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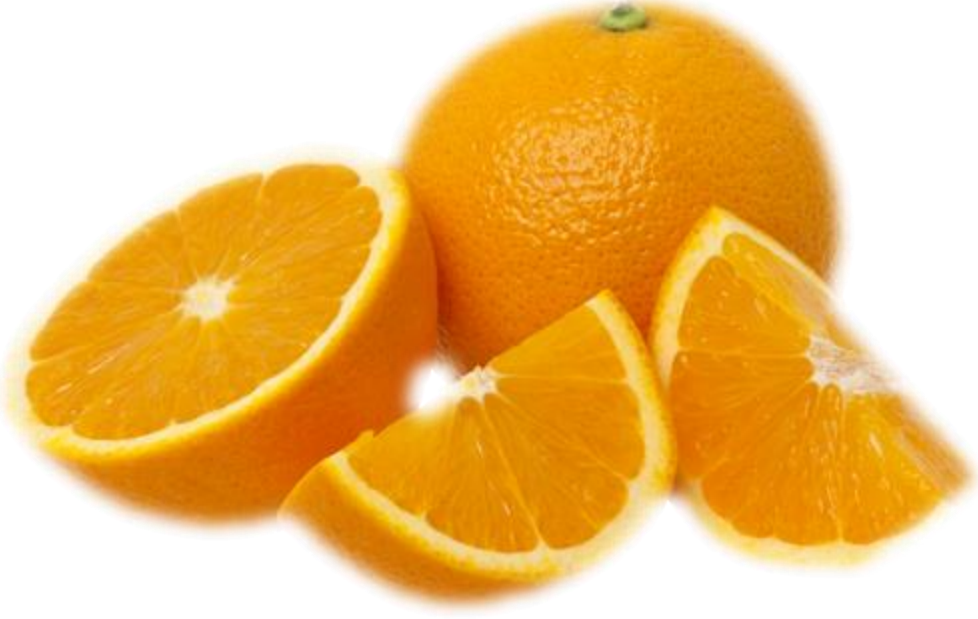

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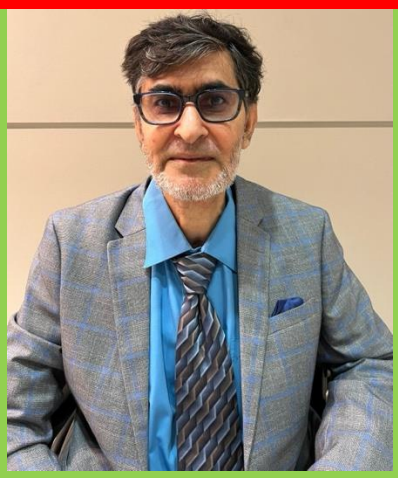
On behalf of BioNatural Healing College (BNHC), it is with great pleasure that we extend Thanks & appreciation to Dr. Mehdi Kamali for the very informative research article and contribution to this January 2025 BNHC E-Magazine edition. We look forward to receiving his invaluable contribution in the future and wish Dr. Kamali much success in future endeavors

Message: from the President of BioNatural Healing College (BNHC)



Greetings!

We are delighted to welcome you to the February 2025 edition of the BioNatural Healing College (BNHC) E-Magazine. It is with immense gratitude to the Almighty God that I take this opportunity to introduce this publication to our esteemed readers. I extend my heartfelt appreciation to all contributors, including our dedicated researchers and cherished readers, for their invaluable feedback and unwavering support.

This magazine is designed as an educational resource, offering insights and perspectives contributed by experts from around the globe. Please note that the content is intended solely for informational purposes, and the views expressed are those of the authors, independent of any affiliation with BNHC.

We hope this edition serves as a valuable source of knowledge and inspiration, fostering the continuous journey of learning and sharing wisdom across the seasons of life. On behalf of the BNHC team, I wish you all the best in health, happiness, and prosperity.

Warmest regards,

Dr. Nadir Sidiqi, Ph.D.

BioNatural Healing College

BioNatural Healing College Stands on Seven Core Pillar Foundations as follows:

1. All living organisms are made from the water this beautiful connection, connects us to praise the Creator of Creation for the provision of feeding, fueling, and healing to humanity.
2. No harm to public health and environmental health (Biodiversity) including pollinators, surface water, groundwater, soil, and air.
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Huanglongbing in Citrus: Comparative Management Strategies in São Paulo and Florida

By Mehdi Kamali Ph.D.. Department of Microbiology and Pathology, University of California, Riverside. Also, BioNatural Healing College (BNHC) is delighted to have Dr. Kamali as a Faculty Member.

Abstract: Huanglongbing (HLB), a devastating citrus disease, emerged in major orange-producing regions of São Paulo, Brazil, and Florida, USA, in the early 2000s. Despite similar initial responses – emphasizing disease-free nursery trees, psyllid control, and tree removal – contrasting outcomes ensued. Brazil largely maintained production through continued refinement of management practices, while Florida experienced a drastic 80% decline (Graham et al., 2024). This article analyzes the factors contributing to these divergent trajectories, examining the cultural and pest management strategies employed in both regions to mitigate HLB impact and enhance tree tolerance.

Introduction: Huanglongbing (HLB) has significantly impacted citrus production in both Brazil and Florida, but the disease trajectory has differed markedly due to distinct management approaches. While both regions experienced HLB outbreaks around 2004-2005, Florida witnessed a far more dramatic decline in production (Figure 1). In Brazil's São Paulo and Triângulo/Southwest Minas Gerais (SPMG) region, responsible for a substantial portion of the country's sweet orange production, HLB prevalence has risen significantly, reaching 38% in 2023. However, production losses have been relatively modest, with only a 10% reduction observed over the past two decades (Fundo 2023). Conversely, Florida's orange production has plummeted, with a 73% decline by 2021 and a staggering 90% reduction by 2022 compared to pre-HLB levels. While factors like hurricanes contributed to these losses, HLB remains the primary driver (USDA 2023). In both regions, premature fruit drop is a major contributor to yield loss.

This comparative analysis highlights how HLB management strategies can vary significantly depending on environmental, cultural, and geographical factors, underscoring the importance of tailored approaches to combat this devastating disease (Graham et al., 2024).

