



Redefining Pest Management - a Holistic Approach

Practice Abstract N° 21

Best Management Practices for set-up and use of smart sprayers

When spraying plant protection products (PPP), farmers have a responsibility to prevent it from drifting as well as harming the environment, human health, and food safety in other ways. One way to mitigate the impact of PPP is to improve the efficiency of spray applications through increasing depositions on the target crop and reducing losses to the environment. Best Management Practices (BMPs) have been drafted to aid farmers in setting up and using their sprayer in an efficient manner. These BMPs are the following:

- 1) Consider the use of smart sprayers enabling to spray only where and when needed using sensors and advanced spray technologies to maximize target deposition with minimal losses and PPP use.
- 2) Be aware of the full and minimum spray volume settings. The minimum PPP dose prescribed on the label must be respected even when the spray volume is varied/reduced to match crop size, canopy density or disease conditions.
- 3) Select appropriate nozzles (such as flat fan, drift reducing, and off-center nozzles) and settings to avoid spray drift, run-off and direct losses to the ground.
- 4) Consider variable rate application systems. Variability in canopy characteristics and disease pressure typically result in over- and under-spraying when using a constant rate application.
- 5) Avoid too high tank mix temperatures (> 35 to 40°C) when using bio-PPPs. High temperatures in the spray mix may affect the vitality and effectiveness of bio-PPPs.



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