

# Food and Wine



# Food and Wine

A I S - A s s o c i a z i o n e I t a l i a n a S o m m e l i e r

A stylized circular logo in a light green color. It features several concentric rings of varying thicknesses. The innermost ring is a thin circle. The next ring out is thicker and contains a series of small, solid green circles of varying sizes, arranged in a somewhat circular pattern. The outermost ring is the thickest and is a solid, uniform green color.

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# Introduction

If the discovery of the wine world is a fascinating adventure, its pairing with food gives us even more interesting cues, at times provoking and intriguing, inspired by rooted local traditions or projected into the experimentations of new sensorial combinations. Without leaving aside a serious and technical study of the taste-olfactory sensations perceived by tasting foods and wines.

In the restaurant, the sommelier advises the client, directing him amongst the pages of wine lists and suggesting the best pairing for each dish. Ever more often we desire to try and personally select the wine to be paired with what, at that moment, inspires our taste and gluttony.

The path towards the perfect matrimony between food and wine begins with the analysis of all the sensorial characteristics perceived in the food, followed by the thorough deepening of the pairing technique according to the principles of concordance and opposition, arriving at the filling out of a graphical form that translates all that the food and wine have expressed on a sensorial level. In the end, we conclude with a judgment on the harmony of the suggested pairing.

So far we have roamed into the theoretical part, but only the carefully considered tasting of many foods and many wines can allow us to acquire experience and to improve our capabilities of pairing them in the best possible manner. All the aliments have indeed been analyzed thoroughly depending on their taste-olfactory character and the many preparations in which they come into play. For many of these, we have suggested certain wines to be paired, not to be considered as the sole possibilities, but rather as mere examples that translate the characteristics of the most suitable types. As a confirmation of this, for certain dishes we can find a list of various wines, always capable of satisfying their sensorial requirements.

Every subject has been treated with the objective of arousing curiosity and stimulating the in depth analysis but since it is impossible to describe the sensations that we perceive by tasting food and wine, we are left with nothing but the suggestion to try them in infinite combinations, in order to reach the one that best exalts them. The experience, can only treat us with great satisfactions.



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## The evolution of taste

Unforgettable moments and important decisions usually blend themselves in memories, with those of a great dinner. Simple and refined dishes find in wine the friend capable of fully exalting their dowry. Taken for granted one chooses the most suitable wine, at times capable of uncovering a hidden quality of the food, at times softening its most vivid tones.

The pairing of food and wine, which has been debated for years only by notable wine and food specialists, today is of great actuality and is spoken about everywhere, from trendy lounges to television shows and on the pages of newspapers and magazines. Magic pairing alchemy between the flavours of food and those of wine, pairing cannot be treated neither with superficiality nor reduced to a mere list of dishes and wines proposed only from experience or improvisation, with the desire to provoke and surprise. On the contrary, it has to be the result of numerous repeated and cross-checked tastings, up to the application of a precise technique to evaluate its harmony. In the preparation of food and in the research of the best wine to suggest in pairing, creativity and science mould. Wine and gastronomy fascinate and excite everybody.



# The evolution of taste



FOOD AND WINE







Few phrases, but meaningful, that confirm how one has simply tried to find certain factors in common in the various dishes, limiting oneself to propose only a certain typology of wine in pairing, excluding others. So was born a decalogue of food and wine pairing, but as highlighted by Dumay, with important exceptions to the rule.

No great fortified white wine should be served with red meats or game, is the first rule, one of the most followed. This however, did not impede that during the dinner of September 24th 1966, at the confraternity Saint-Etienne of Colmar, an Alsace Tokay was served with a kid goat, or in 1926 in a banquet at Château D'Yquem, an opulent dish of lobsters with a Château D'Yquem 1914, roasted duck wings in an orange sauce with a 1921, a cold beef filet in a glazed truffle sauce and a foie gras pâté and red wine with a Château D'Yquem 1869, were proposed. Noblesse oblige!

Even the second rule, for which no great red wine should be served with fish, crustaceans or mussels, does not subtract itself to the most sensational of exceptions, since it is affirmed that one can enjoy a roasted sea bass with a Volnay Pinot noir. The problem doesn't exist, on the contrary, if the fish is served with a red wine sauce.

The third rule recites that white wines have to be served before red wines, but a Monbazillac or Sauternes can be served with foie gras and dessert, or a Château-Chalon can be paired at the end of a meal with a nut dessert, rule that is denied every time a sweet and aromatic sparkling wine frees its scented bubbles next to cakes and pastries.

Light wines should be served before robust wines is the fourth rule of this rather flexible decalogue, that finds certain application difficulties in the pairing of a fine and delicate cheese, served after an important meat based dish. Even if this situation is rather unusual.

Fifth rule: chilled wines should be served before those at room temperature. Even in this case the exception involves sweet sparkling and dessert wines, served at the end of a meal.



## In England, in France...

For a long time food and wine pairing has been based on empirical evaluations, without any foundation except personal experience, even if of the highest level. Not only in Italy. Indeed, both in England and France the subject has been faced in a far more generic and individualistic manner.

Elizabeth and Cyril Ray, preeminent exponents of English wine-gastronomy and authors of the text *Wine with food*, support the absolute independence of any choice at meals. Absolutely democratic theory, but of little significance for anyone who aspires to receive explanations on learning how to pair food with wine!

Few phrases extracted from the text can be very significant.

*'Each and every one of us has to allow himself to be guided from his own personal taste and from his own preference, without following any set rule or common principle... Only our taste tells us how to savour and enjoy every food, every wine... Every choice is something purely subjective...'*

In France? In this country, to which we must recognize great creativity and ability to elaborate wines and dishes that have made history in wine-gastronomy, one has always based himself on the refined personal taste instead of on the research of an applicable method for every situation. Throughout the years a few rules have been affirmed, certainly valid and sheltering from gross errors, but extremely generic.

Food and wine pairing has always been treated like an artistic aspect of gastronomy, as it is also conveyed through a few lines of Raymond Dumay in the book *Guide du vin*. *'The compliance between food and wine marks the passage from artisan craft to art, from the occupation to the inspiration. It opens the doors to risk, to adventure. Everything can be done and... like in the gloomy territory of love, one only needs to know that you cannot go too far.'*





Pietro Marcadini developed a second graphical form for pairing, which represented the base of the one currently proposed by the Italian Sommelier Association.

## Tradition, periodicity and psychology

In Italy, every region and every town, hide a particular cheese, a recipe perhaps forgotten in the drawer of some old kitchen. Until a few decades ago, the trade of alimentary products was based on very limited and easily available local products. All this brought about the pairing of food and wine according to tradition, based upon the choices of the best combinations handed down from generation to generation. These pairings are extremely cherished by the inhabitants of these areas but often also by tourists and travellers, that consequently feel the sensation of entering into the spirit of the places and discover their gastronomical and cultural roots. Also thanks to that fine atmosphere that makes everything tastier, may it be a dish of *tjarin* with truffle, tasted in a Langhe inn, or a grilled *Fiorentina* steak, enjoyed in a *trattoria* (eating house) of the Chianti.

The fall rains and the winter frost are tied to structured dishes rich in fats, that advise pairings with structured and robust wines, preferably evolved reds, with optimal alcohol content and served at higher temperatures. A roe deer stew is perfect with an Alto Adige Lagrein and a taste of aged *Caciocavallo di grotta* cheese with a Taurasi.

Summer and spring bring onto the table the solar colours produced by the vegetable garden, light first courses with delicate sauces based on vegetables, crustaceans and mussels, entrées of fish and white meats, fresh and soft cheeses, cold dishes and cakes based on fresh fruit.

Wine, obviously, has to adapt to this alternation of seasons. In these cases the wines have to be preferably white or young, perhaps sparkling, not very full-bodied and with a delicate alcoholic component, definitely served chilled. A sea salad is perfect paired with a Verdicchio dei Castelli di Jesi and a plate of *spaghetti* with tomato sauce scented by basil, with a rosé or blush wine, following Italian tradition.

On special occasions, sometimes linked to significant moments in life, you may require different proposals of wines being paired during the meal. In this case, the sensibility and the



Wines should be served according to an increasing alcohol level is the sixth rule, at times far more easy to say than to do. Once again sweet sparkling wines, rather than light dessert wines, can end a meal in which important and alcoholically rich wines have been paired.

The seventh rule, far more easily applicable, suggests pairing a wine with every dish. If one has the availability of few wines it is sufficient to serve few dishes, but at times the same wine can be paired to different entrées.

Even the eighth and ninth rules are of simple observation: serve wines in their best period and separate every wine with a sip of water.

Finally, the tenth rule, invites us to never serve only one great wine per meal, because *'neither the bottle, nor the man, should be alone.'*

## ... and in Italy

In Italy the subject of food and wine pairing has been faced in a different way, trying to give answers of general value and not only adaptable to a single preparation.

The first important step was taken by Luigi Veronelli, who with the text *Il vino giusto*, marked the groove of a pairing based on certain perceptions of food and of wine. Obviously no absolute law has been dictated but, for example, a few possibilities of pairing wines with food in which the net acidic sensation given by lemon and vinegar prevails, have been excluded. Dish after dish, the best pairings are indicated exactly based on the sensations perceived in every tasting.

A more precise approach is the one of Antonio Piccinardi, who proposed a first graphical form of pairing, in the text *A tavola insieme*, with a quality-quantity confrontation of certain organoleptic characteristics of food and wines.



tempura with a Riesling, are pairings attempted and succeeded. Many attempts, however, have given disappointing results.

There are a few taboo situations. Dishes with a dominant acidic taste, pickles, salads dressed with abundant vinegar and lemon, deny any pairing with wine. Also vegetables like raw artichokes can create serious difficulties, because the richness in tannins, the astringent and strongly bitter sensation, is not able to find any wine that blunts the firm hardness. There is also a worsening factor, linked to the addition of lemon juice to avoid that the raw artichoke leaves darken.

Fruit like citrus fruits, fresh figs and, incredible enough, grape itself, cannot be paired to any type of wine, due to the strong acidity, likewise in fruit salads, especially if they have been dressed in spirits or liqueurs.

Finally, sorbets and ice creams. Their extremely low temperature significantly increases the sensibility of our taste bud receptors to the hardness in the wine, making it impossible for us to succeed in any form of pairing. At times, the alternative can be a successful combination with a distillate, like lemon ice cream with Vodka or green apple ice cream with Calvados.

## Concordance and opposition

In a society like ours, even wine-gastronomy is in continuous evolution. In the last few decades we have witnessed the birth of new culinary philosophies, like the futuristic cuisine,





psychological intuition of the sommelier come into play. A repatriation of old friends creates indeed an atmosphere different to that of an important business meal. Amongst the wines in the wine list, the sommelier should suggest the one most suitable to the dishes at hand. For a convivial dinner one can point towards pleasant wines, appropriate with the dishes but less demanding than those of a lunch that should bring to the seal of an important contract. However, the advice of the sommelier should always be very discrete, especially if one does not know who is in front of him.

The pairing defined as psychological is therefore based on a particular situation in which one has to suggest a wine. A boiled lobster can be matched by a dry white wine, crisp and of good sapidity, but if one feels that the client is willing, one can dare to propose a more important wine or a Vintage sparkling.

## Impossible pairings... or almost

At times, things become terribly difficult. Particularly spicy dishes can make in vain every attempt of pairing because even extremely smooth and scented wines, with impor-

tant intensity and taste-olfactory persistence, can bend to the high-and-mighty spiciness of the food. At this point an alternative presents itself. Either the chef refines the dish... or there is nothing to be done.

Chicken in a curry sauce with an Alto Adige Gewürztraminer and



*Puff pastry of sea bass with olives.*

# Dining around the world

Restaurants that feature ethnic cuisine, Chinese and Japanese, Indian and Thai, Mexican and Brazilian, all with their traditional courses and atmosphere, their own smells and lights, are rapidly spreading in every city.

The American gastronomy is the youngest, with recipes taken from the cuisines of the different immigrants who created it and often adapted it to the local taste. Barbeque chicken and hamburgers with French fries play the part of the lion, together with one of the few traditional dishes, the stuffed turkey, to the splendid T-bone steak and crustaceans to enjoy along the coasts. On the Atlantic coast the North-European influence is clear, with sea soup, shellfish and cream, whereas in the Central States the Spanish influence is stronger. Filtered through the Mexican influence, the Tex-Mex cuisine takes shape, mixing old and new world, with chili sauce made with hot red pepper that renders everything more tantalizing.

Some courses are influenced by the Hawaiian cuisine, where bananas, pineapple and other tropical fruits are combined with chicken, pork and ham.

The Creole or Cajun cuisine, influenced by the refined French one, is flavoured and spiced by the Tabasco sauce and Cayenne pepper, aromatized by thyme and oregano. Similar to the Spanish paella, the jambalaya is probably the most famous course, cooked with shrimps and flavoured with different kinds of meat and smoked ham. The gumbo, meat stew, fish and rice with gumbo, a particular kind of green pepper, dishes based on crustaceans and vegetables like green tomatoes and black beans, coconut and pineapple desserts, are a few other interesting courses, often accompanied with beer and tropical juices.





the nouvelle cuisine, the de-structured cuisine and many others. Ethnic restaurants are becoming more and more common and suggest courses that do not have a traditional wine pairing, since the culture in many countries does not include the noble beverage. All this leads to the creation of new pairings, igniting the flame of creativity and fueling new experiences and stimulating comparisons.

The approach towards the pairing of food and wine should therefore be meticulous and have reference to all food and all wine, not merely linked to several repeated tastings and to experience. Principles based on the evaluation of sensations felt during the tasting of food and wine, clear and not influenced by personal taste – not always an easy task when the only instruments are our senses – are at the base of the technique and of the food and wine pairing graphic, elaborated by the Italian Sommelier Association.

Sapidity, acidic and bitter tendency, sweet tendency and greasiness, oiliness and succulence, namely the vast majority of the flavours and tactile sensations perceived in food, are paired by opposition and demand the opposite characteristic in a wine.

An example? Food with acidic tendency requires a wine with adequate smoothness: if the wine were to be particularly crisp, its acidity would further accentuate that of the food.

This principle is not always applicable because certain sensations perceived tasting food should be paired by concordance. In these cases, the characteristic of the food

has to match the same one in the wine. The easiest and most immediate example is the one of desserts, all characterized by sweetness, paired with sweet wines.



*Mousse of vanilla with wild berries sauce, to be paired with a Brachetto d'Acqui, sweet and scented, reminiscent of wild strawberries and roses.*





pungent green cream, *wasabi*, present also in sashimi, mix of thin sliced raw fish, salmon, red tuna, sea bass, at times even crustaceans and shellfish. In the delicate Japanese cuisine, butter and fat dressings are rarely used, even if one of the strong points is *tempura*, made with fried shrimps and vegetables wrapped in a thin batter. Among the meat food, the most famous is *sukiyaki*, beef and tofu stew, the soy cheese. Paired with this food... sake, Japanese beer and a wide range of teas.



The Chinese cuisine is inspired by ancient recipes that have nothing to envy in the refinement of certain expressions of Western cuisine. Precise cooking techniques and a wide-range of ingredients are the key elements. Chicken, lamb, pork and duck, rice and seafood, especially in the Shanghai area, without forgetting soy noodles and steamed dumplings, typical and cooked in many ways, are only a few of the ingredients that make up this cuisine. Dusted with ginger, Sichuan pepper, anise and cassia, flavoured with spicy and sweet-and-sour sauces, soy and *satay* sauces, the latter made with spices and cashew nut, many recipes that go back to hundreds of years are now elaborated like back then, with a peculiar alternation of sweet and sour tastes, deep-fried or steamed as well as iron plate cooked. Rice replaces bread.

The Indian cuisine is dominated by the spicy notes of curry, multi-coloured and variegated mixture even in the hot flavours and tastes. These intense notes are softened by the creamy sourness of yoghurt and by the sweet aroma of milk, cream and coconut powder that create many different sauces of infinite yellow nuances, ochre and red, to match lamb and goat meats, peppers and beans, potatoes and lentils. To fulfill the flavours, rice and ghee (clarified butter) are proposed, baked breads and flatbreads (*naan* and *kulcha*). Finally, even if almost unknown, we can find desserts flavoured with



The Mexican cuisine discloses its Spanish origins with the many variations of *tortillas*, *chili with meat*, a kind of spicy meat stew with plenty of hot pepper, multicoloured beans and *guacamole*, an avocado based sauce.

Also the South American gastronomy features popular courses. Meat, rice and beans are at the base of the Brazilian cuisine. The *fejoada* is made with typical black beans, pork and beef meats, spicy sausage and bacon, while the famous *churrasco* is an abundant dish of mixed grilled meat served with spicy sauces and fresh salads, made with tropical fruits and green vegetables.

