



**UNITED GENETICS ITALIA S.p.A.**

# **FRESH TOMATOES**





# KAGOME & UNIGEN SEEDS

## a fresh....fusion!

Founded in 1994 by Remo Ludergrani and Mario Martinelli, United Genetics has become a major player on the domestic and international horticultural seed market, mostly for processing and fresh market tomatoes. On 20 September 2013, the United Genetics group based in California, with growing sister company in Italy, Spain, Turkey, India, the Philippines, Chile and Mexico, joined the Japanese giant, Kagome. Tomatoes are the very essence of our work and commitment.

Kagome is one of the largest industrial processors, but is also involved in fresh production. Its founder, Ichitaro Kanie, was a tomato grower. All started with the first buds on the tomato seedlings he grew himself all the way back in 1899.

Shortly after, Mr Kanie increased his tomato growing and began developing technologies which ended-up becoming a tomato processing company making sauces, ketchup and juices. His efforts laid the foundations of what Kagome is today. We have been in the tomato sector for over 120 years. We not only opened the way for tomato processing in Japan, but we are now the country's undisputed industrial leader in this sector.

"True to nature, the flavour of Kagome" - this is our promise to our customers. By supplying products that maximize the benefits of nature's gifts. Kagome works constantly to contribute to the wellness and long life of people all around the world. This Japanese giant's acquisition of United Genetics was an extremely strategic deal and will create important synergy.

The aim is to close the supply chain and cre-

ate vertical integration from seed to the end product, all in-house with motto "**from seed to the table**". The company's very clear and distinctive philosophy makes the difference, as well as its enormous genetic heritage and highly experienced, passionate staff.

Its main tomato research centres are located in Japan, Italy, United States, Spain and Turkey, using Western and Asian gene banks in order to improve varieties. What is breeding if not a creative act, which, inspired by the abundance of Mother Nature, helps her to succeed even further, while also revealing her untapped potential? And how would the tomato market change - as well as other vegetables - if it thought outside the box and left the beaten track to try new, unexplored paths?

**We need to win back the end consumer and think that products should not only be aesthetically beautiful and have a very long shelf-life, but should mainly be "good to eat"!**

These and other lines of genetic improvement will be able to produce a real "paradigm shift". We are not actually talking about hybrid products or niche specialities: our new proposals feature completely comparable yields, efficiency and resistance to the most commonly found fresh ware tomatoes today, therefore providing actual benefits for everyone in the supply chain. In this context, consumers are changing tastes and expectations. United Genetics and Kagome are betting on the real possibility of a successful meeting and alliance between seed research and innovation and the end consumer's dinner table.



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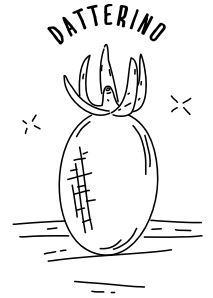
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TOMATO

# ZANNYNO (UGI 772-15)

**THE SWEET DATTERINO THAT NEVER STEM-OFF**



## TYPE

Indeterminate datterino tomato.

## TIMING

Suitable for all growing cycles when protected.

## MATURITY

Mid-early.

## PLANT

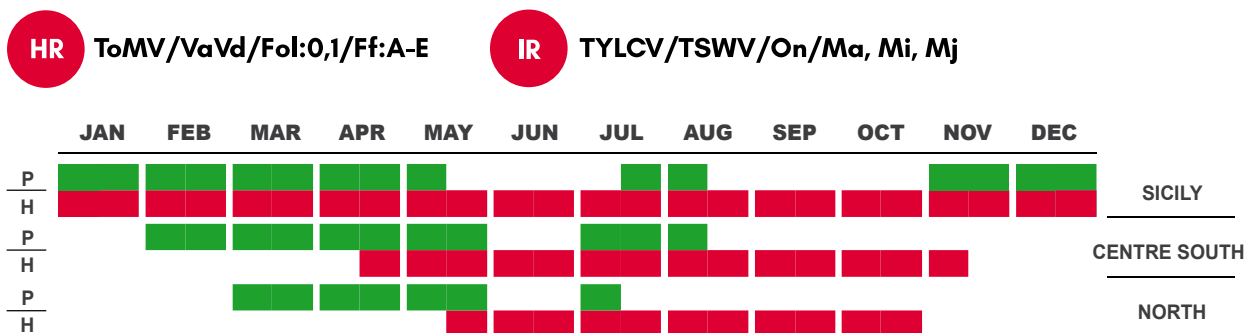
Good vigor, with an excellent potential yield, constant high quality up to the end of the cycle. Excellent tolerance to both the heat and the cold.

