



Grading and Sorting Rubric & Guidance Doc

INTERNATIONAL CANNABIS FARMERS ASSOCIATION
STANDARDS COMMITTEE: GRADING & SORTING WORKING GROUP

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A. INTRODUCTION

The ICFA will be accepting public comment on the Grading and Sorting Rubric and the associated compliance document, starting on February 1, 2018.

Thank you for participating in the public comment period for the grading and sorting rubric. Your participation is essential in this process.

Please follow the instructions below to complete and submit the grading and sorting rubrics to the ICFA:

WHAT YOU WILL NEED:

1. Printer
2. Access to a laminator
3. Wax pen or dry erase marker
4. Paper and pen

HOW TO COMPLETE AND SUBMIT:

1. Print the attached compliance documents and grading rubric(s)
2. Laminate the grading rubric(s)
3. Use a wax pen or dry erase marker to complete the rubric(s)
4. Use the paper and pen to note any comments or suggestions about the functionality of the guidance document and rubric(s)
5. Email your completed comments to info@icfa.farm

Thank you again for your participation in this process. Should you have any questions please contact us directly at info@icfa.farm

B. TESTING PROTOCOLS

CANNABINOID PROFILES (5X): The grading system for cannabinoid profiles is based on current and regional market trends. The cannabinoid profile scale may need to be adjusted based on state and local regulatory requirements as well as fluctuations in adult use and medical cannabis marketplaces. Additional considerations must be taken when scoring the cannabinoid profile of wet material due to the water weight that will be present.

TERPENE PROFILES (MATRIX FOR GRADING TERPENE PROFILES IS YET TO BE DETERMINED):

We recognize that terpene quantity, diversity, and quality as an important component to the overall quality of cannabis and cannabis products. However, at this time, we are struggling with a cohesive way to evaluate terpene profiles. We welcome data submissions.

C. CURE

MOISTURE LEVEL (1X): Moisture analysis equipment should be utilized to determine a quantitative understanding to this metric. In the absence of moisture analysis equipment, moisture content may be judged by feeling the product and partially by assessing the smell. Products that are too wet tend to mask the terpene-rich smell that is desired, and the presence of excess moisture will lead to further biological activity, both of which can render a product unsellable. In general, drier product is preferred to wetter product. This is reflected in the grading breakdown.

D. SENSORY PROTOCOLS

SMELL OR AROMA (4X): Smell and/or aroma tend to be the most critical component considered in the purchasing decision. Though certain terpenes and aromas are considered more desirable, there is a broad interest in a wide variety of scent profile. Often, the more unique the better. (Please see supporting terpene documentation starting on page 5) Products treated with smell enriching chemicals should not score well in this category. Additionally, if the plant material has been subject to oxidation, and the smell has degraded to a “hay-like”, “old” or “musty aroma, product will receive a score of 1 for smell.

COLOR OR BRIGHTNESS (2X): The color of the inflorescence should be consistent throughout each sample and should not show signs of grey or black which are indicators of fungal infection. Inflorescence parts with a high density of trichomes can appear bright whitish and crystalline.¹ Inflorescence with a high oil content may present with a light glistening sheen. Inflorescence that are bright with consistently healthy coloring and a light glistening sheen will score the highest in this category.

RIPENESS AND TRICHOME GLAND DEVELOPMENT (3X): Intact, plump, shiny, engorged trichome glands will score best here. Ripeness will be determined by assessing trichome gland color and pistil hair color. Trichome glands should be mostly cloudy, with lesser amounts of amber, and clear glands. As flowers pass peak ripeness cloudy glands will progressively take on an amber appearance as oxygen begins to infiltrate the secretory cells at the base of the gland head; the more amber/brown glands the lower the score. Before glands have reached peak ripeness, they will appear clear and transparent, which will lead to lower scores. Pistil hairs should appear plump and healthy with an orange or red hue. Like the trichomes, pistil hairs will become progressively browner and begin to shrivel as the flower passes peak ripeness; this will lead to a lower score. Before pistil hairs have reached peak ripeness, they will appear white, or purple/pink which may also lead to lower scores in this category.

MANICURE QUALITY (2X): Hand manicured flowers will score highest in this category. Selective, scissor-point trimming is noticeably more desirable in the current market. Broad scissor, or machine trimmed flowers, will score lower, and excessive shaving (calyx cutting) can render the product unmarketable. A careful balance must be struck here to score highly, too loose or too tight of a manicure will hurt scoring. If machine trimming was used, and the product shows evidence, the material being assessed will receive a score of 1 in this category. Missing or mangled apical inflorescence structures will be considered a sign of machine trimming.

