

Another large step closer

It has been twelve months since our last Medical Cannabis update and we are making great progress to become one of New Zealand's first certified medicinal cannabis producers.

Since our last update in March 2020 we have been working very hard, with the main focus being on running multiple batches of crops through our research and development (R & D) grow rooms, gathering plant material for the testing and refining of the manufacturing processes.

Stringent testing and the high importance of a perfectly controlled environment meant the lessons learnt from the R & D rooms to be incorporated into the design and build of our commercial grow rooms.

Licensing

December 2019 saw the beginning of the transformation of the warehouse into four commercial grow rooms. The December 2020 completion of the state of the art grow rooms meant we could have the Ministry of Health (MOH) inspection, which in turn saw us gain the commercial licenses required to cultivate and manufacture medical cannabis. This was a great achievement to have gained just prior to last Christmas.



Setting up the first commercial grow room



Part of the air conditioning and irrigation control

Technology

State of the art technology ensures the grow rooms are fully automated. The building management computer controls the lighting, temperature, humidity and watering systems. It monitors the electricity and water used and is fully generator backed up.

The key aspect to keeping the plants in their best condition is air conditioning. The units have been tested by an independent firm commenting that the "air quality was good enough for surgery, well not brain surgery but normal surgery". It doesn't stop at air conditioners however; the entire ceiling space is full of fans, humidifiers and four types of filters along with four large outdoor units so the growing conditions are kept at optimal levels all year round. This means the plants grow consistently every time and are guaranteed to always be of the same high quality.

The right nutrients and pure water are critical components. The programmable watering system monitors the level of minerals that each plant receives. Every room has four separate irrigation areas so we can set different watering cycles and fertiliser recipes if needed, allowing us to compare which works the best.

Any excess water that the plants don't use is treated before being sent to the sewerage treatment plant. This allows us to monitor our water flow and conserve as much as possible. The waste water treatment system ensuring any waste complies with Council and MPI regulations.

Once the plants are harvested they are trimmed and sent to the drying room

Drying is the first stage in the manufacture of the medicine so it is critical that the process is done perfectly. We have designed our own drying room which has built in scales enabling us to measure the drop in weight of each trolley of material. Monitoring the perfect time to finish drying and start the testing that is required, before it goes to the next stages of milling, blending and then manufacture.

Our next update covers the process from drying to the finished product.

Nursery / Flowering Rooms

The R & D rooms have now been converted into the nursery. The plants spend about a month in the nursery getting to the stage where they are ready to move to the flowering rooms. There they will spend about two months before being harvested.

Commercial Grow Rooms

Adjusting from a R & D license to a commercial license meant that we could only carry over a certain number of plants. So our first commercial room is unfortunately only half full, but the second commercial room has both levels full of plants.

Having perfect control over lighting, temperature and nutrients means the plants are pampered and grow at their maximum rate and produce the same level of cannabinoids and terpenes every crop.

We ensured the flowering rooms and supporting areas were built to medical grade, the same high standard as the rest of our Health House (Zealand Health Manufacturing) facility.

Clever design features such as the layout of the facility means the plants can move from the nursery to the grow rooms and then to the drying rooms, all without leaving the secure facility or the controlled environment.



Drying room getting checked ready for testing



The R&D room converted to a nursery



Our first single level crop nearing harvest



Our second double level crop ready for flowering