

DETERMINATION OF TANK-MIXTURE EFFICACY. Stott Howard, Syngenta Crop Protection, Des Moines, IA.

Although Colby's method has been widely studied and serves as an important industry benchmark for determining the type of interaction when two herbicides are used in mixture, it does lack a suitable method for statistical analysis. Flint's analysis provides a statistical test for additive, synergistic, and antagonistic effects. By using the effects of the herbicides when applied alone, Flint's analysis calculates 'expected' values for additivity and then tests for significant differences between the calculated and measured values of the herbicide mixture. A strength of this statistical test is that a range or series of rate combinations may be tested for significant interactions simultaneously, and a weakness of this analysis is that low rates of both herbicides are required to provide accurate calculations of expected values.