# Logic Model: Statewide survey on the distribution of Whitefly Biotype Q

| SITUATION | INPUTS | OUTPUTS | | OUTCOMES- IMPACT | | |
| --- | --- | --- | --- | --- | --- | --- |
| | | Activities | Participation | Short | Medium | Long Term |
| The devastating Q biotype of the whitefly *Bemisia tabaci* has been found in 25 states including Arizona. Given the possible impact, the only prudent approach to this new threat is to plan for the worst and hope for the best. Planning for the worst requires pro-actively monitoring the location and spread of the Q biotype within our production systems and then exploring ways to manage it before it becomes widely established. | We are requesting $ 6500 for partial support of PhD student Weihua Ma during 2008 and $ 2500 to cover partial cost of materials and supplies | To provide up-to-date information on the distribution of the Q biotype, we will accomplish the following objectives:<br>1) Collect whitefly samples (10 individuals per sample) from different crops (poinsettia, cotton, melon, vegetables, etc.) statewide<br>2) Use the mtCOI gene PCR-RFLP to analyze each sample<br>3) Validate the Q biotype with mtCOI gene sequencing or esterase banding methods<br>4) Integrate the biotyping results into a statewide distribution map of the B and Q biotypes<br>5) Deliver the distribution map to decision makers / stakeholders and end-users through Arizona Crop information Site and APMC web sites, and via Cooperative Extension Agents and Specialists | Our intended audience is the decision makers/ stakeholders and end-users including extension agents, ornamental industry, and growers of Arizona | Increase in knowledge and understanding of the statewide distribution, spreading, host suitability, and establishment of the Q biotype in Arizona | Informed assessment of the severity of the threat posed by the Q biotype and the risk of its establishm-ent in Arizona | Design and Implementation of rational strategies for management of the Q biotype |