

## Effects of five Calcium Chloride foliar treatments on Primula ‘Danova’ mix inflorescence diameter and flower count.

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### INTRODUCTION & AIM

- The purpose of this study was to observe and record foliar and flower effects Primula ‘Donova’ mix.
- Two different calcium chloride products were utilized, CalOx FT, which is specifically designed as a foliar calcium treatment product, and DowflakeXtra, which has been used experimentally but is fundamentally a snowmelt product which has been adapted for experimental use.

### METHOD

- A protocol was developed which would employ once weekly, and twice weekly foliar sprays with each product, as well as a reduced rate mixture of both products together to observe any synergy. There was also a control group of plants that were sprayed with clear water twice weekly. Twenty plants were designated for each treatment.
- A foliar analysis was also performed for each group.
- In all there were six distinct treatments including the control.

### RESULTS & DISCUSSION

- A Poisson regression model was carried out in R. Statistical analysis revealed that there was interaction between cultivar and CaCl<sub>2</sub> treatment ( $p < 0.01$ ), suggesting a high genetic variance in Primula response to CaCl<sub>2</sub>. Flower color was associated with Total flower number, with the positively associated cultivars being Flower Color Pink 1, Flower Color Pink 3, and Flower Color White ( $p < 0.05$ ).
- In terms of CaCl<sub>2</sub> treatments, DowFlake1X and DowFlakePlusCalOx1/2 were positively associated with number of TotalFlowers ( $p < 0.05$ ). Using Tukey contrasts for multiple comparisons of means, we determined that DowFlake1X resulted in significantly more flowers than the control, and also DowFlakePlusCalOX1/2 produced significantly more flowers than the control during the experiment ( $p < 0.005$ ).

### CONCLUSION

- Calcium availability through normal uptake from the soil solution may not be optimal

### FUTURE WORK / REFERENCES

- The two most effective treatments and the three most responsive cultivars were employed in year 2 of the study

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