## FRUITS

Typical slightly elongated shape. Bright red colour and crunchy flesh. Average weight of about 20 g. Regular cluster with "fishbone" structure.

## NOTES

High yield up to the end of the cycle. Very uniform, elegant cluster in all growing cycles, often multiples. Fleshy, dark green rachis and sepals, with high resistance to fruit destemming. Excellent shelf-life.



P: planting

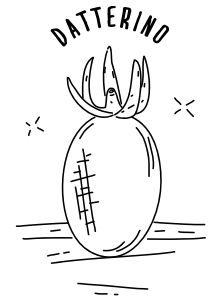
H: harvest



Fleshy rachis and sepals  
with high resistance  
to fruit destemming

# MARKYNO (UGI 077-13)

**THE SHINING, AROMATIC DATTERINO**



### TYPE

Indeterminate datterino tomato.

### TIMING

Suitable for all growing cycles when protected.

### MATURITY

Early.

### PLANT

Good vigour with a high yield.  
Open habit.

### FRUITS

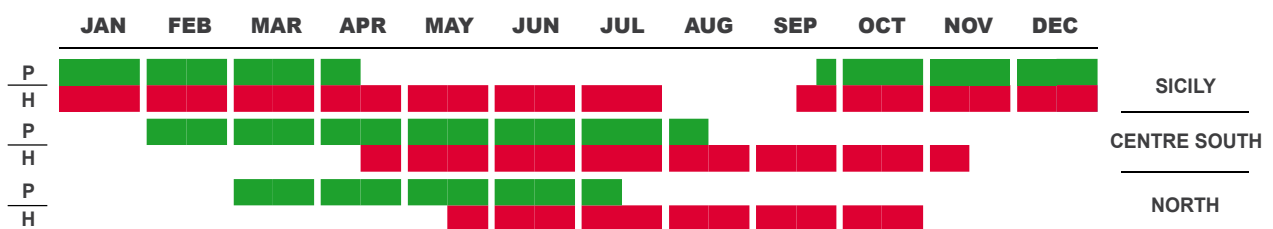
Elongated shape with characteristic dimples.  
Bright red colour. Average weight: 18-22 g.  
Crunchy flesh.  
Good tolerance to fruit drop.

### NOTES

High Brix, above average for this type.  
Aromatic taste with an intense, lingering flavour, thanks to the perfect balance between sweetness and acidity.  
Excellent shelf-life after harvest.  
Suitable for harvesting either in individual fruits or cluster.

**HR** ToMV/Fol:0-1

**IR** TYLCV/TSWV/On/Ma, Mi, Mj



P: planting H: harvest



# NESTOR (UGI 303-14)

**STEADY PRODUCTION AND QUALITY**



## TYPE

Indeterminate datterino tomato.

## TIMING

Suitable for all growing cycles when protected.

## MATURITY

Early.

## PLANT

Rustic and vigorous with an high yield.  
Open, airy habit.

## FRUITS

Elongated shape with characteristic dimples.  
Bright red colour.

Average weight: 20-22 g.

Crunchy flesh and a good balance between sweetness and acidity.

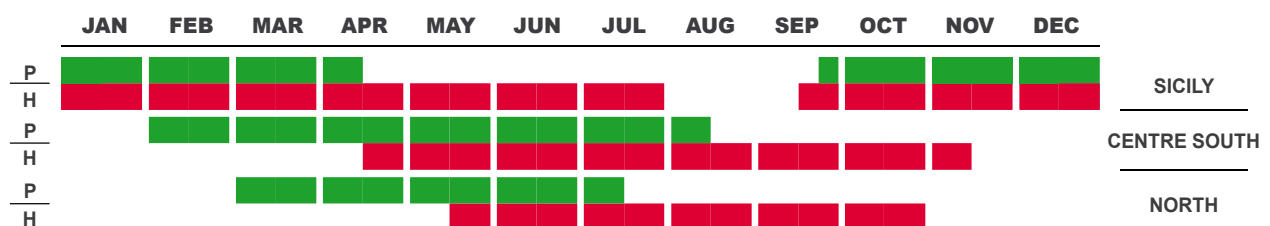
## NOTES

Excellent shelf-life after harvest.

Suitable for harvesting either in individual fruits or cluster.

**HR** ToMV/Fol:0-1/For

**IR** TYLCV/MaMiMj



P: planting

H: harvest

# ICHIGO (UGI 345-14)

**SPECIAL SHAPES FOR EXCELLENT QUALITY**



**TYPE**

Indeterminate midi plum tomato.

**TIMING**

Suitable for all growing cycles when protected.

**MATURITY**

Medium.

**PLANT**

Vigorous with an extremely high yield up to the end of the cycle. Suitable for growing in long cycles either in or out of soil.

