

# Differential Characterization of Air Pollutant Emissions & Associated Toxicity from Common Agricultural Practices

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**Problem:** This project aims to improve farmworker health with a focus on air quality. Air pollution (particulate matter emissions) from agricultural practices differs in physical and chemical composition, which determines its toxicity and resulting health effects.

**Project Overview:** Particulate matter from California's San Joaquin Valley and Imperial Valley is being collected at various farming sites with different labor-intensive crops. The impact of these particles on respiratory health is being studied.

**Progress to date:** Strategic planning meetings with two partnering community groups, *Comite Civico del Valle* of the Imperial Valley and the Environmental Justice Coalition for Water, have occurred. In addition, presentations have been made to two high schools in the Imperial Valley about the study and to gauge interest in students participating in parts of the study (research trailer maintenance, particle filter collection, site visit, or video conference with Pinkerton lab at UC Davis, etc.).

**Anticipated Project Outputs:** Results will be used to educate farmers, farmworkers, advocacy and industrial groups, and regulatory agencies through education, translation, and outreach on which common agricultural practices appear to be most hazardous to health.

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