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Results for Improvements in Crop Production

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Review Article

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ABSTRACT

Crop yields hyperbolic dramatically at intervals the 20th century as recorded on Broad balk or in international averages. The large majority of that boom has materialized as a result of the remaining world struggle and has been power-driven by suggests that of changes within the genetic potential of the crop and within the way whereby it has been controlled. despite the actual fact that, the project to feed a world public this is often probable to upward thrust to eight billion is formidable, above all on account that recent analyses counsel that the fee of boom in yields of diverse crops could have born throughout the last decade. What square measure the opportunities to fulfil this endeavour and to preserve to enhance the yields of our plants? Enhancements in science square measure in all probability to be additional involved expeditiously and sweetness *in situ* of in main breakthroughs.

INTRODUCTION

Basically, temporal arrangement of supplement and water consumption/uptake will decide however quickly, viably, proficiently, proportionately and multi advisedly the supplements and water square measure in taken, up taken, absorbed, and disseminated towards distinctive capacities together with statement, oxidation, discharge, and discharge in plant cells [1-22]. This chrono-physiological course can build the profit, welfare and supportability of crop generation frameworks universally. Future exploration has to be compelled to investigate additional basic ranges on ingenious plant chrono-physiology. The novel SciTech can presumptively be delineated distinctively among totally different crops.

Opinions of the effects of environmental change on crop introduction are finished to state within the created international locations. A Farmer knows of environmental change and variability is a critical phase in starting up adjustment selections. Ecological modification recognised with environmental modification indicates changed the precipitation styles, increased dry spell cycles, improved the go back of most weather situations and extended agricultural pests and sicknesses [23-28].

New Insight for an Extra Sustainable Crop Manufacturing

Inside the advancing years, crop generation can increment with a specific finish intention to require care of the growing call for of substance, the brand new feeding program inclination and consequently the movement from fossil power toward bioenergy. Few new lands are available consequently all technology must originate from the glide common plus base, obliging an intensifying via growing land and water utilization [29-37]. This will prompt a bigger weight at the compelled clean plus. Additionally, smartly affected by environmental modification, crop yields is also diminished transport concerning the decrease of nourishment protection round the sector? Honestly, the growing temperature and decreasing precipitation, can change crop yield and amplify watering system. With of those new problems, streamlining water use in crop era is that the take a look at of destiny eras and it monitor the necessity for itemized facts on water wishes of a crop [38-46].

The potato (*Solanum tuberosum* L.) has historically been fully grown within the highlands of Bolivia. The range of native potatoes during this locality is high. Seed potato producing is a very important hobby in sure highland regions of the department [47-55]. Cochabamba, consisting of Morochata, Independencia, Lope Mendoza and their areas of impact. The bloodless temperatures and high humidness of those regions square measure helpful to the appearance recently potato mildew as results of Phythophora infesting Mont. De Bary a illness regarded via close farmers as T'octu. Fungus genus leaf blotch conjointly seems within the place, thanks to *Alternaria solani*, fungus genus solanicola, fungus genus solani, *Septoria lycopersici* and *Phoma andina*.

Integrative Inter Science

Chrono-physiology can be a transformative integrative lay to rest science that empowers creatures incorporating oldsters to conform to the deeply unsteady surroundings. Temporal order of intake and, in the course of this technique, temporal order of supplement uptake by means of visceral and fringe tissues are planned to orchestrate time unit rhythms of supplement digestion device as well as procedure, transport and diffusion [56-64]. Such a time unit arrangement of nourishment admission and complement uptake, hence, manages starvation in creatures and substrate take-up and diffusion in plants. This new technology is bothered with but time of the 24 h amount makes a decision the kind and effectiveness of complement and substrate admission and use through vegetation and creatures. Consequently, the temporal order of supplement accessibility decides but and to what diploma plants and creatures are able to ingest and method several dietary supplements closer to upkeep and profit.

