



VITA PRODUCTS, HORTICULTURE AND GOLF

A Presentation for the United State Golf Association

The following narrative describes in detail Proprietary Technology/Intellectual Property that has successfully applied, with proven results, its scientifically developed plant formulations in the industries of Floriculture, Horticulture & Farming, Christmas, and Forestry, along with proving to mitigate Algae and Sargassum across lakes and oceans.

The ingenuity and innovative components comprising these formulations were developed over four decades by Plant Scientist, William L. Ruth, CEO of Vita Products, Inc. holding BS & MS degrees in Agricultural Economics and Plant Science from Arizona State University.

Mr. Ruth is retiring and has publicly announced that his plant formulations IP is available for exclusive purchase by an individual, corporate, or governmental entity, foreign or domestic.

The purchaser will acquire:

- The technology associated with each plant formulation specific to each industry;
- The services of the Contract Packager;
- Vita Products logos and package designs;
- Vita's trade secrets;
- Demonstratable profit margins ranging from 80%-98%;
- Inputs that do not change;
- Vita's Christmas Tree & Wreath preservatives and Cut Flowers formulation that are the only organic formulations in the world that are **USDA Organic Program Compliant**;

**Vita Products™ PROPRIETARY Formulations developed by
Plant Scientist, William L. Ruth
Vita Planta Pro™, Vita Agri™ and Vita Agri Plus™
(with Hydra Formula) USDA National Organic Program Compliant**

- 1.** Promotes healthy trees, turf, and plants to resist disease and insect attacks
- 2.** Promotes root structure to enhance the health and strength of trees and plants
in all climates
- 3.** Reduces shock for heightened success throughout transplanting operations
- 4.** Reduces the use of fertilizers thus eliminating the addition of salt to soil

Vita Planta Pro™

Vita Agri™ & Vita Agri Plus™

- 5.** Balances soil pH to allow uptake of soil nutrients blocked by salts enhancing growth and health
- 6.** Their non-toxic formulas bring no harm to pets, birds, fish or bees
- 7.** Its proprietary formulation promotes optimum seed germination and superior plant growth - plant seedlings, bedding plants, interior/exterior landscaping plants, trees, shrubs and turf - that contribute to overall profits
- 8.** "Hydra Boost" formula reduces stress and assists in moisture content retention to survive drought conditions
- 9.** Reduces petal drop in blooming plants for greater and longer enjoyment
- 10.** Does not clog injector or irrigation systems reducing maintenance time and costs

Purpose

- Use as a watering agent and/or foliar spray
- Restores vitality to stressed plants by assisting the hydration of plant stem and leaf
 - Aids in transplanting and seed germination
 - No salts to burn plants
- Enables the plant to become healthy and balanced with a strong immune system.
 - Helps reduce antagonisms to the plants to ensure the use available nutrients
 - Numerous Farming Applications
 - Not classified as a fertilizer since it does not have a salt base
nor an N-P-K breakdown.

VITA PLANTA 2000™, VITA PLANTA PRO™, Vita Agri™ & VITA AGRI PLUS™



THIS PROPRIETARY TECHNOLOGY CAN PROVIDE
**COMMUNITY AND
WORLD-RENOWNED USGA GOLF COURSES**
WITH A GREEN AGENDA AND A NATIONAL SUSTAINABLE
GOLF STRATEGY THAT DEMONSTRATES VISUALLY
EXTRAORDINARY HEALTHY FAIRWAYS AND GREENS.
**THESE PLANT FORMULATIONS ARE
USDA NATIONAL ORGANIC PROGRAM COMPLIANT.**

**The plant formulations created by William L. Ruth can offer
Your USGA Golf Courses and their Clubhouses the following:**

- They contribute to environmental regenerative sustainability;
- They protect threatened habitats and species;
- They combat desertification and can drastically reduce algae in water hazards;
- They contribute to establishing its golf courses as iconic;
- They ensure the strong rooting of turf in sandy soils as one grassing solution example;
- They reduce the use of fertilizers and chemicals reinforcing the non-need for project-based turf nurseries;
- They provide a best-practice, scientifically proven methodology for extremely healthy greens, fairways and rough.



