

## Dead Sure®/AIXR Drift Reduction System (DRS).

The AIXR is a nozzle with a 110° wide, tapered flat spray angle with air induction technology. Depending on the chemical, the AIXR produces large air-filled drops through a Venturi air aspirator.

The Dead Sure/AIXR DRS produces usually less than 10% droplet fines with a range of glyphosate tank mixes. The Dead Sure/AIXR DRS enhances both grass and broadleaf weed control with glyphosate alone or glyphosate plus 2,4-D in the same mixture.

### Drift risk of fallow herbicide mixtures depends on % Driftable Fines

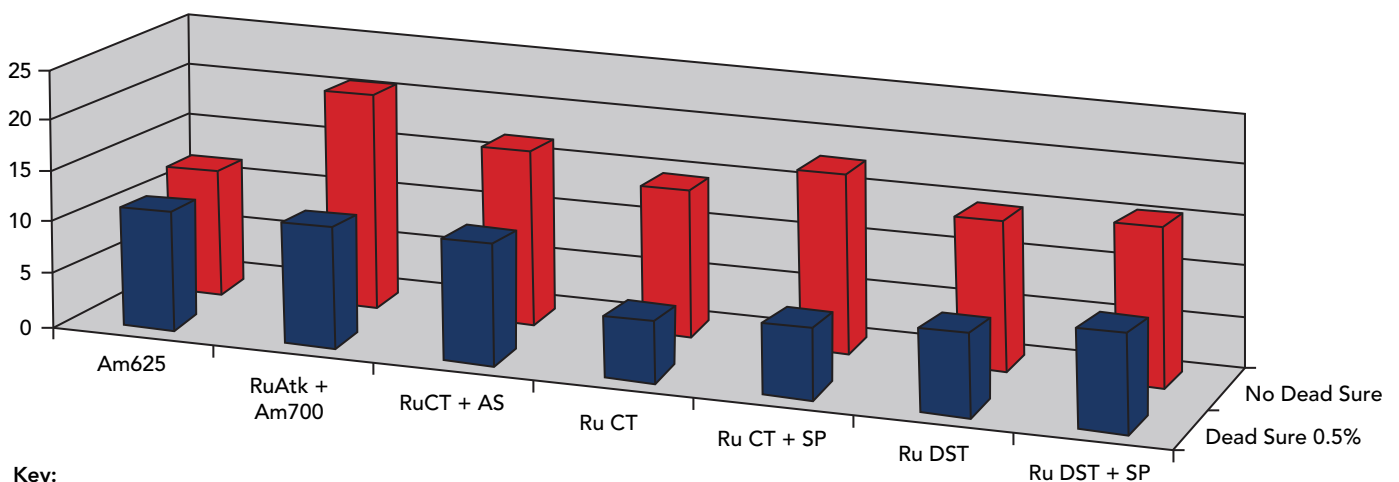
Reducing the driftable fine droplets formed is a key aspect of controlling chemical spray drift. The physical weight of droplets greater than 150µm diameter means they will not stray far from their original trajectory.



