CHALMERS

Sangiovese

Synonym: Brunelletto, Brunello, Cacchiano, Calabrese, Chiantino, Corinto Nero, Guarnaccuiola, Liliano, Morellino di Scansano, Negrello, Nerello, Nerello Campotu, Nielluccio, Puttanella, San Gioveto, Sangiogheto, Sangiovese Grosso, Sangioveto, Tabernello, Toustain, Tuccanese, Vigna del Conte, Vigna Maggio

Commonly mistaken for: Ciliegiolo, Montepulciano, Morellino del Casentino, Morellino del Valdarno, Nero d'Avola, Perricone, Sanvicetro, Uva Tosca.

Origin: It is difficult to find the history of this variety before the sixteenth century, when it was described in a document on Tuscan viticulture. It is generally thought of as being native to Tuscany but geneticists have discovered that Sangiovese comes from an old Tuscan variety crossed with a Calabrian variety (Vouillamoz et.al, 2004).

Agronomic and environmental aspects: The vine is very adaptable to different climates, but having an early time of budburst it can be susceptible to spring frosts. It prefers less fertile, well-drained soils. Suitable for different training systems (can be adapted for full mechanisation) but many Tuscan growers say double guyot is best. Vigorous vine that should be used with a low-vigour rootstock. Thin skinned so susceptible to botrytis, particularly as this is a late ripener and thus thinning the canopy and fruit thinning is advised.

Diseases, pests and disorders: Medium resistance to downy mildew, more susceptible to powdery mildew and botrytis. Susceptible to attacks of mites, good resistance to rhynchota and moths.

Description:

Growing Tip:	half-open or fully open, cottony, of whitish green colour with reddish edges.
Leaf:	medium size of blade, pentagonal shape, 3-lobed, also 5-lobed. Has U-shaped petiolar sinus, sometimes semi-open V-shaped; the lateral superior sinuses superior shaped like a semi-closed lyre, with lobes slightly overlapping, while the inferior (if there are) are like an open V. The profile is flat, rarely undulate, hairless, but with a few tufted hair on the lower surface.
Bunch:	medium or medium-large size for Sangiovese "big" and medium-small size for Sangiovese "small"; of cylindrical-pyramidal form, with one or two wings, with densely distributed berries.
Berry:	of medium dimensions, round or elliptic; skin of uniform purplish-black colour, medium thick covered by high bloom.

Vegetation Growth Habit:	erect
Vigour:	high
Average bunch size:	medium-large (200-400 g.)
Average Bunches per shoot:	1 or 2

Growth Stages:

Time of budburst:	medium-early
Time of flowering:	medium
Time of veraison:	medium
Time of harvest:	late

CHALMERS VITICULTURE P/L
ABN 77 610 241 060

CHALMERS.COM.AU

ENQUIRIES
BRUCE CHALMERS
M +61 419 807 283
E NURSERY@CHALMERS.COM.AU

ACCOUNTS
PO BOX 56
MERBEIN VIC 3505
M +61 488 114 314
E ACCOUNTS@CHALMERS.COM.AU

ADMINISTRATION
118 THIRD ST
MERBEIN VIC
JENNI CHALMERS
M +61 407 093 795
E JENNI@CHALMERS.COM.AU

Wine characteristics:
Sangiovese can produce a range of styles from light and crisp to full bodied and rich reds. In cooler sites it produces delicate, aromatic wines; warmer sites are generally more reliable due to Sangiovese being a late ripener. In hot climates, richer, fuller styles are produced but tend to lack a little finesse. Characteristic aromas of Sangiovese include red cherry, tea or tomato leaf and dried herbs, yielding to dark plum fruit and mocha in warmer sites.

