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Application techniques are generally regarded as a significant factor influencing the biological effect and the safe use of crop protection products. Application techniques comprise a number of parameters that affect the way in which the spray liquid, and therefore the active substance, reaches the plant (initial deposit at the target surface). This initial deposit is affected by the weather conditions (temperature, air humidity, wind speed...), the equipment used (type, nozzles, airflow, equipment setting etc.), the crop, the crop stage and the canopy structure. The amount of the initial deposit is also affected by the position of the leaves and more particularly by the nature of their surface. In addition, droplet size is a key factor in determining how the active substance is deposited. Many experiences and historical statements concluded that fine-droplet applications and higher water volumes were better in terms of biological efficacy. The theory behind this was that it achieved a more even coating on the upper and lower sides of the leaf. Fine and medium droplet application therefore had been the standard procedure for many years.

Attention has now turned to drift-reducing applications in view of stricter risk assessments aimed at protecting water sources, non-target organisms and operators/bystander/residents from drift of crop protection products. Drift is defined as the proportion of the active substance administered that will not be deposited inside the area being treated. Measures to reduce the drift sediment are mainly of a technical nature. Expensive procedures such as recycling technique have in the past reached the stage at which they could technically be used, but have not proved popular in practice on the reasons of cost and technical complexity. Universal and simple to use equipment with a high safety standard for operator and environment should be the preferred and recommended technology.

Coarse-droplet application via injector nozzles with crop adapted spray volumes might make a significant contribution reducing drift without having extensive technical or financial input. For many years there has been a noticeable trend towards the use of injector nozzles starting in arable farming followed in high crops like orchards and vine yards, with drift reduction at the forefront of this move. Preliminary and individually published trial results and practical experience have shown that the coarse-droplet application had no any detrimental effects on efficacy.