These Plant Formulations are conducive to respecting the environment and climate in an effort to create and maintain sustainable golf courses for future generations.

It is not difficult to ascertain how these plant formulations might be applied to other relevant sectors and spheres of the USGA's economic development, landscape regeneration, and community building.

Extensive research in the development of these formulations has been conducted over three decades and can assist with your organization's commitment to advancing its own science and knowledge further.

Vita Products and Turf - Visual Proof of Their Effectiveness

(Click the links below to observe the effectiveness of William Ruth's Plant Formulations)

[Vita Landscape System \(vitaproducts.com\)](http://vitaproducts.com)

(Please scroll down to second video about Root Structure Forming)

[Professional \(vitaproducts.com\)](http://vitaproducts.com)

(Please scroll down to Bear Creek Golf Course)

<https://youtu.be/PPktwcM1kpc>



Root

Structure

Forming

(copy URL shown
above for full
demonstration)

Pesticide Demand and Use Worldwide →

Replace these pesticides with Vita Products™ Formulations. Their environmental & non-polluting benefits can slow down or stop the increase of Dead Zones found in the Gulf of Mexico, the Baltic & Black Seas, the Chesapeake Bay and off the coast of Oregon caused by an **excess of agricultural nutrients** that flow downstream and into surface waters, stimulating harmful algae.

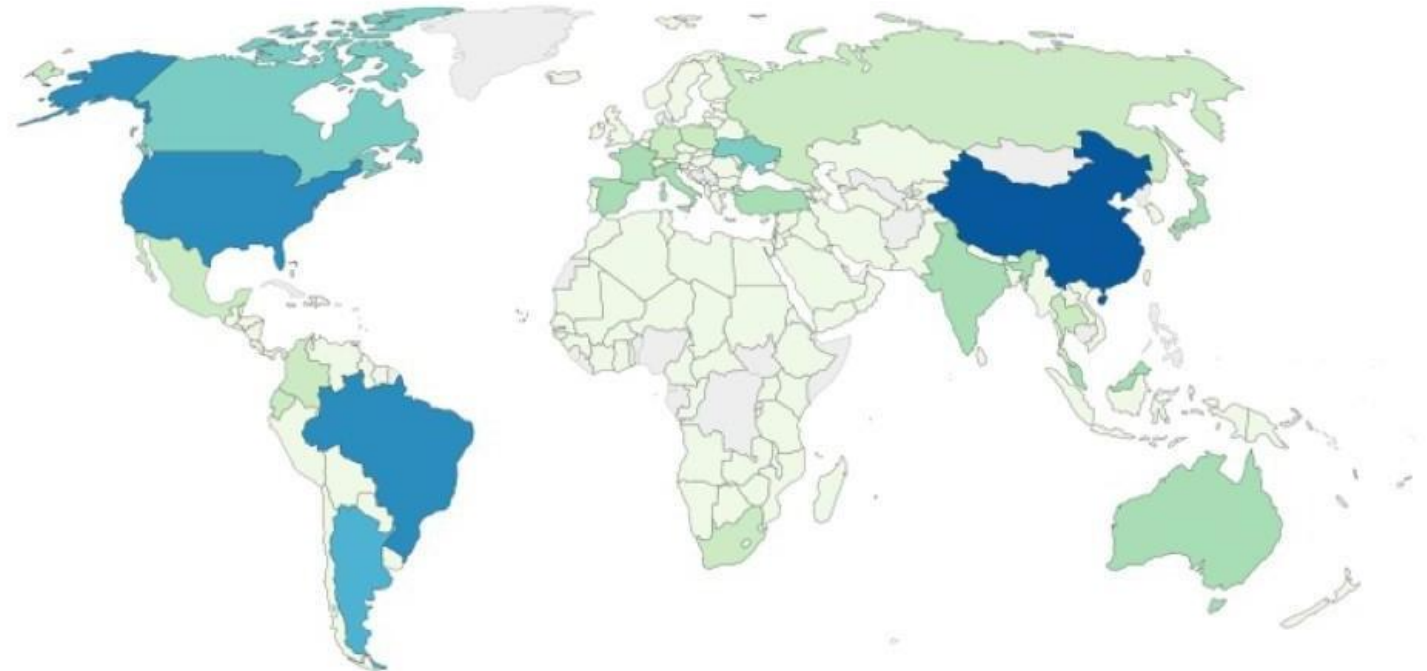
If a pesticide is required, Vita's formulations increase the efficacy of its use.

