

LOGIC MODEL for PROGRAM DEVELOPMENT and ASSESSMENT

Initiation of Trapping and Monitoring Techniques to Identify and Determine the Pest Status of Billbugs in Turfgrass

SITUATION	INPUTS	OUTPUTS		OUTCOMES – IMPACT		
		Activities	Participation	Short	Medium	Long Term
Golf course superintendents encounter turfgrass insect pests, specifically, billbugs. Possibly four species may be occurring in turfgrasses in Arizona. Identification of species and determining timing of occurrence and understanding biology are fundamental to developing IPM strategies.	Area Agent Research Specialist Extension Specialist Regional collaborators Golf course superintendents	Initiate trapping and monitoring techniques on suspect golf courses in Prescott and Phoenix areas.	Golf course superintendents.	 Billbugs are trapped, counted, and tallied routinely. Identification of billbug species conducted with collaborating entomologists. IPM strategies initiated based on knowledge of billbug species occurrence. Application timing of insecticides is modified based on trapping. 	Knowledge of insects and pest management strategies enhanced. Optimally use pesticides in a judicious manner. Database compilation will enable better understanding of economic and action threshold levels.	Superintendents will adopt routine IPM strategies to manage turfgrasses within the context of the surrounding environment of residences, commercial entities, agricultural, and native desert. UA Turfgrass Research, Extension, and Education program is valued resource for IPM in turf.