**FRUITS**

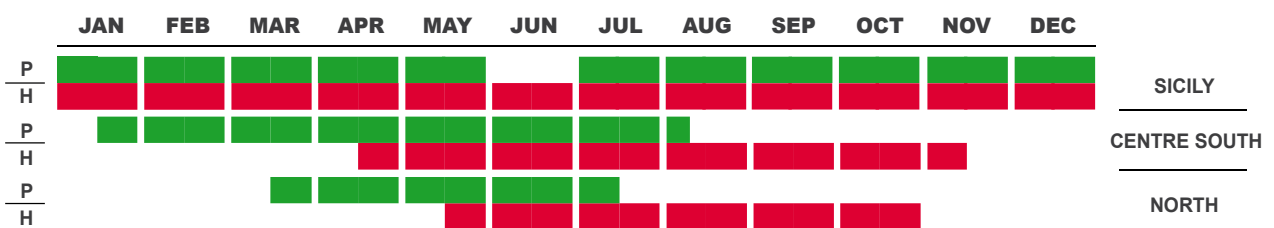
Slightly elongated shape with typical ribbed segments. Excellent colour in all growing cycles. Weight: about 25-30 g. Thin skin that melts in your mouth.

**NOTES**

Pruning is recommended for an excellent cluster management, leaving 14 fruits. Particularly suitable for harvesting in individual fruits with calyx. Excellent "fruity" flavour with a good balance between acidity and sweetness. Good durability for the fruit and rachis both on plant and after harvest.

**HR** ToMV/Fol:0-1

**IR** TYLCV/TSWV



P: planting H: harvest

# PACIFICO (UGI 4182-18)

**THE INNOVATION OF THE TRADITION**



## TYPE

Midi plum tomato.

## TIMING

Suitable for all growing cycles when protected.

## MATURITY

Mid-Early.

## PLANT

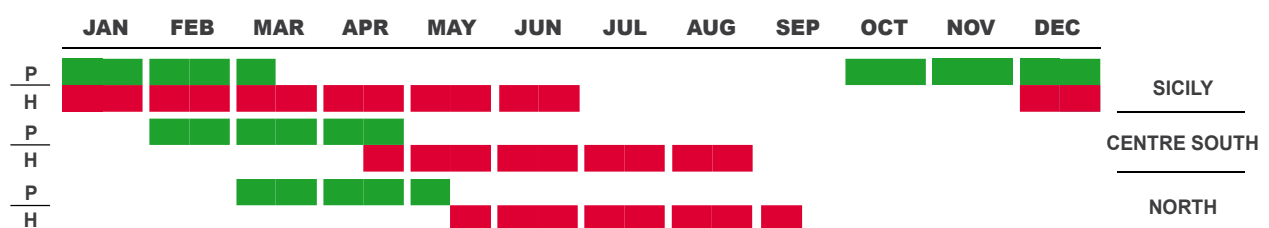
Rustic, with good foliage covering and excellent continuous production up to the end of the cycle. Good tolerance to low temperatures.

## FRUITS

Medium-size oval shape with a characteristic "little nipple" reminiscent of the traditional tomato. Uniform green colour that turns bright, deep red. Average weight: 40-50 g. Elegant, well-structured cluster. Durable, fleshy, deep green rachis. Good fruit texture and one of the best flavours for this type.

**HR** ToMV/Fol:0-1

**IR** TYLCV/TSWV/ToBRFV/PI



P: planting

H: harvest

# NOPI (UGI 4199-18)

**BORN TO BE ORGANIC**



**TYPE**

“Midi plum” type indeterminate tomato.

**TIMING**

Suitable for all growing cycles when protected both during autumn-winter cycles and during spring-summer cycles.

**MATURITY**

Mid-early.

**PLANT**

Rustic, extremely healthy thanks to its genetic resistance (performs particularly well for organic growing).

Good yield up to the end of the cycle maintaining the size and structure of the cluster. Good tolerance to high and low temperatures.

**FRUITS**

Medium-size oval shape.

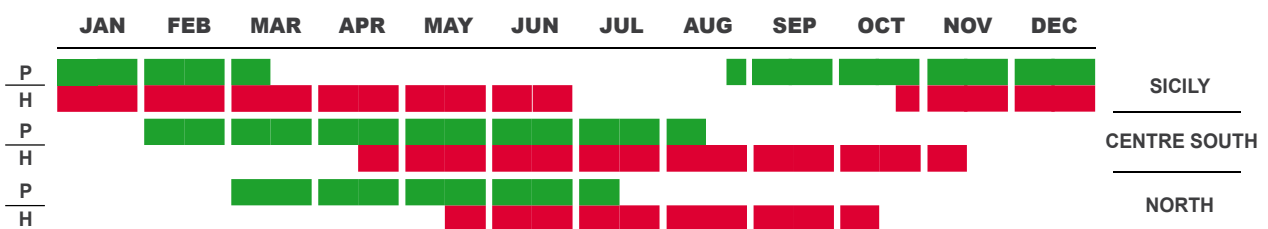
Average weight: 40-50 g.

