

TITLE: **Methods to reduce fumigant pesticide emissions**

PROBLEM: Fumigant pesticides are the largest contributors to the pesticide VOC inventory. Additionally, most of them are designated as toxic air contaminants. Using current application techniques, 40 – 90% of the amount applied is released to the air.

PREVIOUS WORK: Several academic, government, and industry researchers have developed application techniques to reduce peak emissions with limited success. Some of these techniques may just delay volatilization of fumigants. Many techniques have only been demonstrated in the laboratory or with small field plots.

OBJECTIVE: Develop application techniques to reduce overall emissions of fumigants.

DESCRIPTION: Many ideas have been proposed to reduce fumigant emissions, such as use of virtually impermeable films, irrigation techniques, soil amendments, and modified injection shanks. This study would select the best candidates and measure fumigant emissions using the new application techniques on commercial agricultural fields.

BENEFITS: Reduction of fumigant emissions will significantly decrease VOC emissions in several nonattainment areas (San Joaquin Valley, Ventura, Southeast Desert). This will also reduce exposure to toxic air contaminants.

COST: \$200,000

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