

Dry Trimming SOP

Below is the Ez Trim Standard Operating Procedures, to automating your harvest, from shuck to shelf, implementing our dry trimming system.

The following 8 steps should happen simultaneously and require 1-15 People. Implementing enough labor at each step in the assembly line is key to preventing any bottlenecks throughout your harvest. Our objective is to finish the process "From Shuck to Shelf" at a speed of 1-15 minutes per plant depending on manpower, strain characteristics, and plant size.

**** PROPER DRYING AND CURING IS THE KEY TO OPTIMAL MACHINE PERFORMANCE AND AN OVERALL SUCCESSFUL HARVEST**

STEP 1. – DEFANNING

- *Remove the large fan leaves from the stem*
- *1 – 3 People required*
 - The Defanning process should ideally occur 1-2 days before harvest
 - The most efficient way to defan is by hand and by quickly pulling the leaves down towards the base of the plant, scissors can also be used for this step
 - Focus on the leaves that have stem exposed, especially at the base of the flower to prevent crow's feet from occurring after trimming
 - You can also defan prior to or while debudding
 - The debudder will assist in separating fan leaves from the stem
 - You will either have to sort the leaves out by hand or run them in the trimmer along with the buds, which can contaminate the quality of your trim with chlorophyll and extra plant matter
 - When highly recommend removing the fan leaves before drying the plants, as once the leaves dry, curl and shrink, defanning becomes difficult
 - The fan leaves if not removed before drying will create stems that will need to be removed post trimming which requires you to handle more flowers after trimming.

STEP 2. - HANG DRYING

- *Partially dry the whole plant or individual stems by hanging them upside down*
- *1 – Person Required*
 - You can use our Drying Environments to automate this drying process ensuring that the humidity level and airflow remains stable through the drying process
 - The Drying environments give you complete control over the drying schedule, the option to dry in any location, and the ability to dry at different levels and times, for different strains, sizes and densities, all while being in the same room
 - Isolating strains will eliminate cross contamination, and ensure that if something goes wrong with the climate in your room, your entire crop isn't ruined
 - If not using our Dry Environments, hang dry the whole plant and ensure you have proper airflow, ambient temperature and humidity levels in that room
 - We recommend drying as slowly as possible at 60% humidity and 60 degrees Fahrenheit for at least 4-6 days
 - If shucking with our debudder or any automated shucker, **DO NOT DRY THE PRODUCT COMPLETELY**, it is best to dry for 2-3 days and to the point where the outer leaves are crispy but the flowers are moist and spongy
 - The stems should be able to bend to almost 90 degrees before they snap prior to shucking
 - Over-drying the flowers at this point will cause the flowers to occasionally break apart when either shucking or trimming

- The other advantage of partially drying before shucking, is that after shucking you will put the flowers into containers where the moisture levels will equalize from the small buds to the larger buds creating consistent trim times and proper dryness levels for trimming

STEP 3. - SHUCKING

- *Removing the flowers from the stem*
- *1 – 2 People Required per machine*
 - Using scissors Individualize the branches and stems from the stalk
 - Individualizing stems from the branches prior to debudding minimizes the potential for damage
 - The amount of individualizing required will vary strain to strain
 - If using our Debudders, feed the individualized stems into the Debudder
 - We recommend utilizing 1-3 people per Debudder at this step, with 1 person individualizing the stems from the stock and 2 people feeding the stems into the machine
 - The Debudders will quickly and gently remove the flowers from the stem utilizing rollers that grab the stem and pull the stem through various hole sizes
 - The Debudders can be used for both wet and dry product and with its unique speed control and hole design all three models will pluck the flowers from the stem without damaging the product
 - If not using automated shuckers, using scissors, cut each flower from the stem at its base
 - It is crucial to ensure that the buds are individualized and ready for the trimmer after this step
 - This includes making sure that there is no more than an 1/8" of stem at the base of the flower and that there are no clusters of buds on a single stem

STEP 4. - FLASH DRY

- *Quickly dry the outer leaves for trimming while leaving the inner flower spongy*
- *1 – person*
 - Flash drying means that you introduce ample airflow over the outside of the flowers to crisp up the outer leaves while the inner flowers remain spongy
 - Flash drying allows the trimmer to trim the outer leaves very quickly while maintaining the structure of the flower and avoiding any excess break down when trimming
 - You can use our Dry/Cure Containers to automate your dry/cure process ensuring that the humidity level and airflow remains stable through the drying process
 - The Dry and Cure Containers allow you to flash dry the outer leaves prior to dry trimming, or cure and store the flowers long term by programming the containers to auto aerate, or burp, based on humidity level or time
 - When using the containers to Flash Dry, Place the partially dried shucked flowers into the container and turn the inline fan on to its highest setting
 - The air is pulled from the bottom of the container where the moisture settles
 - occasionally mix or rotate the product, and the outer leaves can be dried within a few hours
 - This decreases the risk of trimming over dried flowers and the breakdown that can occur
 - If not using our Dry/Cure Containers, introduce your buds to a low humidity environment preferably with ample airflow. This can be as simple as leaving the containers that the flowers are stored in open for several hours
 - Leave the flowers in the dry environment long enough for all of the leaves you want to be trimmed to become crispy
 - The leaves are ready for trimming when they snap when agitated and do not bend
 - The objective is to dry the leaves quickly so they snap while still maintaining sponginess to the inside of the flower

This process should take between 30 minutes up to a few hours depending on:

- Amount of moisture initially in the flowers
- Amount of flowers
- Amount of extra leaf on the flowers
- Environment of space

