

## **EXECUTIVE SUMMARY – WEED CONTROL IN TOMATOES (2011)**

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### **Effect of Hail Damage on Tolerance of Tomato to Herbicides**

This trial was established to assess tolerance of transplanted tomato to combinations of simulated hail damage and various postemergence herbicides (Pinnacle, Sencor and Prism), to determine whether these cumulative stresses reduce yield more than each stress individually. The combination of hail damage plus Sencor caused more injury, and reduced dry weight and yield more than hail alone, hail plus Pinnacle or hail plus Prism. There is evidence of a cumulative effect of hail damage and a high rate of Sencor (200 g/ac).

### **Tolerance of Processing Tomato Varieties to Pinnacle**

This trial was established to determine the tolerance of six processing tomato varieties to Pinnacle (thifensulfuron-methyl) applied 28 days after transplanting (DAT) at a rate of 6.4 g/ac. H2401, H1014, H1166, H1170 and H5108 were injured by Pinnacle applied at 6.4 g/ac. The delay in flowering ranged from 0 days in H1013 and H1180 to 17 days in H1166. Despite the injury observed in many varieties, only H1180 had lower red yield in the Pinnacle treatment than in the untreated check. There was higher green yield where Pinnacle had been applied to H2401, H1014, and H1166.

### **Herbicide-Fungicide Tank-Mix Interactions in Tomato**

The addition of Kocide, Cabrio or Quadris to Venture L or Poast Ultra did not reduce grass control. Control of crabgrass was reduced when Quadris was added to Excel Super. Despite the loss of grass control, yield was not less in the tank mix treatments, than those treatments where herbicides were applied alone.

### **Herbicide-Insecticide Tank-Mix Interactions in Tomato**

This study was established to determine whether Admire or Matador increased injury to tomato or reduced weed control of Excel Super, Venture L, or Poast Ultra. The addition of Admire or Matador to Excel Super, Venture L or Poast Ultra did not reduce grass control. Crop injury and yield were not less than those treatments where herbicides were applied alone.

### **Tolerance of Tomato to Kixor, Sulfentrazone, Valtera and Reflex**

Kixor, sulfentrazone, Valtera or Reflex were applied PRE to tomatoes to determine tolerance at rates used in soybean. Kixor, sulfentrazone and Valtera caused significant injury, stand mortality and yield loss, while tomato was tolerant to Reflex applied prior to transplanting.