In Argentina, incredible and juicy steaks stand out... of more than half a pound!

Traditions weaved with religious principles are the fundamentals of the North African cuisine. Sheep and lamb meat, pork meat excluded, dry legumes and fresh vegetables slow fired-cooked according to the old Berbers traditions, are all perfectly moulded with the same common denominator: the *COUSCOUS*, made with steam cooked seed corn. *Couscous* is also found in many Sicilian courses, completed by meat and seafood. Another paradigmatic element that ties Tunisian and Egyptian cuisines, Moroccan and Algerian, is the use of *spices*, from cumin to cinnamon, from sesame to saffron. Garlic also greatly contributes with its strong aroma, especially in the famous *harissa* sauce, used to accompany vegetables and meat. To soften these ignited and intrusive flavours, a piece of bread, especially small plate cooked *focaccia*. The final and sweet touch is given by raisins and dates. The beverages? Mint tea and absintee, but also *carcadè*, obtained from beautiful hibiscus flowers.

Among the most refined proposals we can find the Oriental cuisine, especially the Japanese and the Chinese ones.

Essential in the simplicity of the preparations and in the elegance of the presentation, with raw or briefly cooked food, the Japanese cuisine is linked to the Chinese by the principle that the dishes should be admired before being tasted!

The aesthetic of the Japanese dishes is linear and clean, perhaps the perfection of harmony. The salty seafood products, fish, crustaceans and mussels, raw or cooked in many different ways, seaweed and soy, rice and vegetables are the basic ingredients for *sushi* and *sashimi*. Sushi, small seaweed rolls with rice and raw fish served with a spicy and



## The taste of food

Colours and scents, but especially flavours: the tasting of food, like the tasting of wine, starts from the visual examination, passing through the olfactory one, then the taste-olfactory and ending with the evaluation of harmony. However, the determining phase for pairing purposes is the taste-olfactory one.

Concentration and preparation, experience and sensorial abilities, are the required qualities for whoever tastes food and wine with the purpose of pairing.

The tasting of food and pairing tests, as well as the tasting of wine, should take place in a bright, silent odourless environment without distractions for the olfactory sense, avoiding eating strong flavoured and persistent substances, especially smoking. Food and wine should be served at the adequate temperature and not numerous, offered in a logical tasting sequence, without any conditioning and in a perfect state of health.

In the tasting and pairing experimentations of several cheeses, for example, one should start with the most delicate and least flavourful ones, the freshest, less salty and aromatic, only subsequently moving onto the more structured and complex cheeses, like washed-rind cheeses and blue-mould cheeses. If the sequence was to be inverted, the sensations perceived in the freshest cheeses would seem way less perceptible because our taste receptor cells would still be impressed by the taste-olfactory strength of the preceding ones.

Olfaction and taste are the instruments that allow us to evaluate and appreciate scents and flavours of food and wine. Sight also plays a stimulating role in allowing us to appreciate the splendid colours of wines and the geometrical perfection of a gastronomical creation. Without ignoring the psychological mouth-watering effect in whomever cannot wait to taste something pleasant. Even touch should not be underestimated, because it allows us to appreciate the consistency of food, the smoothness and tannicity as well as the effervescence of wine and much more. Finally hearing, that allows one to hear the sound of a wine being poured into a glass and appreciate the crunchiness of certain food.



*Red and black pepper, curry and cinnamon, ginger and nutmeg and many more spices, colour, scent and liven the flavours of food in many Oriental, African and Central American cuisines.*

fresh rosewater. Banana pudding, coconut desserts, pistachio ice cream and ginger, are only a few of the many delicious desserts. Spices do not yield the way even in beverages, among which emerge ginger and cardamom tea, aside from local beers and yoghurt based beverages.

In the tradition of all these cuisines however, wine is lacking, the most precious food ally. If correctly chosen, wine can significantly increase the value of all gastronomical preparations.

Lately, more and more often, many ethnic restaurants are proposing a wine list. Indeed, the actual diffusion of wine throughout the tables of the entire world, or at least in many countries where there is an increase of popularity of these cuisines, so different from those European, can be a challenge of great appeal, source of incredible surprises in the creation of new and astonishing pairings.



*A plate of sweet and scented fruits, the most refreshing and lean dessert.*

Although, as incredible as it sounds, sweetness can transform into bitter tendency! If sugar is allowed to melt at high temperatures, it initially transforms into a soft and golden fluid, then, slowly, into caramel, brown, dense and shiny, with well defined bitter nuances followed by a caramelizing process. Crème caramel, Catalan cream and crème brûlée are a few examples of this bitter-sweet mixture that is created every time sugars caramelize.

Everything changes with polysaccharides, complex sugars pretty much tasteless. Starch, above all, is the primary component of cereals, legumes, tubers and chestnuts. *Risotto* (rice) and *pasta, polenta* and lentil soup, chickpea and barley, are a few of the preparations strongly influenced by the presence of starch, that does not give the same unmistakable sweet sensation like the one found in pastry. If however, one chews a piece of bread for a long time, a delicate and faded sweetness, the so called sweet tendency, is slowly released.

Not only starch can give this sensation, since there are traces of simple sugars present also in vegetables like carrots, onions, zucchini and many others.

Sweet tendency is not only perceptible in vegetables. Hints of simple sugars can be found in eggs, lactose in cheese, glycogen in shrimps and cuttlefish, sea bass, trout, horse and chicken meat, all give the sensation of sweet tendency.





## The composition and taste of food

The taste of every course and dish is a multicoloured mosaic, more than that of wine, both in regards to the variety of sensations and their intensity.

Also in food one can perceive the fundamental flavours: sweet, sweet tendency, sapidity, acidic and bitter tendency. Tactile sensations like greasiness, oiliness and succulence, taste-olfactory sensations like spiciness, aromaticness and taste-olfactory persistence, complete the picture of the entire scheme of sensorial perceptions, thanks to the interactivity between olfaction and taste senses. Finally one runs the numbers, closes the circle of taste and evaluates the structure of food.

The composition of food is just the first piece that completes the final puzzle of its flavour. A few drops of extra virgin olive oil or a bit of butter, a pinch of red pepper or a few laurel leaves, a spoon of mayonnaise or two drops Aceto Balsamico Tradizionale di Reggio Emilia or di Modena (Traditional Balsamic Vinegar), are only a few elements that influence the character of a dish, just as the techniques and cooking times.

Sugars, proteins, fats, water, vitamins and minerals are the most important components in all food, whose scents and flavours depend also on small and equally fundamental quantities of essential oils and aromatic substances.

### Sugars

It is easy to simply say *sugar!* Sugars – or carbohydrates – are of very different varieties... and different is their effect on the flavour of food.

Talking about sugar, the mind thinks immediately about the sweet temptation of pastry or a slice of cake, whose flavour is linked to the presence of simple sugars. Amongst all, saccharose is the most significant, used to sweeten coffee, tea and to prepare creamy puddings and cakes of all kinds. The sweetness of fruit is given by fructose and that of milk by lactose.

Larger or smaller quantities of simple sugars deliver the pleasant sensation of sweetness, in all the desserts and fruits. Although their intensity can vary quite a lot.



Composition and structure of aliments, temperature, cooking time and techniques also influence the **succulence**, a tactile sensation linked to the presence of fluids in the mouth. An example can be a bite of rare cooked steak!

Proteins are also abundant in eggs and cheeses, but in these cases they are not arranged in a fibrous structure and do not determine neither compactness nor a specific form.

Proteins do not have a specific flavour, linked to a specific sensation like for example, the sweetness in sugars. If however meat and fish, crustaceans and shellfish, are grilled, roasted or baked, they form a delicious **golden crust** releasing **inviting scented and aromatic substances**. This is how proteins, only with certain cooking techniques, intervene in the stipulation of the **aromaticness**, a taste-olfactory sensation peculiar to every food.

## Fats

Torture and delight of the table, **fats** enrich food with flavour, but mostly with greasiness and oiliness according to their physical composition and status.

**Cheeses and egg yolk, certain meats, salami, ham and very few fishes** are the richest aliments in fats. Without mentioning dressings as **butter and especially oils**, both seed and extra virgin olive oils. In the latter there are practically only fats, except for very small traces of aromatic substances that make them so precious. All oils give oiliness to food, perceived like a sense of slipperiness in the mouth. One should hope it to be a relatively limited sensation, so to not result excessive and unpleasant.



Heating and cooking melt fats. Butter, lard and bacon used to prepare roast meat, sausage fat and grilled pork ribs enhance the sense of oiliness. **Raw or cold**, these foods and dressings keep their maximum effect of greasiness, sense linked to the sensation



*The marked sweet tendency of pumpkin gives flavour to tortelli from Mantua and colourful risottos.*



Finally, fats. Even if partially, the presence of butter, cream and lard (pig fat) act in synergy and increase the sensation of sweet tendency. A proof? If one tastes a piece of bread, one perceives a delicate sweet tendency. If one tastes another piece of bread with a bit of butter, the sweet tendency is more pronounced, something that does not occur if a few drops of extra virgin olive oil are added.

## Proteins

Barbecue T-bone, roasted turkey, hare in sauce, baked sea bass, shrimps and cuttlefish on a stick, all have different consistency, smoothness and juiciness. The quantity of water, proteins and their structure, is fundamental.

Actin and myosin proteins compose the muscular fibers, bounded together by elastin and collagen of the connective tissue, decisive for the compactness of meat: the least connective tissue, the more tenderness in the meat. The cooking technique is also vital as it tampers with the taste-olfactory profile and with the consistence of the meat.

Chicken is softer than veal, which is softer than beef. In beef, or however in the same animal, the filet is more tender than the breast or lower chest cuts. Among seafood, the meat of a sole is more tender than that of shrimps and shrimps are softer than cuttlefish. Nevertheless the percentage of proteins is similar! What makes the difference is the amount of connective tissue.

How can one utilize the meats richer in connective tissue? In meat-sauces and minced meat to prepare stuffings and hamburgers or for beef stew, boiled beef, braised beef submitted to slow and prolonged cooking, liquid immersions and low temperatures that induce the transformation of collagen into gelatin and the consequent tenderizing of the meat.



ferent. The sensorial profile of food is enriched by sweet tendency and bitter tendency, aromaticness and structure, taste-olfactory intensity and persistence. It also induces more succulence.

Acidic tendency can also be perceived in certain vegetables rich in organic acids, especially tomatoes and all the sauces and dressings that colour the Mediterranean cuisine.



Substances from a rather bitter taste are present in various vegetables like spinach, artichokes, certain types of radicchio, in spices like black pepper and blue cheeses like Gorgonzola. In all cases, it is important to not perceive a strong bitterness, unpleasant and aggressive, but only a faded bitter tendency.



Numerous essential oils, like for example capsaicin of red peppers, are responsible for the tantalizing spiciness and at times even the pungent hotness.

Even the aroma compound of a skirt steak with rosemary or salmon with dill, other than the principle aliments, is linked to these molecules of potent or delicate fragrance, contained in tiny vesicles in the leaves of herbs. This is why if one rubs some thyme, marjoram or mint leaves between the fingers, the aroma is released with exuberance and intensity.



Other than creating single flavour sensations, tactile and taste-olfactory, the components of food, the dressings, the herbs and spices used, the substances formed during cooking and more, define a certain type of sensorial summary that expresses itself in structure and balance, intensity and taste-olfactory persistence, that has reference to the combination of everything that gives food its flavour.





of stodginess in the mouth and glossiness on the tongue. Boiled egg yolk, all kinds of cheeses, salami, ham, lard, bacon, pig's trotter: in all these, greasiness is clearly perceptible.

These solid fats, smooth and stodgy, often have an intrinsic sensation of sweet tendency and exalt that present in the foods to which they are matched. Remember the piece of bread with butter...

### Water, minerals and vitamins

If water, for definition, is without colour or taste, how can it affect the sensorial value of food? Even if it does not interfere with the flavour, water is involved in the determination of succulence (or juiciness) and consistency (or texture).

Minerals carry out important functions from the nutritional point of view, much less than the organoleptic one. With the exception of cooking salt that with oil and vinegar, represents the most utilized dressing since ancient times. All three have also always been exploited due to their preservative properties.



Vitamins, indispensable for our body, do not have a saying in the sensorial chapter, due to the fact that they do not give scents or flavours. Only the *B-carotene* contributes to the colouring of carrots and apricots, melons and oranges, to all the yellow vegetables, orange and red.



### The extra touch

Certain aliments contain a discrete quantity of acids, like citric and acetic, tartaric and others. Marinated salmon, raw meat (carpaccio) dressed in lemon juice, cakes and pastries with citrus fruits and other acidic fruits, give a sensation defined as acidic tendency. If one hopes in a pairing with wine, that sensation should never be dominant.

The addition of vinegar also influences the scent of a dish, thanks to the presence of acetic acid. If however, one adds a few drops of Aceto Balsamico Tradizionale di Modena or di Reggio Emilia, full of aroma and aged for a long time, things become dif-



*The cooking intervenes in a determining way on the consistency and colour, on the scent and flavour of food.*

## Cooking and taste

In water or steamed, in tomato sauce or in wine, in fats or with dry heat, the cooking method significantly affects and determines the aroma and flavour of a dish, the succulence and its oiliness as well.

Once upon a time cooking was the only way to restore an aliment and due to this it was slow and lengthy. Today things have changed. Cooking methods tend to be rapid, in order to maintain the vegetables more crispy and the meats more pink, even those like lamb or goat that were previously cooked for longer periods of time.

The effects of cooking are different depending on the technique applied. Boiling meats and fish, vegetables and eggs, pasta and rice, occurs at lower temperatures than those of other cooking methods. In water that boils at 100 °C, aliments maintain their juiciness, given for granted one does not exceed in cooking times. In order to maintain at best the flavour of food, one can resort to cooking in pressure pots, at temperatures higher than 100 °C (212 °F), that reduces the loss of minerals, vitamins and aromas. Equally valid is steaming, ideal for aliments rich in fibers like vegetables and delicate fish and meats, which if cooked in water, would fall apart. The colour of carrots, zucchini and other vegetables remains particularly shiny.

One of the most delicate cooking methods is water bath. Slow and delicate, heat is distributed in the most even way possible and is very suitable for creams, soufflé and sauces.

Rice, pasta, vegetables, fish and meat of small cuts, can be submitted to cooking in a wrapper or clay, wrapping them in oiled foil or a pug sheath. Perfectly sealed, the food is placed at very high temperatures, in the oven or on coal, where it rapidly cooks, maintaining the maximum juiciness and favouring the concentration of aromas.





# Preservation and flavour



Altered by the effect of light and heat, humidity and oxygen, aliments lose their quality. In order to **avoid changes of colour and scent, flavour and consistency**, but also to **render them harmless under the hygienic and health aspect**, often they undergo a series of preservation treatments.

**Refrigeration, freezing and deep-freezing**, physical systems that are based on **low temperatures**, slow down or block the micro-organisms development and enzymatic activity. Generally the values of the aliments are preserved pretty well, especially in refrigeration. The physical systems that are based on **high temperatures** destroy micro-organisms and deactivate enzymes, in a different way depending on if the temperature applied is lower than 100 °C (212 °F), like in **pasteurization**, or higher than 100 °C (212 °F), like in **sterilization**. Therefore, additives have to be added to a pasteurized aliment, sold in a protected atmosphere or vacuum packed and then maintained in the fridge, whereas preserves can be kept at room temperature. Certain ones, even for years.

**Radiations** (gamma or X) are applied in low dosage, only for a few products like potatoes and onions, spices and herbs; on the label the wording *treated with ionizing radiations*, or similar, has to appear.

The **reduction of the quantity of water** is one of the oldest preservation methods, useful because it determines the reduction or block of micro-organisms development and enzymatic activity. With **evaporation** only the water part is eliminated and the addition of sugar or salt is generally incorporated to sterilization or pasteurization. With **drying or freeze-drying** water is almost completely eliminated. The first system was already applied in ancient times, leaving the aliments under the sun, similar to what is still being done with Corinth grapes, mushrooms and tomatoes, figs and plums or for grapes destined to the production of precious dessert wines. The drying of *pasta* takes place in modern plants with dry air circulation and that of milk takes advantage of advanced techniques.





Other cooking methods at dry heat are those on skewer, in a pan, iron plate or grill, with temperatures that can exceed 250 °C (482 °F) and greatly affect the colours, scents and flavours of the food. Sugars caramelize and if one exceeds, become charred and burned; proteins are denatured, they change structure and tenderize, and if they combine with sugars in the Maillard reactions, they form a golden gloss and particular aromatic compounds.

