



Pontificia Universidad Católica de Chile  
Facultad de Agronomía e Ingeniería Forestal  
Doctorado en Ciencias de la Agricultura

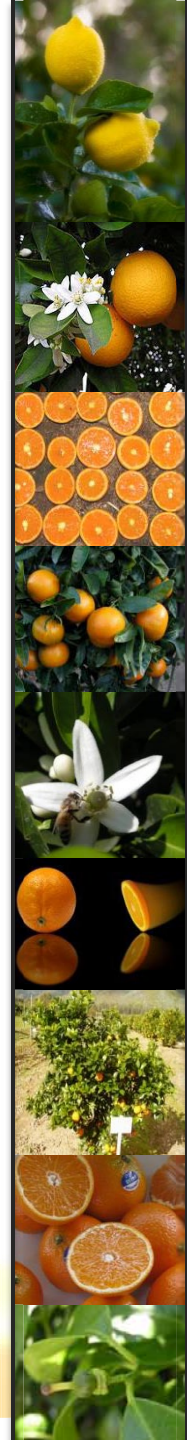
# CLEMENLUZ, A NEW CHILEAN EARLY CLEMENTINE

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# CLEMENLUZ

Clemenluz was originated in 1998 from a spontaneous mutation of Clemenules

Early-season maturing variety

In the central valley of Chile this variety matures early in may (middle of autumn), three weeks before Clemenules.

It can hold fruit quality characteristics through june



# PERIOD OF HARVEST FOR MANDARINS IN THE CENTRAL VALLEY IN CHILE

MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER
		CLEMENLUZ					
			CLEMENULES				
					W. MURCOTT		
					TANGO		
						FORTUNA	
					TDE 3 ?		
						TDE 2 - TDE 4 ?	
					TACLE ?		
						MANDARED ?	
							MANDALATE ?

# CLEMENLUZ



May 18<sup>th</sup>, 2013

# CLEMENLUZ

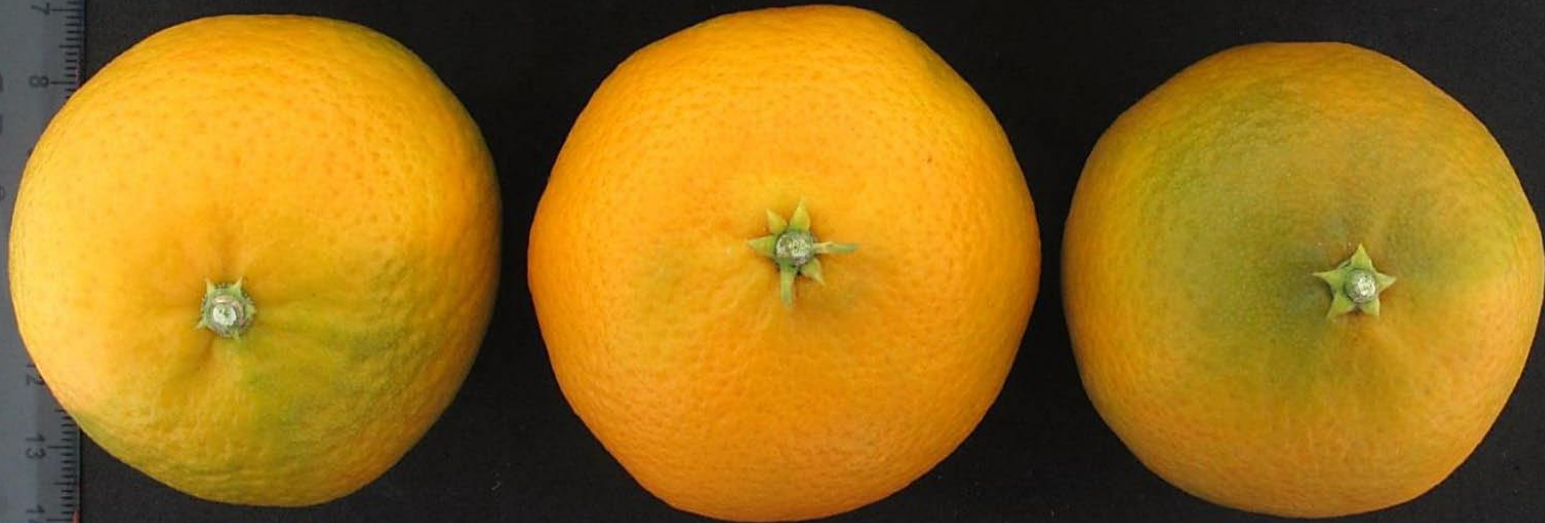
Starting harvest, sugar content is lightly higher in Clemenules, but Clemenluz reaches better rind color, larger fruit size, less acidity and higher soluble solid/acidity ratio, allowing an earlier harvest.

