



Leader in
Horticultural
Containers



Understanding fiber growing containers through real-world trialing

One positive outcome to emerge from the global pandemic of 2020 has been an unmistakable shift towards sustainability, incited by consumers recent correlation between their own personal health and the health of our planet.

In a recent survey conducted by [Boston Consulting Group \(BCG\)](#) - with a variety of participants from eight differing countries - 70% of those respondents said they are more aware now than before Covid-19 began that human activity threatens the environment.

This profound realization will further shift the buying habits of consumers, which were already trending in the direction of making more thoughtful purchasing decisions by engaging with businesses and organizations who share a similar mindset for preserving our environment.

As more environmentally conscious consumers demand more [sustainable](#) options in all walks of life, growers see fiber pots and biodegradable planters as an opportunity to bring their inventory full circle by utilizing and marketing plants grown in sustainable, molded pulp growing containers.

It's a unique differentiator in a competitive industry, but it's not without its share of concerns. When it comes to [fiber pots](#) and [biodegradable planters](#), the question of real-world results in typical growing cycles is often asked by growers using traditional [plastic plant containers](#) in their operations.

Concerns surrounding the applicability of [fiber pots and biodegradable planters](#) are legitimate and critical for growers across North America, for altering the growing medium could not only impact crop yields but ultimately profits as well.

HC, with [a full line of fiber pots and biodegradable planters](#), set out to alleviate these concerns with growing trials conducted throughout the United States.



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We understand that fiber growing containers are unique in their composition and therefore it can be difficult for growers to understand how and where to use them, not to mention how plants can be successfully cultivated in them.

During these trials, it was important to:

- Validate the integrity of fiber containers under normal, typical greenhouse growing and cultural conditions – including varying [irrigation practices](#).
- Evaluate and confirm finished product presentation and integrity throughout the retail sales channel/ship-to-shelf sale.
- Evaluate and confirm fiber container degradation over time, as well as plant performance, in simulated consumer applications where fiber containers are planted.

Cultural Practices

- Plants were grown and treated throughout the trial using normal practices as a standalone crop.
- In order to fully and accurately gauge performance, plants were grown side-by-side with crops grown in plastic containers of similar sizes but grown as independent crops from a cultural standpoint.
- Applying the same cultural practices to crops grown in EcoGrow® and plastic containers would have created a tendency for one crop to suffer or flourish based on their individual cultural needs.

Irrigation Practices

- Irrigation was provided as needed and carefully timed as required by the trial crop.
- Irrigation was applied through various mediums including, but not limited to, flood, overhead boom, overhead hand and overhead automatic sprinklers in an effort to validate EcoGrow® container integrity for most or all irrigation methods used by greenhouse growers.



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The containers and trialing results

3.75 URC Geranium Trial – Direct Stick

- Geranium URC's were directly placed into EcoGrow® containers and rooted under mist in a high-humidity propagation house.
- Once rooted, plants were removed from the mist and moved to a finishing greenhouse.
- **Root development, root growth and plant growth were observed as excellent.**
- Containers were monitored and evaluated under extreme moisture conditions for both integrity and mold.
- Containers withstood the extreme moisture conditions and functioned the same as rooted liner trials. Some mold developed where each container contacted the plastic tray but dissipated once removed from the mist.



4.00 Rosemary Trial – 50 count Rooted Liners

- Rooted liners were transplanted on February 5 and container integrity was observed for the duration of a typical Mother's Day growing and selling crop cycle.
- **Plant growth and root development were excellent when compared to the controlled crop grown side-by-side in plastic.**
- The trial was extended through September 6 to evaluate the effects an extended holding period might have on container integrity.
- Discoloration aside, the integrity of the containers held up for the duration of the trial.



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4.00 Organic Trial – 72 count Rooted Liners

- Rooted liners were transplanted on March 24 and container integrity was observed for the duration of a typical Mother's Day growing and selling crop cycle.
- **Plant growth and root development were excellent when compared to the controlled crop grown side-by-side in plastic.**
- The trial was extended through September 6 to evaluate the effects an extended holding period might have on container integrity.
- Discoloration aside, the integrity of the containers held up for the duration of the trial.



Perennial Liner Trial – 50 count Rooted Liners w/shift

- Rooted liners were transplanted on August 4 for a scheduled 5-week shift cycle.
- **Plant growth and root development were excellent.**
- Pots were shifted into a plastic branded container on September 6, finished, overwintered and sold the following spring.



3.75 Planted Pot Geranium Trial

- A portion of the plants from the 3.75 URC Geranium Trial were shifted into plastic containers, 3 plants per pot, on March 24.
- Plant growth and root development was intermittently observed to evaluate plantability of EcoGrow® containers.
- **Root development did not appear to be impeded by the EcoGrow® container.**
- The containers were grown through September 6, a typical consumer cycle, and root mass was broken down to evaluate the structure of the EcoGrow® containers in the media profile.
- The containers had biodegraded to the point shown in the September 6 photo.



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3.50 Planted Foliage Liner Trial

- Aglaonema URC's were direct stuck into a 3.50 EcoGrow® container, finished, then shifted to plastic nursery containers, 3 plants per pot.
- **Plant growth and root development through the container were excellent at 4 weeks after transplant.**
- EcoGrow® planted container with expose root system.

4.00 Annual Trial

- MI grower trial with 288 plug Ride The Wave Petunias. Plant growth and root development were excellent, container integrity was confirmed.

The conclusion:

- Overall, the EcoGrow® containers held up extremely well during the growing duration under normal, cultural growing conditions.
- They proved to be strong and resilient when handled and their composition was not weakened under normal irrigation practices.
- Root systems developed as they would in plastic containers, and in many cases, appeared to be larger, healthier and more fibrous.

In short, [fiber growing containers](#) are a suitable alternative to plastic containers for growers searching for a sustainable growing solution.

To listen to our fiber expert - Bryce Anderson - talk more about the trials above, [click here](#).



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