

Patent Status

Design (29/909,876) and provisional utility (62/516,800) applications filed with USPTO June 2017

License Status

Actively seeking licensee and/or co-innovation partner

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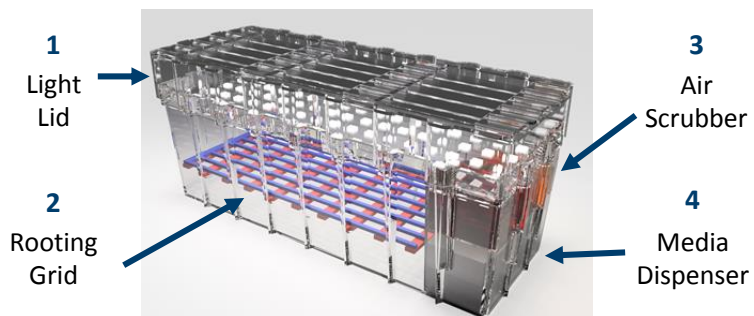
High Efficiency Bioreactor

Opportunity

The University of Guelph is seeking a partner interested in commercializing stock products for the agricultural sector. The invention is a high efficiency bioreactor for wholesale producers of plants/seeds serving the horticulture industry. The bioreactor directly competes with traditional gel-based systems by improving operational efficiency in the following ways:

- ❖ Accelerates growth rates to shorten production cycles,
- ❖ Eliminates labor and damage associated with root washing,
- ❖ Reduces media costs by as much as 25% by eliminating agar.

Central to the system's design is a vessel that contains ridges with abutments around the outer walls. This feature allows the easy and secure installation of modules, including: **(1) LED light lid** for uniform light and spectrum control, **(2) two-piece grid** for holding plants upright during rooting, **(3) air scrubber** to balance humidity and CO₂, **(4) media dispenser** for maintaining a thin layer of oxygen-rich liquid media.



Advantages

- ❖ Patent rights to the vessel and rooting grid. These form the foundation of the bioreactor and creates a unique opportunity for additional product launches (modules) and brand loyalty.
- ❖ Innovation support from [GRIPP](#), a premier research institute at the University of Guelph working to improve the efficiency of propagating disease / virus / pest free plants and seeds for domestic and international markets.