Fruit peelability is similar to Clemenules, with a smooth skin but the juice vesicles are more prominent and crunchy.

# CLEMENLUZ compared with CLEMENULES. Harvest: may 18<sup>th</sup>, 2013



CLEMENULES

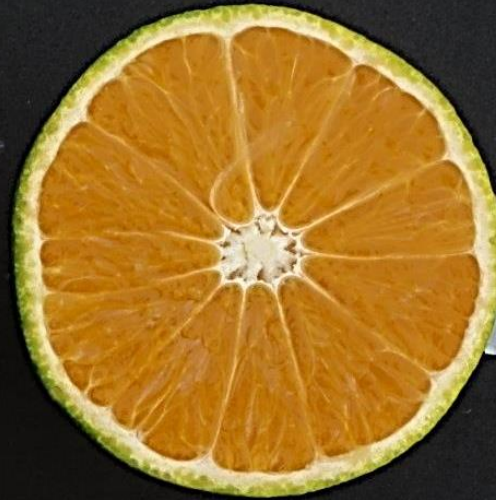
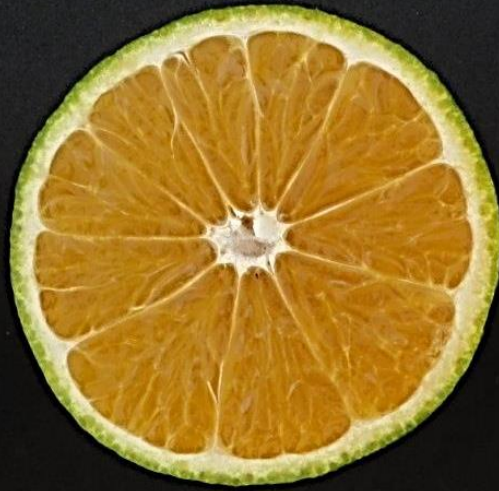


