

BAIT STUDIES ON FIRE ANTS & FIRE ANT TOXICANTS ON TEXAS CAVE
CRICKETS & FISH-BAIT CRICKETS

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Abstract: Field studies using attractant non-toxic baits demonstrated that fire ants foraged intensively in and around the caves. These studies also demonstrated that cave crickets emerged from the caves and foraged widely around the caves. The objectives were to assess susceptibility of endangered cave species to impact by fire ant and fire ant management practices and chemicals. As it was not feasible or legal to test endangered cave species, cave crickets, a scavenger species important in the cave food chain were used as a surrogate. The cave crickets live and reproduce in the caves and forage for food outside of the caves. Cave crickets were tested in two ways. Cave crickets were fed on specific numbers of bait granules to determine the risk Amdro bait poses to the crickets. Cave crickets were fed on Amdro poisoned fire ant cadavers, to determine if the movement of toxicants via scavengers into the cave systems was possible. Additional tests were conducted using fish-bait crickets as surrogates for cave crickets. Amdro granules were toxic to cave crickets and fish-bait crickets feeding on bait granules. Amdro poisoned fire ant cadavers did not pose a threat to the cave crickets. The ants could easily be controlled without affecting the cave crickets by restricting fire ant treatments to morning hours, thus allowing sufficient time for the fire ants to forage for and retrieve all of the bait particles before the cave crickets emerge from the caves during the night.