Florida Citrus Advanced Technology Program

QUARTERLY & FINAL REPORTS: Control of Citrus Greening, Canker & Emerging Diseases of Citrus

Instructions Complete the fields based on your project specs. When finished, save the form to your local disk using a unique name. Then, go to **http://research.fcprac.com**, and log in with your user name and password using Researcher Login in the lower left. Find this project title and click on **Submit a Report**. Update your profile information if needed, then upload this report as directed.

2009-2010 REPORT	CATEGORY (drop-down)	TODAY'S DATE (m/d/yr)
◉ *Quarterly Report* ○ *Annual Report* ○ *Final*	Canker Pathology	6/30/09

WHAT IS THE "HEADLINE" FOR THIS REPORT (e.g. a one-sentence "newspaper headline" describing what you accomplished)

Citrus canker strains vary in their ability to produce biofilms

TITLE and CONTACT INFORMATION

Proposal Title Survival of Xanthomonas citri ssp. citri (Xcc) to estimate risk of citrus canker transmission by infected fruit

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Phone 863-956-1151	*Project Duration (years)* 3 *Year of Project* 1
Organization UF, Citrus Research and Education Center	*Total Direct Funds (current year)* $124,906

REPORT UPDATE (650 words; provide details about your headline)

Under Objective 1 (Confirm biofilm formation by X. citri subsp citri [Xcc] in comparison with other bacteria that are well known to form biofilms) the following strains were compared for their ability to form biofilm: Xcc stain A (X306 Brazil), Xcc strain A* (X407 Iran), X. fuscans subsp. aurantifolii strain B (X69 Argentina), X. fuscans subsp. aurantifolii strain C (X341 Brazil), X. campestris pv. campestris (1469 Spain). Preliminary results show differences in biofilm formation on abiotic surfaces among the Xanthomonas strains analyzed as well as effects of different growth media: Nutrient Broth (NB), Yeast Medium (Y) and Luria-Bertani (LB), supplemented with or without 2% glucose. X. campestris has the greatest and most rapid biofilm formation. Among canker bacteria, C strain produces more biofilm than the A or B strains. Differences in production depending on the medium confirms that nutrient environment plays a role in biofilm formation. Addition of glucose to the medium does not generally increase biofilm formation but sometimes reduces it.