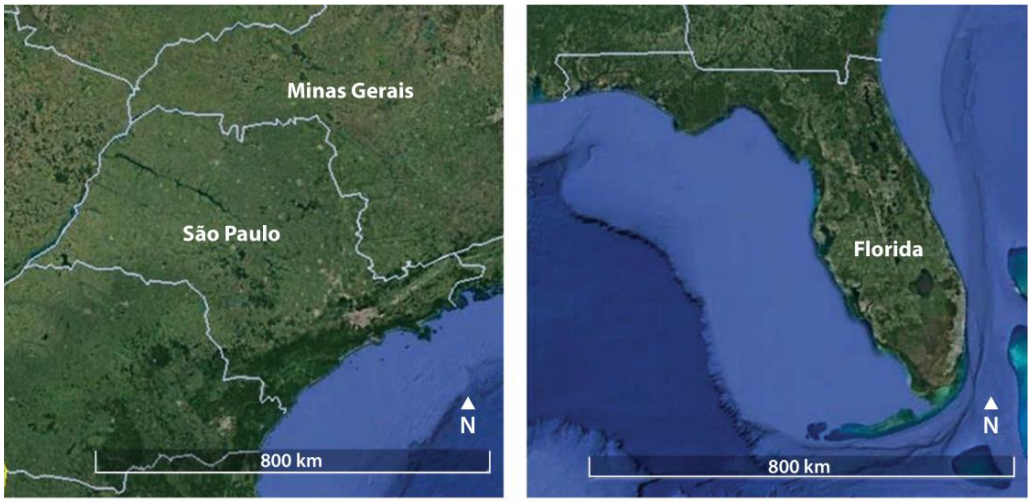

Figure 1: São Paulo and Triângulo/Southwest of Minas Gerais, Brazil, and Florida, USA. Images from Google Earth.

Citrus Huanglongbing (HLB) is a complicated disease that requires the presence of three key factors: a susceptible host (citrus trees), a pathogen (the bacterium *Candidatus Liberibacter asiaticus* - CLas), and a vector (the Asian citrus psyllid - *Diaphorina citri*). The psyllid serves as the host for CLas, while citrus trees act as the conduit for the bacterium to be transmitted to the next generation of psyllids (Figure 2)(da Graça et al., 2016).

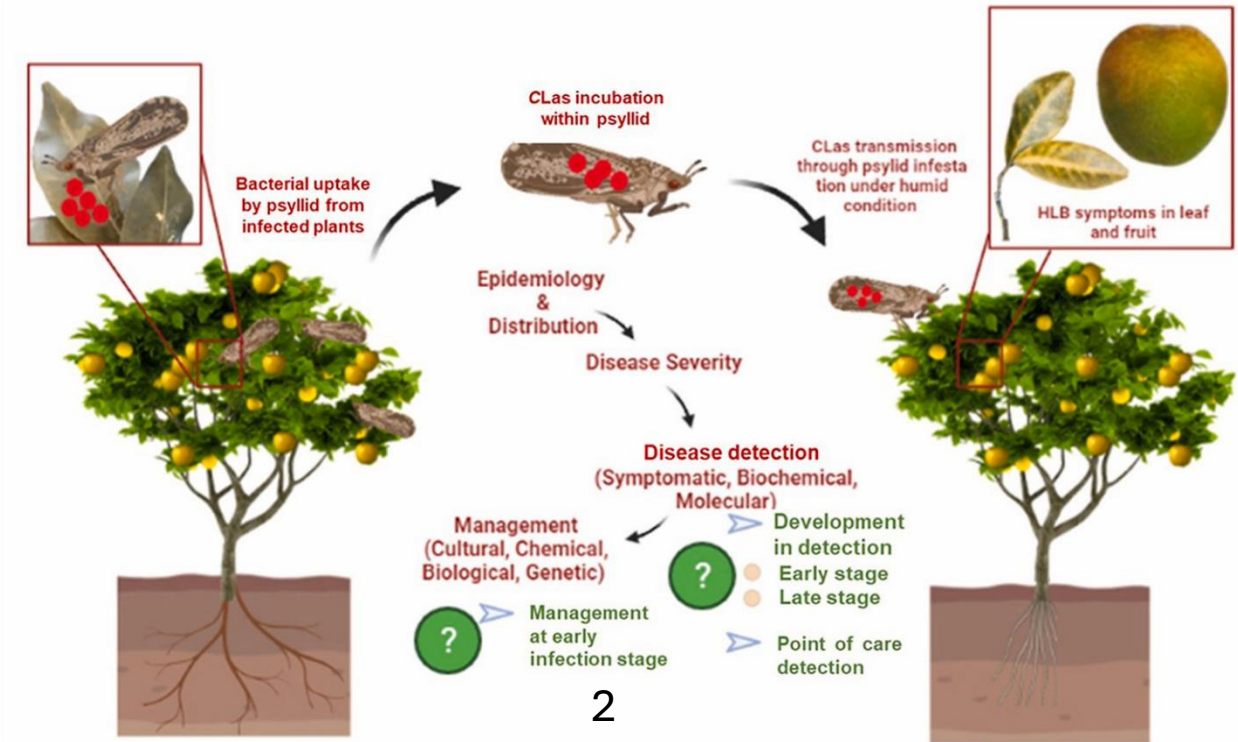

Figure 2: The HLB disease cycle: 'Candidatus Liberibacter asiaticus', a phloem-limited bacterium, is vectored by the Asian Citrus Psyllid (ACP). Many nymph offspring contract CLas from the freshly infected leaf where they hatch. These infected adults can subsequently transmit the bacterium to other trees upon emergence, rapidly spreading the infection. This leads to fruit deformities, reduced yield, and significant economic losses in citrus production (Thakuria et al., 2023).

HLB (Huanglongbing) symptoms on citrus include yellowing and mottling of leaves, asymmetrical blotchy mottle, small and misshapen fruit, and a decline in tree vigor (Figure 3) (de Garcia et al., 2016).