Deep red colour and high °Bx

Elegant, well-structured cluster.

Good shelf, fleshy, deep green rachis.

**HR** ToMV/Va/Vd, Fol 0.1/For/Ff A-E      **IR** TYLCV/TSWV/ToBRFV/Pi/Ma,Mi,Mj



P: planting      H: harvest

# LONGINO (UGI 1719-16)

**ALL THE CHARM OF THE CLASSIC SHAPE....BUT IN MINIATURE**



## TYPE

Indeterminate San Marzano midi tomato.

## TIMING

Suitable for all growing cycles when protected.

## MATURITY

Early.

## PLANT

Excellent balance between growth and fruit production with short internodes and covering leaves.

Maintains a good yield and size even on the higher trusses.

Excellent tolerance to blossom end rot.

## FRUITS

Elongated prismatic shape.

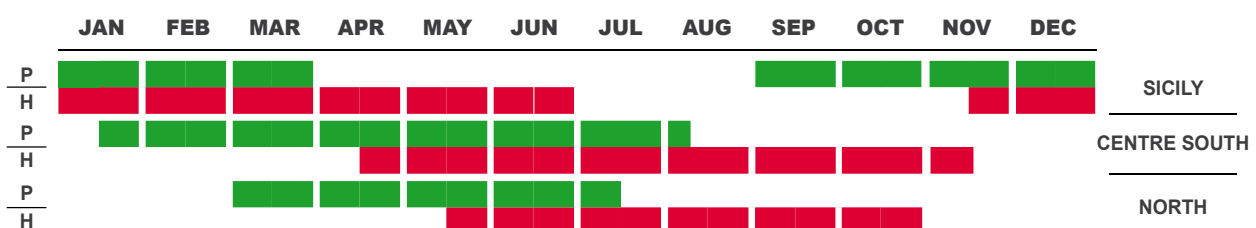
About 40-50 g weight. Elegant, close cluster with consistent, ruby red fruits.

Very attractive looking.

Good shelf-life and °Bx.

**HR** ToMV/VaVd/Fol:0-1

**IR** TSWV/TYLCV/MaMiMj



P: planting

H: harvest

# KOKORO (UGI 1847-16)

A "BIG" HEART



## TYPE

Beefsteak tomato.

## TIMING

Suitable for all growing cycles when protected both during autumn-winter cycles and during spring-summer cycles..

## MATURITY

Medium.

## PLANT

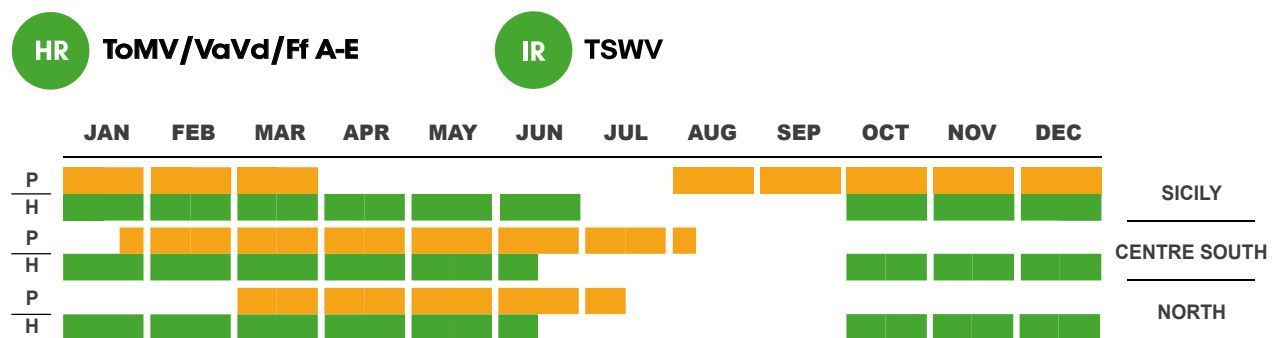
Balanced with an high yield. Good fruit setting at high and low temperatures. Short internodes even in hot humid conditions.

## FRUITS

Constant, uniform shape even on the higher trusses. Excellent ribbed segments and a flat bottom. Good colouring with a mid-green shoulder. Average weight: 250-300 g. Low hollow and a high specific weight. Excellent shelf-life.

