

ABSTRACT

Thai Chilli (Capsicum frutescens L.) is one of the most popular spices in Indonesia. This causes the demand for thai chilli on the market to be higher when compared to other vegetable commodities. However, people's need for thai chilli cannot always be met properly. This is because the amount of thai chilli in the market always fluctuates from time to time. The fluctuating amount of thai chilli supplies on the market is also influenced by supplies from farmers who act as the main suppliers of thai chilli on the market. Therefore, other planting methods that can make thai chilli plants grow faster are needed. The purpose of this research was to understand the effect of variation in spraying duration and interval on aeroponic system for thai chilli plants growth. The research was doing by making two identical aeroponic systems, one of system will have sprayer turn on for 5 seconds and turn off for 3 minutes, while the other system will have sprayer turn on for 30 seconds and turn off for 15 minutes. The result, plants on the aeroponic system that have sprayer turn on for 30 seconds and turn off for 15 minute have an average stem growth of 3.06 times faster and an average root growth of 1.47 times faster when compared to the plants that planted on the aeroponic system that have sprayer turn on for 5 seconds and turn off for 3 minutes. This is because the plants that are planted in the aeroponic system that have sprayer turn on for 30 seconds and turn off for 15 minutes have dry root's part so they can absorb more oxygen when compared to plants that planted in the aeroponic system that have sprayer turn on for 5 seconds and then turn off for 3 minutes.

Keywords: *Thai Chili, Relative Humidity, Faster, Aeroponic*