All this does not occur with the use of two modern and technological cooking methods, microwave and vacuum packed. In the first case the spreading of heat inside the aliment occurs in a homogenous way: cooking occurs at rather low temperatures and is very rapid, but it does not allow the development of golden glosses and aromas. Unless one applies a combined cooking with grill or iron plate. The vacuum packed cooking method is achieved in technologically advanced ovens, always at temperatures under 100 °C (212 °F). Aliments are cooked and perfectly maintain their juiciness, ideal situation for poultry and other white meats, certain fish and vegetables. Also in this case the caramelizing process and golden gloss can be forgotten and this is why the aliments undergo an initial or final stamp on grills and iron plates that renders them more pleasant and aromatic.

Stewing is a damp cooking method. Meats are cooked slowly and in little aromatized liquid, whereas vegetables are cooked with the sole vegetation water or in little fat, at low fire.

In certain cases the cooking method applies a combined action, like braising, that consists in an initial browning (dry heat) and then the addition of liquid (damp heat). It is all this that maintains and enriches the juiciness and the flavour of a braised meat with red wine, to be paired with a glass of the same wine used for cooking, but further evolved like a Reserve or older vintage.

There is also cooking in fats. If the quantity of fat covers merely the bottom of the pan, the cooking is sautéed, whereas if the aliment is completely submerged during the cooking, we are talking about frying. One should always choose the fat with the highest smoking point, as well as observing a few fundamental rules so that the frying results crisp and just slightly marked by a light oiliness.



**Salt and sugar**, even if in a different way, increase the osmotic pressure and therefore greatly limit microbial activity. From an organoleptic point of view, everything changes: sugar gives sweetness, salt gives sapidity.

**Ethyl alcohol** is utilized exclusively in the preservation under-spirit of cherries, mandarins, chestnuts and black cherries.

**Vinegar** is used for pickles and small onions, mushrooms and mixed vegetables of the yard, other than for vinegar cooked fish, in which the acidic tendency prevails.

**Smoking**, ancient chemical-physical system of preservation, is by now solely used due to its ability to give food a stand-out aroma. Meats and salami, fish and some cheeses are exposed to the combined action of heat and smoke that is released from the combustion of aromatic woods like rosemary and laurel, whereas pine and fir woods, rich in resin, are not used due to the fact they would give bitter and unpleasant tastes.

Finally, **biological systems** are linked to the action of yeast, bacteria and moulds, that modify certain components in the aliments, improving their preservation capabilities and varying the nutritional characteristics, like yoghurt, wine, beer, cheese, salami and vegetables like sauerkrauts with their typical sweet and sour flavour.

*The smoking, one of the most antique system of preservation, gives unmistakable colours, flavours and aromas to fish and meat, charcuterie and cheeses.*





**Freeze-drying** is based on the sublimation of steamed ice. Freeze-dried products are prestigious items, maintaining the organoleptic and nutritional characteristics; they can be preserved for a long time and they re-hydrate rapidly. Most of all, they maintain the aromatic substances in the best way possible, as proven by soluble coffee.

The **subtraction of air** avoids contact between the aliment and oxygen and it impedes oxidations and the development of aerobic micro-organisms. In order to reach these objectives it is possible to pack the aliment in a vacuum or sealed atmosphere, substituting air with a mix of inert gases, like in the small trays of salami or *prosciutto* and in bags of salad, washed and ready to serve.

**Labels of food products**, often, report long directories of ingredients and abbreviations, most of the times unknown, that correspond to chemical additives that permit the preservation of the chemical characteristics, physical or chemical-physical, avoid alterations, enrich or exalt certain characteristics and aspect, flavour, scent and consistency.

**Additives** are artificial chemical substances, like colourings and jellies, thickeners and emulsifiers, antioxidants and aromatizing substances, but still today natural substances like oil, salt, sugar, vinegar and ethyl alcohol are widely utilized.

**Oil** has to cover the aliment completely because only in this way it can carry out its action as a protective barrier against oxygen, impeding the development of aerobic micro-organisms. Obviously, all **products under oil** are characterized by a high oiliness.





# The tasting of food and wine



The creation of a perfect pairing between food and wine originates from the sensorial abilities and knowledge of the taster, who is capable of quantifying both the strongest sensations and the most timid ones. Only the ideal combination of all that creates the sensorial profile of food and wine will spawn a complete and harmonious fusion.

The tasting of food and drinks can cause the perception of very different sensations: a grapefruit sorbet is acidic and a little bitter, a cream puff is sweet and creamy, a slice of salami is aromatic and spicy, a piece of cheese is more sapid or more aromatic, softer or drier according to the seasoning... and so on.

Our taste buds and receptors allow us to recognize every taste and tactile sensation, whereas the mouth aromas synergically encompass taste and olfaction.

In order to express a judgment on the overall harmony of food, the first step is its sensorial analysis. Subsequently, after having completed the tasting of the wine, one will be able to evaluate the harmony of the pairing, verifying if the one proposed works perfectly or if it requires some correction.

Treasuring our own sensorial experience and cultural baggage, we should apply ourselves with seriousness and concentration in the sensorial analysis of food, articulated in the visual, olfactory and taste-olfactory examinations, closing with the evaluation of its harmony. This objective can be reached only by a continuous ongoing training and by the application of a precise technique and terminology, that permits the most possible rationalization of a subject that - and we should never forget this - is conditioned by the sensorial abilities of each person, one's experience and how accustomed one is in tasting.

*Ice creams and sorbets do not love wine.*





# The tasting of food and wine



FOOD AND WINE

Also for the evaluation of food, the term *moderately* indicates a sensation, without any quality value. The taste of food may give a sensation of barely perceptible intensity but at the same time it can be extremely pleasant and balanced.

Also in this case every interval has the terminal points overlapping the two contiguous intervals and the intersection values (2, 4, 6, 8), always leave a certain freedom based on one's judgment.

Besides, sometimes one can hesitate between one definition and another: these border terms allow us to eliminate any doubts, translating the intermediate perception of a sensation.





## The tasting of food

The visual, olfactory and taste-olfactory examinations, have a very different value in the sensorial evaluation of food, because only the latter is decisive in the pairing of food and wine. The parameters evaluated in this phase are much more numerous and thorough and their evaluation is actually different. The ones concerning visual and olfactory examination, other than structure, taste-olfactory balance and global harmony, are evaluated with three terms, whereas the ones which are analyzed in the taste-olfactory examination are evaluated with five terms instead.

This difference is dictated by logic. If for certain characteristics, a simple subdivision of the evaluation in three intervals is sufficient, to which a term corresponds, for the ones which are fundamental in the objective of pairing it is necessary to resort to a more detailed subdivision, utilizing five intervals and consequently five terms. This requirement is dictated also by the necessity of having a parallel with the sensorial analysis of wine.

In the evaluation of the characteristics taken into account in the visual and olfactory examination, the complete scale goes from 1 to 10, subdivided into three intervals: 1, 2, 3, 4 - 4, 5, 6, 7 - 7, 8, 9, 10. To each one corresponds a descriptive term: insufficient, acceptable, inviting. The intersection values, 4 and 7, allow a certain flexibility of judgment, always to be kept in consideration when doing organoleptic evaluations, where the only instruments available are our five senses.

The most decisive food features for pairing purposes, the strictly taste-olfactory ones, are evaluated in a scale from 0 to 10, with five intervals (0, 1, 2 - 2, 3, 4 - 4, 5, 6 - 6, 7, 8 - 8, 9, 10), to which five descriptive terms that translate the different levels of perceptibility, correspond. These adjectives are imperceptible, barely perceptible, moderately perceptible, perceptible, very perceptible. This setting in five terms closely traces the terminology used for the evaluation of the majority of features evaluated in the tasting of wine.



## The visual examination

The visual examination is the first phase of the sensorial analysis of food and it allows us to understand some important factors of what is being tasted, even if one may think that it is of marginal utility for pairing purposes. In reality, there are two reasons why the dish should be observed with attention.

First of all, the psychological effect determined by food in who tastes should not be ignored, because it may represent both a mental and physiological stimulus. A dish can revive the memory of the pleasant circumstance in which it was tasted, or could simply be so inviting to make one's mouth water, induced at times just from the idea of a particularly relished food.

Beside the technical evaluation of the organoleptic features for the achievement of a harmonious pairing, dining represents a pleasure to enjoy and savour with all the senses. It is therefore not possible to ignore the aesthetic of a preparation, the chromatic combination of ingredients, their shapes and arrangement in the plate.

The taste-olfactory quality of a dish is what really counts, but does not a dish beautifully displayed and served in a friendly environment, seem a little more tasty? All this should not make us lose sight of the purpose with which the taster observes and tastes the food preparation, trying not to be influenced by aesthetic or environmental conditioning. The observation of a dish also allows us to evaluate its freshness and alimentary-hygienic integrity, with the omen that the above will always be reassuring!

The food sensorial analysis form summarizes the path to follow in order to realize an accurate tasting, which is not guided by chance, but it attributes every feature a precise and quantifiable evaluation.



## AIS - Associazione Italiana Sommelier FOOD SENSORIAL ANALYSIS FORM®

|   |                                      |
|---|--------------------------------------|
| Food/Preparation  | Taster                               |
| Warm dish <input type="checkbox"/> Cold dish <input type="checkbox"/> | Date _____ Location _____ Time _____ |

| EXAMINATION     |                 | INSUFFICIENT      |   |                    |   | ACCEPTABLE            |                        |   |   | INVITING    |   |   |                  |   |   |    |
|-----------------|-----------------|-------------------|---|--------------------|---|-----------------------|------------------------|---|---|-------------|---|---|------------------|---|---|----|
|                 |                 | 1                 | 2 | 3                  | 4 | 4                     | 5                      | 6 | 7 | 7           | 8 | 9 | 10               |   |   |    |
| VISUAL          | Appearance      |                   |   |                    |   |                       |                        |   |   |             |   |   |                  |   |   |    |
|                 | Presentation    |                   |   |                    |   |                       |                        |   |   |             |   |   |                  |   |   |    |
| OLFACTORY       | Frankness       |                   |   |                    |   |                       |                        |   |   |             |   |   |                  |   |   |    |
|                 | Harmony         |                   |   |                    |   |                       |                        |   |   |             |   |   |                  |   |   |    |
|                 | Intensity       |                   |   |                    |   |                       |                        |   |   |             |   |   |                  |   |   |    |
|                 | Quality         |                   |   |                    |   |                       |                        |   |   |             |   |   |                  |   |   |    |
|                 |                 |                   |   |                    |   |                       |                        |   |   |             |   |   |                  |   |   |    |
| TASTE-OLFACTORY | Sapidity        | IMPERCEPTIBLE     |   | BARELY PERCEPTIBLE |   |                       | MODERATELY PERCEPTIBLE |   |   | PERCEPTIBLE |   |   | VERY PERCEPTIBLE |   |   |    |
|                 | Bitter tendency | 0                 | 1 | 2                  | 2 | 3                     | 4                      | 4 | 5 | 6           | 6 | 7 | 8                | 8 | 9 | 10 |
|                 | Acidic tendency |                   |   |                    |   |                       |                        |   |   |             |   |   |                  |   |   |    |
|                 | Sweetness       |                   |   |                    |   |                       |                        |   |   |             |   |   |                  |   |   |    |
|                 | Sweet tendency  |                   |   |                    |   |                       |                        |   |   |             |   |   |                  |   |   |    |
|                 | Greasiness      |                   |   |                    |   |                       |                        |   |   |             |   |   |                  |   |   |    |
|                 | Oiliness        |                   |   |                    |   |                       |                        |   |   |             |   |   |                  |   |   |    |
|                 | Succulence      |                   |   |                    |   |                       |                        |   |   |             |   |   |                  |   |   |    |
|                 | Spiciness       |                   |   |                    |   |                       |                        |   |   |             |   |   |                  |   |   |    |
|                 | Aromaticness    |                   |   |                    |   |                       |                        |   |   |             |   |   |                  |   |   |    |
|                 | Persistence     |                   |   |                    |   |                       |                        |   |   |             |   |   |                  |   |   |    |
|                 | Structure       | BARELY STRUCTURED |   |                    |   | MODERATELY STRUCTURED |                        |   |   | STRUCTURED  |   |   |                  |   |   |    |
|                 | Balance         | BARELY BALANCED   |   |                    |   | MODERATELY BALANCED   |                        |   |   | BALANCED    |   |   |                  |   |   |    |
|                 | HARMONY         | BARELY HARMONIOUS |   |                    |   | MODERATELY HARMONIOUS |                        |   |   | HARMONIOUS  |   |   |                  |   |   |    |



A dish of *prosciutto* and melon, fresh appetizer, scented and suitable for the summer season, with precise parameters of quality, freshness and aesthetic, can be an easy example to understand the difference between appearance and presentation.

When can a dish of *prosciutto* and melon be considered *insufficient* in the appearance and presentation, taking into consideration the clear-cut difference between the two characteristics?

Slices of *prosciutto* dry on the surface, of a dark red colour and with a slight yellowish tint of the fat, slices of melon of a faded orange colour, lacking their succulent freshness, with darkened edges, dry and irregular, correspond to a dish which... one would never want to encounter.

If instead, the slices of *prosciutto* are sufficiently soft, of a pinkish-red colour, still fairly lively and with a white fat, the melon slices of a vivid orange and slightly dry only on the outer edges, the appearance can be considered *acceptable*. The appearance becomes *inviting* if the slices of *prosciutto* and melon are soft and colourful of a fresh cut, typical pinkish-red and vivid orange colours, with a nice white fat in the first and lacking any darkening in the latter.

Completely different is the matter of *presentation* of a dish, which can be coherent or contrasting with its aspect.

In this case an *insufficient* presentation is that in which the slices of *prosciutto* and melon are randomly thrown into a plate, one on top of the other, without any order, whereas it can be judged as *acceptable* if their disposition is regular and neat, even if without any particular care. The presentation is *inviting* if, for example, the slices of *prosciutto* are laid out in a way as to form a little rose, wrapped with grace and if the melon is extremely linear or carved with particular outlines and their disposition in the dish creates a perfect small chromatic picture.

The ideal situation is that in which food, extremely fresh and inviting in the appearance, is extremely well presented, but it can be acceptable if a dish is of great sensorial quality but presented in a pretty way. The worst case? Food that is old and also badly presented! However, a beautiful presentation, if not supported by freshness of the food, would be of little solace!



## The appearance and presentation

State of integrity and freshness of food, two fundamental values for its quality, are the components to be considered for evaluating the appearance, that has an evident and immediate impact on what will consequently be the overall judgment, since it can predispose positively or negatively towards the tasting.

Slices of salami, dark and not freshly cut, a plate of *spaghetti* with a partially dry tomato sauce, a fruit tart with darkened and bruined slices of banana and apple... useless to say that in these cases the aspect of food is all but pleasant!

Nowadays, especially in restaurants of high levels, the presentation of food assumes an ever more important value and the aesthetic of the dish is at the base of new gastronomical philosophies, innovative not only in the research of original combinations of ingredients, but also in their disposition on the plate. Chromatic and elegant harmonies are the paradigms through which the artistic creativity of the chef is

expressed, to be admired with olfaction and taste, but also with sight. The design of a dish, studied in every minimal detail, should never prevail on the essence of food, its scent and its taste, but a beautiful presentation enhances its value and renders it far more important.

*Cured meats, in order to express their best colours, scents and flavours, should always be very fresh and of prime cut.*





## The olfactory examination

Second step of the sensorial analysis of food, the olfactory examination allows an evaluation of its SCENT.

The harmony of the pairing composes itself in the mouth, but the olfactory nuances released by the glass blend with the ones of the gastronomic preparations. They fulfill them, since the olfactory and taste-olfactory sensations are strictly connected. If one has a cold or closes his nose, not only will he sense the smells less intensely but also the flavours will result more... faded!

The scent of food, especially that of a preparation, is the result of a fusion of the various components of the raw elements, possibly enriched by the volatile scented substances formed during the cooking.

If the scent of food is pleasantly intense, it predisposes us to the pleasure of tasting, whereas a negative impact can overturn the situation, making one doubt its organoleptic quality and, in extreme cases, its health conditions.

Besides these psychological implications, shared with the appearance and presentation of the plate, its scent connects in a more specific way to the sensorial characteristics that will be important for the pairing with wine, regardless of the type of scents, fruity or floral, spicy or toasted and many more.

Blue-mould cheeses, spices and aromatic herbs, onion and garlic, truffles and mushrooms, cocoa and coffee, just to mention a few



*The ageing of wine in barrel and bottle enriches it with spicy and toasted, animal and ethereal scents.*





## The glossary of the aspect and presentation of food

**Aspect and presentation** are the two parameters to evaluate in the visual examination of food. Summarizing and simplifying, one can say that the **aspect** refers to the **freshness and integrity** of food, the **presentation** refers to its **chromatic and aesthetic value**.

