Toscana IGT – Vintage 2011 - Soldera 100% Sangiovese

The wine IGT 2011-Soldera has been produced in 4,215 bottles of 0.750 L, all numbered.

The wine history on the basis of the studies carried out at the University of Florence (Prof. Massimo Vincenzini)

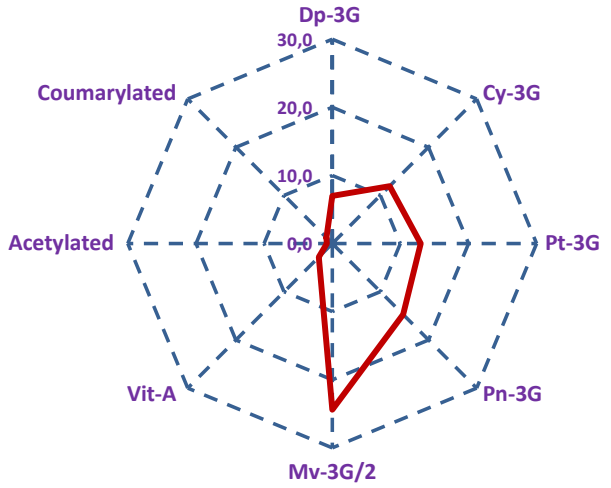
The bottle of the wine "Toscana IGT - Soldera 100% Sangiovese – Vintage 2011":

Bordelaise bottle, special series 15 Soldera - Case Basse, designed in the early 80s by researchers and by the President of the "Nord Vetri" factory, Mr. Franco Marchini, in order to obtain:

1. Weight of 750 grams for maximum insulation.
2. Antique green color, more resistant against ultraviolet rays.
3. Accentuated cavity, for a better sedimentation (always unfiltered wine).
4. Inner neck of the bottles made as suggested by Prof. Antonio Pes, with an optimum ratio between the weight of the cork and the bottle neck volume to be saturated.

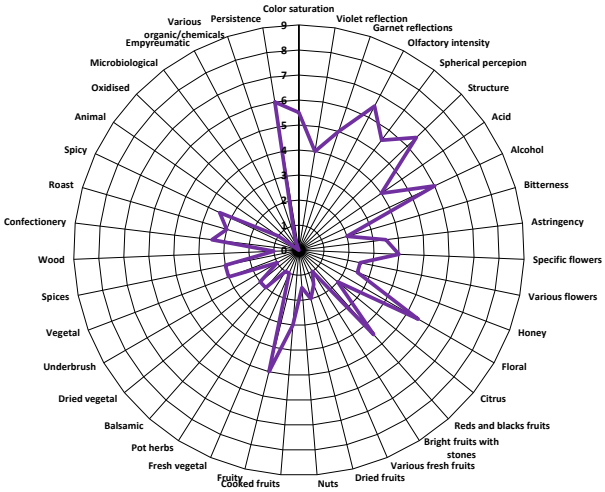
The wine Sangiovese 100 % and its sensory profile

The anthocyanin profile of the wine is quite consistent with the profile of a wine produced only with Sangiovese grapes, being characterized by the absence of acetylated and cumarylated anthocyanins (Mangani *et al*., Am. J. Enol. Vitic., 62: 487-494, 2011).



[Dp-3G= delphinidin-3-glucoside; Cy-3G= cyanidin-3-glucoside; Pt-3G= petunidin-3-glucoside; Pn-3G= peonidin-3-glucoside; Mv-3G= malvidin-3-glucoside; VitA = Vitisin A; Acetylates = sums of acetylated anthocyanins; Cumarylates = sums of cumarylated anthocyanins].

The sensory profile of the wine was assessed with Advanced Big Sensory Test by the *Centro Studi Assaggiatori di Brescia* (Prof. Luigi Odello).



The wine shows a bright colour and a noticeable aroma intensity, with a clear perception of red flowers and fruits, a note of dried fruit and jam, with a gentle balsamic and spicy aroma; spherical perception and structure agree thanks to a light acidity.

The history of the wine

Meteorological characteristics of 2011 vintage: during the period between blooming and harvest, of a total duration of 141 days, the weather station in the farm recorded the data shown in the graph below (the longitudinal dotted line represents the veraison of the grapes). It was a year in which the Bloom-Veraison phase, lasting 71 days, was characterized by minimum temperatures mainly lesser than 16°C and rainfall value much higher than the company's historical average, whereas the Veraison-Harvest phase, of a duration of 70 days, was characterized by very high temperatures and restricted rainfall.

Management of bunch load and quality on vine: the vineyards have been kept under continuous inspection with the aim to eliminate, from each vine by hand, exceeding or not perfectly healthy bunches.

