

A one page plain English summary of the project outcomes must be submitted, and this may be used in CRDC publications and on our proposed web site.

During the 1995/96 and 1997/98 cotton-growing seasons there was an inverse relationship between the population densities of dominant benthic macroinvertebrates and concentrations of endosulfan in the Namoi River. Laboratory toxicity testing with these same species indicated that endosulfan concentrations that have been measured in the Namoi River during storm events would cause decreases in the population densities of mayflies and caddisflies as well as fish. The dominant toxic component of endosulfan in riverine samples was the metabolite endosulfan sulfate indicating that its most likely source is from land run-off during storm events. Throughout both cotton-growing seasons, the mean total endosulfan concentrations in passive samplers constructed of solvent-filled polyethylene bags at the high-exposure sites were 10-25 times higher than those at the reference sites.

- Using passive sampling methods, pesticide concentrations measured in solvent-filled polyethylene bags placed in the water column has potential as a tool to audit the impact of Best Management Practices, implemented by the Cotton Industry, on pesticides entering the riverine environment.