Essentially, temporal order of supplement and water consumption/uptake (i.e., treatment and watering system) will decide however quickly, viably, proficiently, proportionately and multi purposely the dietary supplements and water are in taken, up taken, absorbed, and disseminated toward distinct capacities in addition to declaration, oxidation, discharge, and discharge in plant cells [65-69]. This chrono physiological route can construct the income, upbeat and supportability of crop era frameworks universally. Destiny exploration was given to research extra fundamental degrees on creative plant chrono physiology. The novel SciTech can presumptively be represented distinctively among absolutely distinct vegetation [70-74].

Leaf senescence alludes to the terminal degree during a leaf life records. Its miles a hereditarily changed whittling nearer to oneself down challenge joined with the help of reusing of nourishment discharged amid corruption of macromolecules, as associate degree example, proteins. during a farming setting, leaf senescence may be an important perform that would be an ideal awareness for crop trade, and late advances in experience the chief systems basic leaf senescence have created it conceivable to arrange techniques for dominant senescence for increasing crop yield and enhancing nature of farming crops such greens when harvested.

Techniques

Xanthomonas oryzae pv. oryzae (Xoo) reasons a necessary rice infection called microorganism blight. Microorganism blight is that the financially most imperative rice malady within the tropics. uring malady Xoo produces virulence parts such extracellular Polysaccharides (EPS), extracellular enzymes, iron chelating component rophores and effectors of kind III emission [75-79]. Those virulence variables had been diagnosed utilising atomic methodology. The virulence elements expect a huge half in effective foundation of Xoo within the host plant. EPS, as an example, xanthan and Lipopolysaccharides (LPS) added by way of Xanthomonas genus rectangular degree enclosed in sick health development. It's as well completed that a Diffusible sign trouble (DSF) is needed for virulence in Xoo.

Impelling of popular resistance with the aid of Plant Improvement Advancing Rhizobacteria (PGPR) has been tested as an achievable possible method to utilize incited resistance in enterprise. Herbal control, utilizing microorganisms to stifle plant maladies, gives companion environmentally pleasant technique to alter rural phytopathogens. Sans cell societies of 4 separates of microorganism genus leguminosarum, a confine of *Azotobacter chroococcum* and manure tea have been explored for his or her bio manage potential in opposition to the idea parasitic weed *Orobanche crenata*. Individual sans cell societies of *Azotobacter chroococcum* or bacteria genus sp., double and blend of whilst not cell societies of bacteria genus spp. however compost tea have been connected to overrun pots in nursery conditions [80-87].

Examination of plant concentrates on *C. gloeosporioides* in a very few studies incontestible promising possibilities for the usage of plant concentrates in postharvest illness control. Lace plant is stimulated through numerous contagious and microorganism illnesses. Some of the contagious illness, blight added on with the aid of Alternaria alternata will be an actual ailment in hanging wicker bin in own family gadgets. *Ascochyta rabiei* is that the causative specialists of blight disease of chickpea (*Cicer arietinum* L.). a few studies had been intended to survey the hereditary versions of deeply forceful *Ascochyta Rabiei* (AR) variety (pathotypes III and IV) from Syrian Arab Republic and its examination with fantastically forceful detaches from Asian country. Environmental parts that impact plant-pathogen collaborations, and might be connected to make up associate diploma administration methodology for *Rhizoctonia solani* management visible of host nourishment. Methanolic concentrates of leaves of Thompson Seedless grape, fireplace seedless grape, zizyphus, pomegranate and fig were screened for their phytochemical ingredients moreover examined for his or her antifungal motion *in vitro* towards phytopathogenic parasites, *Alternaria solani*, *Botrytis cinerea*, *Botrytis fabae*, *Fusarium oxysporum* and *Fusarium solani* [88-92]. Survey compresses research meant to assess numerous management measures of fungicides picks approachs, e.g. some plant resistance inducers, key oils and bio-control operators at the foliar infections fee of some veggies below nursery and plastic house conditions. Examination has been directed to check the threat of empowering Trichoderma spp with low mensuration nonparticulate radiation for biodegradation of Oxamyl insecticides. Outcomes propose that blue mild-emitting diode mild-weight represses the advancement of dim mould sickness, which is probably thoughtlessly processed by using the upgraded aminoalkanoic acid collecting and antioxidative processes in any event in incomplete.

