



Growers' Depot USA

Empowering Artisanal Growers Through Performance Measures

Overview

Our company's tagline, "**Empowering Artisanal Growers**", is an important concept. This document describes what this means to YOU as you explore the opportunity in getting involved with artisanal production of high quality, or medicinal-level, Marijuana (Cannabis, Cannabis Sativa forma indica, Cannabis ruderalis) or **CBD**¹ / Hemp. Our focus is on the "secret sauce" that experienced growers understand, but you may not. So we want to save you quite a bit of time with this **Primer on Performance Measures**. Performance measures are, quite simply, mission-critical knowledge which can make or break your hobby or commercial business opportunity. When you use the right performance measures, you can score a perfect bull's-eye on whatever business challenge you're trying to achieve or solve. That's why our logo incorporates a circular target shape!

Artisanal Defined

Before we continue, let's nail down why we use the word, "artisanal". An artisan is a skilled worker who creates or produces high quality, or precious, things by hand. The "artisanal" adjective is often associated with high quality food or beverages that have been produced in a traditional or non-mechanized way. It's association with Cannabis cultivation and production is valid. The proven process is non-mechanized and a high quality, organic product is the result. Growers can be categorized into two classes. One the one hand, there are the hit-or-miss hobby growers. On the other hand, there are the serious growers that want to maximize their Cannabis production operation's profitability through much more educated approach.

Why Empowerment?

¹ **Cannabidiol (CBD)** is a cannabis compound that has significant medical benefits, but does not make people feel "stoned" and can actually counteract the psychoactivity of THC. The fact that CBD-rich cannabis is non-psychoactive or less psychoactive than THC-dominant strains makes it an appealing option for patients looking for relief from inflammation, pain, anxiety, psychosis, seizures, spasms, and other conditions without disconcerting feelings of lethargy or dysphoria. A recent 2 part Dateline TV documentary entitled, "**Growing Hope**", covers the significant research that is underway re: CBD. Please see this 1 hour long program and your family and friends to view **Part I [HERE](#)** and **Part II [HERE](#)**.

Scientific and clinical research—much of it sponsored by the US government—underscores CBD's potential as a treatment for a wide range of conditions, including arthritis, diabetes, alcoholism, MS, chronic pain, schizophrenia, PTSD, depression, antibiotic-resistant infections, epilepsy, and other neurological disorders. CBD has demonstrable neuroprotective and neurogenic effects, and its anti-cancer properties are currently being investigated at several academic research centers in the United States and elsewhere. Further evidence suggests that CBD is safe even at high doses.

Project CBD responds to inquiries from all over the world. Almost everyone wants to know where to get CBD-rich products and how to use them for maximum benefit. After decades in which only high-THC cannabis was available in North America and beyond, CBD-rich strains and products are now available to medical users.

"CBD-rich" versus "CBD dominant:" By "CBD-rich," we mean a cannabis strain or product that has equal amounts of CBD and THC, or more CBD than THC (usually at least 4 percent CBD by dry weight.). By "CBD-dominant," we mean strains or products that are CBD-rich but have very little THC content.

Cannabis cultivation creates a feeling of empowerment because it has life-changing potential based on the revenue which can result. When we use the word, “empowerment” we’re referring to an awakening which happens when a person starts growing Cannabis for their own use to save significant money and then they realize that their knowledge and effort could actually support them in a full-time business. The idea of being able to support oneself through specific Cannabis cultivation “know-how” and artisanal skills means that for the first time in your life you can attain business independency as well as achieve life-long self-sufficiency. We had this awakening ourselves and it has changed our lives!

Of course Cannabis cultivation this is not for everyone, but when you experience the joy and profit which goes hand-in-hand with artisanal growing (meaning the cultivation of high quality or medicinal-quality Cannabis), you start to realize that career self-sufficiency has a really nice appeal.

One aspect of empowerment that you might find compelling is the “breakpoint” when a hobbyist grower feels empowered enough to make the jump from hobbyist level of growing to the commercial world of artisanal cultivation. This often happens when a person realizes just how much fun and profit are possible. It also happens when an individual or group of individuals start to collaborate and begin to leverage their collective knowledge of performance measures in a way that sets them apart from pure hobbyists who take a more “hit and miss approach” to Cannabis cultivation.

Knowledge is Power!

If knowledge is power, then we believe that a knowledge of the core performance measures needed to be successful as an artisanal grower of Cannabis to be totally empowering. In fact, performance measures are at the pinnacle of knowledge management! That’s the reason for this primer. The bottom line is that performance measures help us and our artisanal cultivation business operations to become more profitable and sustainable. In essence, if our businesses achieve profitability and sustainability then we can become independent and self-sufficient. Now that’s what “empowerment” is all about!

A Performance Measure Primer, or guide, like this one helps us to focus on the core measures related to proven (i.e. good or best) practices and processes which matter most to the overall success and profitability of the cultivator’s business operation. The problem is that performance measures can become a bit overwhelming. So, we put this guide together to help you sift through the proliferation of measures so that you can identify the few which can be put to work for you, immediately. Others can be put on the back burner for future use. Let’s look at an example so you realize just how important measurement knowledge can be in dollars and cents.

Let’s say that you are looking to invest in an LED grow light so that you can reduce your electrical bill. If you knew that there was a specific performance measure that could help you to choose the right product, wouldn’t you want to know what it was? Of course you would! You’ll find a bunch of these LED grow light measures in the KPI section below.

