

**LOGIC MODEL for NOLTE, K. and S. BEALMEAR**

***Integrating Monitoring, Global Information System (GIS) and Geostatistics for the Management of the Whitefly vectored disease, Cucurbit Yellow Stunting Disorder Virus (CYSDV) in Arizona Melons.***

SITUATION	INPUTS	OUTPUTS		OUTCOMES – IMPACT		
		Activities	Participation	Short	Medium	Long Term
<p>The Cucurbit Yellow Stunting Disorder Virus (CYSDV) has emerged as a serious whitefly-transmitted virus of cucurbit crops within the desert Southwest.</p> <p>It was confirmed in Yuma AZ in the fall of 2006 causing an estimated 60 – 70% reduction in marketable melon yield resulting in a \$14 million dollar loss in melon production within the region.</p>	<p>Budget as outlined in proposal</p> <ul style="list-style-type: none"> <li>-supplies</li> <li>-travel</li> </ul> <p>Area extension agents</p> <p>Research technician</p> <p>Master gardeners</p>	<p>Weekly monitoring for whiteflies and virus incidence</p> <p>Workshops to educate public, clients and growers</p> <p>Newsletter, website and local media to disseminate CYSDV risk assessments</p> <p>Final Report that will summarize the results to be provided to the Arizona Pest Management Center</p> <p>CYSDV risk assessment to model disease processes</p>	<p>Arizona agricultural producers and home owners</p> <p>Recruit Yuma County Master Gardeners to monitor and maintain yellow sticky traps in urban landscapes</p> <p>Integrating Arizona Dept. of Agriculture, plant protection division</p> <p>Pest control advisors</p> <p>Media outlets</p>	<p>Weekly whitefly trap counts and CYSDV infection ratings</p> <p>Whitefly density maps would provide an overview of migration and incidence patterns that could illustrate the influence of different land uses</p>	<p>Producers could make more informed management decisions involving the spread, severity and risk since CYSDV will be better understood</p> <p>Adoption of host free periods could reduce disease incidences.</p> <p>CYSDV maps can document the spread over a regional scale</p>	<p>Increasing profits by showing host free periods are effective and save money</p> <p>Help to maintain Arizona melon productivity</p> <p>Homeowners will gain greater awareness about the interplay between urban landscapes and production agriculture</p>