AIXR Nozzle from TeeJet Technologies

### Figure 1: % Driftable Fines - AIXR nozzle at 5 bar

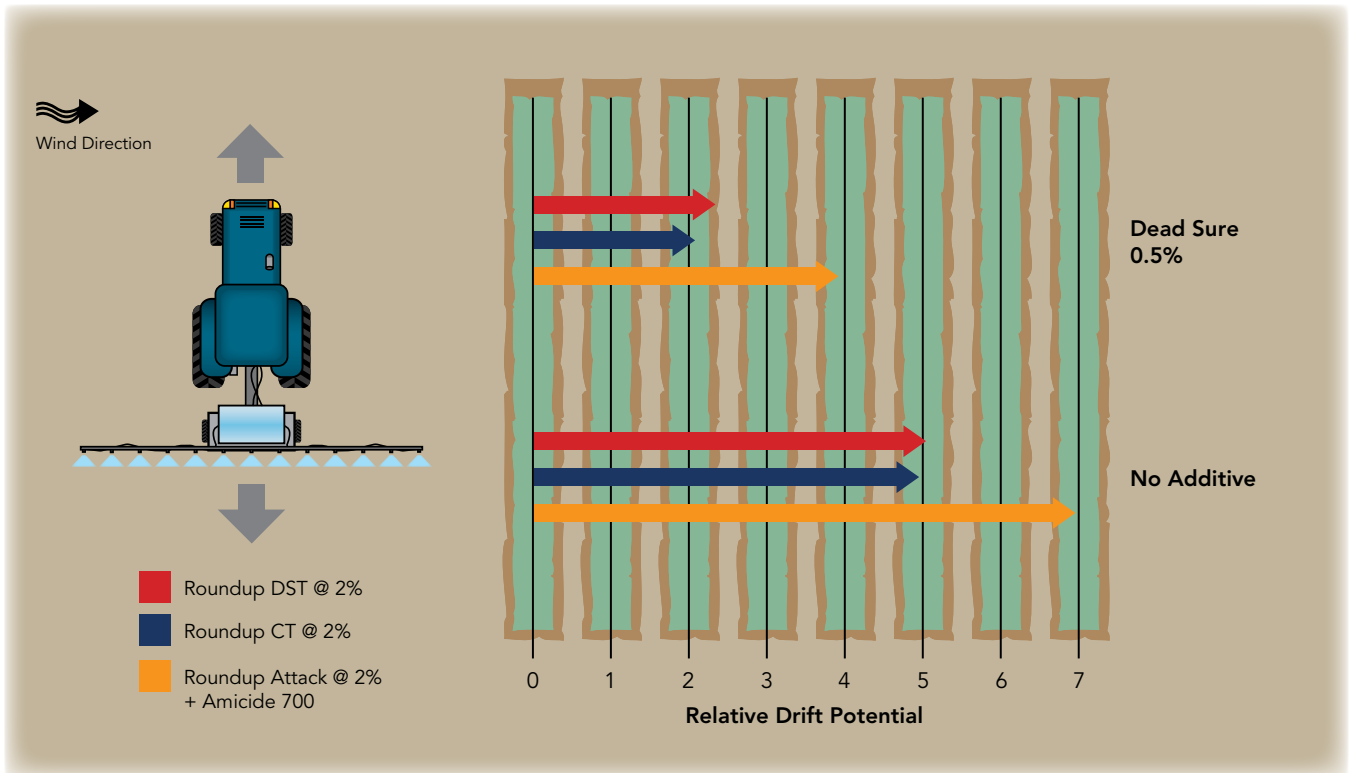
The Dead Sure/AIXR DRS does an excellent job with almost all fallow herbicide mixtures tested.



#### Key:

Am625 = Amicide 625  
 Am700 = Amicide 700 at 815mL/ha  
 RuAtk = Roundup Attack at 1300mL/ha  
 RuCT = Roundup CT at 1L/ha  
 AS = Liaise ammonium sulphate at 2% v/v

SP = Surpass 300 at 2400mL/ha  
 Ru DST = Dual Salt Roundup at 2L/ha  
 Dead Sure at 0.5% v/v  
 Water volume = 50L/ha



## Drift Potential

The drift potential of sprays is very strongly correlated with the proportion of fine droplets in a spray. The USA's Spray Drift Task Force atomization data for thousands of droplet size measurements and a large number of field drift studies forming the heart of the AgDRIFT™ model have been analyzed<sup>1</sup> to produce the following equation:

$$\text{"Drift Potential} = 0.00126534 + 0.000074433 \text{ Dv}0.1 - 0.00000337 \text{ Dv}0.5 - 0.0000186 \text{ Dv}0.9 + 0.3397122 \text{ F141} \dots \dots \dots [\text{equation 1}]"$$

<sup>1</sup> Teske, M.E., Bird, S.L., Esterly, D.M., Curbishley, T.B., Ray, S.L. and Perry, S.G. (2001) AgDRIFT: An Update of the Aerial Spray Model AGDISP. Environmental Toxicology and Chemistry Vol. 21, pp. 659-71.

When the relevant spray quality data are substituted into this equation, a relative drift potential value is generated.

