

## **Adjuvants and Active Ingredient Residue Data Analysis**

### Overview

In mid 2008, EPA became concerned about setting tolerances that might not represent the expected active ingredient residue levels in plants grown under actual agricultural practices. This concern was based on a limited set of data for grapes and fruit tree crops that indicated use of tank-mix adjuvants could result in an average twofold increase in residues. CPDA responded by forming a working group to manage this issue and to educate EPA staff about the nature and uses of tank-mix adjuvants. Between September 2009 and March 2010, CPDA and CLA jointly compiled and submitted to EPA existing data from 437 studies that compare active ingredient residue levels in plants grown with and without adjuvants present under the same growing conditions (“side-by-side” studies). Based on linear regression analysis, CPDA and CLA argued that the data demonstrate adjuvants generally do not increase active ingredient residues above levels that would be of concern to EPA (average with/without adjuvant ratios are between 1 and 2). EPA then engaged a contractor to statistically analyze the data. However, the contractor’s December 2010 draft “exploratory analysis” report did not provide useful information to the Agency, which then ceased further work on the matter due to lack of funds.

### Update

CPDA received a copy of the contractor’s draft report in June 2011, and after discussions with EPA staff and approval of the CPDA Board of Directors, hired a consultant to in September 2011 to more appropriately analyze the side-by-side data submitted to EPA. One objective of this analysis is to determine whether and to what extent the use of adjuvants may affect active ingredient residues in crops. The second objective is to assess whether statistically significant increases in residues would be of biological concern based on maximum residue levels (MRL) calculated for residues measured in crops treated with adjuvants. CPDA consulted with EPA staff on this initiative and incorporated Agency suggestions into the work plan provided to the consultant. CPDA expects to receive a draft report from the consultant during December 2011.