

data had deleterious effects on the outcome of these regressions. None-the-less, a significant portion of the variation of pesticide residues among the samples was explained in the models. Conclusions regarding these results along with some insights into the methodology used for this research are elaborated below.

Some interesting relationships between demographic and organizational Attributes and pesticide residues were identified in the analysis. Contrary to expectations, education of decision-makers and certification of employees in strawberry operations contributed to pesticide residues. This refuted the hypothesis that firms with higher skilled personnel would be more likely to adopt the latest technologies in pest monitoring and control. The same rationale was applied to the expected relationship between firm size and residues, but this was discredited in the tomato regression. Obviously some other relationship exists between these attributes and pesticide use or pest management.

More aligned with prior hypotheses, both strawberry and tomato operations that were affiliated with downstream market stages and used greater proportions of rented crop land had fewer residues. One possible inference from these results relates risk exposure to pesticide use. Firms that have more equity exposure (i.e., own greater proportions of cropland, may face greater down-side financial risk than growers who rent most of their cropland). To help reduce the risk of loosing their higher equity stake due to pest damage, such firms use more pesticides. Firms that are affiliated with downstream market stages should face less uncertainty or reduced risk in marketing their output, either through better market access or through less volatile prices. Since pesticide applications are also a risk or yield-variance reducing practice, affiliation is a substitute form of risk reduction which may allow producers to be more judicious in their use of pesticides. The negative sign for affiliation could also be construed to imply that improved coordination between market stages can help reduce residues, particularly for insecticides.

The other notable implication from the Attribute models comes from the strong association between residues and soil types. Compared to strawberries grown on sand type soils, sandy loam and loam soils appears to be better suited for producing berries with lower residues. For tomatoes, the reverse is partially true. Samples taken from fields with sand type soils were associated with lower residues than those grown on sandy loam. Thus, with respect to pesticide residues, if growers have a choice of soil types in their area, then sand appears to be preferable for tomatoes and soils containing loam are better suited for strawberries. This turns out to be more practical for strawberry growers. A review of the sample data revealed that nearly 80 percent of the sampled tomatoes that were grown on sandy-loam soils originated from Dade county. In contrast, samples taken from the largest single strawberry producing county in the state came from all three soil types. The preponderance of tomato samples grown on sandy-loam soils in Dade county makes it difficult to preclude the possibility that some other geographically related factor may be ultimately driving this statistical relationship. On the other hand it seems reasonable to argue that pests have no way of perceiving their geographic location other than through various natural and manmade environmental conditions such as temperature, rainfall, soil type, irrigation, plant density, etc. Since these variables have been included in the