Solve Algae Issues When & Where Prominent on USGA Courses Under Diverse Conditions

Pesticide use, 2017

Total pesticide use measured in tonnes of pesticide consumption per year.

Our World
in Data



No data 0 t 25,000 t 50,000 t 75,000 t 100,000 t 250,000 t 500,000 t >1 million t

Source: UN Food and Agricultural Organization (FAO)

OurWorldInData.org/fertilizer-and-pesticides/ • CC BY



YOU ARE ENCOURAGED TO INVEST IN THIS
PLANT FORMULATIONS TECHNOLOGY TO
ASSIST IN COST SAVINGS AND OTHER
RESOURCE EFFICIENCIES

The Proprietary Technology addressed herein will be sold only once on an exclusive basis!



The information that follows has been included in presentations specific to the needs of national departments of agriculture, municipal parks, golf course managers, nurseries, landscapers, farmers, live plant wholesalers, and chemical and fertilizer companies.

The concluding slides speak to such matters as market trends, worldwide use of fertilizers, and costs associated with bringing a new product to market.

From the National Academies of Science Journal

Insect populations outweigh humans 17 times and are essential to earth's ecosystems. Pesticides is a major cause of our world losing 1%-2% of its insects each year.

“Awareness of insect declines in the past two years has led some governments to take action and seek grass roots assistance from **citizen scientists**.”

Source: PNAS (Proceedings of the National Academy of Sciences of the United States of America 2021 Vol. 118 No. 2 e2002547117

William L. Ruth of Vita Products, Inc. and developer of Vita's product formulations
is one such citizen scientist!

One simple action that can be taken to save insects from global declines:
Reduce pesticide and herbicide use.

- Pesticides often harm nontarget, natural insect populations, whereas reduction of their use fosters beneficial arthropods.
- Pesticides have been found far from their application source and, in some regions, are more prevalent in urban streams than in those near agricultural lands.
- Many pesticides are applied for cosmetic purposes, that is, aimed only at improving the appearance of nonagricultural green spaces such as lawns, gardens, or parks. Reduction or elimination of cosmetic pesticide use, already legislatively mandated in Nova Scotia and Ontario, could greatly benefit both terrestrial and aquatic insect communities.

Source: PNAS 2021 Vol. 118 No. 2 e2002547117

- When applied to plants, pesticides may not be necessary as a proven fact when using William L. Ruth's product formulations.
- These formulations can be added to herbicides to: (1) increase their effectiveness and (2) reduce their use.

Costs of Bringing a New Agricultural Chemical to the Market

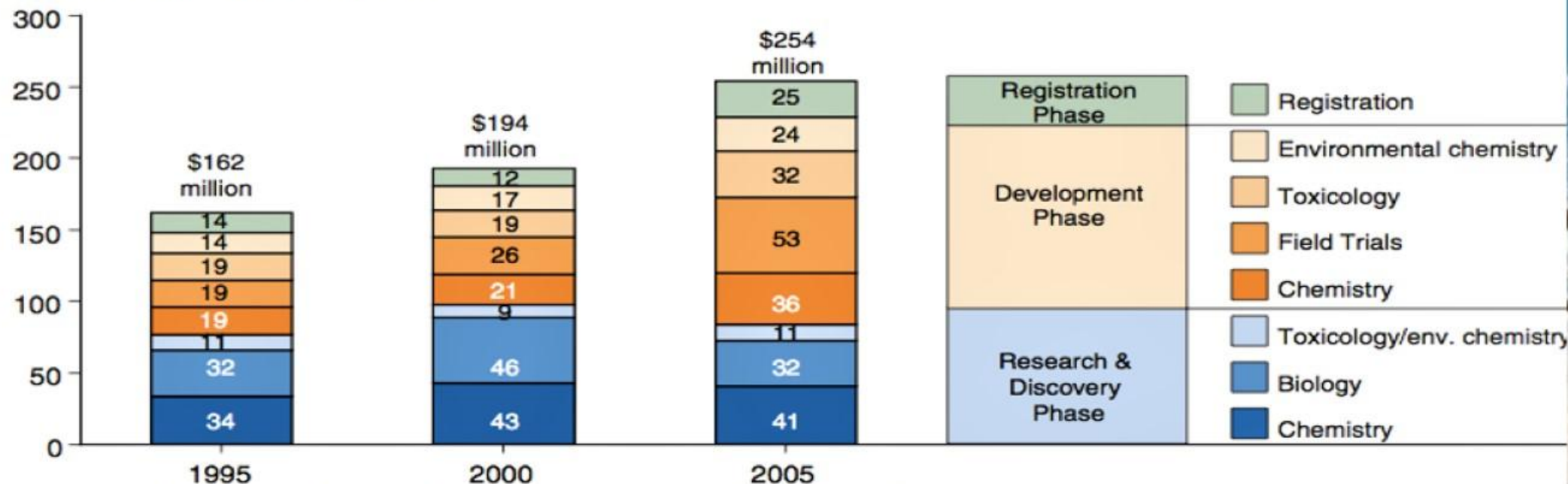
CropLife International (CLI), CropLife America (CLA) and the European Crop Protection Association (ECPA) commissioned PhillipsMcDougall, an independent consultant specializing in market analysis for the agrochemical industry, to research the cost of bringing a new active ingredient to market.