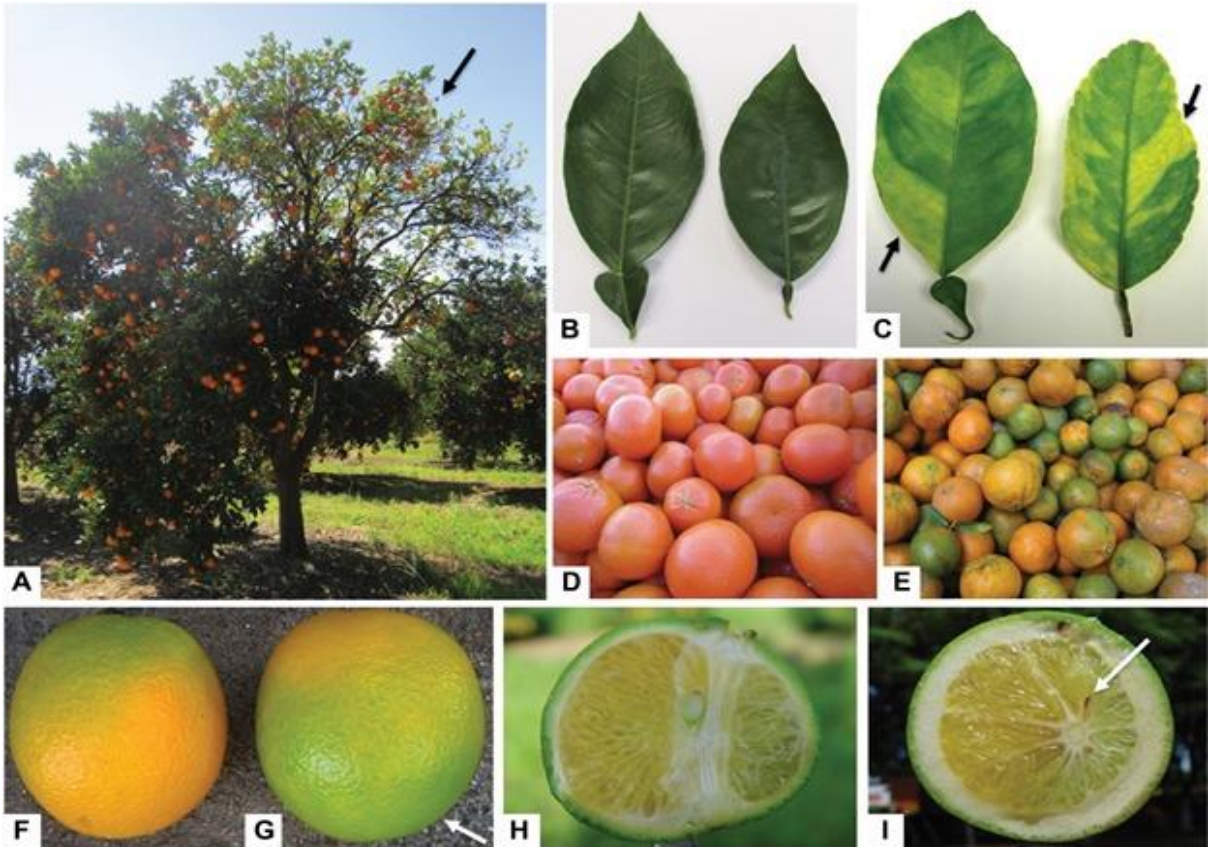

Figure 3. Huanglongbing (HLB) Symptomatology. (A) Yellow Shoot: HLB expression can be patchy within a single tree. The left lower section shows no visible symptoms, while the right top section (arrow) exhibits typical yellow shoot symptoms, including thin canopy, branch dieback, and reduced fruit load. **(B) Healthy Leaf:** from an HLB-negative tree. **(C) Blotchy Mottle:** Leaves from an HLB-positive tree displaying characteristic yellow discolorations (yellow islands, arrows) in irregular patterns. These areas often exhibit starch accumulation and reduced chloroplast numbers. **(D) Healthy Fruit:** from an HLB-negative tree. **(E) Citrus Greening:** HLB-infected fruit showing uneven coloration and reduced size. **(F) Normal Fruit Maturation:** Control fruit demonstrating typical color break, with orange coloration progressing from the stylar end towards the stem. **(G) Color Inversion:** HLB-affected fruit exhibiting disrupted color break, with the stylar end (arrow) remaining green while the stem area turns orange. **(H) Lopsided Fruit:** Longitudinal section of a deformed HLB-infected fruit. **(I) Lopsided Fruit and Aborted Seeds:** Cross-section of a deformed HLB-infected fruit revealing aborted seeds (arrow) (de Garcia et al., 2016).

The psyllid vector has been present in Brazil since the 1940s, but Huanglongbing (HLB) was first detected in São Paulo State in 2004 (Coletta-Filho et al., 2004). Initially, a novel related bacterium, 'Candidatus Liberibacter americanus', was the primary pathogen identified in most citrus trees exhibiting typical HLB symptoms. However, within four years, 'Candidatus Liberibacter asiaticus' (CLas) emerged as the dominant species, accounting for over 99% of all HLB-positive samples analyzed (Lopes et al., 2009). From 2008 to 2015, the disease prevalence nearly doubled annually, resulting in an average annual growth rate of approximately 50%. Between 2015 and 2018, the annual increase in HLB incidence stabilized, ranging between 16% and 18%. From 2018 to 2022, the disease incidence increased at an average annual rate of 8% (Graham et al., 2024). In 1998, Dr. Susan Halbert, an entomologist with the Florida Department of Agriculture and Consumer Services (FDACS), identified the Asian citrus psyllid (ACP) in Palm Beach County. The ACP rapidly spread throughout Florida, primarily through the transportation of infected citrus and orange jasmine plants from South Florida nurseries. While a CLas detection in the psyllid was reported in 1999, it was not independently confirmed. Hindsight suggests that the presence of infected citrus plants in South Florida should have been recognized at that time, given the high likelihood of the pathogen being introduced with illicit plant imports from Asia (Halbert 2007). Dr. Halbert's survey led to the discovery of HLB in Homestead, Florida, in 2005. Subsequent surveys found HLB spread rapidly across South Florida, including major citrus-producing areas. This suggests HLB had been present for several years before detection. Due to the disease's widespread presence, slow symptom development, and grower resistance, eradication was deemed impossible (Halbert 2007). Between 2005 and 2013, citrus greening (HLB) spread rapidly across Florida. FDACS-DPI surveys estimated northward spread at 36 miles per year. HLB incidence in Clewiston, based on data from Southern Gardens Citrus Diagnostic Lab (SGCDL), doubled yearly from 0.2% in 2006 to an estimated 80% in 2013, coinciding with increased fruit drop. This rapid spread and subsequent decline in tree productivity align with these estimates (Figure 4 and 5)(Singerman and Useche, 2016).