Tests of onion seeds have been amassed from agriculturist's houses to wear out the seed mycoflora of onion through fungicides, plant concentrates and bioagent seed medicinal drugs. Microorganism crown and root decay illness of fodder is formed with the aid of a Gram poor and fluorescent microorganism genus *Pseudomonas viridiflava* [93-96]. This may be one in all of the crucial sicknesses of fodder, that causes crop quantity and quality misfortunes. During a few works coordinated administration methodology incontestible that vermin compost and bavistin in blend changed into a whole lot of compelling in lower the foundation decay rate in pots conditions. The enzyme movement changed into high in sound flora contrasted with contaminated flora. Those effects confirmed that the guide of physiological capability amid blight sickness can also acquire elevated ringer pepper yields underneath unwell conditions. Prefoliar splash with indole acidic corrosive, metalaxyl, dipotassium element salt, oxide, and salt, salicylic corrosive and metal element chloride as inducers gave motivated resistance in plant against F. o. f.sp. lycopersici, transportation more than one lower in the unwell frequency from 90.96 to nine.30% following fifteen days of microorganism vaccination. The lowest infection frequency (9.30%) was accounted for from salt handled plants [97].

Free radical's area unit one in all the explanations for a few maladies. The result of the present take a glance at uncovers associate degree in amount mobile reinforcement movement of the leaf listen of dilleniid dicot genus indicum. The weather which could be in rate of the cellular reinforcement movement area unit indistinct; henceforward additionally studies area unit duty-bound to assess the cancer hindrance agent movement of the cleaned divisions. In some works results uncovered that week through week showers of mancozeb at twelve g/L of water were financially savvy and eco-accommodating for the management of Alternaria blight of tomato. Garlic (*Allium sativum* L.) could be a standout among the foremost very important merchandise evolved in Bale fascinating countries. Garlic rust else on with the help of fungus genus allii is that the life size malady of garlic all told garlic developing locales of Abyssinia. Agent could also be applied to viable management of the infection [98]. Its application has to be compelled to be begun at low stage of seriousness and sequential application ought to be applied if the overarching weather circumstance seems to be very helpful for advancement of the malady. on the identical time, the repeat of use have to be compelled to be foreseeable of economic investigation paying attention of the prices of agent utility and are available back from yield restoration. Bacteria genus fluorescence microscopic organisms, a stimulating constituent of Rhizobacteria, energize the plant improvement through their differing structures. *Fusarium solani* is assumed now not decaying of seeds, seedlings, roots, lower stems and crown of diverse vegetation furthermore of the vegetative germ plasms like corms, globules and tubers. MJ is found to own repressive influences on the morbific parasite *Fusarium solani* at a lower place *in vitro* condition [99,100]. The *M. anisopliae* and *B. bassiana* secludes from fields established larger noteworthy than seventieth mortality of *H.*

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arimgera within the bioassay the speed mortality declined; there has been a drop-off among the super molecule sporting activities of *B. bassiana*. N. rileyi separates did now not show discernible chitinase levels as very much like a hundred and twenty hours.

