## Nitrogen and Phosphorus Concentrations in Agricultural Drainage Ditches in the Central Coast Region of California. (A05-gentry190021-Poster)

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## Abstract:

Nitrogen and phosphorus are common nonpoint pollutants found in agricultural drainage water. In this study agricultural drainage ditches were sampled in an effort to link water quality to land use in watersheds along the Central Coast of California. Tile drainage appeared to be an important source of water to these ditches; therefore, we began sampling selected tiles and found concentrations as high as 106 and 1.9 mg/L for nitrate-N and ortho-P, respectively. For both nutrients, we found high correlation between ditch and tile water. Throughout the past year, nitrate concentration in a given tile has remained relatively constant regardless of flow rate. These data suggest the shallow ground water in this area has become a sink for nitrate accumulation. During a high flow period in December 2001, nitrate loads from individual tiles ranged from 12.7 to 22.1 kg N/day. High nutrient concentrations in these ditches have caused algal blooms and impaired water quality. Resource agencies are developing management practices and remediation strategies to reduce N and P loading to surface waters.

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