

**PHYTOGONIA** is a plant nursery business specialized in olive tree propagation.

### PROTECTED VARIETIES

Phytogonia nursery, is the first and only nursery in Greece that took the authorization to produce and commercialize the following patterned varieties from IRTA (INSTITUT DE RECERCA I TECNOLOGIA AGROALIMENTARIES) from Spain.

The nursery specializes in producing selected clones of three main olive varieties (Arbosana, Koroneiki & Arbequina) These three varieties cover the needs of the modern high and super high density plantations. Their characteristics allow the mechanical harvesting with the use of over-the-row machines.

- **Arbosana IRTA i-43®**

#### Characteristics

Intense green fruited extra virgin oil, with connotations of leaves and vegetables. Usually other secondary aromas are present, which remind mature fruits and flowers or honey. The bouquet is very complex and presents a positive balance between the sweet, spicy and bitter sensations. With a clear final astringency, which reinforces the perception of the retro nasal greenish notes.

#### Global evaluation

Early bearing cultivar with high productivity. Due to its low vigor, it adapts very well to hedgerow system for olive growing. Sensitive to frost, its fruit is small and it ripens several weeks after "Arbequina". It produces an intensive green fruited virgin oil with high levels of bitterness, spicery and astringency.

	content (%)
Fatty acids	
C16:0 (%)	13.6
C18:0 (%)	1.9
C18:1 (%)	73.0
C18:2 (%)	7.9
C18:3 (%)	0.9
Total polyphenol(ppm caffeic acid)	303
Bitterness (K225)	0.26



- **Koroneiki clone IRTA-i-38®**

Characteristics

Intense green fruited extra virgin oil, very rich in secondary aromas, with olive leaves and mixed vegetables flavors, like artichokes. The bouquet presents mainly the dominating sensations of spicy, bitterness and astringency, although there persists a clear note of sweetness which contributes to the maintenance of a pleasant sensorial balance.

Global evaluation

Early bearing productive cultivar. It is quite drought-resistant but frost-sensitive. Tolerant to “Olive Leaf Spot” (*Spilocaea oleagina*). It has a very small fruit which ripens between “Arbequina” and “Arbosana”. “Koroneiki i-38” produces commercially appreciated extra virgin oils, with characteristic intense green color, rich in oleic acid, polyphenols and bitter components that contribute to its long self-life.

	content (%)
Fatty acids	
C16:0 (%)	11.6
C18:0 (%)	2.4
C18:1 (%)	76.5
C18:2 (%)	6.8
C18:3 (%)	0.9
Total polyphenol(ppm caffeic acid)	494
Bitterness (K225)	0.45



- **Arbequina clone IRTA-i-18®**

Characteristics

Medium fruited extra virgin olive oil with an outstanding sweet aspect, that leads to the perception of other milder attributes like spicy or bitterness, indicating the presence of polyphenols. Secondary aromas are also present, like green grass and green almonds, with added ripe fruits notes. It presents outstanding varietal characteristics when freshly pressed at the start of the campaign that are also evident in blends to improve its stability.

Global evaluation

Very productive cultivar, early bearing and slightly alternating. It is considered to be rustic, frost-resistant and adaptable to different climatic and soil conditions. Very adaptable to intensive and hedgerow orchards. Its semi-erect growth habit facilitates its training in central leader. 'Arbequina i-18' produces a medium fruited extra virgin oil, balanced in the mouth, where the sweet attribute is outstanding, very appreciated by the new consumers. Its commercialization can be monovarietal or in coupage with other oils.

	content (%)
Fatty acids	
C16:0 (%)	15.0
C18:0 (%)	1.6
C18:1 (%)	68.2
C18:2 (%)	11.4
C18:3 (%)	0.7
Total polyphenol(ppm caffeic acid)	223
Bitterness (K225)	0.18