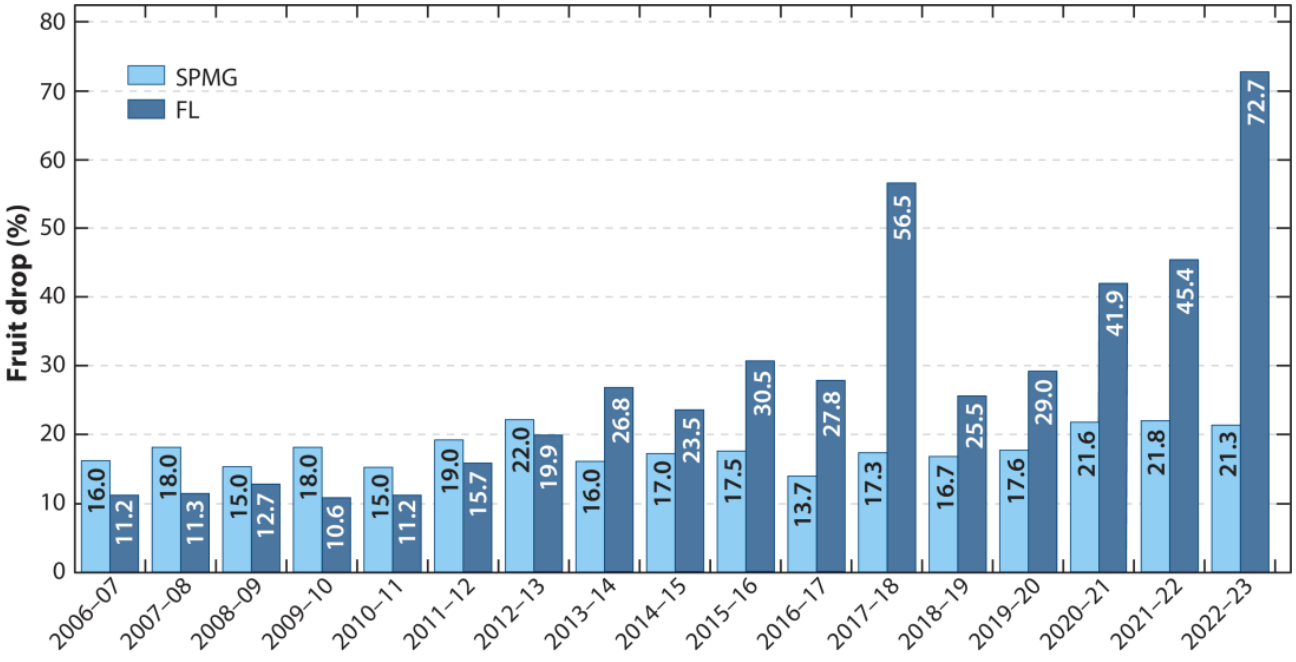

Figure 4: Orange fruit drop in São Paulo and Triângulo/Southwest of Minas Gerais (SPMG), Brazil, and Florida (FL), USA, from 2006-2007 to 2022-2023 (Graham et al., 2024).

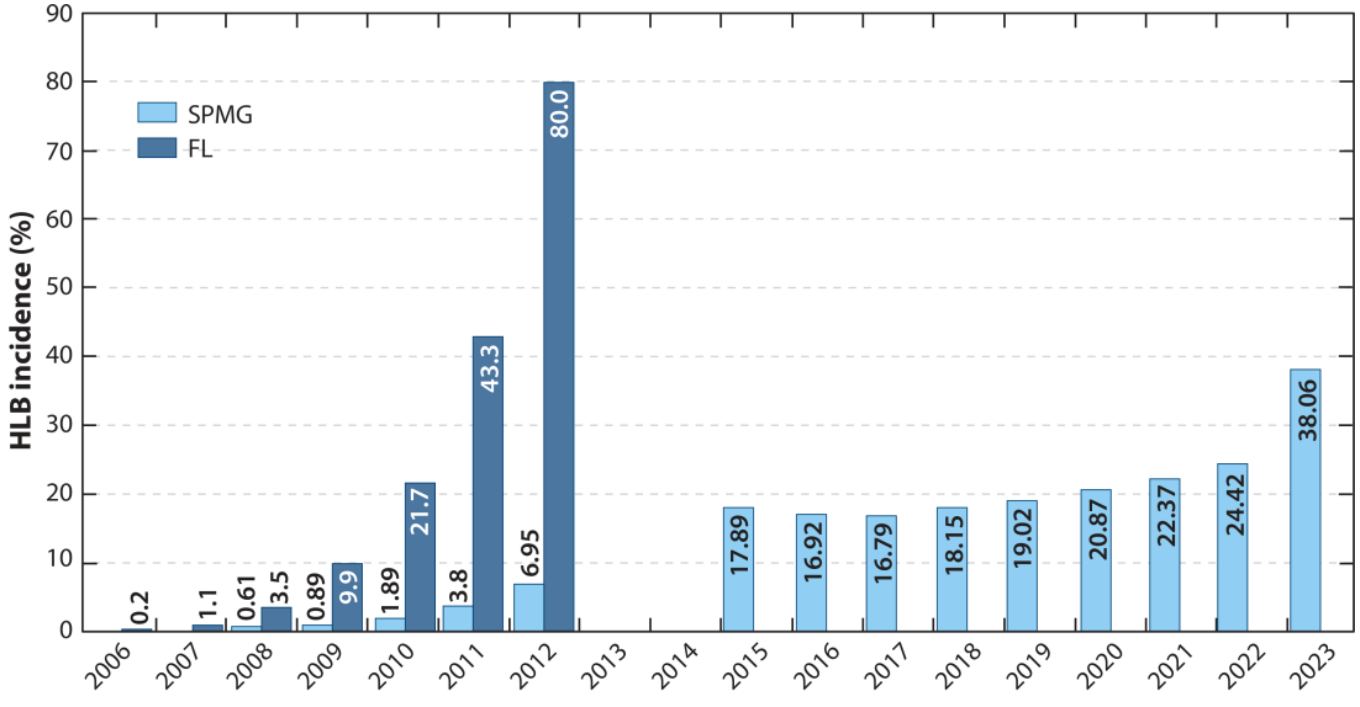

Figure 5: HLB incidence in orange trees from 2006 to 2023 in São Paulo and Triângulo/Southwest of Minas Gerais (SPMG), Brazil, and Florida (FL) (Graham et al., 2024).

Huanglongbing Knowledge Prior to São Paulo and Florida Invasions: Prior to the HLB invasions of São Paulo and Florida, knowledge about the disease was limited. While citrus diseases linked to psyllids had been documented in Asia and South Africa, specific details about HLB were scarce. The Asian disease was believed to be transmitted by *Diaphorina citri*, while the South African disease was associated with *Trioza erytreae*. Notably, the South African psyllid and its associated disease exhibited heat sensitivity, unlike their Asian counterparts (Bové 2006). Dr. J.M. (Josy) Bové, a Professor of the University of Bordeaux and National Institute for Agricultural Research (INRA), a renowned scientist with extensive expertise in HLB, promptly traveled to São Paulo upon the pathogen's discovery to provide critical guidance on disease management. He similarly spearheaded efforts to mitigate the spread of HLB in Florida (Figure 6).

