

Volume 01







# CCGI Guidebook for Farmers

### Volume 01

Sri Lanka received its first ever Geographical Indication (GI) certificate when the European Union (EU) Commission granted GI status to Ceylon Cinnamon in February, 2022. The process was led by the Sri Lanka Export Development Board (EDB) with support from the EU-Sri Lanka Trade Related Assistance Project and through technical assistance from UNIDO, the WTO and other partners.

Having obtained GI status, it is critical to support the value chain and facilitate GI certified Ceylon Cinnamon exports. In this endeavor, the EDB has partnered with the IFC with support from the EU-ACIIS program, to implement a series of capacity building activities. This training manual is part of this effort. The Control Union was contracted by the EDB as part of this effort and provided inputs for developing this manual.

## **Table of Content**

6.

1	Registration	
2	Specific steps in Production	
3	Harvesting and Post-Harvest Processor	
4	Transport of Raw Materials	
5	Record keeping at farm level	
Tal	ole of Figures	
1.	Nursery beds Under Poly tunnel	3
2.	Nutrient deficiency symptoms of plants	5
3.	Tillers on Coppiced Stem	6
4.	Height of Harvesting	8
5.	Coppiced stem	8

Immature tiller Bounded to older stem .....

	Control Point	Compliance Criteria	Additional Remarks
1	Registration		
1.1	Are Members of GI Association Registered with Association?	The association/Individual member must keep a record of all registered growers in details district wise; -Name, -Membership ID -Location and Acers of production area	

2	Specific steps in		
	Production		
2.1	Propagation		
2.1.1	Does farmer produce	If yes, In order to select for	There are several cinnamon
	own planting	genotypes with desired traits, only	species in Sri Lanka. Among
	materials?	the seeds coming from the best	them only <i>Cinnamomum</i>
		mother plants are traditionally	zeylanicum Blume is grown
		selected.	commercially.
		If not, should maintain the origin of	
		the planted /sown propagation	
		material, seed. Evidence must be	
		available showing the origin.	
		Quantity must be available through	
		invoices, transport documents	
2.1.2	Are used of seed or	Ripe fruits are harvested on	Cinnamon is usually
	propagating material	selected mother plant during the	propagated by seeds in large
	produced by	berry season (once a year, from	scale. Vegetative propagation
	appropriate methods?	May to end July).	through stem cuttings is
		The pericarp is removed by	feasible. Well ripened seeds
		washing, the seed is then directly	are selected, thoroughly
		planted in fields or nursery bags.	washed to remove pericarp
			and plant in 12.5 x20.0cm poly
			bags filled with equal parts of
			topsoil, cow dung, sand, and
			coir dust.
			Five to eight seeds are planted
			in a bag but thinning out is
			done to keep 4-5 vigorous
			plants after about two
			months.
			(References: -Publication of
			Cinnamon Farming and
			Processing, Export Agriculture
			Department 2015, Volume 05)



1. Plant Nurseries

2.2	Geography and Climate Factor		
2.2.1	Does the land have most suitable land/soil factors	The <u>Cinnamomum zeylanicum</u> trees should be grown on deep, well-drained moist soils.  The soil texture must be a mix of sand, gravel, clay and silt particles to be suitable for Ceylon Cinnamon cultivation, however none of them represent a higher share than 50%.	The soil on which the cinnamon plants is grown varies mainly from red-yellow podzolic soil to reddish brown latosol.  Annexure I (Soil profile map of sri Lanka, Agricultural Research for Sustainable Food Systems in Sri Lanka Soil Survey, Classification and Mapping in Sri Lanka)
2.2.2	Does the area get ideal geography and Climate conditions	The cultivation of Ceylon Cinnamon can be found in altitudes of 10 m to 700 m above sea level.  Cinnamomum zeylanicum need a lot of water and high humidity level to grow properly.  Regions with 1250 mm/yr. to 3500 mm/yr. precipitation are perfectly suited for their cultivation and can be grown in regions where irrigation is sometimes required.	In Sri Lanka, Cinnamon seems to have originated in the central hills where seven wild species of cinnamon occur in Kandy, Matale, Belihull oya, Haputale, Horton planes and the Sinharaja forest range. Presently cultivation concentrated along the coastal belt from Negambo to Matara, it has also made inroads to Kalutara and Ratnapura.  (References: -Publication of Cinnamon Farming and Processing, Export Agriculture Department 2015, Volume 05) Annexure II (Altitude map and precipitation map, Meteorological Department, Potential Cultivation Areas).