## NOTES

Placenta cavity smaller than average for this type. Slow colour change both on the plant and after harvest. Large fruit size all throughout the growing cycle.



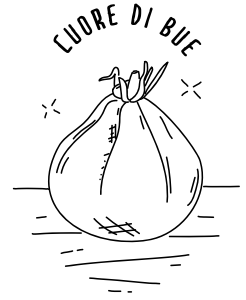
P: planting H: harvest



The fruits have a high specific weight thanks to the thicker flesh, guaranteeing a high yield and a longer shelf-life than standard

# DRAKE (UGI 4316-18)

A FULL AND COLOURFUL "HEART"



### TYPE

Indeterminate beefsteak tomato.

Produces very uniform fruits up to the end of the cycle.

### TIMING

Suitable for all growing cycles when protected. Particularly suitable for spring-summer even with intense luminosity condition and high temperatures.

### FRUITS

Around 250-300 g in size. More colour than average for this type, in all stages of ripening. Shiny with a pronounced shoulder, signs of superior quality. Beautiful ribbed segments and excellent shelf life both on the plant and after harvest.

### MATURITY

Mid-early.

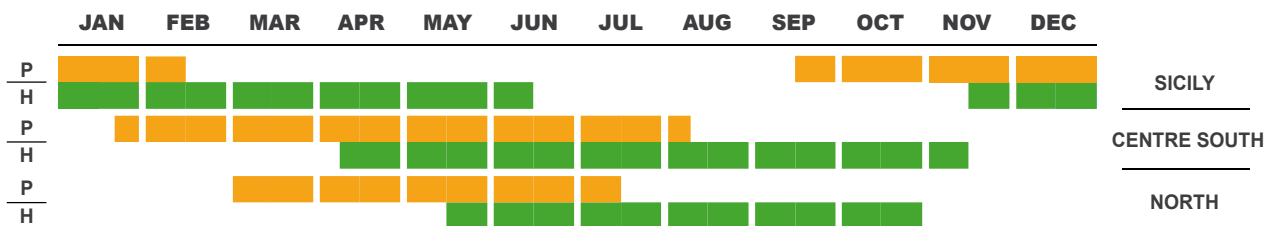
Very thick flesh and less likely for the fruits to be hollow. Higher specific weight. In bright conditions and at high temperatures, it withstands "yellow shoulder" very well.

### PLANT

Medium vigorous, productive plant with short internodes and moderate dark-coloured foliage.

**HR** ToMV/VaVd/Fol:0-2/Ff A-E

**IR** TSWV



P: planting

H: harvest



# UGI 3329

A "SPECIAL" HEART WITH A UNIQUE FLAVOUR



## TYPE

Indeterminate beefsteak tomato with a chocolate colour.

## TIMING

Suitable for all growing cycles when protected.

## MATURITY

Early.

## PLANT

Balanced, airy and productive. The excellent fertility of the flowers ensures high fruit setting.

## FRUITS

Typical beefsteak shape, slightly more elongated on the higher trusses.

Chocolate colour with excellent colour changing and a pronounced green shoulder. When fully ripe, it is a beautiful reddish-purple colour.

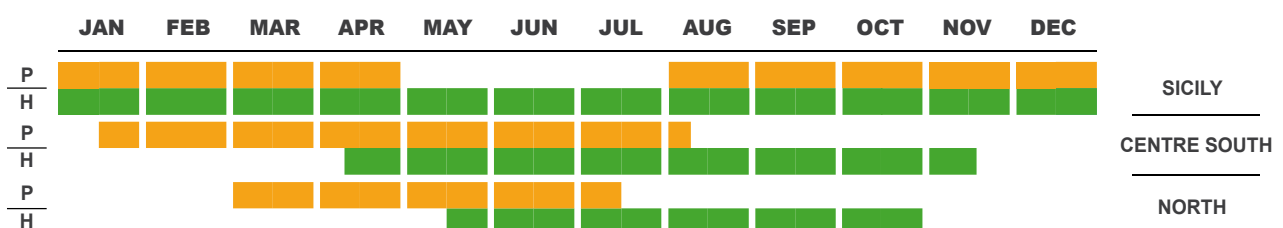
Very high specific weight and almost no hollow fruits. Excellent resistance to over-ripening on the plant and unbeatable shelf-life.

Average weight of about 180-250 g.

## NOTES

Even though it looks like a beefsteak tomato, its taste profile is much better in terms of its sweetness, acidity and juiciness.

**HR** ToMV/VaVd/Fol:0-2



P: planting

H: harvest

# BARAIRO (UGI 5426-19)

THE "PINK HEART" FOR EVERYONE



## TYPE

Indeterminate beefsteak tomato with a pink colour.

