DROPLET SPECTRA AND DRIFT POTENTIAL OF 2,4-D CHOLINE SALT AND GLYPHOSATE MIXED WITH FUNGICIDE AND INSECTICIDE

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The aim of this study was to evaluate the droplet spectra and the risk of spray drift with a tank mix of 2,4-D choline salt and glyphosate (EnlistDuo™ Colex-D™) with protioconazol+trifloxistrobina (Fox) and clorpirifós (Lorsban™ 480 BR). The treatments were composed with three spray solutions at 100 L ha^{-1} containing the recommended chemicals label rates and two different nozzles: extended range flat fan with air induction (AIXR 11002) and twin flat fan (TTJ 11002). The spraying was done at 280 kPa with both nozzles. The volume median diameter (VMD) and percentage of droplets smaller than 105 µm (V105) were obtained using an particle size analysis system (VisiSizer/Oxford Lasers Ltd/UK). The drift index (DI) was measured in the wind tunnel (2,5 m s^{-1} wind), where was determinate the spray drift two meters away from the nozzle to the droplet collector. The VMD increased and V105 decreased with the AIXR nozzle by treatments with Lorsban, while there was no significant difference to the spray solution with Fox when compared to EnlistDuo Colex-D alone. Using the TTJ nozzle, the mixtures were not different in the droplet spectra. The DI decreased when sprayed with the AIXR for both mixtures. Using the TTJ nozzle, the spray solution of EnlistDuo Colex-D with Fox showed lower DI, while the DI of the mixture with Lorsban increased. With the exception of the interaction between the TTJ nozzle and the Lorsban's mixture, there was not an increase in spray drift potential with other tank mixtures with the EnlistDuo Colex-D.

Palavras-chave: Application technology, wind tunnel, Enlist Duo™ with Colex-D™, *Glycine max*