References

1. Olwari F, et al. Tolerance Levels of Peanut Varieties against *Aspergillus flavus* Infection. J Plant Pathol Microb. 2013;4:195.
2. Almasi MA, et al. Immunocapture Loop Mediated Isothermal Amplification for Rapid Detection of Tomato Yellow Leaf curl Virus (TYLCV) without DNA Extraction. J Plant Pathol Microb 2013;4:185.
3. Ghnaya AB, et al. Comparative Chemical Composition and Antibacterial Activities of *Myrtus communis* L. Essential Oils Isolated from Tunisian and Algerian Population. J Plant Pathol Microb 2013;4:186.
4. Zhang S, et al. Development of a Real-time RT-PCR Method for Rapid Detection and Quantification of Southern Rice Black-streaked Dwarf Virus in Rice. J Plant Pathol Microb 2013;4:187.
5. Almasi MA and Dehabadi SH, Colorimetric Immunocapture Reverse Transcription Loop-Mediated Isothermal Amplification Assay for Rapid Detection of the Potato virus Y. J Plant Pathol Microb 2013;4:188.
6. Siyoum Z and Yesuf M, Searching and Evaluating of Cost Effective Management Options of Garlic White rot (*Sclerotium cepivorum* Berk) in Tigray, Northern Ethiopia. J Plant Pathol Microb 2013;4:189.
7. Abdel-Shafi S, Preliminary Studies on Antibacterial and Antiviral Activities of Five Medicinal Plants. J Plant Pathol Microb 2013;4:190.
8. Ibiam OFA, Nwigwe I, The Effect of Fungi Associated with Leaf Blight of *Solanum aethiopicum* L. in the Field on the Nutrient and Phytochemical Composition of the Leaves and Fruits of the Plant. J Plant Pathol Microb 2013;4:191.
9. Yang X, Copes WE, et al. *Phytophthora mississippiae* sp. nov., a New Species Recovered from Irrigation Reservoirs at a Plant Nursery in Mississippi. J Plant Pathol Microb 2013;4: 180.
10. Vijesh Kumar IP, et al. Amplification, Cloning and In silico Prediction of Full Length Elicitin Gene from *Phytophthora capsici*, the Causal Agent of Foot Rot Disease of Black Pepper. J Plant Pathol Microb 2013;4: 181.
11. Mohammed A, et al. Effect of Integrated Management of Bean Anthracnose (*Colletotrichum lindemuthianum* Sacc. and Magn.) Through Soil Solarization and Fungicide Applications on Epidemics of the Disease and Seed Health in Hararghe Highlands, Ethiopia. J Plant Pathol Microb 2013;4:182.
12. Soltani T, et al. Chemical control of Root-Knot Nematode (*Meloidogyne javanica*) On Olive in the Greenhouse conditions. J Plant Pathol Microb 2013;4: 183.
13. Kamle M, et al. A Species-Specific PCR Based Assay for Rapid Detection of Mango Anthracnose Pathogen *Colletotrichum gloeosporioides* Penz. and Sacc. J Plant Pathol Microb 2013;4:184.
14. Chebil S, et al. Occurrence of Agrobacterium Vitis Carrying Two Opine-Type Plasmids in Tunisian Vineyards. J Plant Pathol Microb 2013;4:175.
15. Boydom A, et al. Evaluation of Detached Leaf Assay for Assessing Leaf Rust (*Puccinia triticina* Eriks.) Resistance in Wheat. J Plant Pathol Microb 2013;4:176.

