Plant growth regulators to determine their effect on flowering and growth in an outdoor setting.

Trial Setup and Results

The initial project was set up in spring 2016 to identify PGRs that caused the greatest level of growth modification. Sixteen blocks of five plants of five cultivars for a total of 25 plants per block were set up for the initial trial in 2016. On April 8, 2016 applications were made with Configure®at 3,000 ppm, Piccalo®at 200 ppm, Florgib®at 1,000 ppm, and Citadel/Dazide®at rates to three random trial blocks, three control blocks was left untreated and one block was treated with Concise® at 15 ppm rate. Flower timing was tracked using weekly pictures. Our initial trail indicated the Piccalo® showed the greatest potential for growth reduction and Florgib® showed the best potential for inducing growth. No significant change in flower period was noted. In fall 2016, we set up for more extensive trials of these two products, on more cultivars, to look at their interaction and the ability to modify bloom timing. Our hope was that high levels of PGR could induce a vegetative dormancy or trigger another response.

An untreated group of plants were brought in for use on the next round of trials. On February 21, 2017, February 28, 2017, March 7, 2017, and March 14, 2017 plants were treated with Piccalo® and Florgib®. Statistical difference in blooming period was not observed, only season long severe stunting of the plants treated with Piccalo® was observed.

Trial Discussion:
We still believe there is potential to achieve bloom timing modification in an open, non-greenhouse environment, however we do not believe currently available plant growth regulator are suitable for this. We believe Ag labeled products should be looked at in the future for potential; however work may need to be done within the plant physiology arena to investigate the chemical triggers for flowering and novel chemistry may be required.