Figure 6: Joseph Marie Bové looking for HLB in Europe, Brazil and Florida (Bové 2019).

Management Trends in Brazil: The initial strategy was based on removing all symptomatic trees, planting disease-free nursery trees, and controlling psyllids (insects that transmit the disease). This strategy was successful at first because citrus growers in Brazil already had experience combating other citrus diseases that required similar measures. However, by 2010, growers began to stop removing symptomatic trees as rigorously. This, combined with the fact that eliminating diseased trees within an orchard only helps control the spread within the orchard and not from outside sources, meant that the disease continued to spread. In response to this, regulations were changed in 2021 to make mandatory the removal of symptomatic trees up to 8 years old. After 8 years old, removal is optional as long as psyllid control is conducted. Additionally, the mandatory removal of symptomatic trees was expanded to include non-commercial orchards. Approximately 64.1 million orange trees with symptoms of the disease were removed between January 2005 and June 2022. Another important aspect of HLB management is psyllid control. The frequency of insecticide applications has increased significantly since the beginning of the HLB epidemic. However, there are challenges to psyllid control. First, it is nearly impossible to completely prevent new infections with psyllids constantly arriving in orchards. Second, some insecticides are being banned due to restrictions, especially from the European Union. This reduces the options for rotating insecticides, which helps prevent psyllid resistance. As a result, psyllid resistance to insecticides has increased in recent years (Defesa, 2023). Researchers are developing alternative control methods for psyllids, such as using processed kaolin (a clay mineral) to repel psyllids and entomopathogenic fungi to kill them. Another strategy is the push-pull and kill strategy, which uses kaolin to repel psyllids from the citrus crop and plants attractive to psyllids (along with insecticides) at the orchard border to kill psyllids.

Area-wide psyllid control is also important. A program called Phytosanitary Alert was developed to coordinate psyllid monitoring and insecticide application among citrus growers in a region. This program relies on growers monitoring psyllid populations and Fundecitrus sending out alerts to growers based on psyllid population trends (https://www.fundecitrus.com.br). Finally, the management strategy recognizes that abandoned citrus trees and trees in backyards and pastures can also be sources of HLB infection. A program called the HLB Combat Program has been developed to address this issue. In this program, Fundecitrus works with property owners to remove citrus trees from these areas (Johnson and Bassanezi, 2016).

Management Trends in Florida: In Florida, to combat citrus greening disease (CLas), a three-pronged approach recommended by the United States Department of Agriculture (USDA) was implemented. The first prong consisted of using disease-free nursery trees. Discussions among researchers and nurserymen led to a legislation requiring enclosed screenhouses to propagate citrus trees. This prevented insect transmission of CLas from infected trees to healthy ones. The second prong involved removing infected trees. However, growers were reluctant due to the millions of trees destroyed during the citrus canker eradication program. Although some growers initially followed this recommendation, psyllid dispersal and the rapid rate of transmission made it unsustainable. The third prong focused on vector control using insecticides. While growers adopted this method heavily, it resulted in psyllid insecticide resistance by 2009 (Tiwari et al., 2011). A recent study found that a spray program using rotated insecticides, triggered when psyllid populations reach an economic threshold of 0.5-1.0 adults per foliage sample, may offer several advantages. These include potential economic benefits, as well as the conservation of beneficial insects like predators and parasitoids that help control the psyllids (Chen et al., 2022). Other methods like biological control and cultural control proved to be less effective.

As individual psyllid control wasn't sufficient due to regional dispersal, Citrus Health Management Areas (CHMAs) were established in 2010. CHMAs coordinated psyllid control efforts among growers and used a risk-based survey to assess psyllid population and CLas incidence. However, by 2017, even the best performing CHMAs faced yield decline, leading to waning interest and eventual termination of the program (https://crec.ifas.ufl.edu/extension/chmas/).

Citrus Production in Screened Structures in Florida: Psyllid exclusion, achieved through systems like Citrus Under Protective Screens (CUPS), is crucial for keeping citrus trees free of Huanglongbing (HLB). CUPS involves growing trees within 4-hectare screen-enclosed structures, effectively preventing HLB transmission (Figure 7). This method yields significant benefits, including rapid tree growth, high-quality fruit production, minimal fruit drop, and optimized input management (Schumann et al., 2023). However, the high cost of constructing and maintaining these screenhouses, along with the potential for increased pest and disease pressure within the enclosed environment, limits their widespread adoption. While effective for specialty crops with high returns, the economic feasibility of CUPS for large-scale citrus production remains a significant challenge (Singerman et al., 2018).

Figure 7: The CUPS facility near Lake Alfred, Florida (Arnold W. Schumann, UF/IFAS).

The primary objective for mature citrus trees already infected with CLas is to maintain fruit production. Conversely, young trees, which are HLB-free at planting, necessitate a different approach: maximizing their disease-free lifespan, ideally until they commence fruiting.

Individual Protective Covers (IPCs) represent a novel management strategy, initially implemented in Florida. These involve enclosing individual trees within protective mesh bags for the first 3-4 years in the orchard, effectively excluding the psyllid vector. While more economically viable than costly canopy-level exclusion structures (CUPS) for processing varieties cultivated on a large scale in Florida, IPCs have been widely adopted by growers to effectively delay HLB infection in young trees for a crucial period (Alférez et al., 2019).

Biological control of insect vector: The Asian citrus psyllid, Diaphorina citri, was first detected in Brazil in 1942 (Costa Lima 1942) and Florida in 1998 (Qureshi et al., 2009), prompting the introduction of its natural enemy, Tamarixia radiata, a parasitic wasp, from Asia in 1999-2001 for biological control. T. radiata is a promising biological control agent for the D. citri. It parasitizes the vector nymphs, preventing them from developing into adults and reducing their population (Figure 8). The introduction of Tamarixia radiata has been successful in some areas in controlling ACP populations and helping to slow the spread of HLB (UCANR website). Surveys conducted across Florida in 2006-2007 revealed widespread establishment of D. citri in all 28 citrus groves examined. While T. radiata was found at most locations, parasitism rates were generally low, particularly during spring and summer. However, parasitism increased during fall in some regions. These findings highlight the need for continued efforts to improve the biological control of D. citri to effectively manage psyllid populations and mitigate the spread of citrus greening disease (Qureshi et al., 2009).

Figure 8: A) Adult *Tamarixia radiata* wasp. Credit: Mike Lewis, UC Riverside Center for Invasive Species Research (Left). B) Mummified nymphs of Asian citrus psyllid, *Diaphorina citri*, with exit holes of adult *Tamarixia radiata* (Right). Credit: Mark Hoddle, Entomology, UC Riverside (UCANR website).

