

CARIBBEAN SCIENCE & INNOVATION MEETING

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ABSTRACTS BOOK

19-22 octobre 2019

Université
des Antilles
Pôle Guadeloupe



CARISCIENCE



EVALUATION OF THE ADAPTATION OF CITRUS POLYPLOID (ROOTSTOCKS/VARIETIES ASSOCIATIONS) TO WATER DEFICIT.

Calvez L.¹, Sivager G.¹, Andypain S.², Bruyère S.¹, Gros O.³, Brat P.², Morillon R.¹

1- SEAPAG, UM AGAP, CIRAD, Station de Roujol, 97170 Petit Bourg, Guadeloupe, French West Indies.

2- UMR QualiSud, CIRAD, Station de Neufchâteau-Sainte Marie, 97130 Capesterre-Belle-Eau Guadeloupe, French West Indies.

3- C3MAG, UFR des Sciences Exactes et Naturelles, Université des Antilles, BP 592 97159 Pointe-à-Pitre, Guadeloupe, French West Indies.

Abstract: Huanglongbing (HLB) is a bacterial disease caused by the phloem restricted bacteria *Candidatus liberibacter* spp. In Guadeloupe, the disease has been present since 2012 and is responsible of the eradication of most of the orchards. In the field, trees in water deficit condition are more sensitive to the disease. Various studies showed that tetraploid (4x) rootstocks confer a better adaptation to drought condition. Also, recent work of CIRAD showed that triploid (3x) Tahiti lime are more tolerant to HLB than the respective diploid (2x) Mexican lime. Thus, we initiated a study to verify whether the use of 4x rootstocks in association with 3x lime can improve tree adaptation to water deficit. 2x and 3x limes grafted onto 2x and 4x rootstocks were evaluated. Physiological and biochemical traits were investigated. Preliminary results suggest that 4x rootstock confer a better tolerance to the scion. Also, better detoxification seems to occur in the triploid scion. This experiment will be coupled to gene expression studies in roots and leaves.