CLEMENLUZ

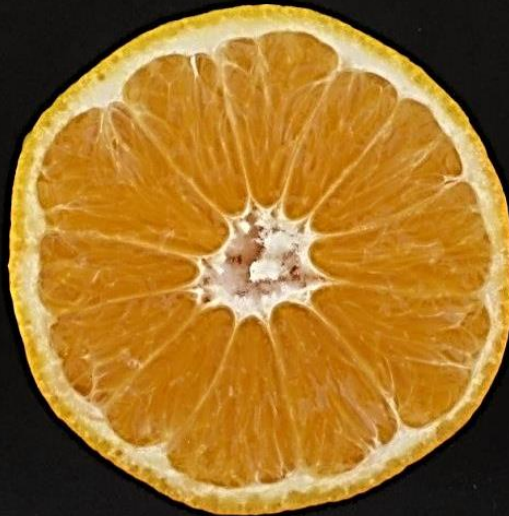


# CLEMENLUZ compared with CLEMENULES.

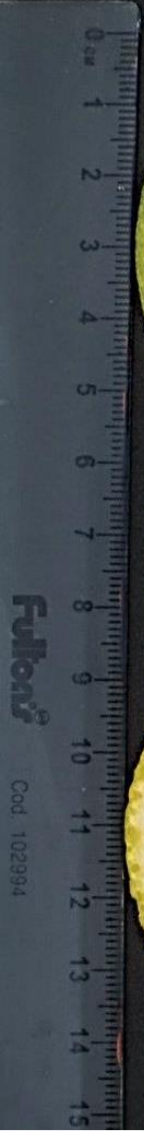
Harvest: may 18<sup>th</sup>, 2013



CLEMENULES



CLEMENLUZ







# FRUIT QUALITY CHARACTERISTICS FOR CLEMENLUZ AND CLEMENULES

	Variety	Weight (gr)	Color	Color	% Juice	Soluble solid	% Acidity	SS/Ac ratio
			(1-8)	(ICC)				
May 2013	Clemenluz	115,6	6,0	2,9	45,9	11,5	1,4	8,2
	Clemenules	100,6	3,2	-7,2	44,0	12,8	1,6	8,2

May 2012	Clemenluz	105,0	3,9	0,3	50,3	11,7	1,2	9,9
	Clemenules	82,0	2,5	-9,3	54,2	11,9	1,6	7,9

# CLEMENLUZ

Fruit has a very deep orange rind color when it is degreened



# CLEMENLUZ

This variety has thorns (1 to 2 cm length) in water sprouts and they are reduced in sprouts. It is not a problem for the fruit.

It can develop seeds in all cross-pollinated situations

Fruit is located at the end of the sprout with only one fruit per sprout









# CLEMENLUZ



Clemenluz has a very good behavior when sintetic auxins is applied to increase size.



