

## THE DUAL HERBICIDE SPRAYER

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THE DUAL HERBICIDE Sprayer (DHS) was developed to allow the use of systemic knock-down herbicides in sugarcane without the requirement for a shielding hood. The initial concept was conceived and developed with growers in the Wet Tropics area, based on a desire to lower input costs, control problem weeds and comply with the Reef Protection Legislation (restricting the use of certain PSII chemicals).

The DHS is a relatively low cost modification to the common Irvin type boom consisting of replacement spraying heads for the Irvin 'Spider', a small herbicide tank, separate plumbing, pressure gauge, regulator and electric pump.

The DHS uses an air induction nozzle to apply glyphosate to the interrow (with the low drift characteristics of these nozzles protecting cane plants from contact with the glyphosate). 'Conventional' herbicides that a grower would normally use such as paraquat, PSII's and 2,4-D are applied into the stool through low drift flat fans.

Over the 2012-2013 season, large scale replicated trials were undertaken to determine if there was any yield reduction or phytotoxic effect on sugarcane from using the DHS (spraying glyphosate).

The trials (Cairns, Innisfail and Tully) showed no significant difference in growth through the season, brix during the season, final tons per ha and final CCS.