

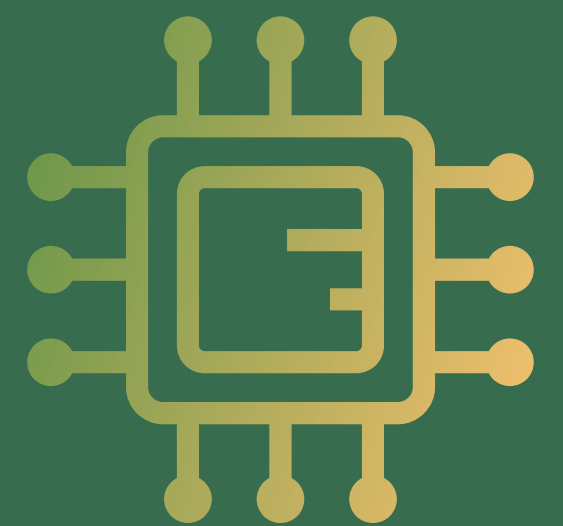
DEPOSITION MEASUREMENTS TO COMPARE DIFFERENT SPRAY-REDUCING TECH



Spray deposition measurements are essential for assessing the effectiveness of different spray technologies. The primary aim is to quantify the spray liquid distributed on various parts of trees and the soil, providing reliable data for comparison.



The goal of deposition measurements is to measure the amount of spray liquid on different parts of the trees (leaves at various heights, stems, branches) and the soil. This helps in understanding how well different spray technologies, such as drift-reducing nozzles or varied air speeds, perform in delivering the spray liquid where it's needed most.



METHODOLOGY



- **FLUORESCENT TRACER: A TRACER IS ADDED TO THE WATER IN THE SPRAY TANK.**
- **SPRAY APPLICATION: THE ORCHARD IS SPRAYED, AND LEAVES ARE COLLECTED FROM DIFFERENT TREE PARTS.**
- **LABORATORY ANALYSIS: LEAVES ARE WASHED IN THE LAB, AND THE WASH WATER IS ANALYZED WITH A SPECTROPHOTOMETER TO MEASURE THE TRACER.**
- **DEPOSITION ON STEMS, BRANCHES, OR SOIL IS MEASURED USING ARTIFICIAL COLLECTORS MIMICKING THESE TARGETS.**

BENEFITS



- **VALIDATION: SUPPORTS THE DEVELOPMENT AND VALIDATION OF NEW SPRAY TECHNOLOGIES BY PROVIDING QUANTITATIVE DATA.**
- **ENVIRONMENTAL IMPACT: HELPS REDUCE EMISSIONS TO THE ENVIRONMENT WHILE IMPROVING THE EFFECTIVENESS OF PLANT PROTECTION PRODUCTS.**
- **EFFICIENCY: ENHANCES PRECISION OF SPRAY APPLICATION, ENSURING OPTIMAL COVERAGE AND EFFICACY**



Spray deposition measurements are a reliable method for comparing spray technologies, ensuring that pesticides are used efficiently and sustainably while minimizing environmental impact. This approach supports the development of more effective and environmentally friendly spray application methods.