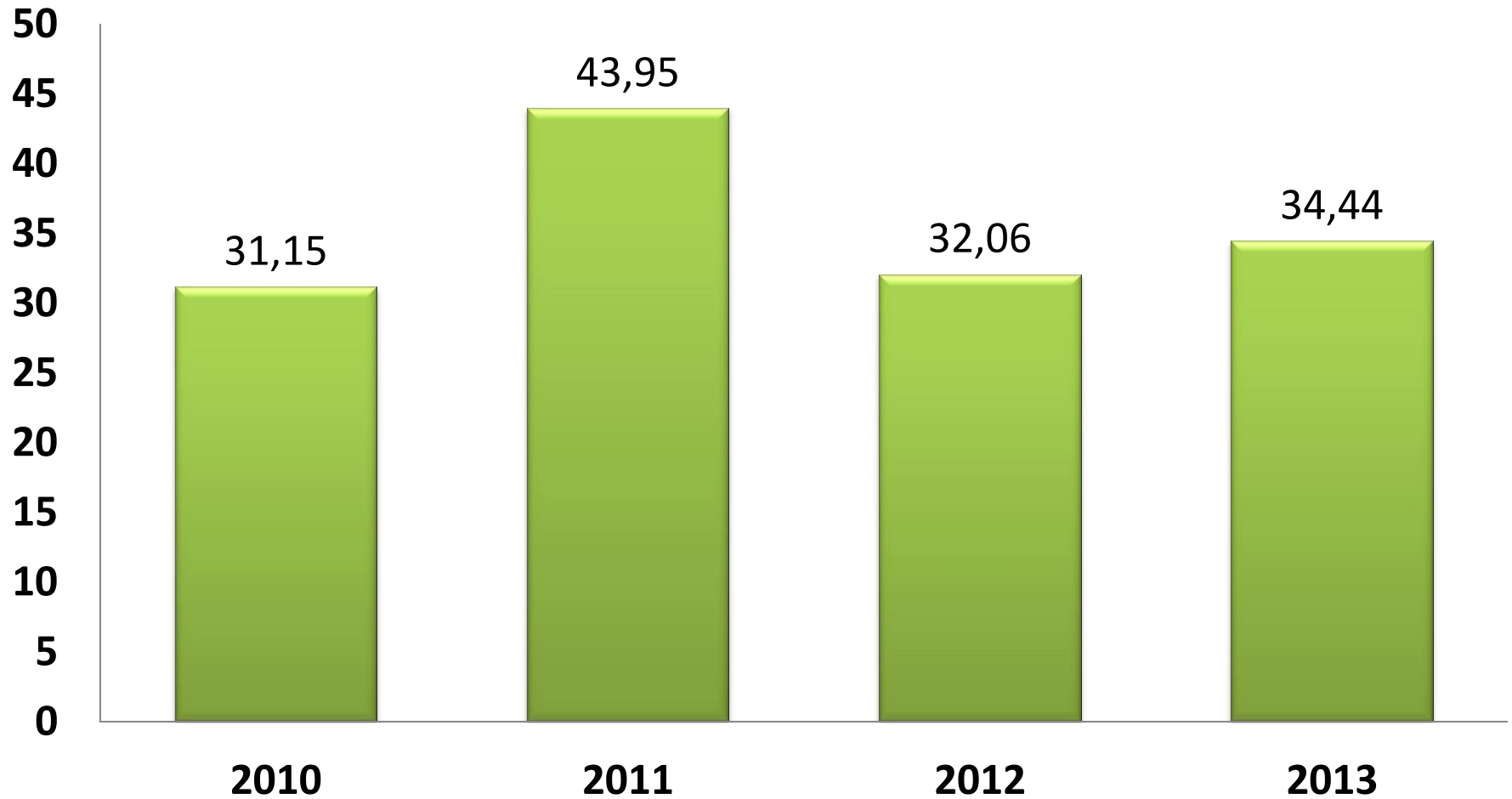
# CLEMENLUZ

Fruit size is medium to large (over 55 mm) averaging 90 grams per fruit with a very good production (Average: 35 Ton/ha from the sixth year)

Pack out is over 85%.