### Unpleasant

The **appearance** of food is **insufficient** if it does not present adequate characteristics of freshness and integrity that often also reiterate its best organoleptic qualities. It is not always so because big and beautiful fruits, with vivid and perfect colours, sometimes have no equally pleasant scents and tastes, caused by a forced maturation in cellars. Usually, if the aspect of food is unpleasant, also its scent and taste do not offer great satisfaction. The **presentation** of food is **insufficient** if the different elements are disposed in the plate in a random and messy manner, without any care or attention for the chromatic and aesthetic combination.

### Acceptable

The **appearance** of food is **acceptable** if its outer characteristics do not differentiate much from the ones that reflect an optimal state of freshness and integrity. If the aspect results acceptable, in the vast majority of cases one finds himself in front of food that may be evaluated quite positively also under the olfactory and taste-olfactory profile.

The **presentation** of food is **acceptable** if the different elements are laid out in a tidy and non-random manner, but without any particular care for the chromatic and aesthetic combinations.

### Inviting

The **appearance** of food is **inviting** if its outer characteristics correspond to the ones that reflect its optimal state of freshness and integrity. If the aspect is inviting, it is more likely that the food is excellent also under the olfactory and taste-olfactory profile.

The **presentation** of food is **inviting** if the different elements are disposed in the plate not only in a tidy manner, but also with a certain care for the geometry and chromatic combination, with originality, creativeness and attention to details.



*Moulded cheeses unmistakably trace the olfactory and taste-olfactory profile of a food preparation.*

significant examples, outline the olfactory profile of a plate with their stand out personality, that should not primarily influence the evaluation of the taster. No consideration, NO judgment must be expressed solely on the list of ingredients, because their quantity will be decisive, their freshness and also their quality itself. A *risotto* with mushrooms, for example, expresses a more or less intense and pleasant scent depending on the mushrooms used, *porcini* or champignon, fresh or dried, with parsimony or abundance.

This consideration should always inspire the tasting of food and wine and their pairing.

Also the temperature at which the food is tasted has its importance. If the plate is cold, the particles responsible for odour have less possibilities to become volatile and impress the cells of the olfactory mucous membrane.

Frankness and harmony, olfactory intensity and quality are the parameters that allow to express a judgment on the scent of food or a preparation, with different nuances in both cases. Anyway and however, the three descriptive terms are always insufficient, acceptable and inviting, the same utilized for the description of the appearance and presentation of a dish.



## Frankness and harmony

The frankness of the odour of food expresses its olfactory typicality that allows us to recognize it immediately, not intended as a geographical reference but as a precise organoleptic characteristic. Its value is therefore relevant only for the tasting of food, especially cheeses and various cured meats, for which clear, definite and recognizable scents are required.

If the tasting is of a plate created from the mix of several ingredients that should blend perfectly together, the harmony of the scent comes into play. Perfect fusion of scented substances, well-proportioned and balanced, without resulting out of tune or overwhelming, harmony summarizes the olfactory personality of the dish. The odouring note of each ingredient should perfectly blend with all the others, eventually respecting the pleasant preponderance of certain ones among which we can mention spices and aromatic herbs, blue-mould cheeses, mushrooms and truffles.

In the simple proposal of two fried eggs with abundant grating of thin and impalpable truffle slices, it is normal that the dominant scent is the one of this noble product of the earth that should not however be excessively penetrating.



In a plate of spaghetti with clams, the olfactory harmony can result insufficient if the scent of garlic, used with excessive generosity, is predominant and almost stinging. A slight predominance of this ingredient would render the harmony acceptable, but only if its odour expresses a pleasant and balanced weave of the scents of garlic and parsley, clams and extra virgin olive oil, would harmony of its scent be considered inviting.



## The glossary of the scent of food

Olfactory **frankness and harmony** are the first two parameters to be evaluated in the olfactory examination of food, almost in antithesis with each other.

The **frankness** expresses the **typicity** of an odour, net, precise and well recognizable, whereas the **harmony** is the synthesis of the **perfect fusion** of the scented nuances of the various ingredients of a preparation.

### Insufficient

The **frankness** of the odour of food is **insufficient** if it is not possible to recognize its net typicality, caused by flattened scents and not clearly characteristic of that which we are tasting.

**Olfactory harmony** of a preparation is **insufficient** if the odour expresses evident off-key elements, caused by clear and firm predominance of one or more components of the dish, up until the creation, at times, of an aggressive and unpleasant odourous combination.

### Acceptable

The **frankness** of the smell of food is **acceptable** if it is possible to recognize the food that we are tasting, even if the odourous sensations are not extremely typical or trademark.

The **olfactory harmony** of a preparation is **acceptable** if the scent expresses a discrete fusion of the various odourous nuances, without a firm predominance of one or more components, but the odourous combination is quite pleasant.

### Inviting

The **frankness** of the smell of food is **inviting** if it is possible to recognize the food that we are tasting in a clear and defined manner, since the odourous sensations result unmistakable and clearly trademark.

The **olfactory harmony** of a preparation is **inviting** if the scent expresses a perfect fusion of the various odourous nuances, without any single one dominating the others, creating an odourous combination that is balanced and pleasant.

*Delicate spinach quenelles gain olfactory and taste-olfactory personality if they are accompanied by Provolone croquettes.*



## The intensity and quality

It is not difficult to define the olfactory intensity of food, since it represents the most strictly quantifying aspect, linked to a stand out scent that strongly impresses the olfactory mucous membrane.

The olfactory quality, on the other hand, is the summary of all that the odour can express, to be evaluated based upon the intensity and frankness or harmony, depending on if one is talking about a single food element or a preparation. The most significant parameter, speaking of olfactory quality, is always its pleasantness, protruded by a stand out intensity or put side by side to a pleasant delicacy. It is not always the case that a strong and piercing scent is more inviting than one with a gentler and moderate profile.

As always, in these cases, in the evaluation of the olfactory quality, the experience of who tastes comes into play, having available a wide archive of memories tied to the scent of many elements and dishes tasted in one's interesting career.



## The glossary of the scent of food

Olfactory intensity and quality are the last two parameters to be evaluated in the olfactory examination of food. The **intensity** expresses the **strength of the odour** of food or of a preparation. The **quality** represents the **synthesis of the evaluation** of the odour of food, to be evaluated based upon the frankness or harmony, intensity and pleasantness.

### Insufficient

The **olfactory intensity is insufficient** if the scent is almost imperceptible or clearly under expectations, in relation to the food that one is tasting.

The **olfactory quality is insufficient** if the scent of food is poor, mediocre, with masked frankness or, in the case of a preparation, with a scarce harmony between the odours of the various ingredients and with the unpleasant predominance of certain ones over the others. In certain cases the insufficient quality can be linked to the dispersion of the original scents or to a net decay caused by an inadequate preparation or preservation.

### Acceptable

The **olfactory intensity is acceptable** if the scent is discretely perceptible and adjusted to the characteristics of the food that one is tasting.

The **olfactory quality is acceptable** if the scent of food is sufficiently fine and pleasant, with an adequate frankness if referred to the single food element or with a discrete harmony in the case of a preparation, in which every scent can be perceived in a pleasant way.

### Inviting

The **olfactory intensity is inviting** if the scent is perceptible, penetrating and completely adjusted to the characteristics of the food that is being tasted.

The **olfactory quality is inviting** if the scent of food is **frank and harmonious** depending on whether we are speaking about a single element or a preparation, rich in scents that are perfectly blended, capable of positively impressing our olfaction and inviting us to a pleasant tasting.



## The taste-olfactory examination

After having observed food and evaluated the freshness and the aesthetic appearance of the presentation, after having perceived a delicate or intense scent, rich in odourous facades or frank in its typicality, we arrive at the decisive phase of the sensorial analysis of food.

The tasting allows one to detect and quantify the taste, tactile and taste-olfactory sensations, as well as draw all the information useful for orienting the choice towards the most suitable wine for the best pairing possible.

Everything that has been observed up to this point can be captivating and inviting, but from now onwards one has to attempt to avoid undergoing any external conditioning in the evaluation of food, but to taste with attention, precision and technique.

The conviviality of a dinner amongst friends or the setting of an elegant restaurant, are external factors that render pleasant being at the table and tasting dishes, exalting the hedonistic side of the situation. However, this may cause everything to taste... better.

When one prepares himself to begin a technical tasting, the approach has to be professional and not influenced by external factors. Seriousness and ability, experience and knowledge of products, put the taster in the conditions to complete a reasoned evaluation of the sensations perceived during the tasting. Sensations that have to be initially recognized and later quantified in the different levels of perceptibility.

Wider and more complex than the previous two, the taste-olfactory examination of food runs through all the characteristics that will dictate the choice and the judgment of the pairing.

Sapidity, acidic and bitter tendency, sweetness and sweet tendency, tactile sensations like greasiness, oiliness and succulence, others more clearly taste-olfactory like spiciness, aromaticness and taste-olfactory persistence, other than structure, render food very variable by intensity and variety, thanks to the different composition, addition of dressings and cooking technique applied.





## The glossary of the taste of food

The **flavour, tactile and taste-olfactory sensations** are evaluated with five terms that correspond to five levels of perceptibility, that correspond to quantity evaluations without including any quality judgment.

**Imperceptible:** taste, tactile or taste-olfactory sensations not perceived or slightly hinted. The level of perceptibility is therefore null or very low, included in the range 0-2.

**Barely perceptible:** taste, tactile or taste-olfactory sensations just about perceivable, sometimes hardly identified, thanks to a non well-defined stimulus that still determines a low level of perceptibility, included in the range 2-4.

**Moderately perceptible:** taste, tactile or taste-olfactory sensations that can be identified and is sufficiently or discreetly perceptible, determining an intermediate level of perceptibility, included in the range 4-6.

**Perceptible:** taste, tactile or taste-olfactory sensations that is identified and is clearly perceived, thanks to a well-defined stimulus that determines an accentuated level of perceptibility, included in the range 6-8.

**Very perceptible:** taste, tactile or taste-olfactory sensations that is identified and extremely perceived, thanks to a very strong and well-defined stimulus, that determines a very accentuated level of perceptibility, included in the range 8-10.

AIS - Associazione Italiana Sommelier  
TASTE, TACTILE AND TASTE-OLFACTORY SENSATIONS OF FOOD®

|                 |  | LEVELS OF EVALUATION |                        |
|-----------------|--|----------------------|------------------------|
| Sapidity        |  | Imperceptible        | 0<br>1<br>2            |
| Bitter tendency |  | Barely perceptible   | 2<br>3<br>4            |
| Acidic tendency |  |                      | Moderately perceptible |
| Sweetness       |  | Perceptible          |                        |
| Sweet tendency  |  |                      | Very perceptible       |
| Greasiness      |  |                      |                        |
| Oiliness        |  |                      |                        |
| Succulence      |  |                      |                        |
| Spiciness       |  |                      |                        |
| Aromaticness    |  |                      |                        |
| Persistence     |  |                      |                        |





## The sapidity

Easy to recognize, the **sapidity** is one of the four fundamental flavours of food, mainly linked to the presence of salt ( $\text{NaCl}$ ) eventually linked with other kinds of mineral salts. It is a component of the **hardness** of food, like the **bitter tendency** and the **acidic tendency**, both associated with a slightly sour and harsh character, not always easy to tame.

The tasting of the majority of **cured meats**, ham, bacon, lard and salami, the **salted meat** itself, fresh and especially aged **cheeses**, offer a marked sapidity thanks to the salt added during a specific phase of their production. The time spent in huge seasoning warehouses or in small caves carved in stone, plays its part, allowing the concentration of

all the flavours, therefore sapidity as well. Also fishes as **herring**, **salt cod** and **stockfish**, their unique preparation technique determines a marked increase of sapidity.



Besides these kinds of food, where salt is added during the production phases, to all the other food preparations, starting from simple salads, the boiling water for *pasta* and rice, to roasted meats and grilled fish, this ancient crystal offers its flavour in a more or less intense way. In the majority of cases the hand of who adds salt should be delicate, in order to avoid causing an excessive and unpleasant sapidity that can give the perception of a **nearly bitter sensation**. In these cases the food is not **sapid** but **salty**! One should therefore hope that the sapidity of food never reaches excessively high levels, but this is true for all sensations... or almost.

The sapidity of a food preparation can be enhanced with a pinch of **monosodium glutamate**, the base of the common **bouillon** (broth) cubes, defined as an enhancer of the salty sensation already in the food.



## The bitter tendency

The bitter tendency is another fundamental taste sensation, having reference to a hardness of the food. It is also equally important to talk about bitter tendency and NOT bitter sensation. First of all it is unlikely that food is really bitter, but if so it would be unpleasant and would render impossible every attempt at pairing.

Red radicchio from Treviso (Italy), artichokes, chicory and raw spinach are some vegetables that contain substances that determine the bitter tendency, also perceived in certain food of animal origin like liver or cheese, blue-mould especially. Also some spices, above all black pepper, can leave a bitter final, as well as some extra virgin olive oils. In these cases the level of perceptibility is usually very low, unless the addition of spices, seldom the one of aromatic herbs, has been very abundant, especially if subjected to a prolonged cooking.

If one tastes a slice of grilled salmon or grilled calamari, a chicken breast or a grilled steak, or a mix of cheeses and grilled vegetables, one can perceive a bitter tendency more or less pronounced.



*Slice of grilled salmon  
with dill sauce.*



Attention however, to never make a virtual tasting, based on the name of the dish or on the simple list of ingredients. Indeed, the perception of this sensation changes according to the gentle char-broiling of the surface of food and the possibility to eliminate the skin or the peel. In case of the grilled sea bass for example, the skin is removed, whereas on a skewer the calamari remain as they are: it is obvious that in the first case the sensation of bitter tendency will be less perceptible than in the second one.

What can surprise, is that the bitter tendency is perceived in certain desserts, where coffee and especially COCOA powder express their strong personality. Not to mention the dark chocolate bars and pralines that lately stimulate fancy matches. Sometimes giving nice contentments, others... leave a bitter taste in the mouth. Nuances of bitter tendency are perceived also in a soft flan or crème caramel, although more delicate.

## The acidic tendency

Another fundamental taste sensation and another hardness of food, the acidic tendency expresses a faded acidity. A definitely acidic food is unpleasant and leaves no hope for any attempt of pairing.



Citrus and other fruits rich in acidity, heavy vinegar salad dressings and fish marinated in abundant lemon, are not suggested with any wine because no one could withstand the confrontation with their acidity.



Speaking of the addition of lemon juice, further remarks can be made. Sometimes we assist to the indiscriminate addition of this juice on dried beef and carpaccio, grilled fishes and shellfishes au gratin, Milanese steak and mixed fried fish. Taste is taste but it is unquestionable that the acidity of lemon interferes with the flavour of food, **distorting the original qualities**. Without mentioning the huge variation of consistency, causing the **softening** of the steak and fried fish, in which the crispness should be one of their most appreciated characteristics.

The **tomato**, coloured and juicy ingredient of the sunny Mediterranean cuisine, is rich in acidity and therefore gives the acidic tendency sensation to all the food preparations in which it appears in small pieces, as tomato juice or sauce thickened on the fire.

**Vinegar** in big quantities is one of the worst enemies of wine, but there is an exception, the **Aceto Balsamico Tradizionale di Modena or di Reggio Emilia**, dense and luminous fluid, a little debased by the definition vinegar. The acidic notes are not very aggressive, softened by the velvety aromatic substances and softly sweet ones that are forged during the unique production as well as many years of aging. However, the pairing with dishes ennobled with a few drops of this precious liquid is not one of the easiest, since wines of great structure are necessary, mature and provided of great smoothness, structure and taste-olfactory persistence.

## The sweetness

The most pleasant fundamental taste sensation is **sweetness**, appreciated since the first years of life, easy to recognize and quantify. **All desserts** are sweet, with different intensity according to the quantity of sugar and other ingredients. **Honey** is very sweet, thanks to a chemical composition given almost exclusively by fructose and glucose, **milk** is sweet because it contains a good quantity of lactose, like **fruit**, more or less rich in fructose. Especially dried or candied fruit.

In the last years simple sugars have been replaced by artificial sweeteners like aspartame, in order to render some beverages sweeter, like coffee and tea and also for the packing of dietary cakes and cookies. The taste does not change much, especially if the doses are properly measured, even if some of them like saccharin, can leave a slightly bitter or metallic after-taste.



Bavarians and puddings, custard and cream stuffed pies, small tarts with fresh and dried fruits, chocolate and coffee pastries, cookies with various stuffings, Sicilian cannoli and Neapolitan *pastiera*, are all sweet but in different ways.

