

days, even small discrepancies in the reported dates of application could jeopardize any possibility of identifying an empirical relationship.

Only three results from the Specific Practices models were consistent enough to warrant general implications. First, in four out of six insecticide regressions where product form was included and significant, the signs of these variables were all negative. Thus insecticides which are available and used in a dry product form tend to be generating fewer residues than those used in liquid forms. This result may be due to inherent characteristics of the dry form of pesticide carrier or to the characteristics of the pesticides which are available in this form. Second, in three of the seven regressions for individual pesticides that included it, the nonadjuvants variable was significantly negative. In the survey data nonadjuvants consisted of either macro or micro-nutrients (fertilizers) added to pesticide spray mixes. There was no specific theory based hypothesis for this variable, so this result could only be used to indicate a need for further research. Third, the use of economic thresholds as a decision criterion for making fungicide applications was significantly negative in five out of six individual fungicide active ingredient regressions. Here, the implication is that growers who apply fungicides on a preventative or pre-determined calendar schedule (i.e., not using economic thresholds as a decision criterion) end up having more of these residues in their produce. This implication might have been confirmed in the General Practice regressions but the comparable variable was dropped from the analysis due to its low variance. This last result represents a strong endorsement for IPM type strategies in pest control.

Recommendations

Two types of recommendations are discussed in this section. The first deals with the issues related to the objectives of the analysis, that being the relationships between attributes, cultural practices and residues. These are derived from the empirical analysis. Methodological insights brought to light during the implementation of this research are the basis of the second type of recommendations.

Topical Recommendations

Most of the relationships identified and measured in this study were found to be specific to a commodity (strawberries or tomatoes) and type of pesticide (fungicides or insecticides). Consequently, any topical recommendations or related policy decisions based on the results of this study are and should be limited to their particular context.

- Socio-demographic analysis of residue levels indicate that education, certification, and firm size are positively associated with higher residues. This leads to the conclusion that current educational and certification programs may not be properly or adequately addressing issues related to the occurrence of pesticide residues in produce. Consequently, it is recommended that government agencies with duties and responsibilities related to health, the environment, and agriculture, re-evaluate their existing programs or initiate new programs to educate producers on integrated pest