Sharing Our Knowledge with Artisanal Grower Forums

In this business (or hobby), we are always learning. Everyone that we interact with has different perspectives, experience and knowledge. We believe that collaboration and sharing of knowledge is a significant advantage for our Members. Because of this, we are starting our **Artisanal Grower Forums**. If you would like to help us create a knowledge bank of performance measures and requirements that help artisanal growers to excel, please let us know. Login to let us know that you’d like to participate.

Our goal is to help you to tap into our collective knowledge bank quickly. As you probably know, growing Cannabis is pretty easy, yet to become a serious and sustainable supplier of retail grade or medical-grade Cannabis or CMD is a whole different challenge. This level of cultivation requires strict attention to best practices, end-to-end processes and, yes, performance measures.

Key Performance Questions (KPQ’s)

There are four (4) types of performance measures that you will be using as an artisanal grower. We start with Key Performance Questions or KPQ's. We use KPQ's to organize artisanal grower knowledge. Each and every KPQ is connected with one or more performance indicators in three (3) other categories of Key Performance Indicators (KPI's), Key Risk Indicators (KRI's) and Key Control Indicators (KCI's) based on which measures are able to address the question most effectively.

Examples:

- What end-to-end process produces the highest net profits?
- What best practices are needed for cultivation of medicinal-grade Cannabis.
- What are the most important measures needed for selecting the best Grow Tent?
- What are the most important measures needed for selecting the best LED grow light?
- What are the most important measures needed for selecting the best plant nutrients?

Key Performance Indicators (KPI's)

Next come the Key Performance Indicators or KPI's. KPI's help us to document best practices and processes that we need to use as an artisanal grower. For instance, the KPQ, "what amount of light is needed for Cannabis cultivation?" would be linked to, or associated with, a series of KPI's for the amount of light needed for optimum plant growth for each lifecycle stage. These KPI's span the seedling development stage, the vegetative growth stage and the flowering stage. There are hundreds of KPI's for dealing with Cannabis cultivation and they can be divided into categories such as those KPI's relating to grow tents or plant nutrients and the plant environment if we're growing outdoors.

One great KPI example, which we mentioned on Page 1 relates to the decision of investing in an LED light. Did you know that the best investment in an LED grow light is based on two KPI's. The first one is PPFD (Photosynthetic Photon Flux Density) which measures the effectiveness of lighting for optimal plant growth. Lighting for plants is different from lighting for humans. Light energy for humans is measured in lumens, with light falling onto a surface measured as illuminance with units of lux (lumens per square meter) or footcandles (lumens per square foot). Light energy for plants, on the other hand, is measured as photosynthetic active radiation (PAR), with light falling onto a surface measured as photosynthetic photon flux density (PPFD).

The other LED KPI which measures the amount of dried plant matter harvested (in grams) divided by the amount of Output Wattage (OW) of Alternating Current (AC).

Examples:

- The KPI's which relate to the selection of the best grow light (e.g. High Intensity Discharge versus LED) come down to the optimal light spectrum (i.e. no wasted light energy), life span of the light, operating temperature and operating costs.
- The KPI's relating to the selection of a grow tent spans features, build quality, ease of set-up, typical length of life, cost, etc.
- "Consistently high carbon dioxide levels — about 1,500 parts per million — can boost your yield by up to 30 percent if done correctly. The plants use the carbon dioxide to photosynthesize light into plant energy and sugars, which increases bud size and density."

LED Grow Light KPI's

Not all LED's are the same! You need to look at the 2 KPI's discussed above as well as these other measures when you are comparison shopping:

- Spectrum output

- Diode wattage
- Design
- Magnification
- Footprint
- Driving current
- Diode “tuning” (meaning that you can target specific spectrums so that you have no wasted light)
- Power consumption
- Operating temperatures
- Heat output
- Life span

Grow Tent KPI's

- Negative vs positive pressure
- Ambient room temperature
- Air flow rate
- Cooling capacity of air conditioning unit
- Odor control / air filtering
- Water conditioning
- Cleanliness

Key Risk Indicators (KRI's)

Key Risk Indicators (KRI's) help us to identify key business, or Cannabis plant, risks and to mitigate them, too. Mitigation of risks is really what a Cannabis cultivation business is all about. The idea is to provide an optimal growing environment, medium, etc. so that we don't stress the plant in any way. If we can sustain that optimal level all we need to do (in an ideal world) is to keep our eyes open to potential risks which might throw us and the plants off track.

Examples:

- A soil-based planting medium is resilient to various plant shocks when used by cultivators, but it also introduces potential soil born pests such as fungus gnats.
- When plants are overwatered (a KRI) or if the ambient humidity has been kept too high (another KRI), the risk of mold and Powdery Mildew goes up and these risks can seriously threaten a cultivator's entire crop.
- The risk of fire from lights with high operating temperatures (a KRI) is a significant concern along with high operating costs (a KPI).

Key Control Indicators (KCI's)

Key Control Indicators (KCI's) relate to the business use of “internal controls”. An internal control can be many things such as a policy, a procedure or documented series of steps or a documented process flow. An internal control can also take the form of control records, forms, documented observations, etc.

Examples:

- Security of grow tent and equipment.
- The humidity for best plant health, fast growth and optimal growing performance is a KCI which needs to be measured and controlled.

- The day and night temperatures for best plant health, fast growth and optimal growing performance are KPI's and the process of monitoring and documenting them are KCI's.
- Regular crop inspections are an important KCI. If they are documented in writing, so much the better.
- The Integrated Pest Management (IPM) program is another important KCI.

Summary

We hope that this primer has made it's point that performance measures are really important to your grow operation. We encourage you to keep good records and use a performance measures log. We also encourage you to get further empowered by participating with our Artisanal Grower Forums. We look forward to meeting you and sharing our thoughts and "Good Luck"!