Life in the Shadow of Huanglongbing: The failure to prevent the spread of Huanglongbing (HLB) in Florida shifted management strategies toward mitigating disease symptoms in infected trees. Early attempts focused on foliar sprays of micronutrients and resistance inducers, which improved tree appearance but not yield (Graham and Vallad, 2011). Fertigation (fertilizer injection into irrigation) with macro- and micronutrients, combined with frequent irrigation, proved more effective by compensating for the reduced density of HLB-damaged roots, which can still efficiently absorb readily available nutrients. However, these intensive management practices significantly increased production costs, including a substantial rise in pesticide and fertilizer expenses. While fruit prices have increased, they often do not offset the higher production costs. HLB significantly damages root systems, necessitating site-specific management strategies for healthy tree growth. In Florida, high pH and bicarbonates in irrigation water, often linked to limestone aquifers, stress trees. Swingle citrumelo, a common rootstock, suffers in these conditions. Maintaining a soil pH of 5.5-6.5 through methods like sulfur application or sulfuric acid treatment to irrigation water can improve root density and nutrient uptake. Regular soil testing is crucial to avoid over-acidification, which can lead to toxic metal levels and nutrient deficiencies. Gypsum can provide calcium without affecting pH, while supplemental nutrient applications are guided by soil tests to prevent imbalances (Morgan and Graham, 2017).

Antibiotic Treatment of Huanglongbing: Early attempts to combat Huanglongbing (HLB) with antibiotics, such as tetracycline and penicillin, showed some success but were hindered by limitations. Tetracycline, while effective in reducing symptoms, was costly, provided temporary relief, and caused side effects (Buitendag and Bronkhorst, 1983). Penicillin, though promising, is unsuitable for agricultural use due to its medical applications (Bové et al., 1980). More recent efforts have focused on oxytetracycline (OTC), with foliar sprays showing inconsistent results. However, trunk injection of OTC has demonstrated potential in reducing CLas levels and improving tree health, though further research is needed to optimize treatment strategies (Hu et al., 2018). **Management Strategies: Where they Succeeded and Why:** While both regions initially employed similar strategies (psyllid control, tree removal, and nursery safeguards), HLB's impact on production has been significantly greater in Florida. SPMG's success can be attributed to several factors: **Effective tree removal:** Consistent enforcement and grower experience with disease management facilitated sustained tree removal in SPMG, unlike in Florida where resistance and the rapid disease spread hampered efforts.

- **Stronger psyllid control:** SPMG growers demonstrated a higher level of awareness and proactive action in controlling psyllids, including area-wide management strategies that extended beyond individual orchards.

- **Geographical and economic advantages:** SPMG benefited from larger, more manageable orchards, alternative cropping options for growers, and the ability to relocate orchards to less infected areas.

- **Improved horticultural practices:** Adoption of advanced technologies, such as optimized irrigation and fertilization, significantly increased production efficiency in SPMG, mitigating the impact of HLB.

In contrast, Florida faced challenges such as rapid disease spread, limited alternative crops, and a fragmented landscape that hindered effective area-wide management, leading to a substantial decline in citrus production (Graham et al., 2024).

Shaping the Future: Florida citrus growers are employing short-term solutions like chemical sprays and virus-based therapies to mitigate HLB losses, but these are temporary and costly. The most promising long-term solution lies in developing genetically engineered trees, one potential biotechnological solution under development involves using a Citrus tristeza virus (CTV) vector to deliver spinach defensin peptides. This engineered virus, when introduced to young trees in the nursery, spreads throughout the tree, continuously producing the peptides to combat Citrus leafminer (CLas). This approach offers potential economic advantages due to its one-time application. However, its durability is limited, as the inserted genetic sequences within the CTV may be lost within 7-10 years, reverting the virus to its original form (Dawson et al., 2015; Mirkov 2010). While progress is being made, the long transition time of citrus trees and the high costs of research and development are significant hurdles. These efforts are crucial not only for Florida but also for other citrus-producing regions worldwide struggling with HLB, as resistant trees would significantly reduce production costs and ensure the long-term viability of the industry (Graham et al., 2024).

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Dear Esteemed Donors Gift of Education Scholarship

Afghan American Muslim Outreach (AAMO) Donors

Mrs. Sajeda Sultani $200

Mr. Mir. Zaher Noori $150

Eng. Abdul Nasir Arghandehwal $400

Eng. Masoud Nassimi, his family Yosuf Nassimi, Marwar Nassimi, Maram Nassimi, and include Eng. Nassimi $1750. Donors All California Residence.

Total Tuition Fee $2500

Mrs. Habiba and Mr. Mustafa Attiqullah, State of Washington Residence. $650 (continue $150 per month). Total Tuition Fee $2500.

Mrs. Noor and Dr. Ibrahim Sidiqi Arizona Residence $800 (Continue $400 per month) Total Tuition Diploma $1600.

Dear Scholarship Recipients

Najiullah Karimi, MS Degree Online in BioNatural Health Sciences (Human Health Improvement & Disease Prevention). At BioNatural Healing College (BNHC).

Ataulhaq Bashari, MS Degree Online in BioNatural Health Sciences (Plant Health Improvement & Environmental Health).

Musilima Karimi, Nutrition & Brain Function Consultant Online Diploma.

BNHC is a Nonprofit Online Institution that offers Online 4 Diploma/Master in BioNatural Health Sciences.

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Dear Esteemed Donors Gift of Education Scholarship

Mr. Mohamad Shahab $1600 Total Tuition Fee: Berkely, California

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Mr. Nasar Tahmass $200
San Diego, California.
Total Tuition Fee $1600 Per Diploma.

BioNatural Healing College (BNHC) continues to receive scholarship requests from students in need.

We deeply appreciate the generosity of our donors and look forward to their continued support in making gift of education accessible to all.

Dear Scholarship Recipients

Bushra Basharat Nutrition & Brain Function Consultant Diploma, at BioNatural Healing College (BNHC)

Scholarship Waiting List

1. Maryam Quraishi Nutrition & Brain Function Consultant Online Diploma (Waiting for scholarship).
2. Marmar Quraishi Nutrition & Brain Function Consultant Online Diploma (Waiting for scholarship).

BNHC is a Nonprofit Online Institution that offers Online 4 Diploma/Master in BioNatural Health Sciences.