Australian Experience:
Sangiovese MAT 7 has been the most successful of these clones so far, with MAT 6 close second in popularity. It offers great colour, balanced yield, great flavour intensity, hassle free canopy management and fantastic wine quality for styles from juicy and young drinking to age worthy. The VCR 5 and 6 'Brunello' clones have also made great wine but with lighter, more brownish colour but fresher acidity than MAT 7. Many growers have planted poly clonal plantings and have found the results to be good in these cases too. In any event, these 14 selections offer a great deal more quality and diversity than the handful of unruly and sometimes underwhelming selections that were available in Australia before.

Available Clones:

Sangiovese VCR 4
- The bunch structure is typical of Sangiovese "Lamole" type:
- large size of cluster, with wing and a medium density of berries.
- This clone has a big berry and a good resistance to botrytis;
- It is recommended for good yields and high quality fruit
- Clone typically used in Chianti.

Sangiovese VCR 5 Brunello
- Biotype "Brunello" selected in Montalcino.
- Very sparse density of hairs on tip.
- Bunch and berry of medium-small size, a thick skin of blue colour.
- Good resistance to botrytis.

Sangiovese VCR 6 Brunello
- Biotype "Brunello" selected in Montalcino.
- Medium-small bunch, of conical form
- Bunch has a very developed wing that in some cases forms a double bunch.
- The berry has a thick skin and small dimension.
- Excellent resistance to botrytis.

Sangiovese VCR 16
- Biotype Sangiovese Romagnolo,
- Clone selected in vineyard of Romagna, Vecchiazzano (Forlì).
- Bunch is medium-small, of cylindrical form with wings.
- The berry has medium size and ovate shape.
- Medium density of hairs on tip.
- Good resistance to botrytis.

Sangiovese VCR 19

- The vine has good vigour, with a high, reliable yield.
- Recommended for hillsides with good exposure and rich soils to give full-bodied wines
- This clone has bunch of medium-small dimension, with wings.
- The berry has large size.

Sangiovese VCR 23

- Biotype Sangiovese Romagnolo,
- Clone selected in vineyard of Romagna, in Vecchiazzano (Forlì).
- The vine has good vigour;
- The bunch has medium-small size, with a medium density of berries.
- These have ovate shape, of medium dimension and dark-blue colour.
- Good resistance to botrytis.

Sangiovese VCR 30

- Clone selected in Mercatale Val di Pesa.
- This vine has good vigour and bud fertility.
- Medium size of bunch and
- Must characterised by high acidity and sugar.

Sangiovese VCR 102

- Biotype Prugnolo:
- Clone selected in Montepulciano.
- The vine has medium vigour and very good bud fertility.
- Medium-small bunch of cylindrical-pyramidal form, with loose density of berries;
- Can show “hen and chicken”
- The berry has medium-small size, of round shape.

Sangiovese MAT 1

- The vine has low vigour, with short internodes.
- The form of tip is half-open.
- The bunch structure is typical of Sangiovese “Prugnolo” biotype,
- Characterized by a cylindrical-pyramidal form, loose density; large size of clusters,
- Usually shows a physiological alteration: “hen and chicken” (green millerandage).
- The berry has small dimension and elliptic shape.
- Good resistance to botrytis.

Sangiovese MAT 2

- It is a biotype that prevails in the area of Montepulciano.
- Vines of medium vigour,
- Characterised by bunches of medium dimension,
- Bunches sometimes winged, of cylindrical or pyramidal form with a good density of berries
- The berry has medium size, oval, very dark-blue colour.

Sangiovese MAT 3

- Vines of medium-high vigour and good productivity.
- The bunch structure is one of the biotypes prevailing in Montalcino:
- Bunches are winged, long and quite compact.
- The berry is medium, ovate, of a blue-violet colour,
- Berries have thick skin covered by a good quantity of bloom.

Sangiovese MAT 4

- The vine has medium-low vigour, with a medium and consistent production.
- The bunch, of long pyramidal form, has medium size, with one wing
- Buch has medium density of berries.
- The berry has medium dimension, blue to black colour, with a good quantity of bloom.