Their findings: Up from 2005 (see chart on next slide), every crop protection product that reaches the market costs \$286 million and takes 11 years of research and development to ensure the highest safety and efficacy standards. And the cost of bringing a new product to market will continue to increase. The report found the industry spent a total of \$2.6 billion on new innovations just 5 years ago (see following slide).

Figure 3.3

Costs of bringing a new agricultural chemical to the market

Million constant 2006 U.S. dollars



Source: USDA, Economic Research Service using data from PhillipsMcDougall (2010).

Vita Products™ Formulations Have Already Been Brought to this Market thus Saving an Organization the Research & Development Costs Reflected in the Graphic Above.

A close-up photograph of a dandelion seed head against a clear blue sky. The seed head is in the lower right foreground, with its green base and stem visible. Numerous white, feathery seeds are blowing away from the head, scattered across the upper left and center of the frame. The background is a solid, vibrant blue.

PROBLEMS WITH PROVEN SOLUTIONS in
Varying Geographies, Climates & Soils

**Examples of problems that can be resolved with the application of
Vita Products™ organic formulations developed by Plant Scientist,
William L. Ruth**

Pine Bark Beetle

Nematodes

Chinese Stink Bug

Citrus Canker and Greening Disease

Sudden Oak Wilt Disease

Stone Fruit Borer Beetle

Tomato Spotted Wilt Virus

Texas Phoenix Palm Decline (TPPD)

Dutch Elm Disease

Blue Stain Fungus



Consumer Products

VITA PLANTA 2000™, VITA PLANTA PRO™



Commercial Use



VITA PLANTA PRO™ & VITA AGRI PLUS™

VITA PRODUCTS, INC.

CHANDLER, AZ 85244

E-MAIL: info@vitaproducts.com WEB SITE: www.vitaproducts.com

WILLIAM L. RUTH – President and CEO

The Developer of Vita Products, Inc. was raised in Yuma, AZ and has an extensive background in the processing of fresh produce. He received his Bachelor of Science Degree in Agricultural Economics and Plant Science from Arizona State University in 1971 and his Masters of Science Degree in Agricultural Economics and Plant Science in 1973 (With Highest Distinction). His Master's Thesis was written on the science of Hydroponics.

He served as a Graduate Assistant at A.S.U. in the following courses: Range Management, Plant Genetics, Weeds & Weed Control, Soil Conservation and Lawns & Greens.

As a four-time recipient of the Western Growers Association Academic Scholarship, Mr. Ruth was elected to the Fraternity of Alpha Zeta, a National Honorary Agricultural Academic Fraternity in April 1972.

Mr. Ruth's experience in academic teaching, research and scholarship includes employment in Arizona State University's Experimental Farm from 1965 to 1969 in the Plant Science Department and lead instructor of Hydroponics at Phoenix College.