Perspective of a Scholarship Recipient

I am deeply honored and grateful to have received this generous scholarship for my Master's degree in BioNatural Health Sciences, focusing on Human Health Improvement and Disease Prevention, at BioNatural Healing College. This opportunity, made possible by the kind contributions of Mrs. Sajeda Sultani, Haji Mir M. Zaher Noori, Eng. Abdul Nasir Arghandehwal, and Eng. Nassimi family (Yusuf Nassimi, Maryam Nassimi, Marwa Nassimi, and Eng. Nassimi), signifies more than just financial support; it represents an unwavering belief in the power of education to transform lives.

Their generosity inspires me to work diligently towards advancing human health through holistic approaches, embodying the values they have shown in empowering others. As I pursue my studies, I am committed to using this gift of education to create positive change, ultimately improving health outcomes and contributing to the betterment of society.

Thank you for your support and trust in my journey. I am profoundly grateful to each donor for their role in helping me achieve my aspirations.

Sincerely,

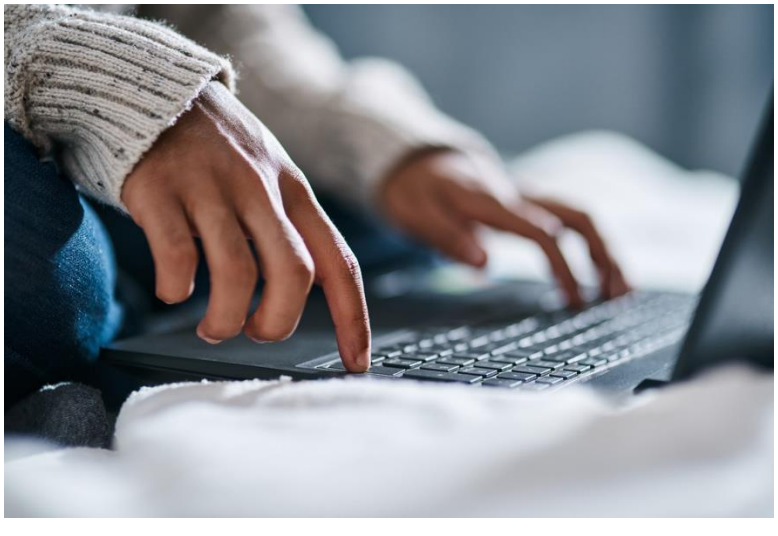
Najiullah Karimi

Perspective of a Scholarship Recipient

published in BNHC E-Magazine and BNHC website (Attached photo).

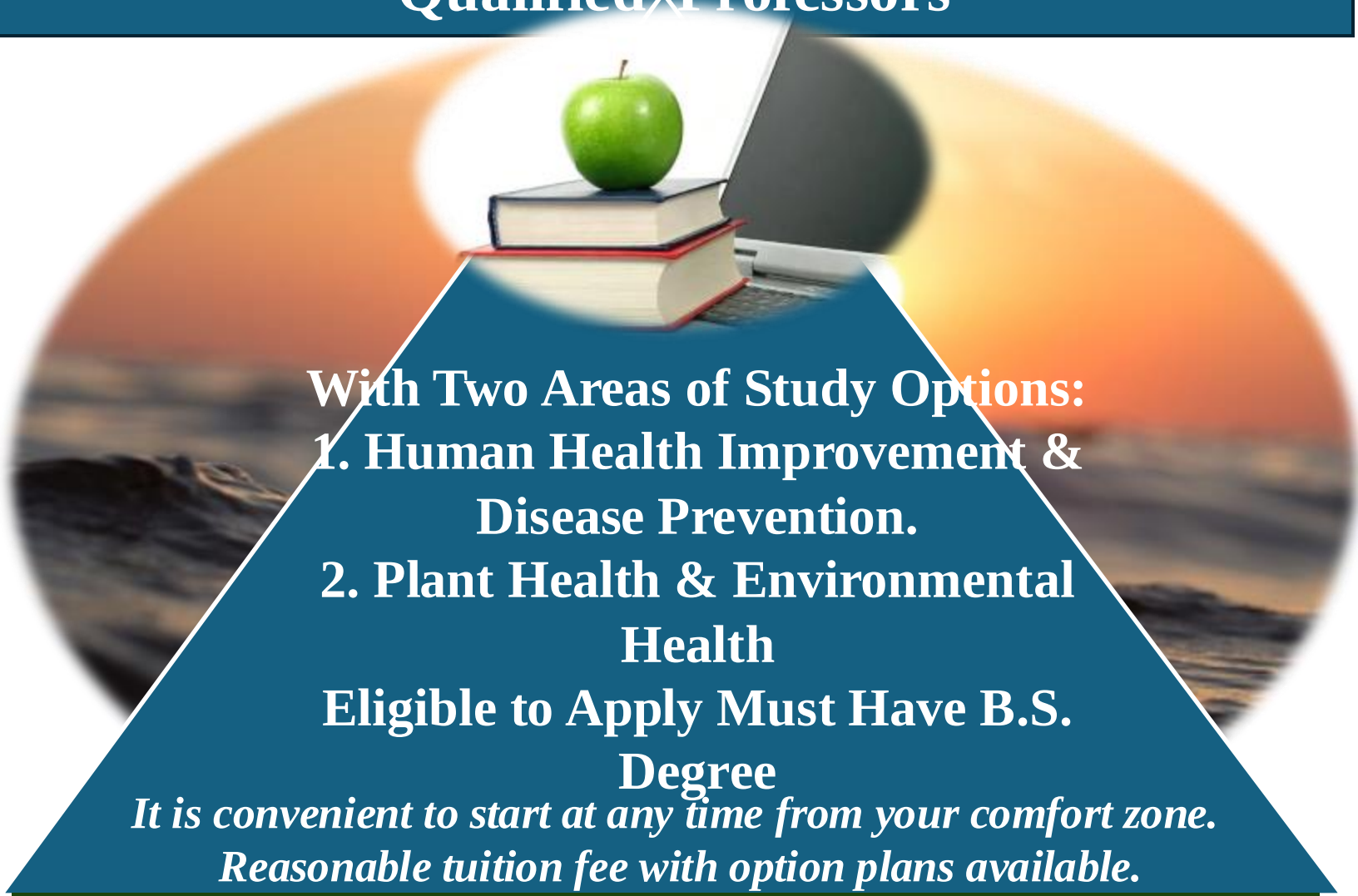
My viewpoint on the scholarship for the online diploma in ~~Nutrition~~ and Brain Function at BioNatural Healing College (BNHC) is one of profund gratitude and appreciation this scholarship has not only alleviated the financial burden associated with pursuing my education but has also reinforced my commitment to my studies and future career in nutrition overall this scholarship represents a stepping stone towards achieving my dreams and making a difference in the field of nutrition it inspires me to work diligently and strive for excellence knowing that there are individuals who believe in my journey and support my ambitions.