Sangiovese MAT 6

- Vines of medium-high vigour and production.
- The bunches have small size, with medium density of berries,
- Bunches of cylindrical form with a very developed wing, sometimes forms a double bunch.
- This bunch type represents ~ 60% of present genotypes, prevails in the Montalcino area.
- The berry has medium dimension, blue to black, with a good quantity of bloom.

Sangiovese MAT 7

- The vine has high vigour and a medium production.
- The bunch has small size, with loose density of berries,
- Bunches of conical form with a very developed wing, sometimes forms a double bunch.
- This bunch type represents ~ 60% of present genotypes, prevails in the Montalcino area.
- The berry has medium dimension, ovate, dark-blue colour, with a good quantity of bloom.

Maturity Data Clonal Comparison: Chalmers Merbein Vineyard

**NOTE – these readings were taken in 2017 which was a cool year with some rain events, this accounts for the fluctuations in maturity instead of a normal smooth ripening curve.*

	22/2/17	27/2/17	3/3/17	8/3/17	13/3/17	17/3/17	27/3/17
Sangiovese VCR 4							
Baume	12.0	11.4	12.0	12.4	12.8	11.6	13.0
pH	3.45	3.58	3.53	3.60	3.57	3.57	3.58
TA	8.2	6.8	6.8	6.1	5.9	5.5	5.2
Sangiovese VCR 5							
Baume	11.6	11.8	13.0	10.0	12.0	11.6	12.0
pH	3.45	3.65	3.51	3.47	3.55	3.66	3.62
TA	6.5	6.3	6.6	5.5	5.9	5.5	5.3
Sangiovese VCR 6							
Baume	9.6	10.4	11.4	11.4	13.0	12.0	12.6
pH	3.36	3.52	3.46	3.50	3.45	3.56	3.51
TA	7.2	6.5	6.9	6.5	6.3	5.7	5.2
Sangiovese VCR 16							
Baume	11.4	10.8	11.0	10.4	11.4	12.2	12.8
pH	3.46	3.50	3.49	3.50	3.61	3.65	3.58
TA	6.3	6.4	6.5	6.4	5.7	5.3	5.1
Sangiovese VCR 19							
Baume	10.0	10.6	10.0	11.2	11.6	11.6	12.4
pH	3.43	3.53	3.45	3.42	3.48	3.66	3.56
TA	6.8	6.6	7.0	6.1	6.5	5.4	5.3
Sangiovese VCR 23							
Baume	8.8	9.4	10.4	10.4	11.6	11.2	11.4
pH	3.25	3.48	3.47	3.51	3.48	3.54	3.52
TA	7.8	6.5	6.2	5.9	6.5	5.2	5.6
Sangiovese VCR 30							
Baume	8.8	9.4	10.6	9.4	10.0	13.0	12.2
pH	3.24	3.51	3.48	3.38	3.41	3.55	3.48
TA	7.6	7.0	6.2	6.4	6.3	5.7	5.6
Sangiovese VCR 102							
Baume	9.8	10.2	12.0	10.2	10.4	10.4	12.0
pH	3.28	3.47	3.37	3.37	3.46	3.48	3.34
TA	7.5	7.5	6.9	6.6	6.2	6.2	6.4

Maturity Data Clonal Comparison: Chalmers Merbein Vineyard… Continued

**NOTE – these readings were taken in 2017 which was a cool year with some rain events, this accounts for the fluctuations in maturity instead of a normal smooth ripening curve.*

