



drone facts



Nozzle Tip Selection for Drift Control

Drift is always a concern for producers using agricultural sprayers, and the LSU AgCenter has been performing research to determine which spray tips produce the smallest

amount of driftable fines, which are defined as droplets less than 150 micrometres (um) in diameter that can become easily airborne and travel great distances from their release point.

Percentage of Driftable Fines Found Suspended in Air at 32 Feet Away From Spray Boom (All Nozzles @ 40 psi / 0.2 GPM)

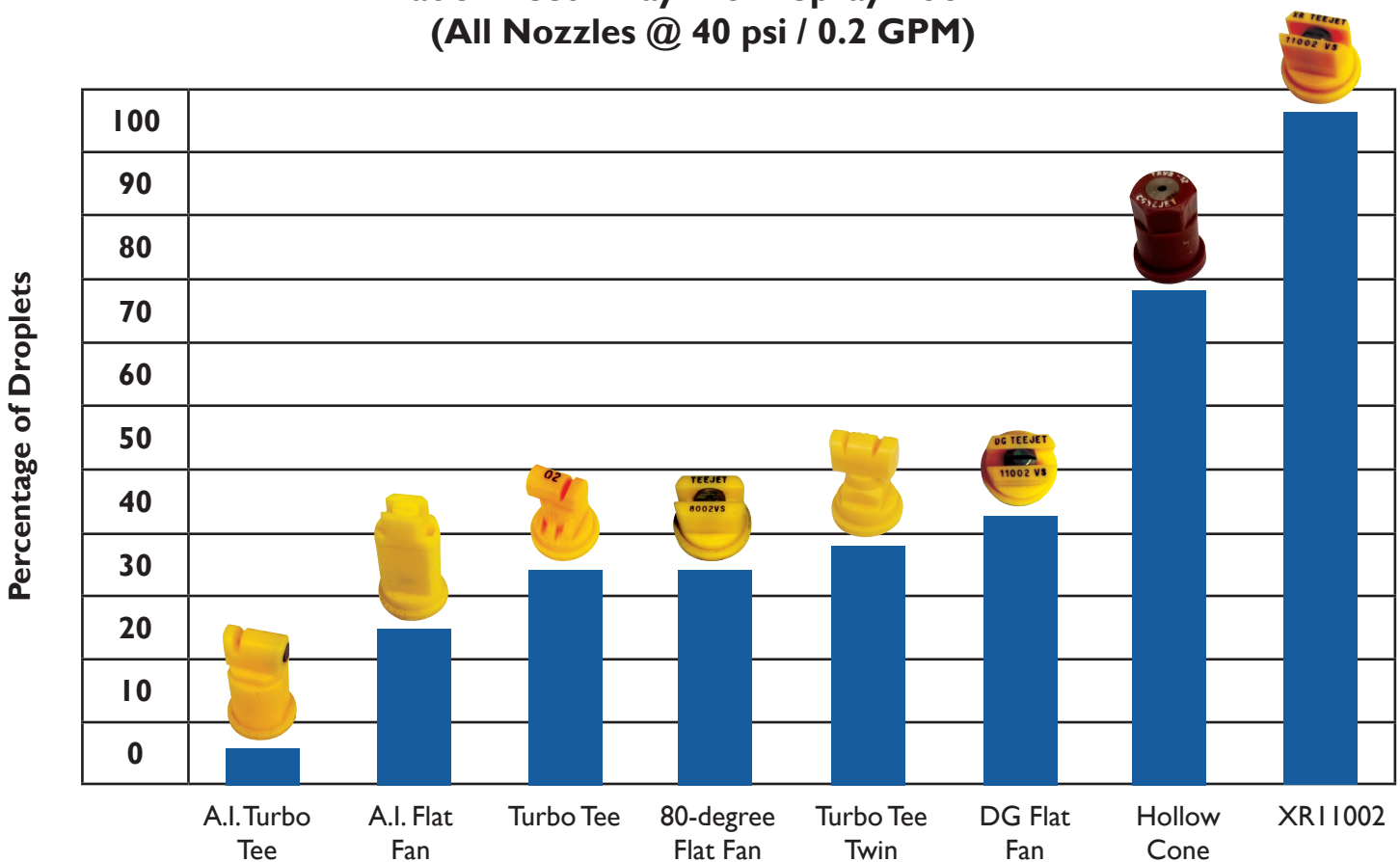


Figure 1: Example of driftable fines produced from each tip type under similar operating conditions.

In a test involving all the main nozzle types — air induction (A.I.), 80-degree flat fan, Turbo TeeJet, Turbo TwinJet, Drift Guard (DG), hollow cones and XR flat fans — air induction nozzles consistently scored best at producing the smallest amount of driftable fines in standard operating pressures of 40 pounds per square inch (psi). XR flat fans and hollow cones produced the highest number of driftable fines, while all other nozzles types fell

in between these two ranges.

For this reason, operators wanting to control drift should use A.I. nozzles when possible. XR and hollow cones can still be used in cases where drift is not as important, such as in insecticide or fungicide work, but be aware that these nozzles will output a significantly higher amount of driftable fines than the other nozzle types at a set pressure.

Questions

Questions related to nozzle tip selection and drift can be sent to Dr. Randy Price, LSU AgCenter Dean Lee Extension and Research Center, Alexandria, Louisiana. Price can be reached by email at rprice@agcenter.lsu.edu.



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Pub. 3632 (online only) 08/18

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