STEP 5. – TRIMMING

- *Trim the exposed leaves from the flowers*
- *1 – Person required per machine*
 - Ensure the product is dry enough for trimming (leaves should snap when disturbed)
 - If dried properly the outer leaves will be very dry and crisp and the center of the flower will still be a little spongy, this is crucial for maintaining the original structure of the flower
 - If the product isn't trimmed in under a minute, the product is too wet
 - When dry trimming, short cycle times are crucial. If the product has been dried properly you should be able to trim 300 – 500 grams in under minute
 - If using the Ez Trimmer, Place a large handful of product into the machine
 - Allow the product to trim for 20 - 40 seconds depending on the strain
 - Adjust the airflow and rotor speed to optimize the internal flow rate and trim cycle time
 - Be sure to utilize the dry trimming grate (If the product is still too moist to trim, try trimming using the wet trim grate)
 - Proper preparation is key to quality trimming, individualize all flowers, remove fan leaves and keep no more than an 1/8" to 1/4 "of stem at the base of the flowers
 - One person can efficiently run up to two trimmers
 - Different strains require different adjustments to the machine while trimming
 - There is a balance of quality and speed for every strain, some strains require zero touch up, while others need some, find the optimal trimming cycle time and touch up required that creates the best quality and efficiency
 - If you have to track your trim by strain, we recommend having extra filtration bag sets for a quick swap out between strains
 - For clients that prefer hand trimming and hang drying or smaller operations that don't need the capacity of the Ez Trimmer we offer the Wander Trimmer for fast and efficient trimming of your wet product, and the Nanosat for trimming your dried product
 - If hand trimming with scissors, you know what to do... Good Luck

STEP 6. - SORTING

- *Sort the Flowers into different sizes for drying and packaging*
- *1 – 3 People required per Sorter*
 - The Bud Sorter lets you accurately, efficiently, and safely sort your buds into shake, popcorn, small, medium, and large buds
 - Without vibration or moving parts, your buds stay in pristine condition
 - The buds are sorted by brushing the product down various sized sorting grates and into their appropriate container
 - The Bud Sorter is typically used as a quality control station
 - As the buds come out of the trimmer they are loaded onto the sorter for a quick inspection and any necessary touch-up
 - Quality control or touch up should be happening simultaneously to trimming and with the proper team should not be a bottleneck in the process
 - To avoid a bottleneck increase the number of employees on quality control if necessary
 - The Bud Sorter is intended to be utilized post trimming, when trimming dry, and pre-drying, when trimming wet

- The Bud Sorter will increase your efficiency when packaging by separating similarly weighted flowers, and increase consistency for drying, by separating similarly sized flowers
- Sorting will create a better price per pound for your various sizes of flower

STEP 7. - CURING

- *Store and burp the flowers to create great taste and smell*
- 1 – Person
 - Place properly dried and trimmed product into appropriate sealed containers
 - You can use our Dry/Cure Containers to automate your dry/cure process ensuring that the humidity level and airflow remains stable through the curing process
 - If using our Dry and Cure Containers, we recommend bypassing the humidity controller at this stage and implementing the timer
 - Program the timer to aerate 1-2 times daily for 5 - 10 minutes and over the course of 5-10 days.
 - Be sure to agitate or rotate the product daily
 - We believe that curing is not something easily scalable and ratios of air to product is crucial for oxidization and absorption of terpenes
 - Regardless of the container you use, or room size, the ratio of product to air space should be roughly 70% product, to 30% air
 - Aerate, or burp, the containers daily by opening up the sealed containers every 12 to 24 hours for 5 -10 minutes
 - Be sure to rotate, or mix the product every 24 hours
 - Ideal container humidity should start at roughly 50-60% and taper down to 30 – 40% over the curing process
 - Cure for no less than 5 days
 - Inspect the product daily and ensure moisture level through touch, and cure completion through smell

STEP 8. – PROCESSING

- *Utilize the trimmed leaf and or flower to make concentrates*
- 1 – 3 People
 - A. Grinding – 1 person
 - The Grinder takes dried flower and trim and breaks the material down to a fine particulate ready for processing into a concentrate
 - The grinder can break down 2 - 3 lbs. of dried product in under a minute
 - The Grinder breaks material down by using 10 flexible cutting lines that rotate at high speeds inside a steel chamber
 - The grinder also utilizes an on/off foot pedal power switch, and a stand that allows the unit to rotate 300 degrees, making loading and unloading quick and easy
 - B. Dry Sifting – 1 person
 - The Dry Sift utilizes varying micron mesh screens and nesting 5-gallon buckets on a vibratory base to agitate dried trim, extracting the keif and separating the trim into various grades
 - Separating the keif from the trim and into various grades creates more control of potency levels with concentrates and creates additional revenue streams
 - Keif can be sold, used as caviar, pressed into Rosin and or extracted for concentrates
 - The other 3 grades of trim can also be extracted as shatters, waxes, oils, and or used for pre rolls
 - C. Rosin Pressing – 1 Person
 - The Rosin Press utilizes accurate temperature control, impressive amounts of pressure, and heated plates to create a solvent less concentrate called Rosin

- The Rosin Press can press over an ounce of product every 1-2 minutes and can achieve up to 60% yields when pressing quality keif or bubble hash
- Conservatively, if you pressed an ounce every 2 minutes at 30% yield and \$30 per gram wholesale, the Rosin Press will have paid for itself in under 20 Presses and under 60 minutes
- If there is no market for rosin available to you, we also work with trusted partners that wholesale closed loop extraction systems to us and are available for purchase.

D. Shredding/Waste Management – 1 Person

- Process your excess biomass (stems, branches, leaves, etc.) in one of our shredders for consolidation. Allows for easier storage, sale, and disposal of your biomass.

With our extensive knowledge base, onsite implementation, and a full line of professional machines and systems, EZ Trim is the world's elite harvesting solution.

To automate your harvesting process from shuck to shelf, Contact us now.