¹ AHP Monograph

Inflorescence:

- No spurs;
- No pointed stems, cut on a diagonal;
- Stems at flower base should be tidy with no leaf showing; and
- Stems at the flower base should short but not so short that the flower falls apart when packaged.

Unprocessed Whole Plant Material:

- All yellow and otherwise decomposing leaf and inflorescence should be removed;
- The fine sugar leaves should be fully intact; and
- Fan or water leaf has been removed

Dry Leaf Material:

- Dried Leaf Material should be free of yellow leaves, water leaves & stem pieces.
- Dried Leaf Material should be product that has crystal on it.

STRUCTURE AND DENSITY (2X): Uniformly dense inflorescence with compact structure and limited stem exposure will score the highest in this category. Large trimmed inflorescence (>2 inches dry) should be broken down into smaller sections to avoid concealing internal botrytis damage/sporulation or discoloration. Loose, airy flowers with abnormally wispy and/or a 'stretched' structure will score lower in this category. Inflorescence that are too dense may cause concern in this category, especially as to dense of inflorescence can be a vector for contamination issues. Inflorescence that are excessively large due to a lack of density may also score lower category. The density portion of this category will be based on the average volume that one pound of a specific varietal tends occupy. (i.e. - OG pounds that are excessively large in size/volume will score poorly in this category. Whereas OG pounds that are of a compact volume will score higher in this category.)

Unprocessed Whole Plant Material: Fresh, undried inflorescence, should meet the same criteria as outlined above and have a firm texture and be resilient, or 'spring back' when lightly squeezed. Fresh inflorescence should display a relatively firm resistance when pressed and should not feel mushy or as though the inflorescence might become indented.

E. INFLORESCENCE SIZE (1X)

Under this grading category the scale is designed to score either inflorescence or smalls/littles.

INFLORESCENCE: Inflorescence should be no smaller than a dime and not larger than two (2) inches in diameter or length. The presentation of the material is also of importance. When assessing quantities of inflorescence there should be absolutely no crumbly, leafy debris in the bottom of the packaged inflorescence. There should be uniformity to the product throughout the bag, lot & batch. Inflorescence that are just under the two (2) inch diameter or length threshold and are presented free of debris and do not have a disproportionately large amount of small inflorescence will score best in this category.

SMALL & LITTLES: Inflorescence that are smaller than a dime should be separated out of the premium inflorescence category and put into the smalls, or littles, category of inflorescence product. Small inflorescence do not have to be trimmed but should be free of yellow and otherwise decomposing leaves. Additionally, the smalls, or littles, should be

free of fan leaves and stems. There should be a minimal amount of crumbly leafy material in the final product for smalls, or litters, to score well in this category.

F. DEFINITIONS

CANNABINOID means any of a group of closely related compounds that include cannabinol and the active constituents of cannabis.

FRUITY means resembling or containing fruit flavor and/or aroma

FUEL refers to a sharp, pungent, astringent aroma and/or oily consistency reminiscent of gasoline or diesel fuel, as typically expressed by OG Kush and Diesel varieties.

HAND TRIMMED inflorescence is hand trimmed from the harvest through the final products placement into a retail container. Hand trimmed product is harvested without the use of mechanical harvesting equipment and is processed without the use of mechanical leafing, bucking or trimming equipment.

INFLORESCENCE means the complete flower head of a plant including stems, stalks, bracts, and flowers.

PISTILS are the female reproductive part of a flower and consists of a swollen base, also known as the ovary, which contains the potential seeds, or ovules. The ovary is generally surrounded by bract with style, arising from the ovary; and a pollen-receptive tip, the stigma, which is variously shaped and often sticky.

SWEET means having the pleasant taste and/or aroma characteristics of sugar, candy or honey.

TERPENES are organic compounds found in the essential oils of many plants. Terpenes are what gives cannabis and other plants their aroma and flavor. Technically, terpenes are hydrocarbons (compounds that consist exclusively of hydrogen and carbon) and when terpenes combine with oxygen or are otherwise chemically rearranged, they are more precisely referred to as “terpenoids.” For simplicity, however, the term “terpene” is commonly used to encompass terpenoids as well. In addition to terpenoids, terpenes serve as building blocks for a variety of other biologically important compounds.

