

## **Root Restriction and Increased Flowering.**

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Manipulating plant roots to development of a fibrous root system with no root circling has paid dividends in a variety of ways relative to accelerated growth, accelerated rate of establishment following transplanting, and long term plant health. Feedback from nurserymen using the RootMaker® system has occasionally included a note that some plants tend to flower earlier. I put the idea of root restriction and flowering to the test.

My study was done with Annual Salvia, *Salvia splendens*, plants that had been grown in conventional smooth pots. Planting was with no restriction compared to roots restricted by the five inch RootMaker® knit in-ground fabric container. Planting was on May 9 and watering was done between spring rains for the first 6 weeks. On the first evaluation date, number of flowers per spike was similar between treatments. However, and more importantly, there were more flower spikes on the treated plants. Therefore, data consisted of counting number of flower spikes.

Restricting salvia roots significantly increased number of flower spikes on all three evaluation dates. Average number of flower spikes per plant on June 23; restricted, 14, versus no restriction, 9. On July 10, restricted 17, versus no restriction, 13. The summer was typically hot for Oklahoma and the plants received no water to supplement the modest rainfall. No further data was taken until September 27 when the final evaluation confirmed what could readily be seen; restricted, 42 flower spikes, versus no restriction, 26.

Will other plants respond in a similar way to salvia? That remains to be seen. However, this study has prompted us to plan a wider assortment of studies and with different species for the coming growing season. Would the number of flowers and fruits be increased on a pepper or tomato plant? What about a using a larger size root pruning knit container on a fruit producing perennial plant such as blackberries? One study with one species during one growing season is not definitive data. Yet, the salvia response was so distinct and consistent across evaluation times and replications that it seemed appropriate to share.

Knit in-ground fabric containers in five inch size and larger as well as other root modifying containers are available by going online to [www.rootmaker.com](http://www.rootmaker.com) and click on retail.