

EXECUTIVE RESEARCH SUMMARY

WEED CONTROL IN PROCESSING CUCUMBERS (2018)

BY: DARREN ROBINSON, RIDGETOWN CAMPUS

TRIAL 1. WEED MANAGEMENT IN CUCUMBERS

The objective of this trial was to determine the effect of Sandea® on cucumber tolerance to the herbicide alone and in tank mix with Command®. Sandea was applied at rates of 35, 52.5 and 70 g/ha (14, 21 and 28 g/ac) alone or with 1.1 L/ha (or 0.47 L/ac) of Command®. Hand-weeded and weedy checks were included for comparison with treatments. Herbicides were applied after planting but prior to crop and weed emergence (PRE). Injury was rated on a scale of 0 to 100% at 7, 14 and 28 days after crop emergence (DAE). Cucumber marketable yield and yield by grad (from No. 1 to 5) were determined at harvest. Weed control by species was rated at 28 and 42 DAE.

This trial determined the effect of preemergence applications of tank mixes of Sandea plus Command at different rates of Sandea. Growers' observations have been that tank mixes that include Sandea can sometimes injure cucumber at high label rates, and there is concern about whether this will translate into yield loss. None of the treatments caused injury or yield loss in 2018. In 2017, we observed a trend for greater injury as Sandea rate increased when tank mixed with Command, but we did not observe any reduction in yield. There was a benefit in greater control of lambsquarters and velvetleaf as Sandea rate increased, though again – there was no beneficial impact on yield.

TRIAL 2. TOLERANCE OF CUCUMBER TO PROWL H2O AND PETHOXAMID (CHA-2735).

Though pethoxamid injured cucumber, it did not cause any reductions in yield in 2018. In 2017, pethoxamid caused considerable injury, loss of stand and yield loss. The difference in results is hypothesized to be due to cool, wet conditions at time of emergence in 2017. Zidua and Prowl H2O caused less than 10% injury at twice the proposed label rate; stand and marketable yield were not reduced.