TRICHOME refers to the small hair or other outgrowth from the epidermis of a plant, typically unicellular and glandular. There are two primary categories of trichomes present on mature cannabis inflorescence;

- glandular, cannabinoid-producing trichomes, and
- non-glandular, non-cannabinoid-producing trichomes

G. CURRENT TERPENE DOCUMENTATION

The unique and distinctive terpene profile of the cultivar defines the flavor and aroma of the cultivar while also providing insight into the effect the cultivar may have on the consumer. In this grading and sorting matrix, terpene profiles are rated based on the percentage of overall terpenes present. Products with high amounts of terpenes present will score best in this category. Rare or unique terpene profiles are particularly desirable.

CARYOPHYLLENE is a clear, colorless or pale yellow liquid that can be extracted from clove oil, cinnamon oil, or several other essential oils. Caryophyllene has a spicy, woody, dry, earthy, sometimes slightly sweet odor and a spicy pepper flavor with camphor and astringent citrus undertones. Caryophyllene helps give black pepper its spiciness.

HUMULENE is found in a wide variety of aromatic plants around the world, including basil, clove, coriander, sunflowers, pine trees, orange trees, sumpweed, and tobacco. It is also found in the essential oils of sage, ginseng, spicebush, ginger, and Chinese laurel trees, and is particularly prodigious in spearmint oil.

LINALOOL is found in hundreds of different plants and some fungi, but it is most commonly associated with lavender. It is also found in high quantities in a certain chemotype of thyme, as well as in coriander, basil, rosewood, birch trees, laurels, citrus fruits, berries, several other fruits, and hops. Linalool is a primary component of lavender essential oil, and is a major component of many other essential oils, including rose, ylang-ylang, geranium, bergamot, jasmine, spearmint, cinnamon, chamomile, and neroli oil. It is also found in black tea, green tea, and oolong tea. Pure linalool is a clear, colorless liquid with a fresh, floral, woody, slightly spicy scent, reminiscent of lavender or lily of the valley. Linalool's aroma is so potent, its odor can be detected at just one part per million in the air, and its sweet, fruity flavor is even more intense.

MYRCENE is found most abundantly in cannabis, although it is not commonly found in ruderalis, or hemp. It is also prevalent in hops, which are closely related to cannabis, as well as in thyme, lemongrass, bay leaves, verbena, parsley, ylang-ylang and mangos. Myrcene has a pleasant odor that is described as earthy, herbal, green, fruity, minty, and spicy, with notes of citrus, cloves, tropical mango, pepper, balsamic vinegar, and grapes. The flavor is described as earthy, orange, and slightly metallic.

PINENE is an important constituent of the resin produced by many different trees, but it is primarily associated with the pine tree, from which its name is derived. It is found in pine needles, pine nuts, and pinecones as well as pine resin. In addition to evergreen trees, pinene is prevalent in olives and olive leaves, sagebrush, rosemary, eucalyptus, basil, parsley, and dill. It can be found in many essential oils, including orange peel oil, coriander oil, lemon oil, cumin oil, peppermint oil, and juniper oil. It is a major component of tea tree oil. Pure pinene is a clear, colorless liquid with a sharp, sweet odor that, unsurprisingly, strongly resembles that of pine and turpentine.

LIMONENE (CITRUS) is a colorless or pale yellow liquid with a strong citrus aroma and flavor. It is most commonly extracted from orange rinds, but can also be obtained from the rinds and pulp of lemons and other citrus fruits. Essential oils derived from citrus fruits are very close to pure limonene, with concentrations up to 95%.

H. DRIED INFLORESCENCE RUBRIC

Testing Protocol	1 pt. Poor Quality	2 pts. Below Market Average	3 pts. Market Average	4 pts. Above Market Average	5 pts. Optimal	Points Scored	Multiplier	Total Points	Total Points Possible	Category Score
Cannabinoid Profile	[<12% THC] or [<6% CBD & <10% Cannabinoids]	[≥12% THC] or [≥6% CBD & ≥10% Cannabinoids]	[≥16% THC] or [≥8% CBD & ≥12% Cannabinoids]	[≥20% THC] or [≥10% CBD & ≥16% Cannabinoids]	[≥25% THC] or [≥13% CBD & ≥20% Cannabinoids]		5		25	
Category Total									25	
Cure	1 pt. Excessively Moist	2 pts. Excessively Dry	3 pts. Slightly wetter than optimal	4 pts. Slightly drier than optimal	5 pts. Optimal Moisture	Points Scored	Multiplier	Total Points	Total Points Possible	Category Score
Moisture Level							1		5	
Category Total									5	
Sensory Protocols	1 pt. Poor Quality	2 pts. Below Market Average	3 pts. Market Average	4 pts. Above Market Average	5 pts. Optimal	Points Scored	Multiplier	Total Points	Total Points Possible	Category Score
Smell or Aroma							5		20	
Color & Brightness							2		10	
Ripeness & Trichome Gland Development							3		15	
Manicure Quality							2		10	
Structure & Density							2		10	
Category Total									65	
Inflorescence Size	<50%	60%-69%	70% - 79%	80% - 89%	90+% Optimal Size	Points Scored	Multiplier	Total Points	Total Points Possible	Category Score
Inflorescence							1		5	
Smalls & Littles							1		5	
Category Total									5	
Score Card Totals									100	
AAA	90 – 100%									
AA	80 – 89%									
A	70 – 79%									

