

### Introduction:

Spray Carnation is one of the main ornamental crops. It is used in mixed bouquets, but can also be enjoyed as mono bunches. It is a crop that can have a long vase life, if it is treated well.

In this Research Update we present a test on the effect of EthylBloc™ Sachet on Spray Carnations from Colombia.

EthylBloc™ Sachet is a product that releases 1-MCP, a molecule that binds to the ethylene receptors in cut flowers so that they are protected against ethylene. Spray Carnation is known for being an ethylene sensitive crop and is often treated with a product which contains silver thiosulphate (STS). As this is an uptake treatment, it needs to take place at the farm, while EthylBloc™ Sachet can be applied in a box during shipment, so it can be sent out as soon as the grower has finished packing flowers.

### Methods:

Treatments were done at a farm in Colombia. STS treatment was applied for 4 hour as a pulse treatment to the Spray Carnation variety 'Yoder Mist'. For the EthylBloc™ Sachet treatment, two sachets were applied, one at either side of the box. The boxes were sent to Miami, where they were stored for a couple days before sending them to the FloraLife lab in Waltherboro (South Carolina).

Immediately upon arrival, all stems were re-cut in air. Stems were placed in 1L vases containing FloraLife Crystal Clear® Flower Food. All flowers were then exposed to 2 ppm ethylene for 16 hrs. Vases were then transferred to the evaluation room.

### Data:

1. Opening rate on day 3 and day 6 of the consumer phase (1: Not open, 5: Completely open)
2. Vase life

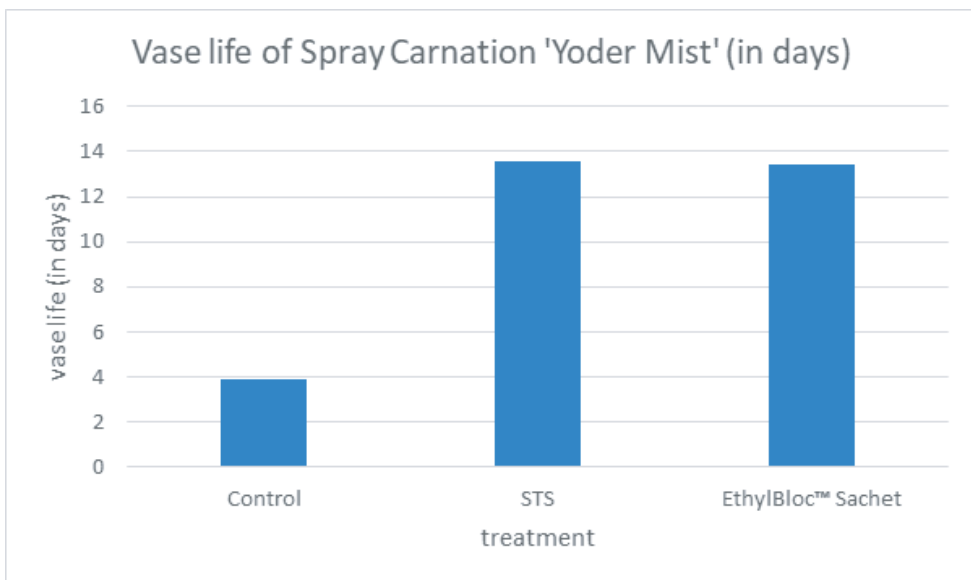
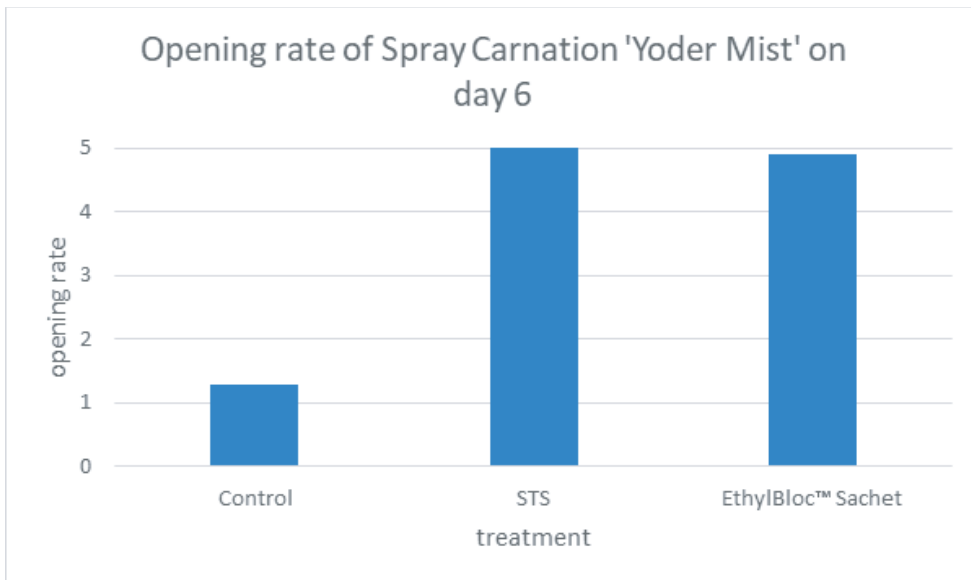
### Results:





Table 1. Opening rate and vase life (in days) of the Spray Carnation 'Yoder Mist', for each treatment.

Treatment	Opening rate on Day 3	Opening rate on Day 6	Vase life (days)
Control (no EthylBloc™ Sachets)	1.3 b	1.3 b	3.9 b
STS pulse treatment	4.8 a	5.0 a	13.6 a
EthylBloc™ Sachets (two per box)	4.6 a	4.9 a	13.4 a



### Conclusion

EthylBloc™ Sachet improved the opening of the flower buds and the vase life of the Spray Carnation 'Yoder Mist' compared to the control treatment and gave similar opening of the buds and similar vase life as the STS treatment.