

## Dead Sure®/TTJ60 Drift Reduction System (DRS).

TTJ-60s are dual outlet nozzles that produce two 110° flat fan spray patterns. The angle between each spray pattern is 60° forward and back. They are best suited for broadcast spraying where superior leaf coverage and canopy penetration is important. They are regarded as having good drift control properties.

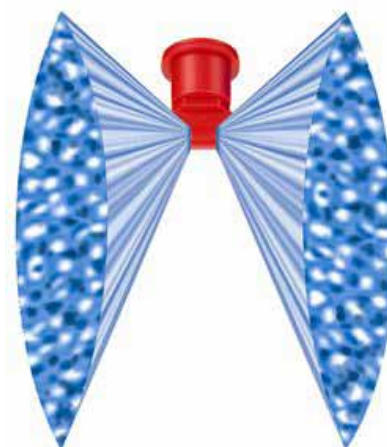
Dead Sure reduces the droplet fines markedly from this nozzle with a range of fallow tank mixes. In addition, the Dead Sure/TTJ60 DRS enhances both grass and broadleaf weed control with glyphosate alone or glyphosate plus 2,4-D in the same mixture.

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

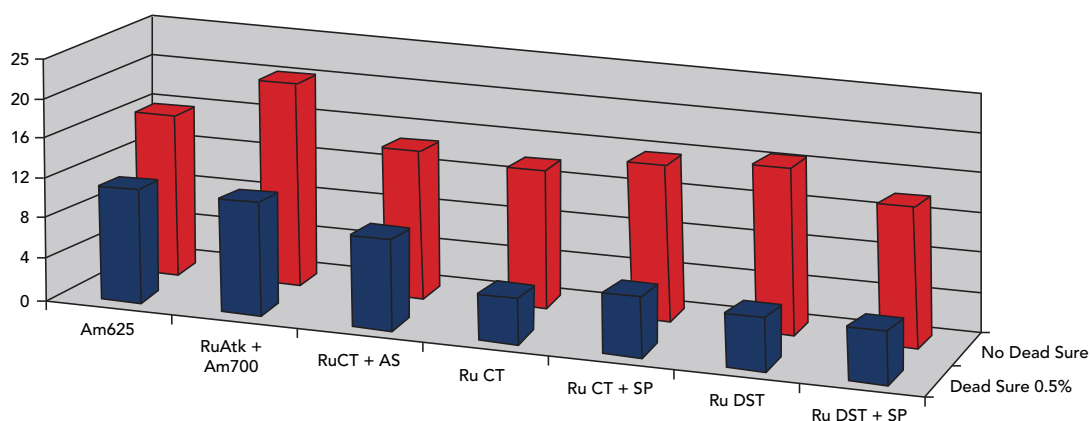
Reducing the driftable fine droplets formed is a key aspect of controlling chemical spray drift. The physical weight of droplets greater than 150-200µm diameter means they will not stray far from their original trajectory.

### Figure 1: % Driftable Fines -TTJ60 nozzle at 3 bar

The Dead Sure/TTJ60 DRS reduces fines by at least half from all mixtures tested.



TTJ60 Nozzle from TeeJet Technologies



#### Key:

Am 625 = Amicide 625  
Am 700 = Amicide 700 at 815ml/ha  
RuCT = Roundup CT at 1L/ha  
RuAtk = Roundup Attack at 1300ml/ha

AS = Liase ammonium sulphate at 2% v/v  
SP = Surpass 300 at 2400ml/ha  
RuDST = Dual Salt RoundUp at 2L/ha  
Dead Sure at 0.5% v/v  
Water volume = 50L/ha