The sweetness of a cream puff, a honey-based pastry or with almond paste will be more perceptible than the one of tea cookies or a

slice of soft fruit tart. Besides the different quantity of sugar, the perception of sweetness is conditioned by the presence of other ingredients. The addition of COCOA, with the same amount of sugar, increases the aromaticness and the bitter tendency, the structure and the taste-olfactory persistence, balancing in a different way the flavour of the cake and dampening the sweetness.

Not only, because in tarts baked with the same base of pastry, one can perceive the sweetness in different ways according to the kind of fruit, marmalade or cream used for the stuffing.

### The sweet tendency

Always pleasant and delicate, it is often slightly hidden by the aggressiveness of other sensations, the sweet tendency reminds us of a fading sweetness and can be linked to the softness of food. It can be perceived in many kinds of food and preparations but not in desserts, because in this case we should only speak about sweetness.

Vegetables like carrots and onions, pumpkins and squashes with more or less abundant traces of simple sugar, bread and polenta, rice and pasta, therefore all

*A soft pumpkin cream, one of the dishes where the sweet tendency is most perceptible.*

the cereals and their derived foods, as well as potatoes and legumes, green peas and beans, chickpeas and lentils, are amongst the food with most sweet tendency.

If some of these ingredients are mixed in food preparations such as risotto with squash, pumpkin cream or potatoes and leek cream, a traditional barley soup with chickpeas and lentils, the sweet tendency becomes more perceptible.



Starch is not sweet but during the chewing it is destructured and releases more simple sugars, dextrin and especially maltose, provided of a delicate sweetening power and therefore responsible for the sweet tendency.

Prawns and shrimps, crabs and mantis shrimps, sole and turbot, calamari and cuttlefishes, rare horse meat and beef, sausages and cooked ham are some further examples of food where the sweet tendency is well perceivable.

Among the dressings, the fatty ones like butter and cream, bacon and lard, already provided with a good sweet tendency, are capable of accentuating this sensation in the food preparation where they are added.

Egg *pasta*, white sauce and ragout, butter and Parmigiano Reggiano are the ingredients that make the pumpkin ravioli dressed in butter and sage, a triumph of softness and flavours, upon which an unmistakable sweet tendency stands out. Another example among entrees? Pasta with cream, cooked ham and fresh green peas... and the sweet tendency will leave no more doubt.

Doubts can arise with the tasting of food in which we can perceive a dominant sensation of sapidity, aromaticness and much more. Many cheeses and cured meats are the most extraordinary examples. In fact, sweet tendency is a gentle sensation, that risks being overwhelmed by those more domineering. Therefore one should pay attention not to be misled and neglect this sensation so light and delicate.





## The greasiness

Tactile sensation that reiterates the concept of softness, is also greasiness, perceived as a sense of stodginess in mouth and glossiness on the tongue. Solid fats, therefore essentially of animal origin, melt in the mouth, gently soft and creamy.

The yolk of boiled eggs and almost all the cheeses, soft like blue or mould cheese Gorgonzola or Taleggio or consistent and nubby like Parmigiano Reggiano or many Pecorini, a thin slice of lard or a thick slice of seasoned salami, as the most part of cured meats, are all aliments that seem to melt in the mouth and in which the greasiness is clearly perceptible. The same goes for pig's trotter and pork sausage, never lacking on the tables during end of year parties in Italy, to go with a spoon of mashed potatoes or good-luck lentils. Their greasiness stodges the mouth, also due to a certain stickiness caused by the presence of connective tissue in the dough. The cooking causes the transformation of collagen into gelatin, responsible of this peculiar sensation a bit... sticky.

Besides the quantity of fats, the greasiness is perceived in function to the other elements and the structure of food. The greasiness perceived tasting a slice of Mortadella is different from the one perceived with a hard-boiled egg yolk, that tends to stodge more, not only due to the different percentage of fats but indeed for its different structure. Talking about eggs, the method of cooking determines a different perception of greasiness, at its maximum in the case of hard-boiled egg. If this one is accompanied with a spoon of mayonnaise, fluid sauce made with oil and egg yolks, other than greasiness, we can perceive a certain amount of oiliness as well. Also tasting the yolk of a fried egg one can perceive a bit of oiliness: in this case the yolk remains fluid because proteins do not have the time to coagulate under the effect of heat.

Butter represents a smooth trap. Solid fat to be preserved at lower temperatures, when it is tasted soon after it has been taken out of the fridge, it reveals a clear sensation of greasiness. However, butter is often used after melting it that brings it to a state of fluidity, tasted in the mouth primarily as oiliness. As in a plate of vegetarian ravioli dressed with butter and sage.



*Ravioli with Ricotta and spinach dressed with butter and sage, express delicate sweet tendency and sapidity, greasiness and oiliness, aromaticness and taste-olfactory persistence.*

The easiest proof? If one takes a piece of butter from the fridge and puts it immediately into the mouth, one perceives its greasiness right away, especially on the tongue. However, if one keeps it in the mouth and leaves it to melt, in a few seconds one will perceive an increasing sensation of oiliness.

Ideally retracing all these tastings, another standard feature constantly emerges, another soft and pleasant sensation, the sweet tendency, that as already recalled, is exalted exactly by the greasiness of food.

## The oiliness

Tactile sensation perceived with a sense of slipperiness in the whole mouth, on the tongue, on the oral mucosa and on the palate, oiliness is linked to the presence of oil or melted fats, however at a fluid state.

Some extra virgin olive oils obtained from different olive varieties have different fluidity, usually a bit more than the ones from peanut and corn, sunflower and soy. On an equal quantity of oil used, we can therefore perceive different sensations of oiliness... but the different perception of oiliness depends also on the food tasted.

A seafood salad flavoured with a bit of parsley, garlic and extra virgin olive oil and a bruschetta, always dressed with extra virgin olive oil, determine indeed different sensations of oiliness. In the first case, the molecular structure of fish, clam and shellfish,





*A few drops of extra virgin olive oil give oiliness and aromaticness to any food preparation.*

highly narrows down the absorption of oil, whereas in the second case bread, especially thick-crust Italian country bread, tends to absorb much oil. Oiliness is more perceptible in the case of bruschetta soaked with oil, that releases in the mouth during chewing, whereas for a seafood salad it partly remains in the dish.

The perception of oiliness can vary also in function of the presence or not of another ingredient.

Two plates of macaroni dressed with the same quantity of extra virgin olive oil are differentiated by the addition or not of Parmigiano Reggiano. Tasting the two dishes, the oiliness is more perceptible in the *pasta* without cheese because in the other case the oil has partially been absorbed by the cheese itself.



Besides food preparations in which butter melts from the heat, oiliness can be perceived tasting a slice of roast beef wrapped with bacon or lard, grilled sausages, pork ribs or grilled eel, braised beef and cooked sausages, where solid fats penetrated in the muscular tissue melt and pass to a fluid state, determining a partial oiliness.

## The succulence

Tactile sensation perceived in the entire oral cavity, succulence is linked to the presence of liquids in the mouth, caused by different factors.

The chewing of a piece of rare cooked filet mignon favours the outflow of juices present in the meat, therefore pertaining to the food itself, that determine the intrinsic succulence.



Temperature also plays an important role. The succulence of a filet, tasted warm, is more perceptible than that of a slice of English roast-beef, served chilled.

Braised meats, long cooked, stews and fish soups, in which succulence is given by the addition of wine, tomato sauce or broth, in which food cooks for a long time, are the aliments in which succulence, due to the addition of liquids, mainly during the cooking, is most perceptible.

Induced succulence instead is determined by food that causes abundant saliva production during the chewing, but even more right after having swallowed. All aliments cause induced succulence, but with very different levels of perceptibility.

In the majority of cases food that causes the most induced succulence is poor in water or internal juices and therefore requires the production of saliva, necessary for its soaking and consequent swallowing. Some of these aliments are really succulent, whereas for others, the production of saliva is merely temporary, interrupted after the swallowing.



*Lamb loin in asparagus crust,  
paradigmatic example of intrinsic succulence.*



There are no doubts if one tastes a piece of seasoned cheese, because one perceives a clear succulence even after the swallowing, whereas it is licit when one chews a piece of bread stick or fruit tart. Bread sticks are the most poor in water, therefore one could think that they induce a strong succulence. In reality, the production of saliva ceases immediately after the swallowing.

Tasting a fruit tart one notices that the production of saliva continues even after the swallowing, not so much because of the effect of the pastry base, but because of the presence of various types of fruit or marmalades. A tart with plum marmalade, for example, determines a larger succulence than one with a marmalade of peaches.

Not only, because the characteristics that induce succulence are also the addition of spices and aromatic herbs, a good sapidity and aroma, bitter and acidic tendency. Aliments marinated in wine, vinegar or lemon, often cause an accentuated succulence, both intrinsic and induced, as well as the addition of liquids.

### The spiciness

Pepper and clove, curry and saffron, cinnamon and vanilla, anise and cardamom as well as many others, are spices that give a peculiar and tantalizing taste-olfactory sensation, pungent or sweet depending on the case. One can merely think about pepper, the different types of pepper that enrich numerous preparations. Black pepper is the most potent, more than white pepper; green pepper carries herbaceous nuances with it and a more faded spiciness and finally pink pepper, more faded and elegant in its coral colour vest.

Utilized singularly or in assorted combinations, spices influence the scent, the structure, the intensity and the taste-olfactory persistence, gracing every dish with an unmistakable personality. At times, one can think about curry and saffron, paprika and red pepper, how they influence the colour of a dish, with solar nuances of intense red or yellow.

A clear spiciness, linked to strong additions of black pepper or red pepper, especially



if accompanied by a prolonged cooking, can cause a certain bitter tendency, that should never exceed a certain threshold of perceivability so to not become unpleasant.

Moreover, at times, the spiciness determines a border tactile sensation, the hotness that vitalizes the taste but that should never exceed and become irritating for the oral mucous membrane.

Quantity, typology and combination of spices take us to the perception of very different types of spiciness, at times slightly hinted, at times predominant over all the others.

Speck and Coppa from Piacenza, Bacon and Italian Mortadella, Tuscan and Calabrese salami, different cheeses, above all Sicilian Pecorino, to which black pepper beans are added, are only a few foods that are strongly spiced.

The classic Milanese risotto coloured with saffron, curry shrimp with pilaf rice, Hungarian goulash tending towards intense spiciness of paprika, game meat stews, green pepper filet and pink pepper salmon, offer colours, scents and flavours that are unmistakable. Arriving at the spiciness of spiced biscuits and French pain d'épices, cinnamon strudel, vanilla Bavarian and all desserts to which an impalpable veil of vanilla sugar adds a touch of gentleness, like Italian pandoro and panforte.



*The spiciness is one of the sensations that can mostly affect the taste-olfactory character of a food.*



*The red pepper, one of the most tantalizing ingredients, sometimes is so hot-spicy that there is no possibility of any kind of pairing with wine.*



## That tantalizing hotness...

Cured meats and cheeses, entrées and main courses, sauces and dressings flavoured with grains of black pepper, pieces or invisible red pepper powder, paprika, curry and more, make themselves noticeable thanks to their clear cut hotness. Always, the substances responsible are contained in very small quantities of essential oils or extractive substances of seeds, flowers, leaves, like capsaicin from red pepper and piperin from pepper.

**Stimulating spiciness** that should not exceed a certain threshold nor become irritating to the delicate mucous membrane of the mouth, hotness is not a sensation one remains indifferent to. One either likes it or not... unless it is very faded.

Appreciated by strong palates, hotness is not an easy sensation to define, tactile, pungent and penetrating, sometimes associated to a strong spiciness.

The cuisine of certain Italian regions, especially the sunny South, is quite hot. It is however nothing compared to the cuisine of some other regions of the world, especially North Africa, Central America and Oriental. Always in areas struck by heat and drought. Always in places where the culture of wine does not exist, in some cases even inserted amongst the beverages forbidden by religion that does not allow the consumption of alcohol.

**Hotness is not the easiest sensation to balance in order to reach a harmonious pairing.** In fact, it is possible to make an attempt with some hope of a positive outcome only if the hotness is within certain perceptibility limits, beyond which there is nothing to do. The wine proposed in pairing has to possess an excellent smoothness.



## The aromaticness

Odourful common denominator of the kitchen, aromaticness is another taste-olfactory sensation decisive in the characterization of the sensorial profile of food. In fact, it is perhaps the one that influences the most because all the aliments and food preparations have their peculiar taste that differentiates them from all others, regardless of the four basic flavours, salty, bitter, acidic and sweet.

All food has its aromaticness, sometimes shy and hidden below stronger sensations like spiciness, sapidity and bitter tendency, at times below a pleasant sweetness or sweet tendency.

All cheeses, for example, have their own aromaticness that stands out triumphantly in seasoned and blue cheeses but it can also be well recognized in washed-rind and fresh goat milk cheeses, in a succulent buffalo's milk Mozzarella from Campania, where the aromaticness is more incisive than the one made with fresh cow's milk.

*The characteristics of aromaticness in the prosciutto are made more incisive by the possible smoking.*







Also all cured meats show a clear aromaticness, above all the smoked ones, other than the ones with some aromatic herbs added, like the salami from Mantua with garlic or the Tuscan Finocchiona.

Also the different extra virgin olive oils influence the aromaticness of a dish according to their variety. It is not a coincidence that the oil sommeliers fill out more and more frequently oil menus in restaurants or, however, give useful advice in the creation of the best pairing according to the composition of the plate. Always amongst the fat dressings, a piece of butter melted in the mouth slowly releases its thin aromaticness, offered to all the food preparations in which it is used, both salty and sweet.

All dishes flavoured with some aromatic herbs give a nice aromaticness: the most important thing is to avoid being deceived, thinking that this sensation is linked only to the addition of some small leaves of rosemary or sage, oregano or parsley. Used alone or combined between them, many aromatic herbs dictate the character of a food preparation, sometimes decisive for choosing of the wine to pair.

Sensation generally less aggressive than spiciness, the aromaticness can result equally perceptible according to the kind of aromatic herb used, to the quantity and the state of preservation, if fresh or dry.

Pasta with pesto, ravioli with butter and sage, Caprese salad with oregano, boiled meat with spicy green sauce, filet mignon with tarragon, lamb with thyme and salmon with dill, are all dishes clearly oriented towards an unmistakable aromaticness, both for their intrinsic properties and the presence of aromatic herbs.

At the time of dessert there is a wide range of choices. Tiramisu with coffee, cocoa in all chocolate desserts, bon bons, praline, tasting chocolate bars, Grand Marnier in crêpe suzette and other liqueurs or spirits, fresh fruit and in syrup, dried and candied, are all ingredients that enrich the aromaticness.





## The taste-olfactory persistence

One should try the food and taste it with attention. Then one swallows. Some food leaves in the mouth a collection of sensations that lasts for a long period of time, a long finish, others vanish in a few moments.

The taste-olfactory persistence, already known from wine tasting, is evaluated according to the length of permanence in the mouth after swallowing, the collectiveness of taste, tactile and taste-olfactory sensations.

What are the elements that establish the taste-olfactory persistence? First of all the single sensations already discussed, some in a more significant way like spiciness, sapidity, bitter tendency and aromaticness, others less, like the tactile sensations and the faded sweet tendency.

Every food has its own taste-olfactory persistence, according to the components of food, aromatic herbs, spices and added dressings, to the cooking technique or preservation applied.

Amongst cheeses, the taste-olfactory persistence of Brie is inferior to that of aged Pecorino, same goes for that of a sweet Provolone compared to that of a natural Gorgonzola.

Likewise a slice of veal cooked in a pan has a taste-olfactory persistence that does not withstand the confrontation with that of a sauced deer thigh, that of a cooked ham vanishes in little time compared to that of a Soppressata salami, like the one of oven cooked fresh salmon compared to the same smoked salmon, a cream cake compared to a spiced chocolate tart.

## The structure

Synthesis of all that has been perceived during the tasting of food, the structure summarizes the complexity of the sensations, evaluated according to their perceptibility. The more an aliment is rich in intense sensations, the richer it will be in structure. If one tastes a single aliment, the structure depends on its composition, possible treatments or the addition of salt, aromatic herbs and spices during the production phase.



Spiced and smoked cured meats, for example, are structured aliments, also, with equal fats and other components, they are more structured than those not exposed to these treatments.

Rice salad is a preparation that involves numerous ingredients, but its sensorial profile corresponds to that of a barely structured aliment, because the sensations perceived during the tasting are very delicate.

The structure of food or a preparation is therefore the result of numerous factors, like its composition, typology, number and proportion of ingredients, as well as the cooking techniques used and the preservation applied, that also determine different levels of complexity and consistency.

