

THE IMPORTANCE OF **SOPS**

IN YOUR **CANNABIS OPERATION**

LET'S GET **STARTED**

As the cannabis industry quickly expands, cultivators must recognize the importance of **Standard Operating Procedures** (SOPs). Practical facility-wide guidelines promote consistency to ensure smooth operations.

Not only are SOPs essential for maintaining the highest quality of your company's products, but they foster open communication, camaraderie, and risk mitigation. The benefits of those team skill sets will ultimately **improve your bottom line**.

At Pipp Horticulture, our cannabis cultivation team has over a **century of experience**. With thousands of rooms installed, collected customer testimonials, and measured data, we've witnessed the impact of good SOPs. We hope to inspire you to refine and refresh fundamental practices to ensure consistent outcomes in the garden.



THE IMPORTANCE OF **SOPs IN CANNABIS**

For cannabis cultivators, SOPs are often the **heart of operations**. Generally, SOPs direct the growing, harvesting, drying, and packaging of products to ensure that every customer receives the same results. Ultimately, this standardization helps with training, scalability, plant health, customer satisfaction, and company culture.



Here are a few **examples of SOPs** in the cannabis industry:

- Cultivation SOPs
- SOPs for Vapor Pressure Deficit
- Processing SOPs
- Administrative SOPs



CULTIVATION SOPs

Cultivation-specific SOPs pertain to anything related to **direct plant interaction**. SOPs are paramount for ensuring proper defoliation, replanting procedures, and integrated pest management. These foundations of fertigation, data collection, and systems management are necessary to prevent common grow room mistakes.

Below are common examples of cannabis cultivation SOPs:

- Fertilizer dilution rates per growth stage
- Foliar IPM application procedures
- Environmental setpoint itinerary for temperature and humidity
- Defoliation per growth stage
- Propagation
- Taking cuttings from mother plants
- Measuring media moisture content
- Grow room sanitizing



SOPs FOR **VAPOR PRESSURE DEFICIT**

But let's get a little more specific about **controlling the vapor pressure deficit** and reacting to changes in the room. You need a calibrated emissivity adjustable IR gun set to **0.97** to collect accurate leaf temperature. Then, use that data to adjust the temperature and humidity in the space to achieve your target. Initial data collection must be accurate and consistent because it will directly impact setpoint changes for the room. Cultivation SOPs should include training on how to use the tool, where and how to measure the plant, where to sample in the room, and when to measure data.

With this information, you also have a valuable **plant canopy heat map** that shows where you could utilize more airflow to eliminate hotspots. Leaf temperature data can also help you adjust your HVAC system to achieve the ideal **78-82F** temperature for vitality. In late-stage senescence, this data can drive the efficiency and effectiveness of color-changing cultivars. Cultivation SOPs mitigate risk, increase plant vitality, and inform the application of mechanical solutions. Accurate and up-to-date information informs SOPs and translates to an efficient facility.

PROCESSING SOPs

Similar to cultivation SOPs, processing policies dictate what happens after harvest, including handling, trimming, curing, packaging, and storing cannabis. These SOPs ensure **consistency and safety** while minimizing touches and protecting product quality. Ultimately, you honor the bottom line by protecting integrity and providing a consistent customer experience.

Here are some standard cannabis processing post-harvest SOPs:

- Drying and curing practices for loading the space
- Daily airflow strategy in curing
- Transitioning fresh flower from racks to mobile units
- Handling, sorting, packaging, and labeling final products
- Hand trimming / Trim machine operation



ADMINISTRATIVE SOPs

Remember, **constructive background work** is what drives successful operations. Administrative SOPs concern leadership roles and overall facility management. These consistencies prevent miscommunications, streamline facility management, and facilitate informed decision-making.

These are essential cannabis administrative SOPs:

- Employee responsibilities
- Waste storage, processing, and removal
- Safety procedures
- Emergency procedures (e.g., fire, chemical spills, personal injury, etc.)
- Leadership hierarchy
- Continued Compliance
- Monitoring supply levels (e.g., nutrients, fertilizers, etc.)
- Supplier communications
- Decision-making process for resource allocation



THE BENEFITS OF IMPLEMENTING SOPs NOW

As state mandates shift, cultivation facilities become more efficient, and the market becomes more competitive. SOPs provide an opportunity to **streamline production** and are the building blocks of continuous improvement. In short, SOPs are multi-purpose handbooks that offer numerous benefits.

1 CONSISTENT
RESULTS

2 BUMP-FREE
OPERATIONS

3 REDUCED
EXPENSES

4 RISK
MITIGATION

5 MAINTAINING
COMPLIANCE

6 EFFECTIVE
TRAINING



1 CONSISTENT RESULTS

The most consequential aspect of a well-developed SOP strategy is consistency. This element is necessary to achieve **predictable results** and manageable cultivation facilities. Consistency also translates to brand identity, thus directly impacting customer loyalty. Ultimately, SOPs can significantly streamline the entire operation.

Moreover, SOPs provide the direction necessary to produce **top-quality yields**, time and time again. Of course, this roadmap will differ across facilities. However, the goal is to optimize plant expression by managing mechanical solutions. Running an efficient facility takes a well-informed, well-trained team versed in executing the proper gameplay.

