Summary of US Patent 8945631B2 - "Liquid for treatment of citrus greening disease and treatment method using same"

Prepared by: Randall P. Niedz, Ph.D.
U.S. Horticultural Research Laboratory, Ft. Pierce, Florida

Experiment	Source trees	Treatments	Tree age	Conditions	Fe concentration	Application frequency	Application method	Amounts applied	Number of trees treated	Results
1	**Rough lemon**									
		Fe-EDTA	2 years	Growth chamber	15 ppm	5 days	foliar + soil	50 mls foliar + 50 mls soil	5	60 days - 0/5 trees HLB^-
		Distilled water	2 years	Growth chamber	0 ppm	5 days	foliar + soil	50 mls foliar + 50 mls soil	5	60 days - 0/5 trees HLB^- 138 days - 1/5 trees HLB^-
		Fe + citric acid (20% Fe^{2+})	2 years	Growth chamber	15 ppm	5 days	foliar + soil	50 mls foliar + 50 mls soil	5	138 days - 5/5 trees HLB^-
2	**Tankan Orange**									
		Fe + citric acid (20% Fe^{2+})	not reported	Field	30 ppm	7 days	foliar	1.5 L/tree	1	46 days - 1/1 tree HLB^-
		Fe + citric acid (95% Fe^{2+})	not reported	Field	30 ppm	7 days	foliar	1.5L/tree	3	46 days - 3/3 tree HLB^-
3	**Shekwasha**									
		Fe-EDTA	2 years	Growth chamber	15 ppm	5 days	foliar + soil	50 mls foliar + 50 mls soil	2 to 3	309 days - all trees HLB^+ HLB levels not reduced.
		Fe + citric acid (95% Fe^{2+})	2 years	Growth chamber	15 ppm	5 days	foliar + soil	50 mls foliar + 50 mls soil	2 to 3	309 days - all trees HLB^+ HLB levels reduced 57%.
		Fe citrate	2 years	Growth chamber	15 ppm	5 days	foliar + soil	50 mls foliar + 50 mls soil	2 to 3	309 days - all trees HLB^+ HLB levels reduced 30%.
		Fe sulphate	2 years	Growth chamber	15 ppm	5 days	foliar + soil	50 mls foliar + 50 mls soil	2 to 3	309 days - all trees HLB^+ HLB levels reduced 24%.
		Distilled water	2 years	Growth chamber	15 ppm	5 days	foliar + soil	50 mls foliar + 50 mls soil	2 to 3	not reported