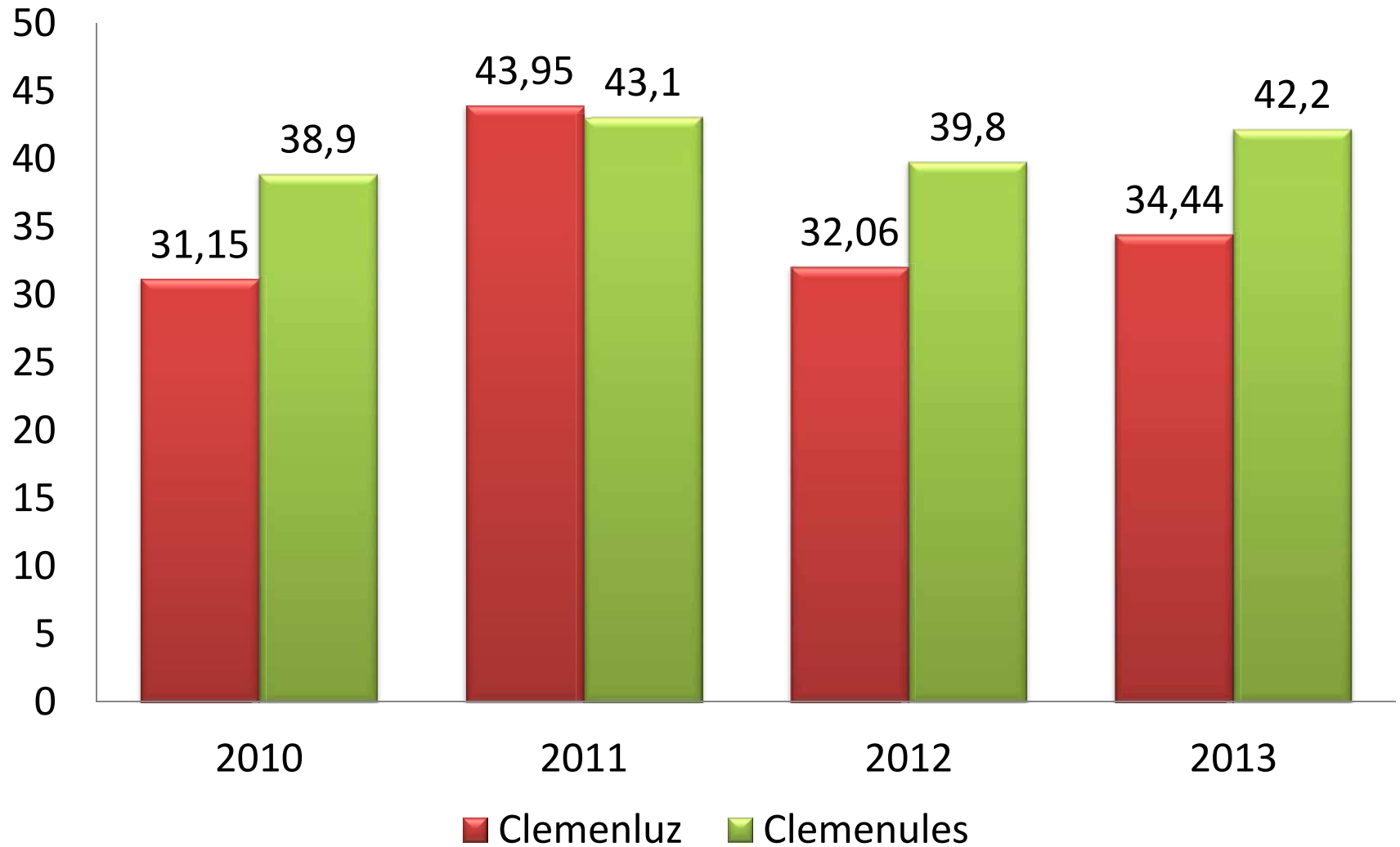
# Clemenluz production

## Seasons 2010, 2011, 2012 and 2013



# Clemenluz and Clemenules production

## Seasons 2010, 2011, 2012 and 2013

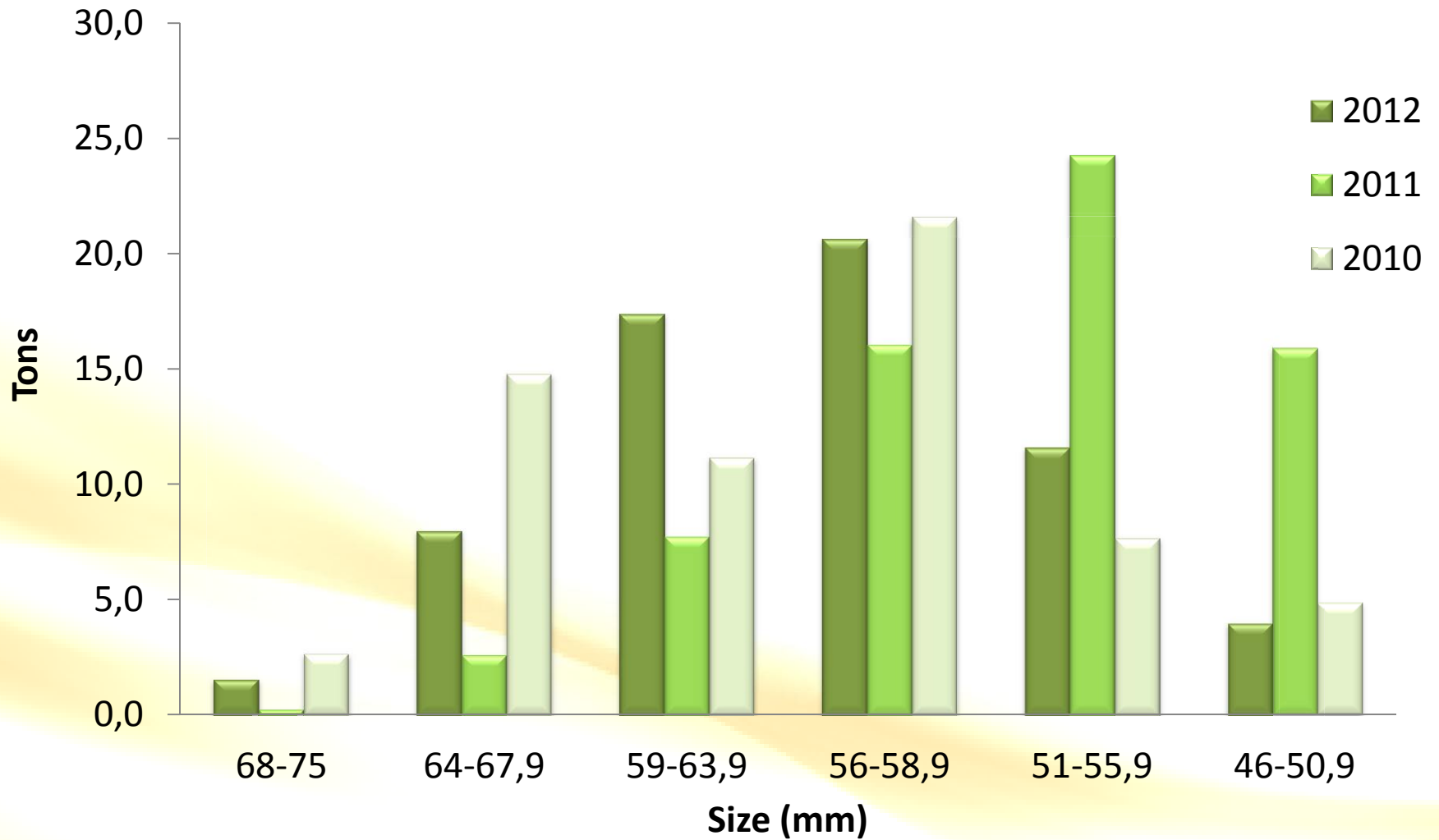


# Pack out (%)

Average seasons 2010, 2011, 2012 and 2013

Size	Diameter (mm)	Weight (gr)	Pack out (%)
1 X	68-75		2,1
1	64-67,9	108-100	11,3
2	59-63,9	99-90	17,2
3	56-58,9	89-75	31,1
4	51-55,9	74-60	24,7
5	46-50,9	59-50	13,4

# SIZE DISTRIBUTION



# IN SUMMARY...

Clemenluz is a early-season maturing clementine