	22/2/17	27/2/17	3/3/17	8/3/17	13/3/17	17/3/17	27/3/17
Sangiovese MAT 1							
Baume	11.0	10.6	10.4	11.6	12.0	10.4	13.2
pH	3.28	3.39	3.35	3.46	3.43	3.43	3.45
TA	8.9	8.4	8.4	7.4	6.8	7.2	5.3
Sangiovese MAT 2							
Baume	9.0	10.2	11.4	11.0	13.0	11.4	13.0
pH	3.34	3.38	3.46	3.39	3.49	3.52	3.47
TA	8.2	7.0	6.3	6.7	6.0	5.5	5.7
Sangiovese MAT 3							
Baume	9.2	10.0	10.0	11.2	11.2	10.4	12.0
pH	3.30	3.29	3.37	3.39	3.44	3.39	3.38
TA	8.8	7.9	7.2	7.3	6.9	6.7	6.2
Sangiovese MAT 4							
Baume	10.0	11.4	11.2	10.0	10.4	10.0	12.2
pH	3.30	3.42	3.32	3.38	3.45	3.35	3.38
TA	8.8	7.3	7.4	6.9	6.5	7.0	6.2
Sangiovese MAT 6							
Baume	11.5	10.7	11.5	11.6	10.8	12.4	12.6
pH	3.49	3.62	3.48	3.57	3.45	3.49	3.44
TA	6.8	6.7	6.7	6.7	7.2	5.9	5.6
Sangiovese MAT 7							
Baume	10.6	11.0	11.8	12.2	12.0	13.0	13.4
pH	3.42	3.51	3.39	3.59	3.51	3.62	3.53
TA	7.1	7.0	6.2	5.7	6.0	5.6	5.4

Sangiovese Bunch & Berry Weight Comparison – Vintage 2005, Euston NSW

Clones	Bunch weight	Berry weight
VCR 4	443 g	1.92 g
VCR 5	472 g	1.71 g
VCR 6	440 g	1.79 g
VCR 16	362 g	1.78 g
VCR 19	430 g	2.18 g
VCR 23	361 g	1.86 g
VCR 30	388 g	1.82 g
VCR 102	337 g	1.46 g
MAT 1	509 g	1.46 g
MAT 2	426 g	1.61 g
MAT 3	574 g	1.82 g
MAT 4	460 g	1.46 g
MAT 6	241 g	1.54 g
MAT 7	235 g	1.60 g

Principal Viticultural and Physiological Characteristics:

	Vigour (1)	Fertility (2)	Bud Bust (3)	Ripening (4)	Colour (5)	Use (6)
VCR	+	1.3	+	- -	5	Short and middle ageing
VCR 5	-	1.4	+	+ -	3	Long ageing
VCR 6	+ -	1.7	+ -	- -	4	Middle and long ageing
VCR 16	++	1.3	+ -	-	3	Middle ageing
VCR 19	++	1.5	+ -	- -	4	Middle and long ageing
VCR 23	+ -	1.5	+	+	4	Long ageing
VCR 30	+	1.6	++	++	4	Middle ageing
VCR 102	- -	1.7	-	+ -	3	Middle and long ageing
MAT 1	- -	1.3	+ -	++	2	Middle ageing
MAT 2	+	1.6	+ -	+	4	Middle ageing
MAT 3	+	1.3	+ -	++	3	Middle and long ageing
MAT 4	- - -	1.6	- -	+ -	5	Short and middle ageing
MAT 6	+	1.6	- -	- - -	5	Short and middle ageing
MAT 7	++	1.7	- - -	- - -	5	Long ageing

1. The vigour of these clones can be classified between medium and high, but inside this category can be noted some differences: + (more vigorous); - (less vigorous).
2. The fertility is expressed in number of clusters per shoot.
3. The bud burst in this variety is medium-early, approximately 5 days after Chardonnay, but inside this group of clones there are some differences: + (later); - (earlier).
4. The ripening in this variety is late, approximately 1 week before Cabernet Sauvignon, but inside this group of clones there are some differences: + (later); - (earlier).
5. The colorimetric range was tested from the juice not by phenolic analysis:
    a. Very slightly coloured
    b. Slightly coloured
    c. Coloured
    d. Strongly coloured
    e. Very strongly coloured
6. Use in winemaking. This is only a suggestion, abstracted from some searches made by the University of Milan and of Florence with the collaboration of some Tuscan provinces.