

MANAGEMENT OF PESTICIDE DRIFT IN ORCHARDS OF TRENTINO

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Drift of pesticides is a critical element in achieving the plant protection management. Since the fruit season 2009 comparative tests have been carried out during different wind conditions (almost total absence and presence of wind) to verify the mitigation ability of anti-drift nozzles, used with different sprayer adjustments and coupled with the other devices. Actually in Province of Trento the most of growers who sprays next to drift sensitive areas (houses, roads, bicycle patches, etc.) uses spray lances. Several technologies are available to mitigate drift along with many techniques. On the other hand the differences between training and pruning systems, planting distances, cultivation environments, etc., must be taken into consideration to achieve the highest level of reduction. The main characteristics of the orchard landscape of Trentino are: strict connection with inhabited areas, medium or steep slope of most apple plots and intensive orchard growing with height of trees up to four meters. At first the most appropriate machinery to adopt in that growing contest appeared on-target sprayers with anti-drift air injector nozzles. Other devices and application strategies such as the exclusion of airflow and spray when treating the border rows of the orchard or the presence of an hedgerow should help to reduce the risk of pesticide drift. To ensure the maximum level of drift reduction, further experiments are needed to find other technical approaches which may be combined with the spray equipment already tested.