William L. Ruth Bio cont'd:

He was Manager of ABI Hydroponics in Scottsdale, Arizona and was subsequently employed by Hydroculture, Inc. in 1971 as a Researcher in the Research & Development Department.

His expertise includes plant tissue culture, water, and fruit analysis where his primary responsibility was Problem Solving for Hydroponic Growers. He assisted in the development of a hydroponic growing unit and researched poultry cannibalism, i.e., chuckers, pheasants, and chickens, adding certain proteins to their diet to research their cause and effect. Additional research included Hydroponic Shrimp and Insect Control in Hydroponic Greenhouses using various varieties of birds. In March 1974, he published an article on Hydroponics in the American Vegetable Grower Magazine.

As an educator in the public-school system for thirteen years, Mr. Ruth taught Science, Mathematics, and Economics. In 1987, he established a retail Plant Nursery and Floral Shop and was a Landscape and Irrigation Contractor for five years, landscaping Indian Gardens in the Grand Canyon in 1989. The development of his Vita Planta, Vita Christmas Tree & Wreath Preservative, and Vita Flora Cut Flower Preservative formulations began in 1988 with extensive research and trials on flowers, plant nursery stock and landscaping.

Vita Products, Inc. in Industry Publications

“Nursery News Magazine” published an article on the Vita Planta formulation in 1995 comparing stressed plants before and after the use of Vita Planta.

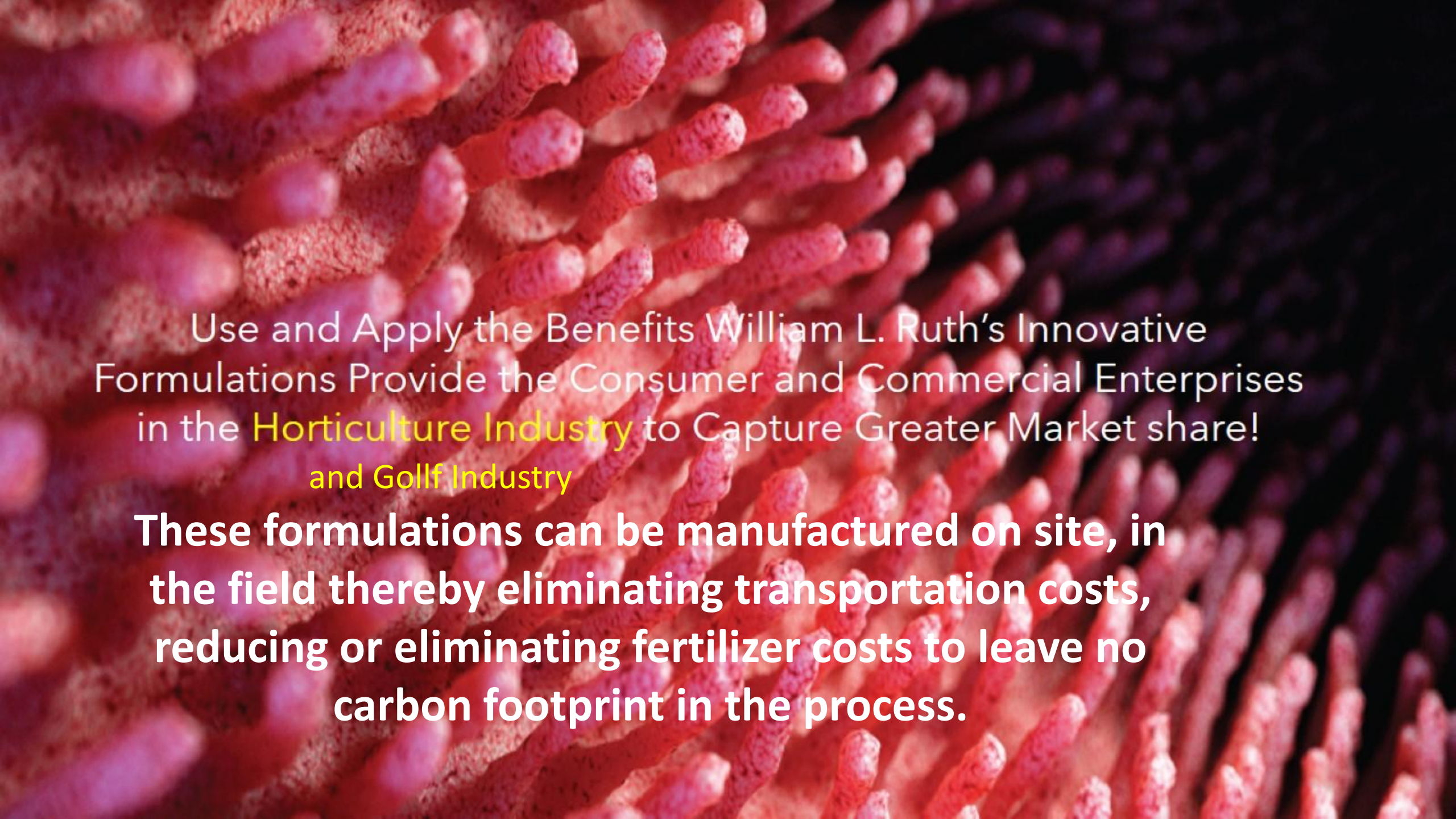
“The American Christmas Tree Journal”, April, 1999, pg. 48 displayed a picture of a Christmas Tree cut the last week of November, 1998 that was hydrated with Vita Christmas Tree & Wreath Preservative. The tree would not combust on February 6, 1999 in Chandler, AZ.