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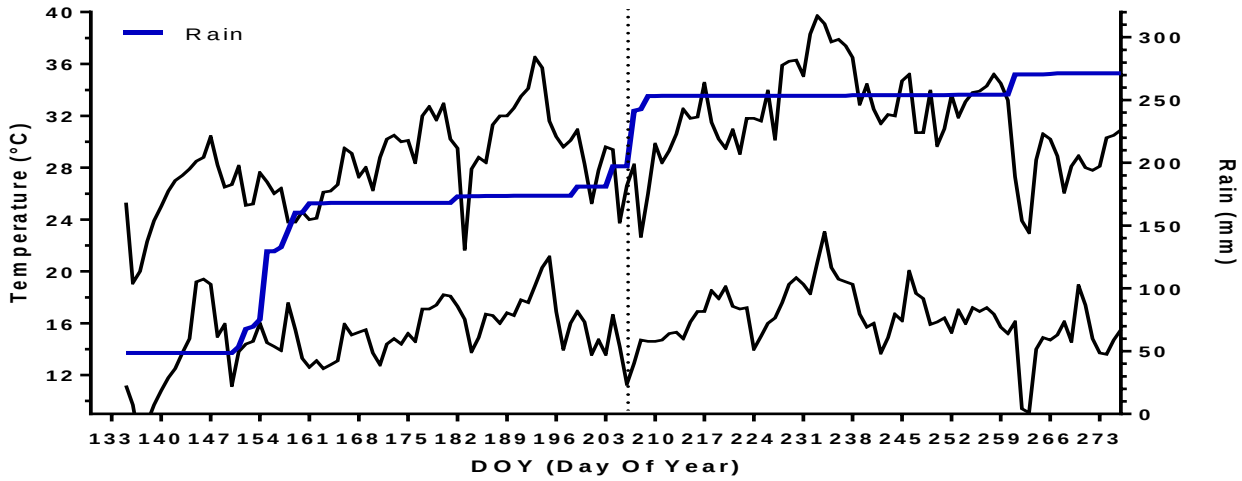

Harvest: carried out on October 3rd, on the basis of organoleptic evaluations and physical-chemical indicators of grape ripeness, taking into account both technological (sugars, acidity and pH) and phenol maturity parameters (potential and extractable anthocyanins, polyphenol index, seed maturity).

Grapes: exclusively of the Sangiovese variety and in perfect health, as pointed out by the results of microbiological analysis weekly performed on grapes from August to harvesting.

Selection of grape berries to undergo vinification: in the wine cellar, the harvested bunches were put on a table and subjected to a further selection by trained workers, then they were conveyed to a "vertical vibrating destemmer-sorter group, Socma Cube – Primec". After a further visual selection, only healthy and unbroken grape berries were transferred into the vinification vats by means of a conveyor belt.

Alcoholic fermentation: spontaneous fermentation was carried out in truncated cone-shaped Slavonian oak vats, without using commercial yeast starter cultures and without temperature control. During the early stages of the fermentation process, the non-*Saccharomyces* yeast populations (*Kloeckera apiculata* and *Starmerella bacillaris*), usually present on grape berries, reached maximum values of 6 millions of cells per millilitre. On the third day of fermentation (alcohol = 2-3% v/v), the wine yeast *Saccharomyces cerevisiae* became the predominant species, growing up to 130 millions (cells/mL) and, hence, it continued regularly the wine fermentation until its completion. Racking occurred 20 days after harvest.

Malolactic fermentation: spontaneous fermentation occurred after the end of the alcoholic fermentation and was completed within about 3 weeks. The dominant microbial species was *Oenococcus oeni*.

Ageing: carried out in Slavonian oak barrels for 62 months. Monthly performed chemical and microbiological analyses never found activities or microbial populations able to induce the onset of detectable defects.

Bottling: the wine, possessing chemical and microbiological stability, was bottled without any physical or chemical treatment (clarification and/or filtration).

Wine: at bottling, the wine contained sulphites amounting to 48 mg/L of total SO_2 (of which 16 mg/L as free SO_2), value much lower than the allowed maximum legal limit of 150 mg/L; Glucose and Fructose were absent, demonstrating a complete alcoholic fermentation; Glycerol, molecule which confers body and softness to the wine, was detected at a concentration of 10.4 g/L. Color quite ruby red with hints of garnet, perfectly consistent with that expected for a wine produced exclusively with Sangiovese grapes and subjected to a long ageing.

Authentication of the varietal composition of the wine, its genetic identity and its close link with the winery's vineyards are assessed by the results of studies on molecular traceability of the wine (analysis of genomic DNA) carried out at the University of Siena (Dr. Rita Vignani)**.**

Wine preservation: for an optimum maintenance, wine bottles should be kept upright, at temperatures of 12-16°C and humidity of at least 70%, avoiding sudden change of temperature and direct sun light.