PERFORMANCE OF DOW AGROSCIENCES HERBICIDE TOLERANCE TRAIT IN SOYBEAN.
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Dow AgroSciences has introduced two new herbicide tolerance traits, commonly referred to as Dow AgroSciences Herbicide Tolerance (DHT) traits. One of these traits, DHT2 is currently being developed in soybean (Glycine max L.). The DHT2 trait is a synthetic gene developed by Dow AgroSciences from Delftia acidovorans. In planta, this gene produces an enzyme that metabolizes several herbicides having an ayloxy-alkanoate moiety, including Phenoxy auxins (e.g., 2,4-D, MCPA). DHT2 soybean events with low to high expression levels have been tested in the field. Robust tolerance to preemergence or single postemergence or sequential postemergence applications of 2,4-D at 1120, 2240 and 4480 g ae/ha have been observed regardless the level of expression. Soybean growth, development, maturity and yield of individual events are equivalent to iso-lines. This technology will allow 2,4-D to be applied from burndown through the R2 growth stage in DHT2 soybean. The DHT2 trait may also be stacked with glufosinate and glyphosate tolerance traits in soybean to improve and enhance the performance of glyphosate & glufosinate cropping systems, improve the control of “hard to kill” broadleaf weeds, reduce selection pressure for glyphosate resistance and sustain the glyphosate cropping system.

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