16. Almasi MA, et al. Development and Application of Loop-Mediated Isothermal Amplification Assay for Rapid Detection of *Fusarium Oxysporum* f. Sp. *lycopersici*. J Plant Pathol Microb 2013;4:177.
17. Daudu OAY, et al. Preliminary Studies on Two Viruses Infecting Two Wild Plants: *Talinum triangulare* (Jacq) Willd and *Desmodium tortuosum* (SW) DC in Samaru, Zaria, Kaduna State. J Plant Pathol Microb 2013;4:178.
18. Shiberu T, *In vitro* Evaluation of Aqua Extracts of Some Botanicals against Maize Stem Borer, *Busseola fusca F*. (Lepidoptera: Noctuidae). J Plant Pathol Microb 2013;4:179.
19. Gogoi R, et al. Suitability of Nano-sulphur for Biorational Management of Powdery mildew of Okra (*Abelmoschus esculentus Moench*) caused by *Erysiphe cichoracearum*. J Plant Pathol Microb 2013;4:171.
20. Zia-Ul-Hussnain S, et al. Comparison of DAC-ELISA and Tissue Blot Immunoassay for the Detection of *Acidovorax avenae* subsp. avenae, causal agent of Red Stripe of Sugarcane. J Plant Pathol Microb 2013;4:172.
21. Khalil MS, Abamectin and Azadirachtin as Eco-friendly Promising Biorational Tools in Integrated Nematodes Management Programs. J Plant Pathol Microb 2013;4:174.
22. Meng F, The Virulence Factors of the Bacterial Wilt Pathogen *Ralstonia solanacearum*. J Plant Pathol Microb 2013;4:168.
23. Fang W, et al. Seasonal and Habitat Dependent Variations in Culturable Endophytes of *Camellia sinensis*. J Plant Pathol Microb 2013;4:169.
24. Hafez EE, et al. Induction of New Defensin Genes in Tomato Plants via Pathogens-Biocontrol Agent Interaction. J Plant Pathol Microb 2013;4:167.
25. Lukman R, et al. Unraveling the Genetic Diversity of Maize Downy Mildew in Indonesia. J Plant Pathol Microb 2013;4:162.
26. ha Y and Subramanian RB, Root Associated Bacteria from the Rice antagonizes the Growth of *Magnaporthe grisea*. J Plant Pathol Microb 2013;4:164.
27. Khalil MS, Alternative Approaches to Manage Plant Parasitic Nematodes. J Plant Pathol Microb 2013;4:e105.
28. Ahmed M, et al. *In Vitro* Synergistic Antibacterial Activity of Natural Honey Combined with Curcuma Starch and their Correlation with Diastase Number, Flavonoid and Polyphenol Content. J Plant Pathol Microb 2013;4:152.
29. Almasi MA, et al. Development of Colorimetric Loop-Mediated Isothermal Amplification Assay for Rapid Detection of the Tomato Yellow Leaf Curl Virus. J Plant Pathol Microb 2013;4:153.
30. Azadmanesh S, et al. Detection of Pectobacteria Causal Agents of Potato Soft Rot in North Western Provinces of Iran. J Plant Pathol Microb 2013;4:154.
31. Shajan AB, et al. Production of Thiophene from *Tagetus patula*. J Plant Pathol Microb 2013;4:155.
32. Almasi MA, et al. Detection of Coat Protein Gene of the Potato Leafroll Virus by Reverse Transcription Loop-Mediated Isothermal Amplification. J Plant Pathol Microb 2013;4:156.
33. Ahmad J, khan I, Evaluation of Antioxidant and Antimicrobial Activity of *Ficus Carica* Leaves: an *In Vitro* Approach. J Plant Pathol Microb 2013;4:157.

34. Mahinpoo V, et al. Investigation on Genetic Diversity of *Fusarium oxysporum* Schlecht Isolated from Tuberose (*Polianthes tuberosa L.*) based on RAPD Analysis and VCG Groups. J Plant Pathol Microb 2013;4:158.
35. Leta A and Selvaraj T, Evaluation of Arbuscular Mycorrhizal Fungi and Trichoderma Species for the Control of Onion White Rot (*Sclerotium cepivorum* Berk). J Plant Pathol Microb 2013;4:159.
36. Biratu KS, et al. *In vitro* Evaluation of Actinobacteria against Tomato Bacterial Wilt (*Ralstonia solanacearum* EF Smith) in West Showa, Ethiopia. J Plant Pathol Microb 2013;4:160.
37. Mojerlou S and Safaie N, Phylogenetic Analysis of Alternaria species Associated with Citrus Black Rot in Iran. J Plant Pathol Microb 2012;3:144.
38. Sundaramoorthy S and Balabaskar P, Consortial Effect of Endophytic and Plant Growth Promoting Rhizobacteria for the Management of Early Blight of Tomato Incited by *Alternaria Solani*. J Plant Pathol Microb 2012;3:145.
39. Ramkumar, et al.Role of Antagonistic Microbe Pseudomonas fluorescens on *Colletotrichum capsici* Infecting Curcuma longa. J Plant Pathol Microb 2012;3:146.
40. Bahmani Z, et al. Investigation of *Fusarium verticillioides* on the Basis of RAPD Analysis, and Vegetative Compatibility in Iran. J Plant Pathol Microb 2012;3:147.
41. Venkataravanappa V, et al. Molecular Evidence for Association of Tobacco Curly Shoot Virus and a Betasatellite with Curly Shoot Disease of Common Bean (*Phaseolus vulgaris L.*) from India. J Plant Pathol Microb 2012;3:148.
42. Gajera HP, et al. Antagonism of Trichoderma spp. against *Macrophomina phaseolina*: Evaluation of Coiling and Cell Wall Degrading Enzymatic Activities. J Plant Pathol Microb 2012;3:149.
43. Ziadi S, et al. Behavior of Italian Lemon Rootstocks towards Mal Secco Leaf Infection with Tunisian Fungus *Phoma tracheiphila* in Controlled Environment. J Plant Pathol Microb 2012;3:150.
44. Ikediugwu FEO and Monday U, Root Zone Microflora is Responsible for Suppressiveness of the White Root Rot Disease in Akwete Rubber Plantations. J Plant Pathol Microb 2012;3:151.
45. Salgado-Siclán ML, et al. Differential Accumulation of Defense-Related Transcripts by Inducers of Resistance in Arabidopsis. J Plant Pathol Microb 2012;3:137.
46. Salari M, et al. Screening of Cucumis melo L. Cultivars from Iran for Resistance against Soil-Borne Fungal Pathogens. J Plant Pathol Microb 2012;3:138.
47. Ikechi–Nwogu CG and Elenwo EN, Comparative Evaluation of Growth Media for the Cultivation of Fungal Cultures. J Plant Pathol Microb 2012;3:139.
48. Rahanandeh H, et al. Characteristics and Antagonistic Potential of Pseudomonas spp. against *Pratylenchus loosi*. J Plant Pathol Microb 2012;3:140.
49. Saleem A, et al. Pathogenicity and Pectinase Activity of Some Facultative Mycoparasites Isolated from *Vicia faba* Diseased Leaves in Relation to Photosynthetic Pigments of Plant. J Plant Pathol Microb 2012;3:141.
50. Abebe T, et al. Distribution and Physiologic Races of Wheat Stem Rust in Tigray, Ethiopia. J Plant Pathol Microb 2012;3:142.
51. Morang P, et al. Growth Promotion and Bi-Control Approaches of Brown Root Rot Disease of Tea by *Pseudomonas Aeruginosa* (PM 105). J Plant Pathol Microb 2012;3:129.