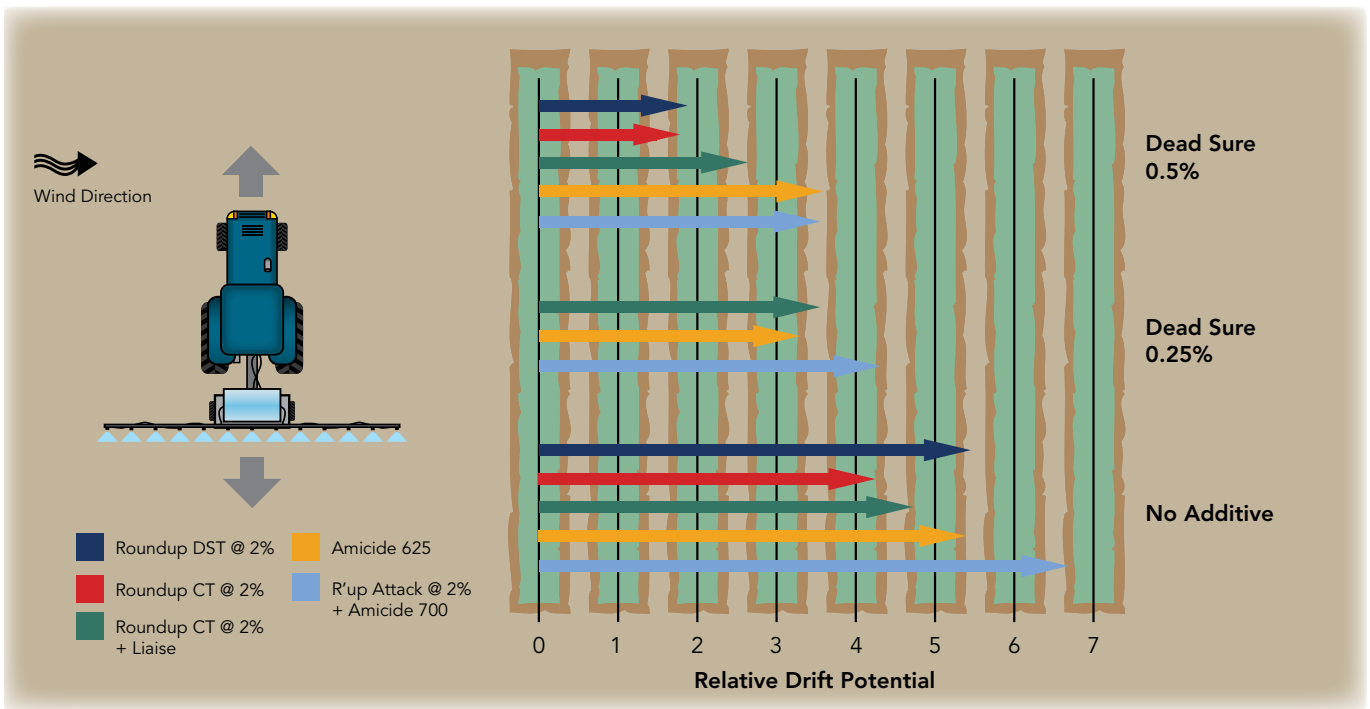


Figure 2: The effect of Dead Sure on the calculated relative drift potential of various fallow mixtures applied through the TJJ60 nozzle at 3 bar.

### Dead Sure Reduces 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 to produce the following equation:

$$\text{Drift Potential} = 0.00126534 + 0.000074433 \text{ Dv}0.1 - 0.00000337 \text{ Dv}0.5 - 0.0000186 \text{ Dv}0.9 + 0.3397122 \text{ F}141. \dots\dots\dots[\text{equation 1}]''$$

**Results** When the relevant spray quality data are substituted into this equation, a relative drift potential value is generated (Figure 2).

<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.

### Enhanced Weed Control

The Dead Sure/TTJ60 DRS:

- gives excellent efficacy enhancement of the herbicides tested across a range of weed types despite producing very few fine droplets
- is best used at 0.25% v/v for optimum herbicide enhancement.

Figure 3: Results Through TJJ60 nozzle