I. DRY LEAF MATERIAL RUBRIC

Testing Protocol	1 pt. Poor Quality	2 pts. Below Market Average	3 pts. Market Average	4 pts. Above Market Average	5 pts. Optimal	Points Scored	Multiplier	Total Points	Total Points Possible	Category Score
Cannabinoid Profile	[<12% THC] or [$<6\%$ CBD & $<10\%$ Cannabinoids]	[$\geq 12\%$ THC] or [$\geq 6\%$ CBD & $\geq 10\%$ Cannabinoids]	[$\geq 16\%$ THC] or [$\geq 8\%$ CBD & $\geq 12\%$ Cannabinoids]	[$\geq 20\%$ THC] or [$\geq 10\%$ CBD & $\geq 16\%$ Cannabinoids]	[$\geq 25\%$ THC] or [$\geq 13\%$ CBD & $\geq 20\%$ Cannabinoids]		5		25	
Category Total									25	
Cure	1 pt. Excessively Moist	2 pts. Excessively Dry	3 pts. Slightly wetter than optimal	4 pts. Slightly drier than optimal	5 pts. Optimal Moisture	Points Scored	Multiplier	Total Points	Total Points Possible	Category Score
Moisture Level							1		5	
Category Total									5	
Sensory Protocols	1 pt. Poor Quality	2 pts. Below Market Average	3 pts. Market Average	4 pts. Above Market Average	5 pts. Optimal	Points Scored	Multiplier	Total Points	Total Points Possible	Category Score
Smell or Aroma							5		20	
Color & Brightness							2		10	
Ripeness & Trichome Gland Development							3		15	
Manicure Quality							2		10	
Structure & Density							2		10	
Category Total									65	
Inflorescence Size	$<50\%$	60%-69%	70% - 79%	80% - 89%	90+% Optimal Size	Points Scored	Multiplier	Total Points	Total Points Possible	Category Score
Inflorescence							1		5	
Smalls & Littles							1		5	
Category Total									5	
Score Card Totals									100	
AAA	90 – 100%									
AA	80 – 89%									
A	70 – 79%									

J. UNPROCESSED PLANT MATERIAL RUBRIC

Testing Protocol	1 pt. Poor Quality	2 pts. Below Market Average	3 pts. Market Average	4 pts. Above Market Average	5 pts. Optimal	Points Scored	Multiplier	Total Points	Total Points Possible	Category Score
Cannabinoid Profile	[<12% THC] or [<6% CBD & <10% Cannabinoids]	[≥12% THC] or [≥6% CBD & ≥10% Cannabinoids]	[≥16% THC] or [≥8% CBD & ≥12% Cannabinoids]	[≥20% THC] or [≥10% CBD & ≥16% Cannabinoids]	[≥25% THC] or [≥13% CBD & ≥20% Cannabinoids]		5		25	
Category Total									25	
Sensory Protocols	1 pt. Poor Quality	2 pts. Below Market Average	3 pts. Market Average	4 pts. Above Market Average	5 pts. Optimal	Points Scored	Multiplier	Total Points	Total Points Possible	Category Score
Smell or Aroma							5		20	
Color & Brightness							2		10	
Ripeness & Trichome Gland Development							3		15	
Manicure Quality							2		10	
Structure & Density							2		10	
Category Total									65	
Inflorescence Size	<50%	60%-69%	70% - 79%	80% - 89%	90+% Optimal Size	Points Scored	Multiplier	Total Points	Total Points Possible	Category Score
Inflorescence							1		5	
Smalls & Littles							1		5	
Category Total									5	
Score Card Totals									95	
AAA	90 – 100%									
AA	80 – 89%									
A	70 – 79%									