52. Gupta R, et al. Management of the Black Mould Disease of Onion. J Plant Pathol Microb 2012;3:133.
53. Ahmad J and Khan I, Antioxidant Potential of *Abutilon indicum* (L.) Sw. J Plant Pathol Microb 2012;3:124.
54. Bhattacharya A and Bhattacharya S, An Environment Friendly Approach for Controlling Pathogenic *Fusarium solani* (Mart.) Sacc, The causal Agent of Root Rot of Medicinal Coleus by Methyl Jasmonate. J Plant Pathol Microbiol 2012;3:117.
55. Revathi N, et al. Pathogenicity of Three Entomopathogenic Fungi against *Helicoverpa armigera*. J Plant Pathol Microbiol 2011;2:114.
56. Chatage VS and Bhale UN, Changes in some Biochemical Parameters of Ivy Gourd (Coccinia Indica Wight and Arn.) Fruits after Infection of Fruit Rot. J Plant Pathol Microb 2012;3:122.
57. Fayazi F, et al. Molecular and Morphometric Identification of P. Thornei and P. Neglectus in Southwest of Iran. J Plant Pathol Microb 2012;3:123.
58. Ahmad J and Khan I, Antioxidant Potential of *Abutilon indicum* (L.) Sw. J Plant Pathol Microb 2012;3:124.
59. Gondal AS, et al. Effect of Different Doses of Fungicide (Mancozeb) against Alternaria Leaf Blight of Tomato in Tunnel. J Plant Pathol Microb 2012;3:125.
60. Worku Y and Dejene M, Effects of Garlic Rust (*Puccinia allii*) on Yield and Yield Components of Garlic in Bale Highlands, South Eastern Ethiopia. J Plant Pathol Microbiol 2012;3:118.
61. Sheikh M, Ashraf M, Mahmood I, Biological and Molecular Detection of a virus infecting *Wedelia trilobata* (Linn.) Hitchc (A Medicinal Herb). J Plant Pathol Microbiol 2012;3:119.
62. Noori MSS and Saud HM, Potential Plant Growth-Promoting Activity of *Pseudomonas sp* Isolated from Paddy Soil in Malaysia as Biocontrol Agent. J Plant Pathol Microb 2012;3:120.
63. Saini D and Sarin R, SDS-PAGE Analysis of Leaf Galls of *Alstonia scholaris* (L.) R. Br. J Plant Pathol Microb 2012;3:121.
64. Bhale UN, et al. First Report of Phytoplasma Associated with Leaf Roll on Dhak (palas) in India. J Plant Pathol Microbiol 2012;3:115.
65. Bhattacharya A and Bhattacharya S, An Environment Friendly Approach for Controlling Pathogenic *Fusarium solani* (Mart.) Sacc., The causal Agent of Root Rot of Medicinal Coleus by Methyl Jasmonate. J Plant Pathol Microbiol 2012;3:117.
66. BovÃ JM and Ayres AJ, Etiology of three recent diseases of citrus in SÃ£o Paulo State: Sudden death, variegated chlorosis and huanglongbing. IUBMB Life 2007;59:346-354.
67. Tennant PF, et al. Diseases and pests of citrus (Citrus spp.). Tree For Sci Biotech 2009;3:81.
68. Hartung JS, et al. Citrus variegated chlorosis bacterium: axenic culture, pathogenicity, and serological relationships with other strains of *Xylella fastidiosa*. Phytopathology 1994;84:591-597.
69. Schaad NW, et al. *Xylella fastidiosa* subspecies: *X. fastidiosa* subsp. piercei, subsp. nov., *X. fastidiosa* subsp. multiplex, subsp. nov., *X. fastidiosa* subsp. pauca, subsp. nov. Syst Appl Microbiol 2004;27:290-300.
70. Azevedo JL, et al. Endophytic microorganisms: A review on insect control and recent advances on tropical plants. Electronic J of Biotechnol 2000;3.
71. KozdrÃj J, et al. Influence of introduced potential biocontrol agents on maize seedling growth and bacterial community structure in the rhizosphere. Soil Biol Biochem 2004;36:1775-1784.