## TIMING

Suitable for all growing cycles when protected. Particularly suitable for spring-summer even with intense light conditions and high temperatures.

## MATURITY

Early.

## PLANT

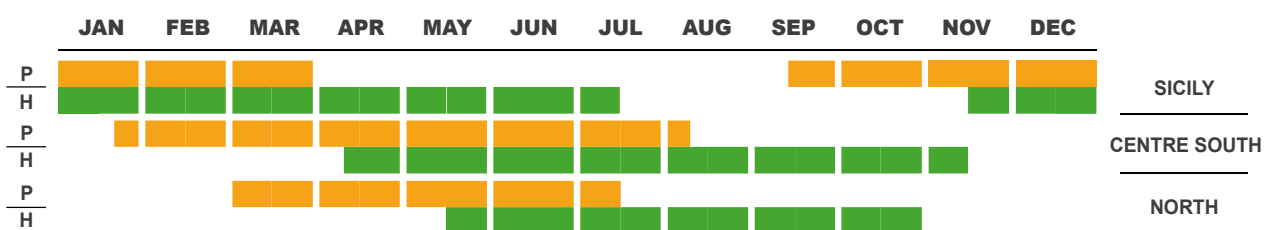
Well-balanced plant with short internodes and good leaf coverage. Excellent potential yield and maintains large sizes also up to the higher trusses.

## FRUITS

Typical beefsteak shape with strong ribbed segments and always with a flat bottom. Excellent colour both during ripening and when fully ripe. The fruit sepals are particularly large and very attractive. Firm and good shelf-life.

**HR** ToMV/VaVd

**IR** TSWV



P: planting H: harvest



# NELSON (UGI 161-13)

THE RELIABLE ONE



### TYPE

Long plum tomato.

### TIMING

Suitable for all growing cycles when protected.

### PLANT

Rustic and vigorous, but well balanced and with a high yield.

### FRUITS

Regular and uniform.

Bright dark green colour with an attractive colour when turning during ripening to a deep red when fully ripe. Average weight: 130-150 g.

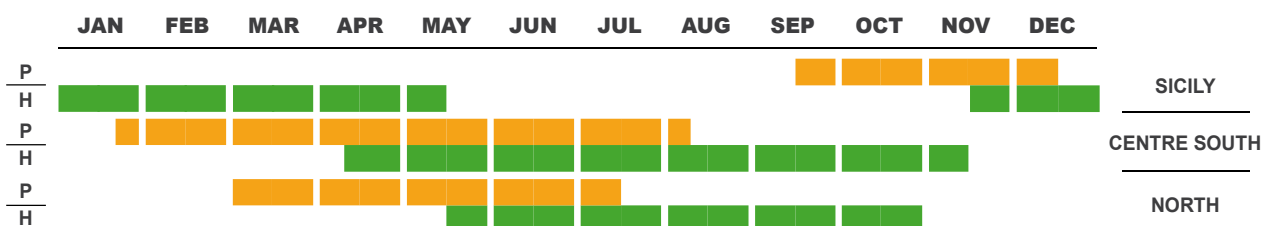
### NOTES

Fruits with a high specific weight.

Suitable for harvesting either green or red (single pick fruits).

**HR** ToMV/VaVd/Fol:0-2

**IR** TSWV



P: planting

H: harvest



Constant large sizes up to the end of the cycle

# UGI 1796-16

TOP RESISTANCE



### TYPE

Indeterminate elongated / cylindrical tomato.

### TIMING

Suitable for protected growing both in soil and on substrate. Particularly suitable for autumn, winter and spring cycles.

### MATURITY

Early.

### PLANT

Productive, open and rustic with an excellent potential yield. Its genetic resistance makes it

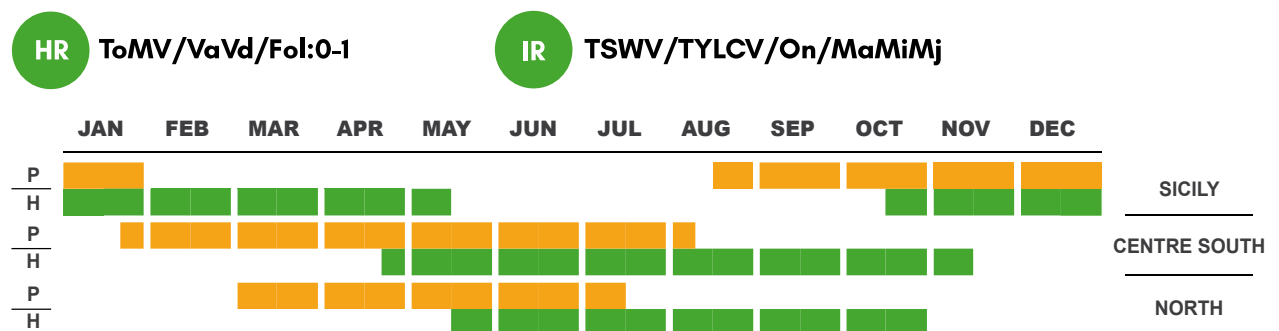
one of the few products in this segment with such healthy plant, enabling to be planted both in July and August and September in Sicily.