Scholarship Recipient Name: Bushra Bashart



BioNatural Healing College

ONLINE EDUCATION (BNHC)
Offers Master's Degree in BioNatural Health Sciences Under Highly Qualified Professors



With Two Areas of Study Options:

1. Human Health Improvement & Disease Prevention.

2. Plant Health & Environmental Health

Eligible to Apply Must Have B.S. Degree

It is convenient to start at any time from your comfort zone.

Reasonable tuition fee with option plans available.

FOR MORE INFORMATION PLEASE CONTACT US:

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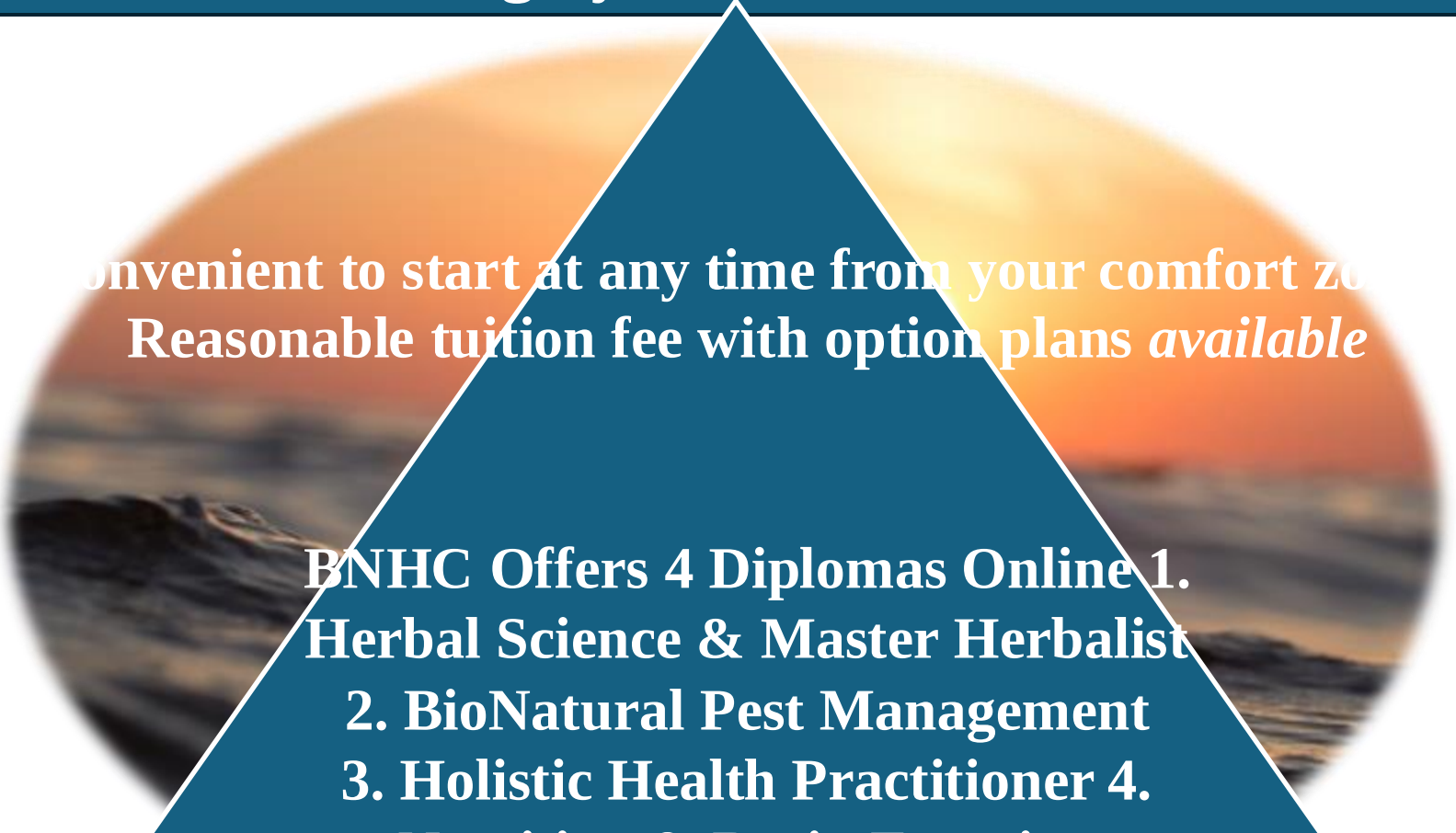
info@bionaturalhealingcollege.org

BioNatural Healing College

ONLINE EDUCATION
Under Highly Qualified Professors



onvenient to start at any time from your comfort zo
Reasonable tuition fee with option plans *available*

BNHC Offers 4 Diplomas Online 1. Herbal Science & Master Herbalist
2. BioNatural Pest Management
3. Holistic Health Practitioner 4. Nutrition & Brain Function Consultant

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BioNatural Healing College (BNHC) OFFERS APPROVED 7 HOURS CONTINUING EDUCATION IN-PERSON SEMINARS FOR THE CALIFORNIA DEPARTMENT OF PESTICIDE REGULATION

FOR MORE INFORMATION PLEASE CONTACT US:
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info@bionaturalhealingcollege.org

Mission: BioNatural Healing College (BNHC) is a non-profit public benefit institution that has tax-exempt status under the Internal Revenue Service, Section 501(c)(3) of the United States of America. Our goal is to offer a high-quality education a diploma program as well as holistic health and nutrition conferences, seminars, workshops, and continuing education. The focus of these educational programs is to offer healing and holistic nutrition science through online distance learning. These dynamic online education programs will provide diverse adult learners throughout the world the experience of enhancing their quality of life, their health, and their happiness.

Vision: The faculty, staff, and management team of BioNatural Healing College (BNHC) are passionately committed to providing the best teaching possible in this field. We seek to encourage, motivate, and explain the importance of this field to prospective students so that they may make an informed decision regarding enrollment. We seek an ultimate goal of satisfaction for the student based on responsibility, commitment, respect, awareness, and sustainable education for society.

Accreditation and Recognition: BioNatural Healing College (BNHC), based in California, is dedicated to providing high-quality online education, and vocational online distance learning to students worldwide. As a legally recognized institution, it is authorized to operate by the State of California's Bureau for Private Postsecondary Education, by the established educational code. While BioNatural Healing College is not accredited by the United States Department of Education, BNHC is a member of the American Holistic Health Association (AHHA), reflecting its commitment to a holistic and ecological approach to human health and environmental health improvement education.