72. Kuklinsky-Sobral J, et al. Isolation and characterization of soybean-associated bacteria and their potential for plant growth promotion. Env Microbiol 2004;6:1244-1251.
73. Kavino M, et al. Rhizosphere and endophytic bacteria for induction of systemic resistance of banana plantlets against bunchy top virus. Soil Biol Biochem 2007;39:1087-1098.
74. Lacava PT, et al. Rapid, specific and quantitative assays for the detection of the endophytic bacterium *Methylobacterium mesophilicum* in plants. J Microbiol Meth 2006;65:535-541.
75. Gai CS, et al. Diversity of endophytic yeasts from sweet orange and their localization by scanning electron microscopy. J Basic Microbiol 2009a;49:441-451.
76. Hallmann J, et al. Bacterial endophytes in agricultural crops. Can J Microbiol 1997;43:895-914.
77. Gai CS, et al. Transmission of *Methylobacterium mesophilicum* by Bucephalogonia xanthophis for paratransgenic control strategy of Citrus Variegated Chlorosis. J Microbiol 2009;47:448-454.
78. Lacava PT, et al. Interaction of *Xylella fastidiosa* and endophytic bacteria in citrus: a review. Tree For Sci Biotech 2009;3:40-48.
79. AraÃºjo WL, et al. Variability and interactions between endophytic bacteria and fungi isolated from leaf tissues of citrus rootstocks. Can J Microbiol 2001;47:229-236.
80. AraÃºjo WL, et al. (2002) Diversity of endophytic bacterial populations and their interaction with *Xylella fastidiosa* in Citrus Plants. Appl Environ Microbiol 68: 4906-4914.
81. Lacava PT, et al. Interaction between endophytic bacteria from citrus plants and the phytopathogenic bacteria *Xylella fastidiosa* , causal agent of citrus-variegated chlorosis. Lett Appl Microbiol 2004;39:55-59.
82. Lacava PT, et al. The endophyte Curtobacterium flaccumfaciens reduces symptoms caused by *Xylella fastidiosa* in *Catharanthus roseus*. J Microbiol 2007;45:388â€“393.
83. Young DA, Taxonomic Study of the Cicadellinae (Homoptera: Cicadellidae). Part 1. Proconiini. Bull. United States Nat Mus 1968;261:1-287.
84. Purcell AH and Finlay AH, Evidence for noncirculative transmission of Pierceâ€™s disease bacterium by sharshooter leafhoppers. Phytopathology 1979;69:393-395.
85. Almeida RP and Purcell AH, Transmission of *Xylella fastidiosa* to grapevines by *Homalodisca coagulata* (Hemiptera: Cicadellidae). J Econ Entomol 2003;96:264- 271.
86. Costa HS, et al. Transmission of *Xylella fastidiosa* to oleander by the glasswinged sharpshooter, *Homalodisca coagulata*. HortScience 2000;35:1265-1267.
87. Ramirez JL, et al. Fate of a genetically modified bacterium in foregut of glassy-winged sharpshooter (Hemiptera: Cicadellidae). J Econ Entomol 2008;101:1519-1525.
88. Lopes JRS, et al. Confirmation of transmission by sharpshooters of the causal agent of citrus variegated chlorosis, *Xylella fastidiosa* . Fitopat Bras 1996;21:343.
89. KrÃ¼gner R, et al. Transmission efficiency of *Xylella fastidiosa* to citrus by sharpshooters and identification of two vector species. In: Conference of the International Organization of Citrus Virologists, Riverside, 2000;423.
90. Yamamoto PT, et al. Transmission of *Xylella fastidiosa* by sharpshooters and *Homolodisca ignorata Acrogonia virescens* (Hemiptera: Cicadellidae) in citrus. Summa Phyt 2002;28:178-181.

