



Introduction

- Cranberry vines can be planted as long (12-18 inches) unrooted cuttings or as rooted plugs (**Figure 1**)
- Although plugs are expensive, they are preferred by cranberry growers since the vines already have roots when planted in the ground which results in high survival and colonization rates
- Plugs are sometimes difficult to produce in the greenhouse, any cultural practice that can improve the quality of plugs will result in an increase in production efficiency after planting
- The ideal plug for planting will have well developed runners (**Figure 2**)
- Plant growth regulators (PGR's) are used extensively in the horticultural industry to improve propagation efficiency
- The major class of PGR's used are auxins which promote the initiation of adventitious roots.



Figure

Figure 1: Planting of rooted cranberry plugs.



Figure 2

Figure 2: Fully developed cranberry plug with well developed runners ready for planting

Research objectives

- Investigate the use of PGR's to improve the quality of plugs produced in the greenhouse
- Higher quality plugs result in better colonization when planted

Materials and Methods

- The study was conducted on 'Haines' and 'Mullica Queen' cranberry
- Two experiments were conducted
- **Experiment 1: Improving above ground growth of plugs using gibberellic acid (GA)**
- Five treatments we evaluated; an untreated control, 200 and 400 ppm GA applied once (X1) at bud break and , 200 and 400 ppm GA applied twice (X2) at bud break plus 2 weeks after bud break.
- The trial was laid out in a randomized complete block design using trays as trays as replicates, with four replications per treatment
- The treatments were applied as foliar sprays with 0.25% (v/v) non-ionic surfactant (SILWET L-77)
- **Experiment is ongoing, preliminary results (Figures 3&4)**
- **Experiment 2: Improve rooting efficiency using indole-butyric-acid (IBA) and a combination of indole butyric acid, gibberellic acid (GA) and cytokinin (CK)**
- Eleven treatments were evaluated: a combination of IBA, GA and CK at 1 & 2 oz. per gallon (soaking method), 200 and 400 ppm IBA applied as foliar spray, basal dip method, total immersion method and basal long soak method.
- The trial was laid out in a randomized complete block design using trays as trays as replicates, with four replications per treatment
- **Experiment is ongoing, results pending**

Haines Avg Height (cm) and Mullica Queen Avg Height (cm)

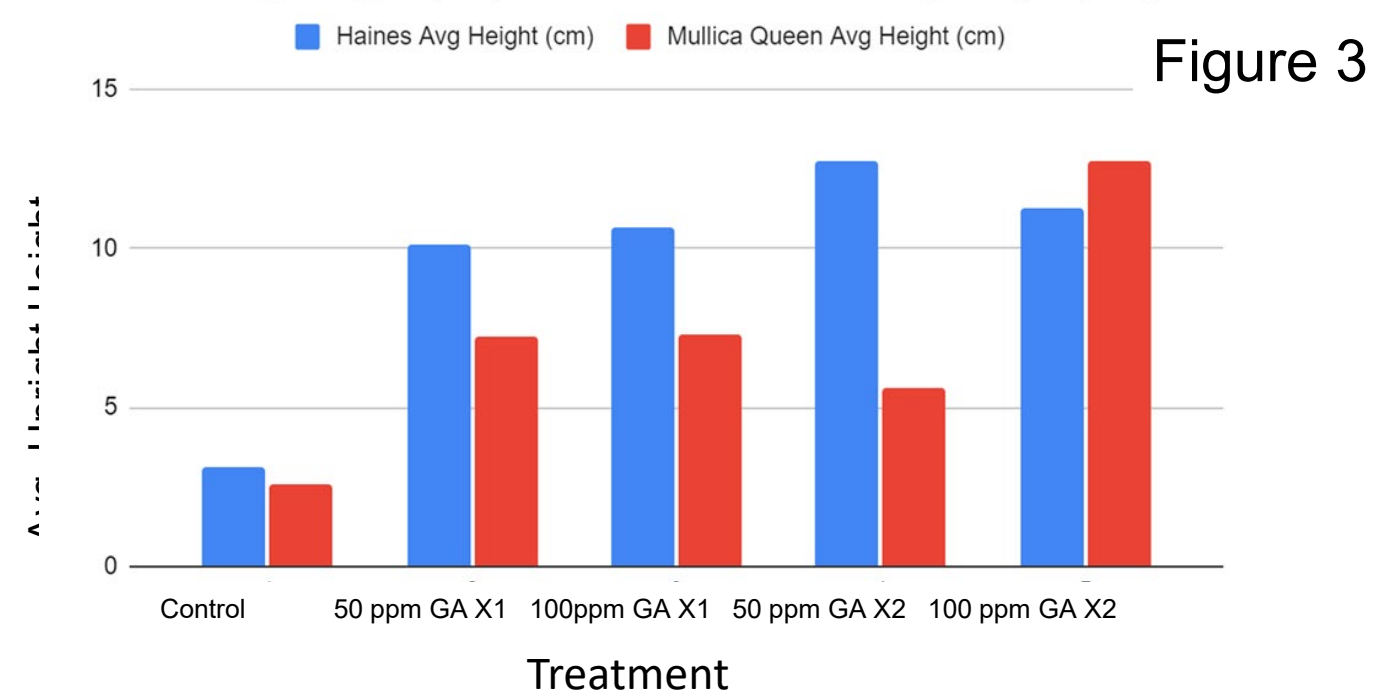


Figure 3



Figure 4

Figures 3&4: Preliminary results showing differences in upright growth from Experiment 1