With a medium-large sized fruit of good quality and production, without seed when it is planted in isolated field (under no cross pollination).

Alternate bearing and increasing size can be easily culturally managed

It has been successful in the early-season marketing window, with very good prices

# Pruning and training











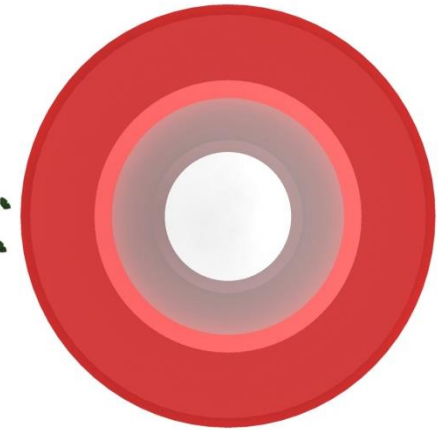
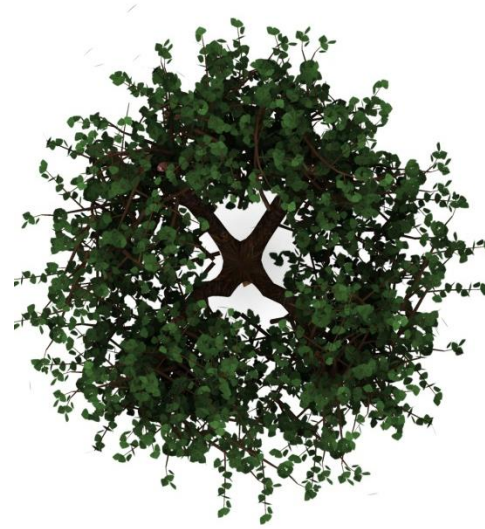








# TRADITIONAL SYSTEM



# DOOR





➤ **Tran**  
**Sist**





