

Conclusions

As we have seen, sensor networks can be a useful tool to help you produce higher quality plants. Just like any tool, they will take some time to fully evaluate and the information should be used for changing management practices, in order to achieve the maximum benefit. The benefits that are seen from sensor networks are dependent on a number of factors such as the size of the operation, the type of plants grown, and the type and size of the sensor system that is purchased. In general, sensors have been shown to reduce a number of costs including labor, water and fertilizer. In addition, sensors are able to increase profitability by shortening production time, and reducing disease losses, and increasing quality. They are able to provide important information, in real-time to help guide fertilizer applications through EC monitoring, and regulate growth through deficit irrigation.

Since this technology is relatively new, additional benefits are likely to be discovered through further research, and technology advances. Although there are no guarantees that a sensor system will increase your profitability, the information in the next module will help inform your decision, to give you the most information possible

Additional Resources:

Alem, P., P. A. Thomas, and M.W. van Iersel. 2014. Use of controlled water deficit to regulate poinsettia stem elongation. Achievable heights. *HortScience* (in press)

Belayneh, B. E., J. D. Lea-Cox and E. Lichtenberg (2013). "Costs and Benefits of Implementing Sensor-controlled Irrigation in a Commercial Pot-in-Pot Container Nursery." *HortTechnology* 23(6): 760-769.

Lichtenberg, E., J. Majsztrik and M. Saavoss (2013). "Profitability of Sensor-based Irrigation in Greenhouse and Nursery Crops." *HortTechnology* 23(6): 770-774.