

THE CHALLENGES OF CUSTOMIZING A CANNABIS PROJECT FOR MEDICAL NEEDS

Building a greenhouse facility is a complex business. It requires extensive knowledge of the crop, soil type, topography, climate analysis, end product and economic framework. In Cannabis we have two more complexities, first, the plant itself, which requires significant post-harvest processing: drying, curing, leaf removal and extraction.

Second, the plant is cultivated for medical use, is smoked and can be used in its herbal form and not necessarily through isolated active materials, meaning that the user is more exposed to toxins and the product is harder to standardize. Hence the entire cultivation and processing procedure has to be carried out under medical standards and highly sanitized conditions.

Today, medical cannabis regulation around the world varies between countries but is mostly very strict, having very low tolerance for any contamination and requires high standardization and traceability of the product and its raw materials.

The most common quality standard that is used to enforce these demands is Good Manufacturing Practices (GMP). GMP covers all aspects of production. Detailed written procedures are essential for each process. There must be systems which provide documented proof to ensure that the correct procedures are consistently followed at each step of the manufacturing process.

The main way of achieving such a result is by using high-tech greenhouses, with real-time monitoring, documentation and control over all cultivation parameters, including: light, temperature, humidity, fertigation, pests and diseases. In the post-harvest facility, all material and work flow must be tightly controlled and standardized. Because the cultivation parameters are variable and depend on local climate, the selection of technology is a key factor in determining the ability of the facility to meet regulation and market demands. Choosing the proper technology and design, requires detailed preliminary characterization as fixing design mistakes after the project has been built is very expensive or impossible.

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