### FRUITS

Typical elongated oval shape. Attractive green colour, very deep, with an excellent change to red. In certain growing conditions, it can be harvested when completely red. About 140-150 g in size.

### NOTES

This plant requires appropriate irrigation and nutritional input.



P: planting H: harvest

# AGATOS (UGI 534-14)

## THE TRADITION



### TYPE

Indeterminate San Marzano tomato.

### TIMING

Suitable for all growing cycles in autumn-winter when protected.

### MATURITY

Early.

### PLANT

Rustic, vigorous and balanced. Uniform, regular fruit setting up to the higher trusses.

### FRUITS

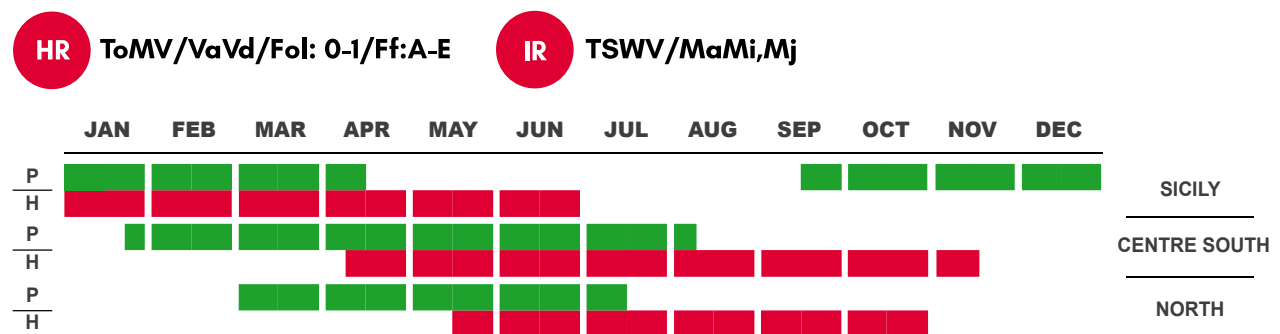
Typical traditional shape of San Marzano tomatoes. Very attractive deep red colour when fully ripe.

Average weight: 150-180 g.

### NOTES

Thick flesh and excellent shelf life after harvest.

Suitable for single pick harvesting or cluster when either green or red.



P: planting

H: harvest

# SINECUTIS (UGI 4056-18)

**STICKY PEEL**



**TYPE**

Indeterminate cherry-type tomato.

**TIMING**

Suitable for all growing cycles when protected.

**MATURITY**

Mid-early.

**PLANT**

Characterised by its slow and compact growth, with shorter internodes and a light green colour.

**FRUITS**

Round shape.

Average weight: 16-18 g.

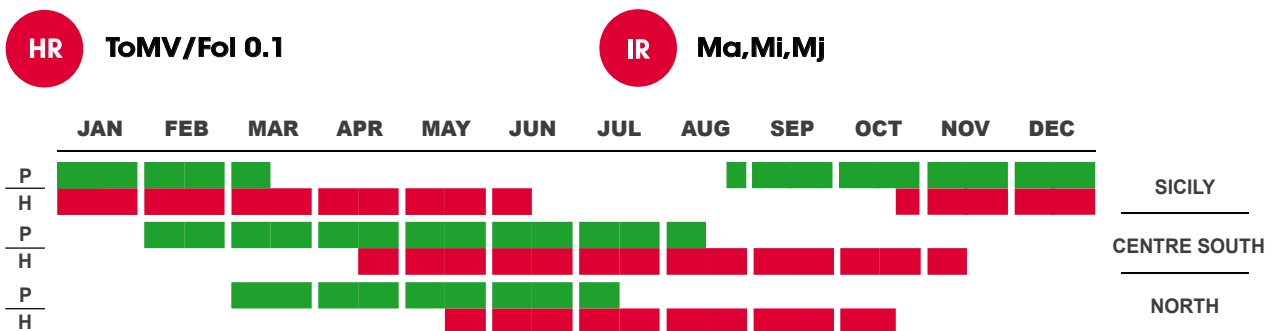
Deep red colour with very high °Bx.

