

CANNABINOID AND TERPENE TESTING FOR POST-HARVEST CANNABIS RAW MATERIAL

NOTICE: THE BMCLA'S POST-HARVEST CANNABIS RAW MATERIAL PARAMETER AND QUALITY REQUIREMENTS WERE DEVELOPED IN PARTNERSHIP WITH THE BARBADOS NATIONAL STANDARDS INSTITUTION (BNSI). THE PARAMETER AND QUALITY REQUIREMENTS GIVEN APPLY CURRENTLY BUT ARE SUBJECT TO CHANGE AS MORE SCIENTIFIC TESTING AND INFORMATION BECOMES AVAILABLE TO ALL STAKEHOLDERS. RESEARCH WAS CONDUCTED IN COLLABORATION WITH THE PESTICIDE CONTROL BOARD (PCB) SECRETARIAT OF THE MINISTRY OF AGRICULTURE AND FOOD SECURITY ON THE LOCAL PESTICIDE CONTEXT. ATTACHED THEREFORE IS THE PESTICIDES LIST FOR LOCALLY GROWN POST-HARVEST CANNABIS RAW MATERIALS FOR LOCAL USE OR EXPORT.

Parameter Testing Requirements for Post-harvest Cannabis Raw Material*

Parameter Category	Parameter	Parameter Limits (mg/kg)
Pesticides	Acephate	0.02
	Azoxystrobin	0.02
	Boscalid	0.02
	Carbaryl	0.05
	Chlordane	0.05
	Chlorpyrifos	0.04
	Cyantraniliprole	0.02
	Cypermethrin	0.30
	Σ of DDTs	1.00
	Deltamethrin	0.50
	Diuron	TBD
	Dimethoate	0.02
	Etofenprox	0.05
	Fipronil	0.06
	Imidacloprid	0.02
	Malathion	0.02
	Metaxyl	0.02
	Methomyl	0.05
	Paraquat	TBD
	Permethrin	0.50
PiperonylButoxide	0.20	
Propiconazole	0.10	
Pyrethrin	0.05	
Microbes	Total Aerobic Bacteria	10 ⁵ CFU/g
	Total Yeasts and Moulds	10 ⁴ CFU/g
	Total Coliforms	10 ³ CFU/g
	Bile-Tolerant Gram Negative Bacteria	10 ² CFU/g
	<i>E. Coli</i>	Nil
	<i>Salmonella</i> sp.	Nil
Heavy Metals	<i>Aspergillus</i> sp.	Nil
	Arsenic	3.0 ppm
	Cadmium	0.5 ppm
	Lead	5.0 ppm
	Mercury	0.5 ppm
Mycotoxins	Σ of Aflatoxins B1, B2, G1 and G2	20 ppb
	Ochratoxin A	20 ppb
Physical Characteristics	Colour	Natural colour of plant material: Green to greenish-brown
	Foreign Matter (e.g. hair, insects, faeces, packaging material, other plant material)	< 2 %
Moisture	Moisture Content	5 % -15 %
	Loss on Drying	< 10 %

* e 1: The importing country may require additional parameters to be tested before issuing an Import License.

* 2: Diuron and Paraquat are recommended to be tested and reported, however, at this time there is no parameter limit for these.

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The following requirements are known to significantly impact the quality of the post-harvest cannabis raw material and thus attention must be given to ensuring best practices in the areas identified.

Quality Requirements	Guidance	Remarks
Irradiation	10 kGY	Irradiation is an important decontamination process, but exposure should not exceed that given in the guidance
Growing Conditions	Good Agricultural Practices	
Packaging and Storage	Sealed airtight packaging designed to also minimise the entry of light	
Adulteration	None permitted	

The following table identifies the tests to be conducted for Cannabinoids and Terpenes which are the critical and significant components therein.

Parameter	Tests	Remarks
Cannabinoids	Tetrahydrocannabinol (THC)	
	Tetrahydrocannabinolic Acid (THCA)	
	Cannabidiol (CBD)	
	Cannabidiolic Acid (CBDA)	
	Cannabinol (CBN)	
Terpenes	Total Terpenes	
	Beta-Myrcene	
	Limonene	
	Caryophyllene	
	Alpha-Pinene	
	Beta-Pinene	

Note: The criteria proposed for cannabinoid and terpene testing are that concentrations shall be within 10 % of labelled values.

TESTING FACILITIES

The BMCLA is not responsible for export market testing requirements, therefore applicants are encouraged to follow the testing requirements of their proposed export market. Below are local and regional testing locations, **however the local testing lab is neither ISO standard approved, or peer reviewed while the regional facility is only peer reviewed.**

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| <p>(1) Government Analytical Services (local)
https://agriculture.gov.bb/Departments/Government-Analytical-Services/</p> | <p>(2) Caribbean Gold Standard Laboratory (regional)
https://business.facebook.com/Caribbean-Gold-Standard-Laboratory-103828112094290/about/?ref=page_internal&path=%2FCaribbean-Gold-Standard-Laboratory-103828112094290%2Fabout%2F</p> |
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