Barely structured preparations are white rice, dressed in simple butter or extra virgin olive oil, entrées with delicate sauces based on vegetables, mussels and crustaceans, with the possible use of little quantities of aromatic herbs, seared chicken, pan cooked veal slices and other main courses based on white meats without elaborate sauces, steam cooked sea bass and other steamed fish served with a few drops of extra virgin olive oil, whipped cream cake and other delicate desserts. Also simple food like cow's milk Mozzarella and fresh Toma cheese.

A slightly richer and structured sensorial profile is instead what results from a tasting of a plate of herbs roll dressed with butter, sage and Parmigiano Reggiano, risotto with asparagus and prawns, tagliolini pasta with crustaceans, as all entrée courses dressed with sauces enriched with the scents of aromatic herbs, butter and Grana Padano, used also in the final stirring of *risotto*. Among the second courses we can mention veal roast, baked pork, sea bass in oven with aromatic herbs or other fishes served with simple sauces, finishing with desserts like tarts with marmalade and fruit, panettone and home made donuts. Moderately structured are also semi seasoned cheeses like Fontina and Emmental, non-seasoned cured meats like cooked ham and other soft and lightly spiced cured meats like sausages and Luganega (typical sausage from North Italy).



*The structure of food is the summary of its sensorial characteristics, linked to its richness, complexity and intensity of all the perceived sensations.*

Tortellini with meat ragout, ravioli with roast meat sauce, risotto with sausages, roasted beef wrapped with bacon, stew and braised meats, sauced hare and other game based food preparations, dessert with chocolate or pastry with cream and elaborated stuffings, or others like Italian panforte, torrone and croccante, are all structured food preparations. Also all the seasoned-cheeses like, for example, Bitto and Castelmagno, blue-mould and washed-rind cheeses, seasoned salami and wild boar ham, particularly spiced or smoked cured meats, are all structured food... but this list could be far longer.





## The glossary of the taste of food

The structure of food depends on its composition, type, number and proportion of ingredients, as well as cooking and preservation techniques possibly applied.

The structure of food is therefore decisive for the choice of wine to propose in pairing, because their characteristics should be such as to never overwhelm each other but, on the contrary, perfectly integrate with one another.

**Barely structured:** food characterized by a collective of taste, tactile and taste-olfactory sensations lightly accentuated due to a simple composition or, in the case of a preparation, to a low number of ingredients, a limited use of dressings, spices and aromatic herbs and a delicate cooking.

**Moderately structured:** food characterized by a collective of taste, tactile and taste-olfactory sensation moderately accentuated and with a certain complexity due to a richer composition or, in the case of a preparation, due to a greater number of ingredients, a larger use of dressings, spices and aromatic herbs, as well as a more incisive cooking under the sensorial profile.

**Structured:** food characterized by a collective of taste, tactile and taste-olfactory sensations accentuated and diversified with a wide and articulate complexity due to a rich composition or, in the case of a preparation, due to a great number of ingredients, a major use of dressings and spices, as well as aromatic herbs and a cooking technique capable of decisively characterizing the dish.



## The taste-olfactory balance

Only after having identified the flavours, the tactile and taste-olfactory sensations of a certain food and having evaluated its level of perceptibility, one can express a judgment about its taste-olfactory balance. Every component, ingredient or additional element should be perfectly integrated with the others, without any clearly prevailing, in the respect of its sensorial personality.

All the sensations should create a pleasant mix, without any of them perceived as scarce or excessive. Like wine, food also offers sensations having reference to the concept of softness, like greasiness, sweet tendency and sweetness, or the concept of hardness, like sapidity, acidic and bitter tendency. Also in this case, a positive judgment on the balance will result only from an adequate merging of all the sensations.

An easy example, as usual, is worth more than many words. During the preparation of pan-fried chops, we add a little bit of salt in order to adjust the sapidity. If, during the addition, one adds a bit too much, the chops would result salty, therefore the plate is barely balanced. If, on the other hand, a careless chef forgets to salt them, at the tasting these would be bland or insipid, therefore the dish is still barely balanced but for the opposite reason.



*Lamb cutlet with plums and Marsala ginger sauce, intense balance between sapidity and sweet tendency, aromaticness and spiciness, succulence and greasiness, oiliness and taste-olfactory persistence.*



## The glossary of the taste of food

The taste-olfactory balance depends on an adequate **opposition** between the **softness** of food like greasiness, sweet tendency and sweetness, and the **hardness**, like sapidity, acidic and bitter tendency, other than the perfect mix of all other elements.

**Barely balanced:** food where one or more sensations stick out in a noticeable and unpleasant manner compared to the others, resulting for example, too salty or too spicy, too rich in oil or sauce but also, to the contrary, if it is not sufficiently sapid or dressed.

**Moderately balanced:** food where no sensation protrudes in an excessive way compared to the others, even if one (or more) is slightly more pronounced or too faded.

**Balanced:** food where no sensation sticks out in a particular manner compared to the others, creating, on the contrary, an adequate and pleasant taste-olfactory proportion.



*The taste-olfactory balance is the summary of all the sensations perceived at the taste, that should melt in the best way.*



## The harmony

The tasting of food is concluded and nothing remains to be done but to summarize, expressing an evaluation that sums up all that has been evaluated during the visual, olfactory and taste-olfactory examinations. This final synthesis expresses a judgment on the global harmony of food or, even better, of a preparation.

If amongst the components evaluated during the three phases of the sensorial analysis we can find a coherent compliance and all express themselves on an excellent level of quality, the dish is harmonious.

At this point the considerations made about the aspect and the presentation come back into play, like the scent and therefore its intensity and frankness, harmony and quality, that were of little relevance towards the purpose of pairing.

A food preparation, in order to be considered harmonious, should not be elaborated only with precious and fancy ingredients, or always drawn by strong and penetrating sensations. On the contrary! A simple traditional dish that rediscovers poor elements but elaborated with respect towards the purity of flavours, can express a great harmony.

On the contrary, it can be far more complicated to create a perfect balance when the ingredients are numerous and variegated. Only a very skilled chef will be able to dose them with wisdom, extracting the best from each one and combining them without any jangle. Often, the desire to overdo and the untidy contamination of flavours, does not give the results wished for.

There are therefore no absolute rules because the perfect harmony can be found in the most simple dish or in the more flighty one, sometimes dominated by a strong personality, more often the result of a democratic cohabitation of all the ingredients.





## The glossary of the taste of food

The overall harmony of food or of a preparation, is the **final synthesis**, the judgment about the coherence among the characteristics evaluated during the visual, olfactory and taste-olfactory examinations and their level of quality.

**Barely harmonious:** food where one can perceive a decisive discrepancy amongst the organoleptic characteristics evaluated, especially in the olfactory and taste-olfactory section, without neglecting the aspect and the presentation.

**Moderately harmonious:** food where one can perceive a slight imperfection in one or more organoleptic characteristics evaluated, especially in the olfactory and taste-olfactory section, without neglecting the aspect and the presentation.

**Harmonious:** food where one can perceive all the organoleptic characteristics evaluated, especially in the olfactory and taste-olfactory level, as combined in a perfect way and the aspect and presentation is inviting.

*The harmony is the coherent summary of the evaluation of all the characteristics in a dish. Also the presentation takes on a significant value.*



# The tasting of wine



Taste, tactile and taste-olfactory sensations, shape the taste of food. Wine, in order to create a harmonic pairing with food, offers its characteristics, intense or delicate, structured or simple.

Like in food, also in wine, only certain characteristics are decisive for the setting out of a pairing without jangles and for the expression of a judgment in which the elements of disharmony stand out. Therefore, for the choice of a wine to propose as an alternative.

Indispensable steps are the recognition and evaluation of the intensity of the organoleptic characteristics of food and wine. Also for wine, the most important are those pertaining to the taste-olfactory examination.

The colour and scent of wine, in fact, do not directly come into play in pairing, even if a careful observation can help to understand the typology of wine being tasted and therefore foresee certain taste-olfactory characteristics, to be verified with a precise and detailed tasting.

A golden colour and a nice consistency, an intense and complex scent, with nuances of ripe fruit and a few toasted accents, make one think about a white wine of a certain maturity and of its temporary resting in small oak barrels. What can one expect on the taste-olfactory level? Probably a wine of good structure, smooth and sapid, possibly with a nice faded crispness, intense and persistent. All to be verified obviously, but if these expectations were to be confirmed, one could imagine it paired to a porcini mushroom *risotto*, crustacean gratin, veal roll with saffron sauce or certain cheeses of medium seasoning. On the contrary, delicate dishes with little structure would be over-powered from the personality of this wine.



aggressive if the wine is young or has been obtained from certain grape varieties that have this strong character in their DNA, like nebbiolo or sagrantino. More mature wines, in general, can have a faded tannicity thanks to the evolution of tannins extracted from the skins and to the combined and enwrapped action of those released by the wood of the barrels used for ageing. Associated to the sensation of tannicity, one can at times perceive a subtle bitter vein, that can remain in the mouth for a more or less long time, depending on the typology of wine tasted. This should never be excessive, so to not transform itself into a negative and unpleasant sensation.

Finally, *sapidity* closes the triptych of hardness. The combined action of anions and cations of acids and minerals of wine, makes us perceive a pleasant and refreshing sensation, but with a lesser fluid saliva production than that induced by pure acidity. Sapidity can be partially masked by acids present in the wine, but these two sensations act more frequently in synergy.

In comparison to the technical tasting of wine, the one carried out with the purpose of pairing takes into consideration also the evaluation of effervescence in the taste-olfactory examination. Carbon dioxide of sparkling, parky and lively wines, is released in a myriad of bubbles, more or less fine, numerous and persistent, that we are used to evaluating in the aspect of wine, but not for their effect on the actual taste of wine. Many small pin heads: this is what is perceived immediately during the tasting of a sip of sparkling wine. However, those bubbles do far more.

All the hardness are perceived in a more enhanced manner, acidity and sapidity in white wines, that joins up with tannins in red wines. On the contrary, the softness, persuasive weaving of sugars, alcohols and polyalcohols, results more diminished. If we add to this the fact that generally the service temperature of sparkling, parky and lively wines is quite low, one easily guesses how the hardness result even more increased.



*The myriad of bubbles of a sparkling wine, tantalize the palate and brighten up acidity and sapidity.*



Decisive for the choice of wine to pair with food are its **softness**, linked to alcohols, polyalcohols and possible sugars, as well as its **hardness**, linked to acids, tannins and mineral substances.

For the purpose of pairing however, one must never ignore the eventual presence of **carbon dioxide**, not so much for the elegant strains of bubbles that perk up its aspect and scent, but mainly because bubbles accentuate the hardness and diminish the softness. Equally important is the intensity and the taste-olfactory persistence, sensorial results of all that the wine has been able to offer to the taste buds and the receptors distributed throughout the entire oral cavity. Balance and taste-olfactory quality, on the other hand, so significant in a technical tasting, fall in second place in the evaluation of a wine with the purpose of a pairing with food.

**Sweetness** is a very pleasant sensation, velvety and smooth, clear and perceptible in all sweet wines, sparkling, Late harvests and fortified. If the quantity of sugar is very reduced, one does not perceive a true sweetness, but a faded softness.

On the contrary to sweetness, that is not perceptible in all dry wines, all wines determine a certain **pseudo-warm** effect, caused by the vessel dilation and partly dehydrating effect of ethyl alcohol, always present, even in different quantities depending on the type of wine. Alcohols and sugars, gums and mucilage, but especially polyalcohols like glycerin, give wine a pleasant sensation of **smoothness** that delicately covers the palate.

Far more aggressive but equally useful in the composition of the harmony of a pairing, are the hardness of wine.

**Acidity** is linked to acids present in the wine and it is perceived differently depending on their quantity, typology and penetrative force. A young wine, with a relatively elevated quantity of tartaric and malic acid, causes the perception of a clear and defined sensation of crispness with an abundant and fluid saliva production, whereas in a wine that has undergone a malo-lactic fermentation or has rested for a long time in oak and in the bottle, these effects are far more subdued.

Completely opposite is the effect of **tannins** in red wines that causes a sensation of dryness in the mouth and roughness on the tongue. The perception of tannicity can be more



## The effervescence

**Effervescence**, linked to the presence of bubbles of carbon dioxide more or less fine, numerous and persistent, is a characteristic that is evaluated only in the visual examination section of a technical wine tasting. However, carbon dioxide **exalts the scent of a wine** and on a taste-olfactory level, contributes with a prickly boost that **reinforces the hardness and diminishes the softness**.

For these reasons the effervescence comes into play with right in the characteristics to be evaluated in the taste-olfactory examination of a wine with the purpose of pairing.

Like for all other characteristics, even the evaluation scale of effervescence contains five terms.

**Still** (0-2): wine in which one cannot perceive any effervescence or, if present, is at an imperceptible level.

**Barely effervescent** (2-4): wine in which one perceives a barely accentuated effervescence, like in the case of lively wines.

**Moderately effervescent** (4-6): wine in which one perceives a sufficient or discreet effervescence, like in the case of parky wines.

**Effervescent** (6-8): wine in which one perceives a stand out effervescence, like in the case of sparkling wines.

**Very effervescent** (8-10): wine in which one perceives a very pronounced effervescence, like in the case of very CO<sub>2</sub> rich sparkling wines; the major development of bubbles can also be influenced by a higher service temperature.



In the evaluation of wine with the purpose of pairing, three summary characteristics of all the wine assume a great importance: structure, taste-olfactory intensity and persistence.



Savouring a sip of wine, one can immediately perceive if the global taste, tactile and taste-olfactory sensations is delicate or forceful, that is if a wine is more or less intense. Taste-olfactory intensity is therefore linked to the impact exerted by wine in the mouth, to its richness in all the extractive and volatile components.

The taste-olfactory persistence, or aromatic intense persistence (AIP), is the panoply of the taste, tactile and taste-olfactory sensations that remain in the mouth after having swallowed the wine and after expiration, that fades more or less slowly. Linked to the complexity and richness of the taste of a wine, an excellent taste-olfactory persistence is often a prerogative of great wines. However, if after having swallowed the wine, it fades leaving only a bitter trace, that wine is not particular-





ly persistent. Evaluated in seconds, starting from the moment one swallows and breathes out, the **taste-olfactory persistence** is an element decisive in the pairing of a wine with food, because neither that of wine nor that of food should completely overpower in intensity and duration, that of the other. The optimal situation is that in which the taste-olfactory components of both, fade almost contemporarily.

Finally, the **structure or body of wine**. Certain wines flow delicately in the mouth and almost leave no trace, others, give a sense of tasteful fullness and are rich in structure, based on the quantity of dry extract of wine, that is of all the solid non-volatile substances. Ethyl alcohol is therefore excluded from this evaluation, even if often wines with a strong alcoholic component also possess an excellent structure.

Red wines, especially if with ageing purposes, generally have an excellent structure, but even in these cases there are no absolute rules. Ever more often we can taste rosé (blush) wines and especially whites, that are rich in extract, complex and with a superior structure to that of some red wines.

The evaluation of the **structure** of wine with the purpose of pairing is based only on three intermediate terms – weak, full-bodied, robust – since the two extremes (thin and heavy) represent negative situations.

Moreover, on the contrary of all the others, this evaluation is not directly a part of the graphical pairing form, and therefore the necessity of resorting to five levels of terminology, does not exist. Even in the graphical form we can find included only the three intermediate terms of the structure of wine, equal to the three utilized for the evaluation of the structure of food.

For all other sensations, sweetness and smoothness, alcoholicity and tannicity, effervescence and sapidity, acidity and structure, taste-olfactory intensity and persistence, the evaluation is based on the customary scales used in the tasting of wine. Even the terms are the same, to which the analogous intervals used in the evaluation of food correspond. 0, 1, 2 - 2, 3, 4 - 4, 5, 6 - 6, 7, 8 - 8, 9, 10. Also in this case the intersection values (2, 4, 6, 8) allow us to quantify sensations that position themselves in-between the various perceptions.