Its incredibly thin skin makes to feel it without skin, giving a very special touch sensation.

Extremely shiny aspect.

These characteristics, make it an unique product both for eating fresh or cooking.

Recommended for single pick harvesting.



P: planting H: harvest





True to nature,  
the flavour of tomato

# TOMATO DISEASES

Scientific name of the ISF pathogen	English name	Italian name	Initials	Breed/Strain	Resistance	Notes
<b>Virus</b>						
Tomato mosaic virus	Tomato mosaic	Virus del mosaico del pomodoro	ToMV	0	HR	
Tomato mosaic virus	Tomato mosaic	Virus del mosaico del pomodoro	ToMV	1	HR	
Tomato mosaic virus	Tomato mosaic	Virus del mosaico del pomodoro	ToMV	2	HR	
Tomato spotted wilt virus	Tomato spotted wilt	Virus dell'avvizzimento maculato del pomodoro	TSWV		IR	
Tomato yellow leaf curl virus	Tomato yellow leaf curl	Virus dell'accartocciamento giallo del pomodoro	TYLCV		IR	
Tomato Brown Rugose Fruit Virus	Tomato Brown Rugose Fruit Virus		ToBRFV		IR	
<b>Bacteria</b>						
<i>Pseudomonas syringae</i> pv. tomato	Bacterial speck	Picchiatura batterica del pomodoro	Pst	2	HR	
<i>Xanthomonas campestris</i> pv. vesicatoria	Bacterial spot	Maculatura batterica del pomodoro	Xcv		HR	
<b>Fungi</b>						
<i>Alternaria alternata</i> fsp. Lycopersici	Alternaria stem canker	Alternariosi del fusto	Aal		HR	
<i>Alternaria solani</i>	Early blight	Alternariosi	As		HR	
<i>Fulvia fulva</i> (ex <i>Cladosporium fulvum</i> )	Leaf mould	Cladosporiosi	Ff	A	HR	
<i>Fulvia fulva</i> (ex <i>Cladosporium fulvum</i> )	Leaf mould	Cladosporiosi	Ff	B	HR	
<i>Fulvia fulva</i> (ex <i>Cladosporium fulvum</i> )	Leaf mould	Cladosporiosi	Ff	C	HR	
<i>Fulvia fulva</i> (ex <i>Cladosporium fulvum</i> )	Leaf mould	Cladosporiosi	Ff	D	HR	
<i>Fulvia fulva</i> (ex <i>Cladosporium fulvum</i> )	Leaf mould	Cladosporiosi	Ff	E	HR	
<i>Fusarium oxysporum</i> fsp. Lycopersici	Fusarium wilt	Fusariosi	Fol	0	HR	In USA known as Fol:1
<i>Fusarium oxysporum</i> fsp. Lycopersici	Fusarium wilt	Fusariosi	Fol	1	HR	In USA known as Fol:2
<i>Fusarium oxysporum</i> fsp. Lycopersici	Fusarium wilt	Fusariosi	Fol	2	HR	In USA known as Fol:3

# TOMATO DISEASES

Scientific name of the ISF pathogen	English name	Italian name	Ini-tials	Breed/Strain	Resistance	Notes
<b>Fungi</b>						
Fusarium oxysporum f.sp. radicum-lycopersici	Fusarium crown and root rot	Fusariosi del colletto	For		HR	
Leveillula taurica (anamorph: Oidiopsis sicula)	Powdery mildew	Oidio	Lt		IR	
Oidium neolycopersici (ex Oidium lycopersicum)	Powdery mildew	Oidio	On		IR	
Phytophthora infestans	Late blight	Peronospora	Pi		IR	
Pyrenochaeta lycopersici	Corky root rot	Suberosi radicale	PI		IR	
Stemphylium solani	Grey leaf spot	Stemfiliosi	Ss		IR	
Verticillium dahliae	Verticillium wilt	Verticilloso	Vd	0	HR	In USA known as Vd:1
Verticillium albo-atrum	Verticillium wilt	Verticilloso	Va	0	HR	In USA known as Va:1
<b>Nematodes</b>						
Meloidogyne arenaria	Root-knot	Nematodi	Ma		IR	Resistance can be compromised with soil temperatures (>28°C)
Meloidogyne incognita	Root-knot	Nematodi	Mi		IR	
Meloidogyne javanica	Root-knot	Nematodi	Mj		IR	
<b>Abiotic stress</b>						
Silvering		Argentatura	Si		T	
Blossom End Rot		Marciume apicale	BER		T	
Blotchy ripening		Macchiature alla maturazione	BI		T	
Cracking		Spaccature	Cr		T	



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