2.3	Soil Fertility and Crop Management		
2.3.1	Does the producer maintain or increase soil fertility?	It is recommended to maintain or improve soil fertility based on soil analysis report (On N, P, K Analysis) or diagnosed common plant nutrient deficiency and toxicity symptoms.	Annexure III (Removal of Nutrient per year, From Publication of Cinnamon Farming and Processing, Export Agriculture Department 2015, Volume 05) Annexure VIII (Common deficiency symptoms appeared in Cinnamon leaf)
2.3.4	Does the producer use synthetic fertilizer? If yes are the recommendation for application of fertilizer according to Department of agriculture references and annual soil nutrient analysis result	The ideal pH for Cinnamomum zeylanicum production is between 5.5 to 6.5. Usage of fertilizer should be according to recommendation of Department of Export agriculture and with refer to soil nutrient analysis test report	The hole in which the plant will be grown need to be filled with topsoil.  The ideal pH for <i>Cinnamomum zeylanicum</i> production is between <b>5.5 to 6.5</b> .  If the pH is too low (it sometimes drops because of the leaves and other organic materials left on the field), dolomite should be applied (1000kg/ha/yr) to rise the pH level.  Annexure IV (Recommendation of Fertilizer from Publication of Cinnamon Farming and Processing, Export Agriculture Department 2015, Volume 05)
2.3.5	Has the producer maintain correct spacing and planting pattern?	The bushes are cultivated at a spacing of 4 feet between rows by 3 feet within rows or suitable spacing. The rows are arranged in a parallel line pattern or zig-zag pattern	The trees are grown as bushes, consisting of 3 to 15 seeds or seedlings planted close to each other, this is called a "pandura" in the local language.  The bushes are cultivated at a spacing of 4 feet between rows by 3 feet within rows.  The rows are arranged in a parallel line pattern while the land is flat. If the land is on a slope, the rows are arranged in a zig-zag pattern organized in contour lines in order to avoid soil erosion.

2.3.6 Does the producer practice selective pruning at correct time or stage

Young planting: -First pruning takes place at one and a half to two years after planting, all the side branches and all the leaves are removed, from the base to half the height of the bush.

The same practice will be performed **two** and half years later.

Selective pruning will occur several times.

One and a half to two years after planting, all the side branches and all the leaves are removed, from the base to half the height of the bush.

The same practice will be performed **two and half years** later.

It will then always be performed three months before harvesting. All unnecessary, diseased or damaged shoots need to be removed.

After harvesting, a certain number of new tillers start to grow and only some of the strongest and straightest of them will be retained for each stump three month after harvesting. The coppicing is not made on all original stems at the same time, but alternately. This ensure that there is always at least one stem to which the selected young tillers can be attached. Immature tillers should be bound to mature plants by cloth string to avoid bending and obtained straight





plant.

3. Tillers on Coppiced Stem

2.5	Disease, Weed and		
	Pest Management		
2.5.1	Does the producer use	Pests, diseases, and weeds must be	It is suitable mix cropping with
	management	controlled by a combination of the	Coconut. Both crops management
	practices to prevent	following measures.	practices should be done
	crop pests, weeds and	Mechanical cultivation by hand	adequately.
	diseases?	and/or machine.	Cinnamon should not be
		Application of chemical substances	established in the land parcel
		Crop rotation, inter-cropping or	where rubber was established
		mixed cropping.	within a few years back.
		Selection of disease-resistant or -	
		tolerant species/varieties.	
		Thermal processes Protection of	
		natural enemies of pests through	
		provisions favorable to them (e.g.	
		hedges, nesting sites, release of	
		predators).	
2.5.2	If chemical substance	Used chemical for management of	Annexure V (Pesticides
	used, does the	crop, weed, pest should be included	Recommended , Department of
	producer only use	in national list of allowed chemical	Agriculture, Peradeniya 2019),
	chemical substance	substance list in Sri Lanka	Annexure VI (List of banned and or
	those are currently	(Pesticides Recommended,	severely restricted pesticides in Sri
	authorized in country	Department of agriculture,	Lanka
	for crop, weed, pest	Peradeniya 2019	
	management		

3	Harvesting and Post- Harvest Processor		
3.1	Does the Producer possess adequate qualification to process cinnamon bark	Each member of association (Most probable the Peeler) should have a certificate from a Cinnamon Research Institute)	The harvesting process, as well as the processing of the cut quills, is carried out by skilled peeler.
3.2	Does the Producer follow proper procedure in using harvesting equipment	Before harvesting, Equipment to be used for harvesting should be prepared. First, the peeler has to sharpen and clean the Keththa' with clean water. Before harvesting, a quick pruning is done	

3.3	Does the producer	Mature shoot is coppiced at a	The mature shoot is coppiced at a
	follow correct	height of about 2.5 inches (6 cm)	height of about 2.5 inches (6 cm)
	harvesting practices	from the ground level.	from the ground level.
		The coppicing is done inwardly at an angle of about <b>45°</b> in one sharp cut.	The coppicing is done inwardly at an angle of about <b>45°</b> in one sharp cut.  The stems are not harvested all at the same time from the bush, but alternately between harvesting
			seasons. One or two mature stems per bush remain not coppiced.





# 4. Height of Harvesting

5. Coppiced stem

3.4	Does the	Immature tiller bounded to older stem,
	Producer	the peeler removes the branches of the
	maintain bushes	harvested stem and the leaves and
	properly after	branches are left for drying or
	harvesting	composting





### 6. Immature tiller Bounded to older stem

4	Transport of Raw	
	-	

	Materials		
4.1	Does producer use suitable transportation means	Harvested Cinnamon stems & Leaves shall only be transported to the preprocessing centers located in proximity and within 24 hours from harvesting	Operators must ensure that products are transported, only in appropriate packaging, containers or vehicles closed in such a manner that substitution of the content cannot be achieved without manipulation or damage of the seal and provided with a label or a statement.

5	Record keeping at farm level		
5.1	Are stock and financial records kept in the unit or premises?	Stock and routine activity records shall be maintained at field cultivation level for two years (Minimum)	Annexure VII (Formats of Propagation material records, Input Records, pest control records, harvesting records and dispatch records)

If processing is taken place at farmer level, processor guidebook need to be followed for processing aspect

.