**AIS - Associazione Italiana Sommelier**  
**TASTE, TACTILE AND TASTE-OLFACTORY SENSATIONS OF THE WINE®**

| TASTE AND TACTILE |                 |                   |                  |                   |                  | TASTE-OLFACTORY         |                    |                        | LEVELS OF EVALUATION |                    |  |
|-------------------|-----------------|-------------------|------------------|-------------------|------------------|-------------------------|--------------------|------------------------|----------------------|--------------------|--|
| SWEETNESS         | ALCOHOLICITY    | SMOOTHNESS        | ACIDITY          | TANNICITY         | SAPIDITY         | EFFERVESCENCE           | INTENSITY          | AIP                    |                      |                    |  |
| Dry               | Light           | Sharp             | Flat             | Flabby            | Tasteless        | Still                   | Lacking            | Short                  | 0<br>1<br>2          |                    |  |
| Medium dry        | Barely warm     | Barely smooth     | Barely fresh     | Barely tannic     | Barely sapid     | Barely effervescent     | Barely intense     | Barely persistent      | 2<br>3<br>4          |                    |  |
| Medium sweet      | Moderately warm | Moderately smooth | Moderately fresh | Moderately tannic | Moderately sapid | Moderately effervescent | Moderately intense | Moderately persistent  | 4<br>5<br>6          |                    |  |
| Sweet             | Warm            | Smooth            | Fresh            | Tannic            | Sapid            | Effervescent            | Intense            | Persistent             | 6<br>7<br>8          |                    |  |
| Cloyng            | Alcoholic       | Velvety           | Acidulous        | Astringent        | Salty            | Very effervescent       | Very intense       | Very persistent        | 8<br>9<br>10         |                    |  |
| <b>STRUCTURE</b>  |                 |                   |                  |                   |                  | Weak<br>1 2 3 4         |                    | Full-bodied<br>4 5 6 7 |                      | Robust<br>7 8 9 10 |  |

So that one can create a perfect harmony in a pairing, every sensorial characteristic of wine has to counterweight or concord every characteristic of the food, with comparable intensity, without any prevalence.





# The pairing technique



FOOD AND WINE



## The pairing technique

With the tasting of wine and food one perceives taste, tactile and taste-olfactory sensations, which for creating a pleasant and convincing harmony, have to adequately combine. The two principles that according to the Italian Sommelier Association dictate the pairing between food and wine are those of opposition and concordance.

The verification of the harmony of a pairing passes through the tasting of wine and food, the identification and quantification of the various sensations perceived in one and the other, accounted on the graphical chart. A pair of polygons is consequently created, on which one should reason and elaborate considerations on the pairing at hand. Only the consequent retasting, first of the food and then the wine, allows us to express the definitive judgment on the harmony of the pairing.

The graphical form is an instrument in the hands of the taster and the last word is always that of his senses.



## Opposition and concordance

To a superficial proof reading and comment, the principles may seem like a contradiction. However, the realization of this pairing method is the result of years of aimed tastings, with the objective to clarify every nuance of the infinite possibilities that exist in the pairing of food and wine.

Along this path, tasteful and very interesting, we have realized that the majority of sensations perceived in food require the exact opposite sensation in the wine, following the principle of opposition.

In certain cases, limited to sweetness and structure, intensity and wine's taste-olfactory persistence, the pairing is based on the principle of concordance instead, because these characteristics have to combine exactly with the same sensations perceived in the food. Also, always with the similar level of perceptibility.

Acidity and sapidity, sweetness and smoothness, succulence, oiliness and all the other sensorial characteristics of wine and food, are perceived in a different way, at times barely hinted, at times very intense. Other times, some are imperceptible and one decides not to evaluate them with the objective of filling in the form.

Many sensations, many combinations of flavours, many possibilities of pairing.

*Puff pastry with strawberries can be paired, by concordance, with a sweet and aromatic wine, like a scented Trentino Moscato rosa.*





## Pairing by opposition

Sapidity, bitter tendency, acidic tendency, sweet tendency, greasiness, oiliness and succulence are the sensations that, in the pairing, follow the principle of opposition.

Sapidity, bitter and acidic tendency, the hardness in the food, determine a certain aggressiveness on the palate, more or less pronounced depending on the situation. The wine proposed in pairing has to possess an excellent smoothness, in order to cut down the hardness of the food, in full agreement with the principle of opposition. To the contrary, if it were to possess characteristics of strong acidity, sapidity or even an accentuated bitter note, an unpleasant strengthening of the sensations perceived in the food would be created.

The smoothness of wine often helps to soften even a light hot-spiciness of the food.

Tactile sensation perceived in the mouth as a sense of slipperiness, the oiliness of food requires that the wine being paired opposes itself to this effect.

The components of wine that express a certain roughness on the palate, especially on the tongue, are the tannins. A braised meat with red wine, rich in oiliness and structure, aims the choice on a red wine of good body, possibly even mature, more or less tannic depending on the level of oiliness perceived.

If a dish possesses a discrete oiliness but has a delicate taste-olfactory structure, like a crustacean salad embellished with a scented extra virgin olive oil, this same wine would result absolutely out of context. However, not because of the belief - erratic, if taken for granted - that with the products of the sea one has to choose a white wine at all costs. But the structure of this red wine would completely overwhelm that of the food.



*A delicate sea salad with a splash of a few chive leaves and extra virgin olive oil drops, pairs perfectly with a medium body white wine, with reasonable alcoholic component.*

Which characteristic should wine therefore have in order to pair with a crustacean salad? A white wine gifted with a discrete alcohol content would adapt perfectly because even ethyl alcohol opposes with profit the oiliness of the dish.

Oiliness is a sensation determined by the presence of an oily fluid in the mouth, even if different from succulence, linked to the presence of liquids or juices. Always according to the principle of opposition, the wine being paired to a succulent food has to have some elements that tend to dehydrate, to dry the liquids present in the food, like the alcohols in wine, especially ethyl alcohol.

To food with good succulence one has to pair a wine with a comparable alcoholicity. Not always the wine chosen has to have a high alcohol percentage, especially if red, therefore gifted with a certain tannicity. Tannins are capable of carrying out an action that tends to dry the liquids in the mouth, even if with a different action than that of ethyl alcohol. In fact, tannins block the action of mucin, a glycol-protein that gives fluidity to saliva.

Tannicity and alcoholicity act therefore with a certain interchangeability in balancing out the sensations of succulence and oiliness in food, like what occurs for acidity, sapidity and effervescence in relation to greasiness and sweet tendency.



The sweet tendency is a very delicate sensation, a pleasant softness of the food, that has to be revived by the tasteful crispness of a wine gifted with a good acidity, capable of determining the saliva production or a slight prickliness, therefore potentially assisted by sapidity or effervescence.

Numerous tastings have demonstrated that the pairing of food possessing a stand out sweet tendency with smooth wines, even possibly more or less sweet, flattens, almost extinguishes, the pleasantness of this sensation.

The sweet tendency is often exalted by the greasiness of food, another soft sensation, perceived with a sense of stodginess in the mouth and glossiness on the tongue. In this case the wine has to supply elements that induce the production of saliva, capable of emulsifying, disperse and partially dilute the fats, remembering that these, gifted with different polarities, are not soluble in water.

Also in this case the principle of opposition works, thanks to certain hardness of the wine, above all the sapidity, but also acidity and potentially effervescence as well. Even the prickliness of carbon dioxide tends to improve the emulsifying effect, which cleanses the surface of the tongue and mouth, also strengthening the effect of acidity and sapidity of the wine, to which a slight bitter background also contributes.

The choice of a wine in which one or the other of these characteristics prevail, depends on the single properties of food and on its overall structure. If one has to pair an important roasted red meat with lard, the proposal can be a mature red wine with a good body, a slight acidity and without effervescence. Its sapidity will be the one to oppose the prevailing greasiness of the dish and its sweet tendency, balancing the stand out softness.

A slice of pork shank served with mashed potatoes presents itself on the palate with a very pronounced sweet tendency, greasiness and that typical stickiness given by the connective tissue of the skin. However, above all, it is the great sweet tendency that stands out, emphasized by the side of mashed potatoes. The most traditional Italian pairing - but still the most worthy on a theoretical level based on the principle of opposition and confirmed by numerous tastings - sees an effervescent Lambrusco or a lively Oltrepò Pavese Bonarda. However, all red wines without great tannins or structure, but crisp and vitalized by bubbles, pair perfectly with this dish.



Moreover, the effervescence accentuates the crispness of the wine, whereas between acidity and sapidity a masking or synergic effect can occur.

## Pairing by concordance

Sweetness, aromaticness, spiciness and taste-olfactory persistence, other than structure, pair by concordance.

Cakes and pastries, biscuits or creams, are all rich in sweetness, that requires a wine with an adequate, equal sensation, in the most immediate pairing by concordance. At least nowadays. Up until a decade ago, it was very frequent to participate in wedding meals and birthday dinners, with the usual final cake accompanied by cups of Champagne Brut. A mistake after another, because we have by now realized that the sweetness in a dessert, requires sweetness in the wine. The cup, by far now, is reserved to the service of sparkling aromatic wines, exactly some of the most suitable wines to be paired with numerous desserts.

Every attempt of pairing with dry wines, even particularly smooth or slightly sweet ones, has failed. Even those gifted with a good residual sugar, inferior though to the level of sweetness in the food, has not given the results hoped for. The cause? The acidity in the wine, its sapidity or a final bitter vein, would emerge in an inelegant way, lacking grace and causing the pairing to be of little harmony.

*The sweetness of an apricot soufflé pairs, by concordance, with the one of an Alto Adige Moscato giallo Late harvest.*



Also in the pairing with desserts, a single sensation does not count by itself, in this case sweetness, because the structure plays an equally important role. Structure also pairs by concordance.

Creams and fat based fillings, fresh and candied fruit, nuts and spices, are only a few of the ingredients that vary the sensorial taste-olfactory profile of a dessert. Once more, an example can eliminate any uncertainty.

A sponge cake or Italian *panforte* with almonds are two desserts, but their structure is very different. In both cases the pairing proposes a choice of sweet wines, but with different characters.

An Asti Moscato or an effervescent Malvasia (malmsey) of the Colli Piacentini (Italy), sweet and aromatic but livened by a nice crispness, are two paradigmatic proposals for a slice of sponge cake with a dusting of vanilla sugar, whereas a Vin Santo del Chianti Classico, even in respect of the traditional pairing, structured and smooth, warm and full-bodied, is the ideal companion of a slice of almond *panforte*.

Aromaticness and spiciness, which often give an unmistakable imprint to food, are perceived at a taste-olfactory level and clearly determine its taste-olfactory intensity as well.

Cured meats and spiced cheeses, dishes aromatized with saffron and curry, cinnamon and many others from the multi-coloured world of spices, create a strong and penetrating impact in the palate. It is therefore clear that also the wine being paired, in concordance, has to possess a strong taste-olfactory intensity, so that neither the one of the wine nor that of the food prevails.

Aromaticness and spiciness are not the only sensations that influence the taste-olfactory intensity of food, since even sapidity and bitter tendency can be very important in this aspect.







Aromaticness and spiciness, always together to all the other flavour, tactile and taste-olfactory sensations, also determine the taste-olfactory persistence of food, that can fade very slowly, in sometimes very long periods of time than those, averagely, found in the tasting of wine. By concordance, food with a long taste-olfactory persistence requires a wine with an equally important AIP (Aromatic Intense Persistence). If after swallowing, only the sensations of one or the other remain in the mouth, the harmony of the pairing would be strongly penalized. Almost all cheeses are gifted with an important taste-olfactory persistence and often many wines proposed in pairing yield to this characteristic because not all wines, both red and white, can withstand with dignity the tough confrontation played on persistence.

Ultimately, resuming a discussion hinted at many times before, the structure of food, given by variety, complexity and intensity of its flavours, at times is linked to many ingredients, at times to the personality of a single element. Always by concordance, to food and preparations of structure one has to pair wines of good body.

A sauced hare, rich in intensity and structure, would be perfect with a red wine of great body, like a Barolo. If this wine was to be paired to a grilled chicken, preparation of simple character based on white meat, it would overpower it completely and the pairing would consequently result barely harmonious. Equally negative would be the pairing of a sauced hare with a red wine that is less structured and with all the other sensations being less perceptible, like a Grignolino d'Asti or a simple Dolcetto. Even if, in this case, for the opposite reason.



*Grilled meat can express a marked sensation of bitter tendency that, by opposition, requires a good smoothness of wine.*



## The pairing form

The filling out of the graphical pairing form is none other than the practical translation of what has been perceived during the tasting of the wine and food. Also, it is always important to remember, it is a tool that the taster utilizes and interprets, putting it to the service of one's own experience.

The pairing chart is formed by ten concentric circumferences, corresponding to the different levels of perceptibility of the sensations of wine and food, numbered increasingly from the centre outwards. The centre (0) corresponds to an evaluation of absolute imperceptibility of a sensation, whereas the external circumference corresponds to the maximum level of perceptibility (10). In the middle of these boundary evaluations is where all the other intermediate cases lie.

At this point an important observation must be made. It is not common to define the characteristics of wine with the maximum term (very intense, very persistent, alcoholic...) and for certain ones it is desirable for one to never find himself in the situation of having to do it, since they would be negative (acidulous, astringent, salty...) corresponding to the levels 8-10. If it is true that many pairings result harmonious, this will occur also for the sensations perceived in food, that rarely will be evaluated in the level of very perceptible (8-10).

The placement of the sensations perceived in the food and wine on the graphical chart are not random.

The characteristics of wine, for example ACIDITY and SAPIDITY, and those of food, for example Greasiness and Sweet tendency, are written in different fonts, in order to be distinguished with ease.

Starting from the centre of the circumferences we can find lines: those concerning the sensations perceived in food are diverging, those of wine are parallel instead; on the latter ones we can find indicated the numbers corresponding to the 10 levels of perceptibility.



# AIS - Associazione Italiana Sommelier GRAPHICAL PAIRING FORM®

Food/Preparation

Warm dish

Cold dish

Wine denomination

Vintage

Temperature

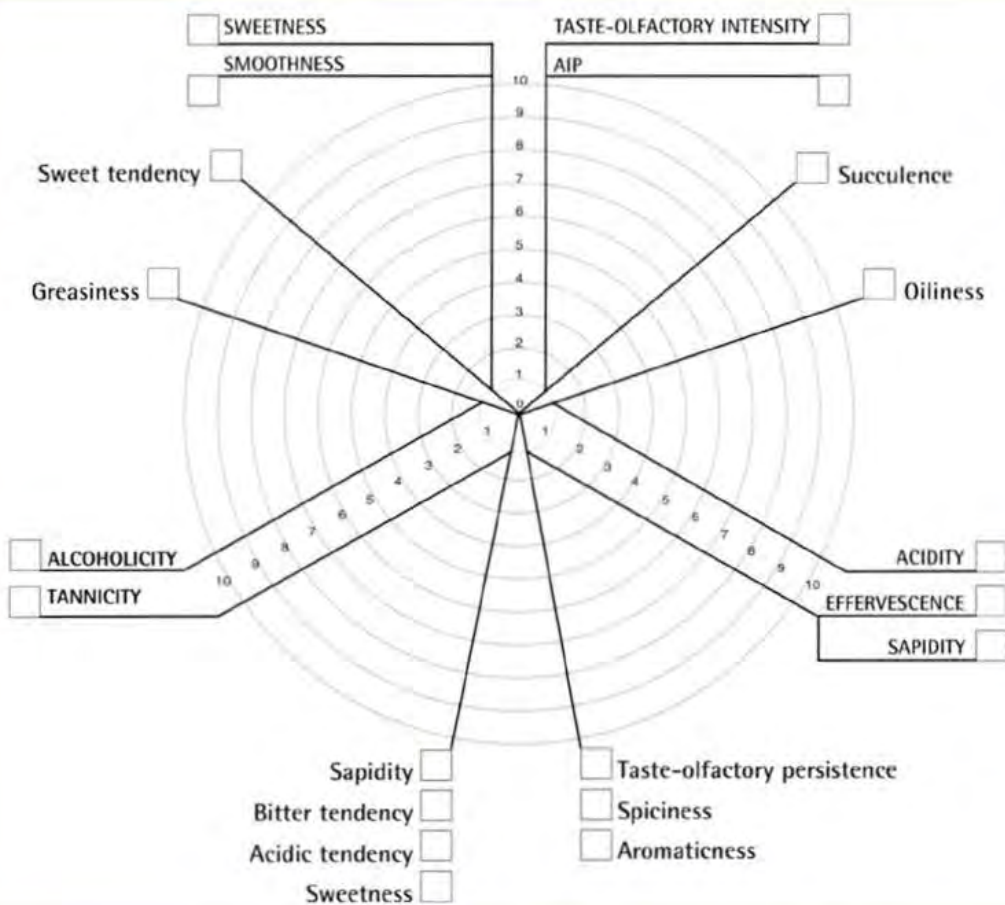
°C

Date

Time

Location

Taster



Food structure

Barely structured

Moderately structured

Structured

WINE BODY

Weak

Full-bodied

Robust

Observations

PAIRING

Barely harmonious

Moderately harmonious

Harmonious



Moreover, taking as a reference the centre of the chart, every sensation perceived in food is found on the opposite side of that in the wine to which it has to be placed in concordance or opposition for the pairing. Following the hypothetical path of the two corresponding lines, the succulence in food, for example, is found in front of the alcoholicity of wine, to which it pairs by opposition, the taste-olfactory persistence of food in front of the AIP of wine, to which it pairs by concordance.