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91. Newman KL, et al. Use of a green fluorescent strain for analysis of *Xylella fastidiosa* colonization of *Vitis vinifera*. Appl Environ Microb 2003;69:7319â€“7327.
92. Rodrigues JL, et al. *In situ* probing of Xylella fastidiosa in honeydew of a xylem sap-feeding insect using 16S rDNA-targeted fluorescent oligonucleotides. Env Microbiol 2006;8:747â€“ 754.
93. Marucci RC, Efficiency of *Xylella fastidiosa* transmission by sharpshooters (Hemiptera, Cicadellidae) in *Citrus sinensis (L.) Osbeck* and *Coffea arabica L*. Ph.D. thesis, University of SÃ£o Paulo, Piracicaba. SÃ£o Paulo 2003.
94. Redak RA, et al. The biology of xylem fluid feeding insect vectors of *Xylella fastidiosa* and their relation to disease epidemiology. Annu Rev Entomol 2004;49:243-270.
95. Lopes JRS, Beretta MJG, Harakava R, Almeida RPP, KrÃ¼gner R, et al. Confirmation of transmission by sharpshooters of the causal agent of citrus variegated chlorosis, Xylella fastidiosa . Fitopat Bras 1996;21:343.
96. KrÃ¼gner R, Lopes MTVC, Santos JS, Beretta MJG, Lopes JRS, Transmission efficiency of Xylella fastidiosa to citrus by sharpshooters and identification of two vector species. In: Conference of the International Organization of Citrus Virologists, Riverside, 2000;423.
97. Yamamoto PT, Roberto SR, Pria JÃºnior WD, Felippe MR, Miranda VS, et al. Transmission of Xylella fastidiosa by sharpshooters and Homolodisca ignorata Acrogonia virescens (Hemiptera: Cicadellidae) in citrus. Summa Phyt 2002;28:178-181.
98. Newman KL, Almeida RPP, Purcell AH, Lindow SE, Use of a green fluorescent strain for analysis of Xylella fastidiosa colonization of Vitis vinifera. Appl Environ Microb 2003;69:7319â€“7327.
99. Rodrigues JL, Silva-Stenico ME, De Souza AN, Lopes JR, Tsai SM, In situ probing of Xylella fastidiosa in honeydew of a xylem sap-feeding insect using 16S rDNA-targeted fluorescent oligonucleotides. Env Microbiol 2006;8:747â€“754.
100. Marucci RC, Efficiency of Xylella fastidiosa transmission by sharpshooters (Hemiptera, Cicadellidae) in Citrus sinensis (L.) Osbeck and Coffea arabica L. Ph.D. thesis, University of SÃ£o Paulo, Piracicaba. SÃ£o Paulo 2003.