is similar to particle or wave of Light, in that how a single bacteria, is dependent on when and how the bacteria is viewed .

As an example, a light particle or “photon” can be a wave or a particle dependent on how light is viewed.

A bacteria is continually dividing itself, so in order to see a single bacteria at a given point, we must arbitrarily suspend bacteria’s propagation and focus on a single cell of bacteria, in stop action.

As mentioned earlier, from this view a bacteria is a hot dog shape balloon with another hot dog shaped balloon.

Picturing this in our imagination further envision that our bacteria are also electrically charged.

Due to this “magnetized” quality, a bacteria will attach itself to other forms of matter.

The matter a bacteria will adhere to may be alive or inert.

Once a bacteria attaches itself to a surface, bacteria will assess

its location and begin the process of survival.

Survival of any living organism is dependent on the fulfillment of basic needs.

Fundamental life needs include; food, water, shelter and reproduction.

Once a bacteria has recognized it's surrounding, the search for food begins.

Bacteria using a combination of electric signaling techniques, much like human being use radar to "read" matter. These signaling techniques are called Quorum sensing.

This radar technique is combined with a pheromonal receptive technique much like animals use a sense of smell.

Utilizing a combination of these and other talents bacteria determine availability and suitability of shelter, food and water sources.

Bacteria attach itself to its new home and begin the life processes of eating, drinking and reproduction.

While the methods bacteria use to eat, drink and reproduce are different than other life forms, the literal meaning of these words is the same.

While we acknowledge a bacteria's similarities regarding other forms of life, there are very different methods in how bacteria's life functions compared to animals and plants.

Bacteria do not have mouths, instead bacteria have porous membranes.

When a particle of matter enters these membrane, the process of digestion begins.

How can a bacteria process matter much larger than itself?

Once a single bacteria has recognized a specific nutrient source, bacteria **secretes** protein compounds called enzymes.

Enzymes are microscopic keys that unlock pieces of matter.

Once a particle is reduced to a size small enough to pass through its outer membrane, a bacteria will further reduce a particle of matter into smaller pieces that will pass through the outer (balloon) and into the space between the outer balloon and inner balloon.

Once these particles are ingested, the bacteria rearrange the molecules, incorporating a portion of the ingested material into the structure of the bacteria.

Materials that are not digestible and or byproducts of processing are either voided back through the bacterial membrane.

The above described process is a **microcosm** of a larger and infinitely more complex ecosystem that is the reality of bacteria.

Bacteria create communities containing billions of organisms.

These communities are termed bio films.

Clusters of bacteria in liquid suspensions are called colonies.

The point of the preceding passage is that bacteria work together in order to survive.

The bacteria that collaborate in mutualistic communities, possess skill sets unique to a particular bacteria.

Due to specialization, bio films and colonies of bacteria contain many types

of bacteria.

Human kind learned long ago that the talents microorganisms possess may be utilized to advantage i.e. yeast for beer, bread, cheese and wine, etc.

The knowledge regarding use of (bacteria's) gifts for benefit is a recent revelation.

The vegetative spore form consortium VSC is a commercial preparation of a bio community.

VSC is a bacterial suspension, containing both vegetative and spore form organisms.

VSC is designed to utilize the talents of both spore form bacteria and vegetative bacteria.

The vegetative purple photosynthetic bacteria harvest energy and store harvested energy in the form of subatomic glue.

This glue holds hydrogen and carbon atoms together in the form of sugar.

The spore forming bacteria *Bacillus subtilis* and *Bacillus pumilis* and plants both utilize the sugars produced to build themselves and operate life systems.

Life on earth is dependent on regulated, efficient, recycling systems.

Spore forming bacteria in VSC operate recycling systems with and for plant life.

One of the spore forming bacteria contained in VSC is *Bacillus Subtilis*.

*Bacillus Subtilis* , also known as grass bacillus, is a gram-

positive, catalase-positive bacterium commonly found in soil.

*Bacillus subtilis* is rod shaped, and has the ability to form a tough protective endospore, allowing the organism to tolerate extreme environmental conditions.

The *Bacillus subtilis* has been proven to be able to remain in spore for over one million years and still be viable.

*Bacillus subtilis* is used as a soil inoculant in horticulture and agriculture.

Known to possess natural fungicidal activity and used worldwide to aid treatment of gastrointestinal and urinary tract diseases in humans, due to positive antibiotic effect, and far lower level of allergic reaction and lower toxicity.

Besides the apparent recycling capabilities and immune response effects of *Bacillus subtilis*.

Including immunostimulatory effects of cell matter, activating antibodies gM, IgG and IgA secretion along with release of CpG dinucleotides inducing INF ALY producing Leukocytes and Cytokines.

*Bacillus subtilis* is also used in soil remediation, reducing toxic chemical compounds to nitrogen, carbon dioxide and water.

When used to treat radioactive waste e.g. Thorium (IV) and Plutonium (IV) due to the proton binding properties of its surfaces.

The other primary spore forming bacteria in VSC is *Bacillus pumilus*.

Bacillus pumilus is a naturally occurring bacterium common in soils.

Bacillus pumilus is a gram positive catalase-positive bacteria.

Bacillus pumilus is used for environmental decontamination of dioxins, and is known to prevent germination of the spores of Rhizactonia, and Fusarium.

The bacterium may grow on dead plant tissue and or fungal organisms including spores, using the materials as a food source.

A significant part of the Art and Science of Microbiology is isolating specific organisms required to provide a desired effect.

After an organism is chosen an appropriate food source inducing and sustaining growth is required.

In order to fulfill this necessity for growth induction of the cells within VSC, a specially designed nutritional plasma is part of the broth containing the vegetative, spore form bacterial consortium within VSC.

The nutrional plasma in Quantum Growth VSC contains a hemicelluloses plant sugar along with lessor fractions of soluble lignins.

This plasma contains fulvic acid, humic acid, amino acids, naturally occurring growth regulating hormones and non hormone Co factors.

This plant extract also contains active carboxylic and phenolic compounds with **negative charged** surfaces, allowing retention of

elemental compounds within supplemental fertilizers.

The nutrient plasma within VSC is organic, nontoxic and contains No fertilizer or added synthesized chemical compounds.

The beneficial effects of carbon based biostimulants provided bacteria and host plants is well known.

The nutrient media in VSC is not from processed waste and or compost and or manure tea.

The nutrient broth is produced as a plant extract via a proprietary multi-stage cold, extraction process, specifically designed to provide a reproducible, safe and effective nutrient media.

This media induces and helps the beneficial symbiont bacteria within Quantum Growth bacterial consortiums.

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