

LOGIC MODEL for PROGRAM DEVELOPMENT and ASSESSMENT

SITUATION	INPUTS	OUTPUTS		OUTCOMES – IMPACT		
		Activities	Participation	Short	Medium	Long Term
<p>One aspect of sweet potato whitefly, <i>Bemisia tabaci</i>, behavior is their ability to migrate between crops. We need empirical evidence as to whether or not whiteflies engage in dispersal of several hundred miles. We also need to redefine short range dispersal distances to address many of the applied concerns of growers.</p>	<p>We are requesting \$5,600 (\$1,300 for travel to Yuma, \$1,400 for supplies and repairs to flight chamber, and \$2,900 for student wages) for assistance in a series of laboratory and field experiments.</p>	<p>In order to update and expand the information concerning whitefly movement we will produce the following outreach materials: (1) An extension bulletin concerning dispersal by whiteflies, (2) a submission to the University of Arizona's annual vegetable report, (3) The information generated by this research will be included in a series of extension meetings held this year and next.</p>	<p>Our principal audience will be pest control advisors and farm production managers who are responsible for making recommendations concerning crop placement and timing. Other important end users include extension agents and, importantly, growers of Arizona who are responsible for plowing their own fields and who must influence neighbors to plow theirs.</p>	<p>Utilize laboratory and field experiments to re-evaluate the role of dispersal and migration on successive days by the sweet potato whitefly in predicting the intercrop movement of this important pest.</p>	<p>It is important that we conduct research that will allow the scientific community to provide growers with predictions of dispersal distances by whiteflies that are as accurate as possible. Updated information must be passed from advisors to growers.</p>	<p>We hope to influence Arizona's farming community that management of whiteflies is highly dependent, not only on the success of individual, but is also dependent on the actions of others in their community.</p>

Assumptions for study

- (1) laboratory study populations contain migratory individuals
- (2) laboratory data on whiteflies will correlate with field dispersal characteristics
- (3) whiteflies caught in the field are capable of measurable, multiple day dispersal

We must convince growers that what happens in neighboring fields does have direct influence on whitefly population levels throughout the region.