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RRISL CLONE RECOMMENDATION - YEAR 2000*

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INTRODUCTION

The existing clone recommendation of the Rubber Research Institute of Sri Lanka (RRISL) for the plantation sector has four groups of clones. The new clones selected from trials conducted by breeders are first, introduced into the Group IV of the recommendation and the promising clones from this group are gradually elevated to the Group III, Group II and finally to Group I. By adopting this system it takes a very long period for a clone to be upgraded for large scale planting resulting in a delay in reaping the benefits of the advantages of new clones to the industry. Further it was found that the guidance given by the current recommendation in achieving a good balance in the usage of clones is not adequate. In order to expedite the pace of using new clones and to encourage the planters to plant a wide variety of clones to maintain a good clonal-composition in estates the Rubber Research Institute has made several changes to the existing clone recommendation.

Changes made to the existing clone recommendation

The first change made, is the reduction of the number of clone groups to three by merging the Group II and III of the older system. In the new system, Group I is made up of clones for large scale planting with proven track records while Group II consists of relatively new clones which are found promising in preliminary trials. Group III clones have limited amount of information and estates are advised to plant them in collaboration with the RRI as Estate/RRI collaborative clone Trials (ECTs). This group of clones will include unregistered clones along with new introductions from other countries.

More clones but smaller extents

In the new recommendation the planters have a choice of a wide variety of clones but with a new set of guidelines on their usage. These new features will encourage the planter to use as many clones as possible in smaller extents. Wide

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* Recent revisions made with respect to RRISL 200, 201, 202 and 217 are included

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variety of clones, each in smaller extent, as encouraged by the new recommendation, will lead to widen the genetic diversity on rubber lands. Maintenance of the genetic diversity or a good clone balance in estates is important because it will provide a greater genetic buffering against the possible disastrous conditions which might affect the rubber plantations in the future. In the new recommendation, it is advised to limit planting of any single clone from the Group I up to a maximum of 10% of the total extent. It is obvious that this ruling cannot be adopted with respect to RRIC 100 and perhaps for RRIC 121 clones that have already been extensively planted over the last decade. Therefore, we may have to refrain from planting these two clones in the future until a reasonable clone balance is achieved. But in the case of RRIC 130 which is a clone included in Group I of the new recommendation and RRIC 102, this 10% maximum should be strictly adopted. Further details on the usage of clones will appear elsewhere in this document.

Clone recommendation for the Estate sector

Group I - Each clone to be planted up to 10% of the extent

RRIC 100, RRIC 102, RRIC 121, RRIC 130[1], PB 217*[1], PB 28/59*[1].

*PB 217 and PB 28/59 are not recommended for areas having more than 3750 mm of annual rainfall.

Group II - Each clone to be planted up to 3% of the extent

RRIC 117	RRISL 203	RRISL 210	PB 235[1]
RRIC 131	RRISL 205	RRISL 211	PB 260[1]
RRIC 133	RRISL 206	RRISL 215	BPM 24

Group III - Estate/RRI collaborative clone trials
Each clone to be planted up to 2 ha

RRISL 201	RRISL 221	RRIM 717	RRISL 2000
RRISL 204	RRISL 222	PB 255	RRISL 2001
RRISL 208	RRISL 225	PR 255	RRISL 2002
RRISL 217	RRISL 226	PR 305	RRISL 2003
RRISL 218	RRISL 227	RRII 105	RRISL 2004
RRISL 219	GPS I		RRISL 2005
RRISL 220			RRISL 2006

[1] **These clones should be tapped at 67% intensity until intensification**

It is advisable to limit the extent of planting of any single clone of Group I to a maximum of 10% of the total area under rubber to minimise the risk from conditions disastrous to rubber such as* Corynespora *leaf disease

Planting strategy

At present the Natural Rubber (NR) industry in Sri Lanka depends totally on two rubber clones *i.e.* RRIC 100 and PB 86. This situation demands serious attention of the rubber growers because in an event of a major hazard affecting these two clones the whole rubber industry is at stake. Only way out of this situation is the increase of what is termed as "genetic diversity" on rubber lands by planting as many recommended clones as possible. We suggest below a planting strategy, which will lead to have a healthy clonal composition on estates.

Use of recommended clones in planting

Group III - ECTs

Total number of clones available 26
Each clone can be planted up to 2 ha.

Estate size	Extent under ECTs
Below 200 ha	10 ha
200 - 400 ha	10 - 20 ha
More than 500 ha	30 ha

For estates over 500 ha, about 5% of the land area can be covered by group III clones.

Group II

Total number of clones available 12
Each clone can be planted up to 3% of the total extent.

Estate size	Area covered by a Single clone	Total area under Group II clones
Below 200 ha	6 ha	90 ha
200 - 400 ha	6 - 12 ha	90 - 180 ha
400 - 500 ha	12- 15 ha	180 - 225 ha
500 - 1000 ha	15- 30 ha	225 - 450 ha

By adopting all 12 clones, around 35% of the total extent could be covered by Group II clones.

Group I

Total number of clones available 6.
Each clone can be planted up to 10% of the total extent.

Estate size	Area covered by a single clone	Total area under Group I clones
Below 200 ha	20 ha	100 ha
200 – 400 ha	20 - 40 ha	100 - 200 ha
400 – 500 ha	40 - 50 ha	200 - 250 ha
500 - 1000 ha	50 - 100 ha	250 - 500 ha

It is advisable to limit the area covered by all Group I clones to less than 60% of the total extent of the estate.

Clone recommendation for smallholders and private estates

RRIC 100, RRIC 102 and RRIC 121.

On experimental basis RRISL 201
RRISL 203
RRISL 205
RRISL 206

Latex - Timber clones

In view of the growing demand for the rubber tree as a timber producing species, following clones have been identified as latex-timber clones for the Plantation Sector.

RRIC 121	RRISL 205	RRISL 2000	PB 235
RRIC 133		RRISL 2001	PB 260

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