

## FOREWORD

CDFA offers to interested readers the attached UC Berkeley report analyzing the economic importance of organophosphate (OP) insecticides in California agriculture.

The study began in 1998, at a time of mounting fear in the agricultural community that most or all OP uses might be lost due to implementation of the 1996 Food Quality Protection Act (FQPA). We zeroed in on the OP's not only because they were the first class of compounds to be scrutinized under FQPA, but also due to the fact that -- with one exception -- they're all insecticides, thus providing some much-needed analytical simplification.

Our charge to UC Berkeley was not to attempt to predict the economic consequences of FQPA (a hopelessly impossible task), but to evaluate the following hypothetical scenario: California farmers wake up tomorrow and find the cupboard completely swept bare of OP's, but all other insecticides are unrestricted. How would they manage the first year? How would they fare over the next four to five years, given the current prospects for emerging, lower-risk pest management methods? The idea, in short, was to evaluate the economic importance of one major class of pesticides, and in so doing produce a prototypical "transition analysis."

The study took much longer to complete than we originally anticipated. In the meantime, the wholesale threat to OP's posed by FQPA's cumulative risk assessment process has receded. On the other hand, some OP's still face strict regulatory scrutiny from other sources. For example, California's nine regional water quality control boards are in the process of developing Total Maximum Daily Loads (TMDL's) under the federal Clean Water Act; these TMDL's will be folded into their respective basin plans. In addition, the State Water Resources Control Board and the Coastal Commission together are charged with implementing the State's Nonpoint Source Pollution Plan, which includes surface water pollution from pesticides.

In a nutshell, the report is a case study of California agriculture's potential resilience in the face of stringent regulatory pressure. We hope that this hypothetical exercise will prove useful and informative both to state and federal policy-makers, who in recent years have shown increasing sensitivity to the problems of designing a smooth transition for production agriculture in response to inevitable regulatory change. The pest management discussions in Appendix A should be of particular interest, since these provide the framework that drives the economic analysis.

The OP study was produced pursuant to research contracts with two different departments housed within UC Berkeley's College of Natural Resources: the Department of Environmental Science, Policy & Management (ESPM), and the Department of Agricultural & Resource Economics (ARE). ESPM's Division of Insect Biology provided the entomological expertise that guided ARE's economic modelling effort. The research contracts were administered by CDFA's Office of Pesticide Consultation & Analysis (OPCA). Under general guidance from OPCA, ARE and ESPM worked in close collaboration to complete the OP report. Significantly, ESPM sought and received gratis assistance from several prominent UC Cooperative Extension pest management specialists.

The report's choice of analytical methodology, findings and conclusions are the sole province of its authors. We did, however, work closely with the principal investigators in a concerted attempt to insure that the study would rest on the firmest possible empirical foundation.

CDFA welcomes comments on the study from interested readers. You may send comments to Charlie Goodman at [cgoodman@cdfa.ca.gov](mailto:cgoodman@cdfa.ca.gov) or John Steggall at [steggall@opca.cdfa.ca.gov](mailto:steggall@opca.cdfa.ca.gov).