His “Vita Flora Cut Flower Preservative” has been written about in two books: Fresh Flowers: Identifying, Selecting and Arranging by Charles Marden Fitch, Abbeville Press, 1st edition, pgs. 33 & 34, and Flowers Are Almost Forever; The Care and Handling of Cut Flowers by Libbey Oliver, Brandy Lane Publishing. The former describes how Mr. Ruth’s Vita Flora extended the life of Gerbera cut flowers seven days longer than three competitive products; the latter explains the advantages of using his Vita Flora Cut Flower Preservative on cut flowers. (As a footnote in her book, Ms. Oliver describes how effective Mr. Ruth’s Vita Derma Lotion is in protecting hands from irritants and contact dermatitis).

Industry Publications cont'd:

The August, 2001, Vol. 16 No 8, issue of “Nursery News Magazine” features a front-page article written by Vahan Dinihanian, President of Dinihanian Floral Products, Beaverton, OR entitled, “Make Holiday Feelings Last; Preserve Your Christmas Greens”. In this article, Mr. Dinihanian writes, “William Ruth is the only known scientist to develop a preservative that will allow the exchange of oxygen and liquids between the plant material it is applied to and the ambient air. The formulation through contact systemic action actually feeds the still living cut material with minerals and plant extracts that the plant material needs to continue living after it is cut. Plant material treated with Vita Christmas Tree & Wreath Preservative has been known to remain alive and green for up to seven months. These tests have extended through ten years of trials with the same consistent results.”

The preceding article was also published in the Greens Issue of “Flower News” on October 13, 2001. Dr. Fran Gare, Nutrition Consultant for CBS, was to publish her latest book on healthy anti-aging nutrition that would have included growing food with Vita Planta. Sadly, her assistant passed away and she was unable to finish the book.



Use and Apply the Benefits William L. Ruth's Innovative Formulations Provide the Consumer and Commercial Enterprises in the **Horticulture Industry** to Capture Greater Market share!
and Golf Industry

These formulations can be manufactured on site, in the field thereby eliminating transportation costs, reducing or eliminating fertilizer costs to leave no carbon footprint in the process.

Vita Products™ Proprietary Technology owned by William L. Ruth is for Sale

USDA NATIONAL ORGANIC PROGRAM COMPLIANT

The innovative proprietary technology behind its products are proven to promote water conservation, and increase plant growth and food production worldwide.

Many of the particulars related to Vita Products'™ involvement in the Floriculture, Horticulture and Christmas Tree Industries have been presented here.

Contact **Carl N. Tichenor, M.Ed.** to discuss the next steps to purchase Vita Product's™ Intellectual Property **at a fraction of what it would cost to bring this innovative product and its active ingredients to market.**

Email: carl.tichenor@global-regeneration.com Phone: 602.722.9006