

SLAM ENTERPRISES UPGRADES CANNABIS PRODUCTION FACILITY WITH NANOBUBBLE GENERATOR

Slam Enterprises is a cannabis grower with three dispensaries and a 10,000-square-foot indoor growing facility with a 2,800-square-foot flowering canopy. Located in Colorado Springs, Slam is in the middle of one of the most competitive cannabis markets in the world. Looking to gain a competitive advantage, Slam compared various technologies to maximize plant yield size and quality. When it came to an innovative and efficient aeration solution, Moleaer stood above the other solutions as the best option for its operation.

Slam selected a 25 GPM (gallon per minute) Moleaer Boost nanobubble generator to take its aeration to the next level. The value of this innovative solution comes from the unique properties of the nanobubbles the Boost injects into flowing water. At about 80 nanometers in size, nanobubbles are far smaller than any bubbles provided through traditional aeration methods. This allows the nanobubbles to achieve neutral buoyancy, meaning they do not float to the top of the water and burst, which enables virtually all the gas to dissolve in water. Instead, the nanobubbles stay suspended, acting as an oxygen reserve in the water. As the plants consume the oxygen, the nanobubbles dissolve and replace the consumed oxygen, allowing the water to keep a high dissolved oxygen (DO) level at all times.

Client:

SLAM Enterprises

Type:

Drip Irrigation

Unit Type:

25 Boost

Installed:

August 2018

Benefits:

300% Dissolved Oxygen Increase

25% Yield Improvement

Four-Month Payback Period

Higher Potency

Tank Size:

1,000 gallons



Moleaer's nanobubble generator saturates the feeder tank with nanobubbles before being dispersed into the irrigation system.



Slam's cannabis plants saw boosts to yield and potency due to Moleaer nanobubbles.

Additionally, the concentration of nanobubbles, roughly 500 million per milliliter of water, means there is a large interfacial space where the nanobubbles make contact with the water. This large surface area allows the nanobubbles to achieve the very high oxygen transfer efficiency of roughly 85%. This efficiency, in combination with their neutral buoyancy, makes them the ideal technology to elevate and maintain DO levels for growing operations. Reducing the amount of oxygen needed to be pumped into the water reduces costs.

After installing Moleaer's nanobubble generator, Slam's DO levels increased from 7 parts per million (ppm) to 28ppm. Additionally, Slam saw an increase of 25% in flower and trim yield across all of their strains, equating to over 40 lbs more per growth cycle. When taking into account the increased yield, reduction in oxygen, and maintenance-free nature of the Moleaer system, Slam's payback period was only four months.

"After installing the Moleaer nanobubble generator, we immediately experienced faster clone root development with more branching, more robust flower development, and improved plant density, and even flowered one week earlier with more flower sites. The metabolism increased, and it seemed like the plants were on steroids," said Scott Saunders, owner and head cultivator of Slam Enterprises. "The results have been nothing short of incredible. After several harvests with the nanobubble-infused water, we saw 25% more sellable flower weight and time per square foot of canopy across all 46 of our strains."

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