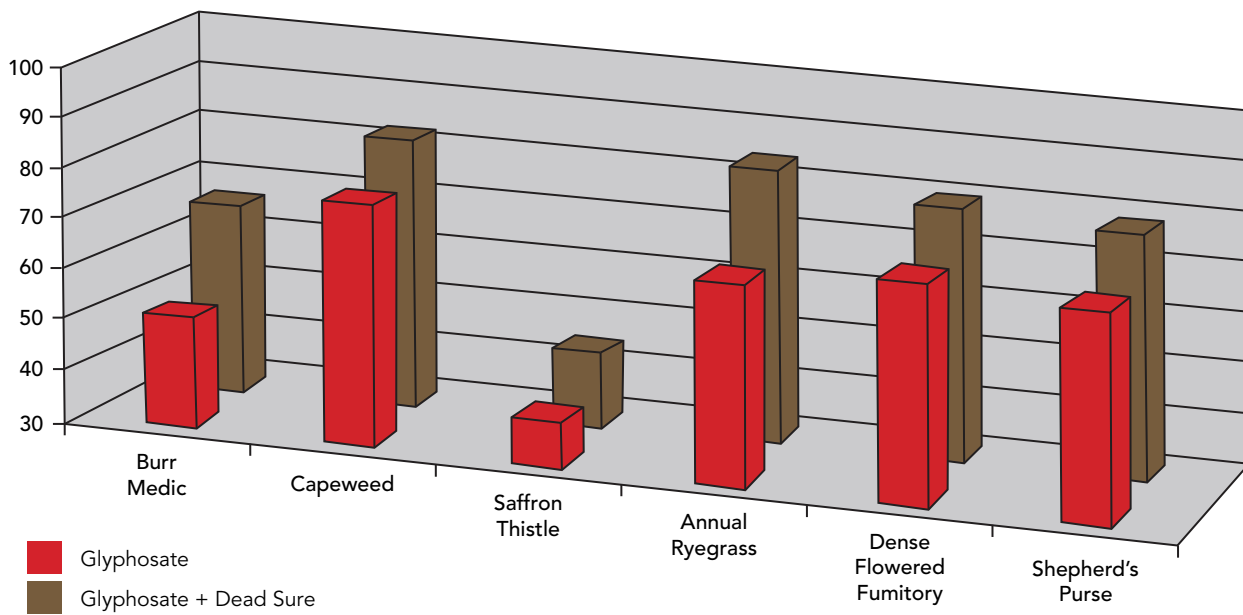
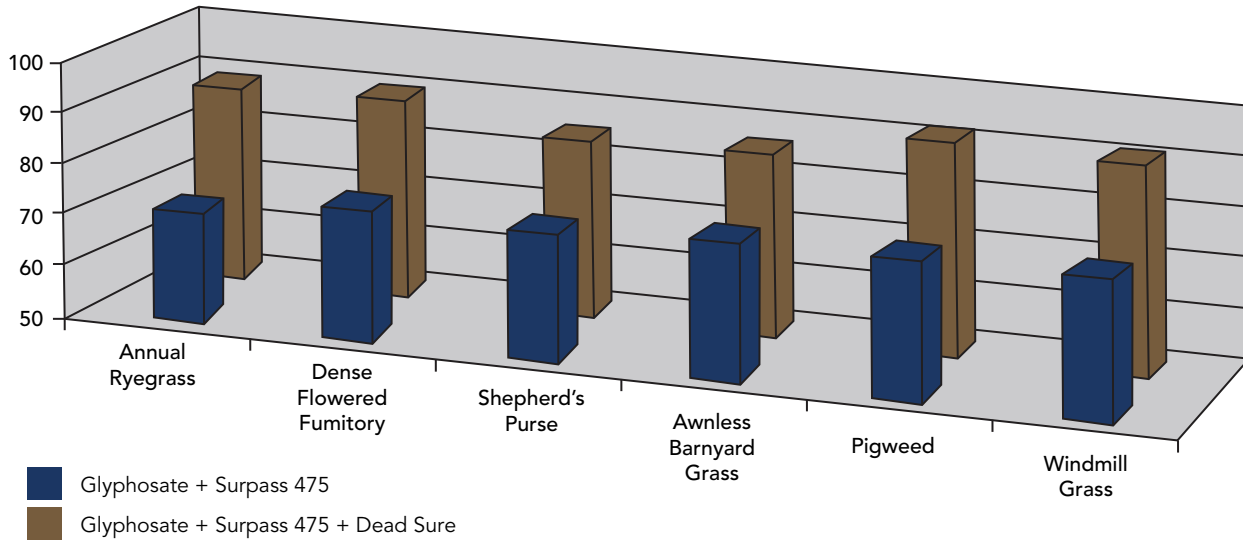
### Results (See figure above)

- The Dead Sure/AIXR DRS reduces the drift potential by about half with most mixtures compared to just using the AIXR nozzle as the only DRT.

## Enhanced Weed Control

The Dead Sure/AIXR DRS:

- Despite producing almost no fine droplets, the Dead Sure/AIXR DRS gave excellent efficacy enhancement of the herbicides tested across a range of weed types.



**Key:**

Glyphosate = Glyphosate CT applied at 800mL/ha  
 Surpass 475 used at 415mL/ha  
 Dead Sure used at 0.25% v/v  
 Water volume = 50L/ha  
 Assessments 29DAT in Namoi