To know if your SOP system works, **put yourself in your customers' shoes**. According to Michael Williamson, Director of Cultivation at Pipp, “Many people don’t consume their own product on a regular basis, but doing so might be the best form of quality control.”





BUMP-FREE OPERATIONS

Even with established SOPs, cannabis facilities don't run like well-oiled machines. Equipment breaks, mistakes happen, and the industry is never stagnant. You must be nimble. SOPs allow you to **overcome obstacles faster**, build a team, and empower others to thrive.

Dante Metaluno, co-director of cultivation at Redbud Roots, expands on implementing staff roles with **distinct responsibilities**. He says, "Accountability is the main thing. We took several of our most experienced crew members and made them building managers. This change has gone wonderfully. We're not just hopping around constantly, putting out these small fires."



REDUCED EXPENSES

You can **lower the risk of costly errors** remarkably with well-crafted SOPs. Thoroughly trained team members understand where their work stops and ends, helping minimize the urge to get involved in other areas where they need more familiarity.

Some examples of where clear procedures will save money include:

- Reduced cloning failure rate
- Reduced plant stress
- Efficiently utilize energy, water, and labor
- Reduced nutrient costs
- Prevention of costly employee errors





RISK MITIGATION

Another perk of a SOP strategy is **elevated safety measures**. Cultivation SOPs for plant management are critical, but employee safety takes precedence. Clear directives on loading plants onto racks, safely accessing decking, and following IPM protocols can significantly impact workflow, plant health, and team satisfaction.

In your **SOP guidebook**, include a comprehensive explanation of correctly using equipment and responding to emergencies. Equip employees with as much information as possible so they feel ready to tackle tasks confidently. **Adequate training** also prevents legal complications, worker's compensation, or similar setbacks.



MAINTAINING COMPLIANCE

Laws and requirements vary significantly from state to state. SOPs tailored to these specifics ensure your facility remains **compliant and legal**, no matter what curveballs the government throws your way. Consistency eases any worries about employees making severe blunders, such as using the wrong pesticides, contaminating crops, or labeling products incorrectly.





EFFECTIVE TRAINING GUIDELINES

SOPs serve as a definitive template for employees to follow. Writing a **step-by-step guide** with onboarding information, core duties, and operating procedures means staff can seamlessly adapt to their roles—even if they regularly shift between departments.

According to Metaluno, “The best part is that, with the **ebb-and-flow of labor**, we can just move people from one building to another if needed. (Training) provides that consistency... We’ve definitely seen more engagement from top to bottom.”

DEVELOPING PRACTICAL & ADAPTIVE CANNABIS CULTIVATION SOPs

After acquainting yourself with SOPs, you can determine the best course of action for your unique cannabis cultivation business. Use these steps to facilitate positive strides as you establish your brand as a **leading provider** of outstanding products.

COMMUNICATE WITH ALL STAFF MEMBERS

Communication is the key to successful SOP implementation. Keep everyone in the loop by scheduling meetings to discuss procedures and answer questions. Ask employees for their input and address any disagreements or clashing opinions. Most importantly, run through procedures independently to put yourself in their shoes. Joe Zeller, the second co-director of cultivation at Redbud Roots, later adds, “Every person knows they can come to several of us (with their issues) and we’ll give them attention. I may not be able to solve a problem, but I can try and make a plan... take one step toward making things different.”

KEEP A COPY OF SOPs IN A CENTRAL LOCATION

SOPs are only helpful if they’re **easily accessible!** Place copies throughout the facility, especially department-specific documents. This way, team members can readily reach for these guidelines when they have questions or need immediate assistance.

Williamson states, “It’s not really about who came up with the idea or who was right. It’s about making the machine better, stronger, and more efficient as a whole.”

REGULARLY REVISIT ESTABLISHED SOPs & UPDATE AS NEEDED

As we already noted, cannabis laws are never stagnant. Because of this constant industry flux, you should routinely **re-evaluate your SOPs** to ensure operations continue running smoothly and safely.

You should also update SOPs when expanding, growing new cultivators, or implementing different equipment. For instance, transitioning from a single-tiered facility to a vertical farm will require an entire overhaul of the SOPs.

As Williamson explains, “SOPs are like an evolving document. As we level up, we update those SOPs... Figure out how to make them more efficient, productive, and profitable.” Zeller continues, “The strongest quality is **observation and communication**. (These attributes) ensure we’re going to identify the weak points in our process.”

THE CONCLUSION

SOPs are the atlas of an exceptional business. Cultivators who acknowledge the gravity of standardization are better prepared for potential obstacles, helping **streamline operations** from start to finish.

Our equipment experts at Pipp Horticulture are happy to offer experienced perspectives on developing SOPs for vertical farming facilities. Navigating multi-tiered systems can seem daunting, but we’ll provide essential information to make the transition as easy as possible. We are interested in hearing more about how Pipp can improve operations. **Contact us today** for an in-depth consultation, or visit our resource page for additional reading material.



Contact **Pipp Horticulture's**
experienced team of indoor
cannabis operators and designers
to take the first step towards your
vertical farming future!



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