In certain cases, as already remembered, an unambiguous correspondence exists between the sensations perceived in food and those correspondent in wine. In particular, this happens for all the sensations placed on the left and right of the circumference. For the sweet tendency and greasiness of food, there is a certain interchangeability between the effect of acidity, sapidity and effervescence of wine, likewise for succulence and oiliness of food with that of alcoholicity and tannicity of wine.

On the other hand, the correspondence results absolute for the sensations placed in vertical. Acidic tendency, sapidity and bitter tendency, the hardness of food, require a single sensation perceived in wine, smoothness, placed in a position exactly opposite the centre of the circumference. The same goes for the situation of sweetness in food and that in wine, aromaticness and spiciness of food with taste-olfactory intensity of wine, taste-olfactory persistence of food with the AIP of wine.

### Filling out the form

The first step to take in the filling out of the graphical form is the recognition of the sensations perceived in the food and wine: in certain cases they can be directly indicated with a cross in the small square placed beside each term.

The second phase is the evaluation of the interval of perceptibility pertaining to each sensation detected, correspondent in food with the terms imperceptible, barely perceptible, moderately perceptible, perceptible, very perceptible and in wine to those of the specific scales.

The third phase brings us to the detection of the precise value of the perception of every sensation, that which will be related to on the corresponding line. It is



never a mistake in the single value, inside the same interval, that can compromise the harmony of a pairing.

If more sensations placed in correspondence of the same line are perceptible, in the small squares positioned on the side of the sensations we have to indicate the number corresponding to the perception of the sensation, in order to make it evident which one has the highest value, therefore the sensation that prevails upon the other (or others). The value to enter into the form is the highest one, remembering that these evaluations are not referred to the quality of the sensations, but exclusively to the different levels of perception.

The values corresponding to the sensation perceived in the tasting of wine and food, are reinstated on the respective lines, in the points of intersection with the circumference corresponding to the level of perceptibility. The segments that join the points indicated, both for food and for wine, bring to the construction of two polygons, that correspond to their sensorial profile. A practical advice to highlight the two polygons clearly? Use different coloured pens.

Subsequently we have to indicate with two numbers, placed in the relating squares, the levels of perceptibility of the structure of food and the body of the wine.

Finally, on the line labeled Observations we can write brief but significant comments on the sensation perceived, that do not directly emerge from the graph. An example? The bitter finish that can be left over by the tannins in a wine.

Once the graphical pairing form is filled in, we have to express a judgment on the harmony of the pairing proposed, without forgetting that the final judges are always our senses.

Numerous tastings advise to begin the evaluations of pairing with the tasting of the wine, followed by that of the food in hand. This is not an absolute rule, but a lot of food has a taste-olfactory persistence which is very long and would condition the successive tasting of wine. Unless we are not subjected to long waits.



One could think that an important taste-olfactory persistence is a prerogative of only food of great structure and complexity, like cured meats and cheeses, spiced dishes or dishes rich in aromatic herbs. It is not just like this because a simple boiled egg yolk has a very long taste-olfactory persistence. This, obviously, does not translate in the hypothesis of a pairing with a wine possessing and important AIP, because this wine would most probably be gifted with a great structure that would completely overpower that of the food.

Apart from the single observations, the structures of wine and food are decisive in the creation of a harmonious pairing.

## The graph

The interpretation of the graph allows us to express a judgment on the harmony of the pairing, starting from the observation of the size of the polygons.

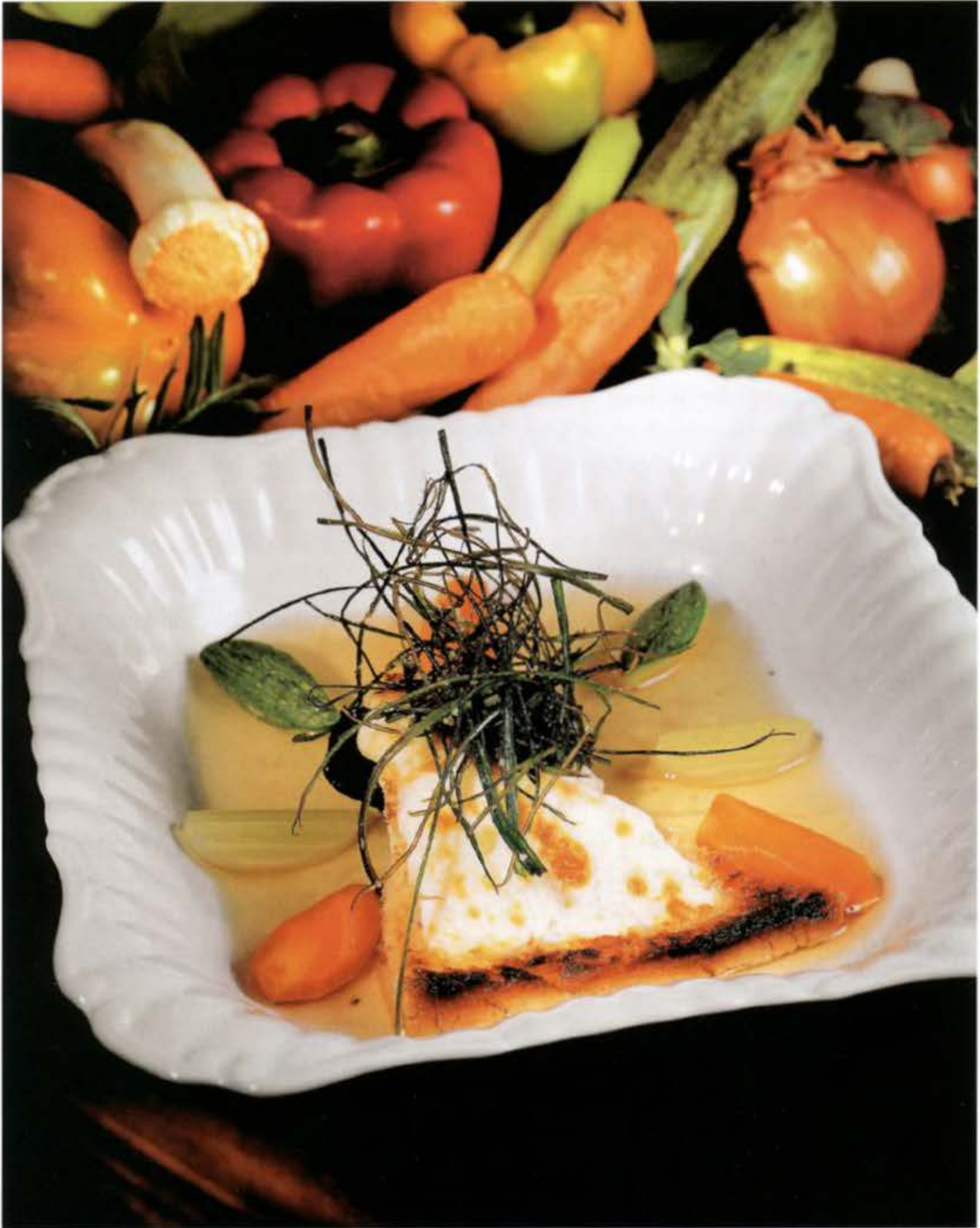
If the polygon has a reduced size, determined by few pitches or, if numerous, they are not particularly pronounced, the food tasted has a simple character, with few sensations perceived or with a low level of perceptibility. Therefore is a light structured food, to be paired with a wine possessing contained sensorial characteristics, in order to avoid that they overpower those of the food.

If the polygon has a wide surface, determined by many pitches and most of these, if not all, are particularly pronounced, the food we are tasting has a strong character, with many sensations perceived and with a high level of perceptibility. Therefore is a structured food, to be paired with a wine possessing elevated sensorial characteristics, in order to avoid being overpowered by those of the food.

We should therefore be careful not to define structured, food that is outlined by a polygon of modest proportions: the most severe mistakes are exactly the ones that protrude clamorous contradictions!

Depending on the food and wines tasted, we can obtain graphs that are fairly different, but that can however correspond to harmonious pairings.







# Food and wine pairing

## ■ The tasting of wine

- detection of all the sensorial characteristics
- detection of the interval of perceptibility of each sensorial characteristic
- detection of the numeric interval pertaining to the level of perceptibility of each sensorial characteristic
- transcription of the values on the graphical chart, indicating them with a cross or a number in the small squares placed next to the sensorial characteristic
- conjunction of the various points and consequent construction of the polygon corresponding to the sensorial profile of the wine
- indication with a number of the evaluation of the body of the wine
- indication of potential observations on the tasting of the wine.

## ■ The tasting of food

- detection of all the sensorial characteristics
- detection of the interval of perceptibility of each sensorial characteristic
- detection of the numeric interval pertaining to the level of perceptibility of each sensorial characteristic
- transcription of the values on the graphical chart, indicating them with a cross or a number in the small squares placed next to the sensorial characteristic
- conjunction of the various points and consequent construction of the polygon corresponding to the sensorial profile of the food
- indication with a number of the evaluation of the structure of food
- indication of potential observations on the tasting of food.

## ■ The evaluation of the food and wine pairing

The **comparison of the polygons** corresponding to the sensorial profile of the wine and food allows us to make a **hypothesis** on the harmony of the pairing.

**Only after having retasted the food and the wine**, one after the other, we can decide if the pairing results barely harmonious (1-4), moderately harmonious (4-7) or harmonious (7-10). The evaluation is concluded with the indication of the **corresponding number** inside the small square placed next to the judgment on the harmony of the pairing. Even if in rare cases, at times it can occur after having retasted the food and then the wine, sensations not adequately evaluated in the single tastings can emerge. Or, for example, the final bitter trail left by a wine rich in tannins can make itself a bit too noticeable, altering the harmony of the pairing. In this case, despite the graph that makes us think about a **harmonious** pairing, we have to evaluate it as **moderately harmonious**. Even if hardly, it may occur that if the two tastings were carried through correctly, the result mismatches the initial hypothesis.





*Slice of baked salmon with Aceto Balsamico Tradizionale di Reggio Emilia.*

## The study of the graph

At times, whilst tasting food and wine, it is possible to make sensorial mistakes and... forget certain sensations.

The graph can come to our aid, highlighting abnormal situations, that can sound the alarm. Strange polygons can therefore make us think that the tasting was not carried out with attention. The graph, in fact, is none other than the translation of everything that was perceived in the tastings.

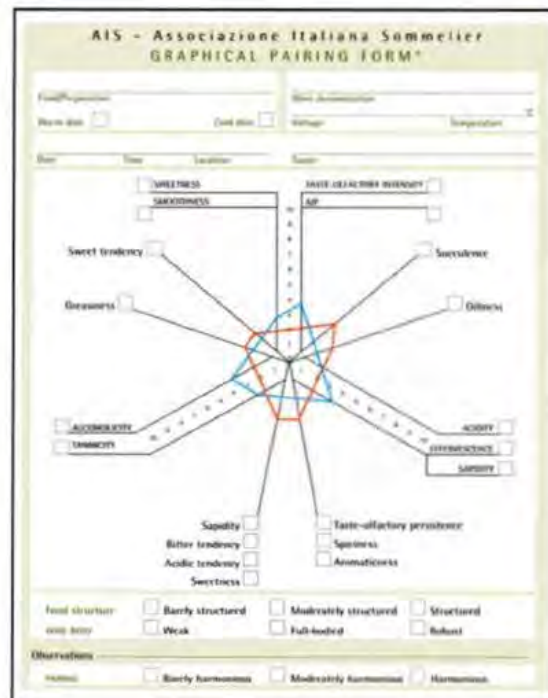
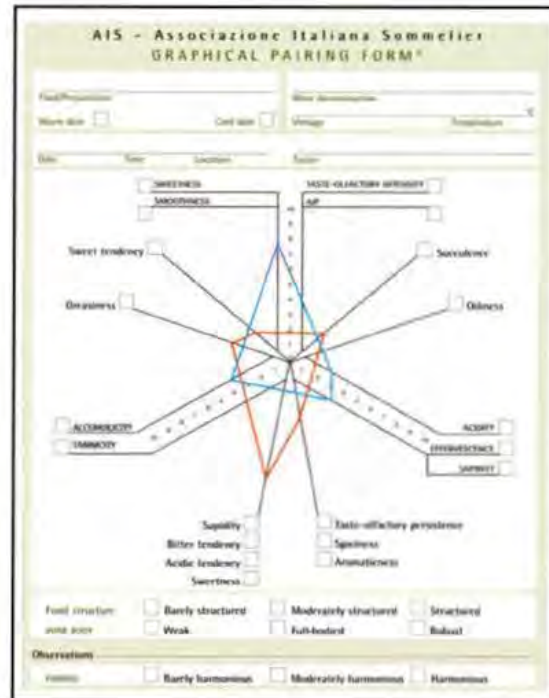
Single cases, certain more frequent and others less probable, can help us to avoid severe mistakes and realize that we have possibly lost sight of an important step.

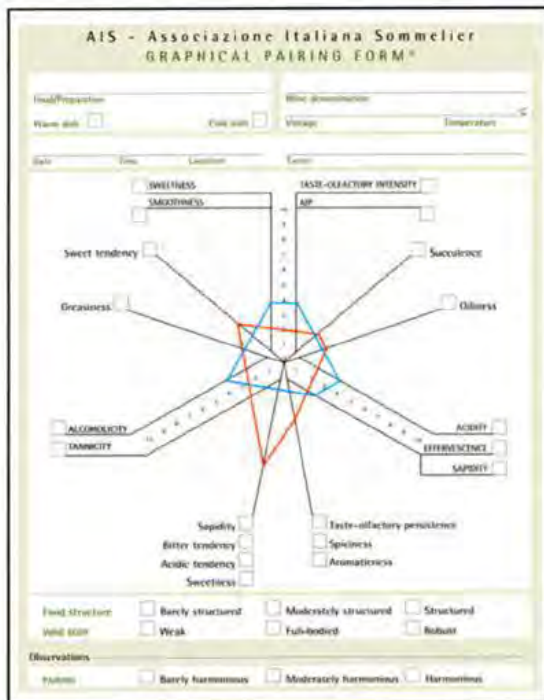
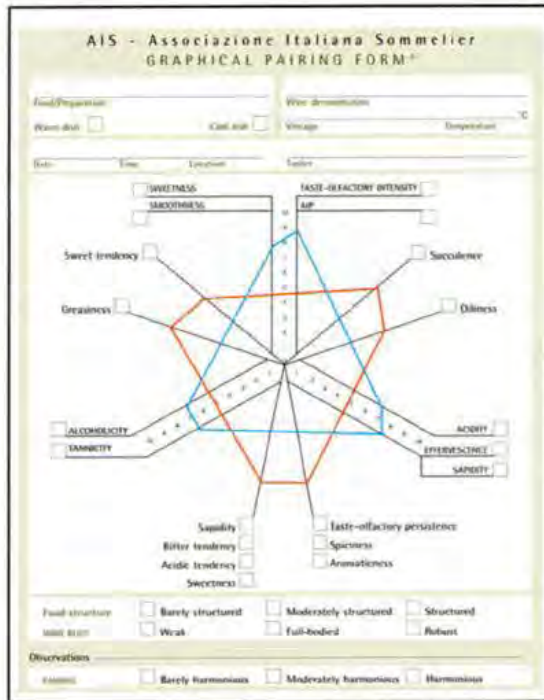
In order to obtain a significant figure, it is important to evaluate at least three sensations for the food and three for the wine, and therefore detect, for both, at least three points in the three sectors.

In order to further clarify the interpretations of the graph, we can consider certain theoretical pairings, even inexistent. It is not a coincidence that neither the dish nor the wine is indicated. The evaluation of the harmony of these pairings has the sole purpose of getting used to reasoning on the graph, making all the possible hypothesis'... and motivating them. A curious and stimulating game.

1 – The polygons are quite similar to each other, with surfaces that are not so wide, but in both we can find a pronounced pitch. The food and the wine are rather simple and highlight taste, tactile and taste-olfactory sensations that are barely perceptible, even if one of these emerges in a clear way in comparison to the others. If the sensation perceptible in the food is adequately balanced with that in the wine, like for example the sapidity of the food with the smoothness in the wine or the two sweetesses, this hypothetical pairing may result harmonious. However, if to the sweetness of the food corresponds the smoothness of the wine, not sweetness, it would be barely harmonious.

2 – The polygons are quite similar to each other, with surfaces that are not so wide and no pronounced pitches. The food and the wine are rather simple and highlight taste, tactile and taste-olfactory sensations that are barely perceptible and result as mutually balanced. This hypothetical pairing may therefore result harmonious.



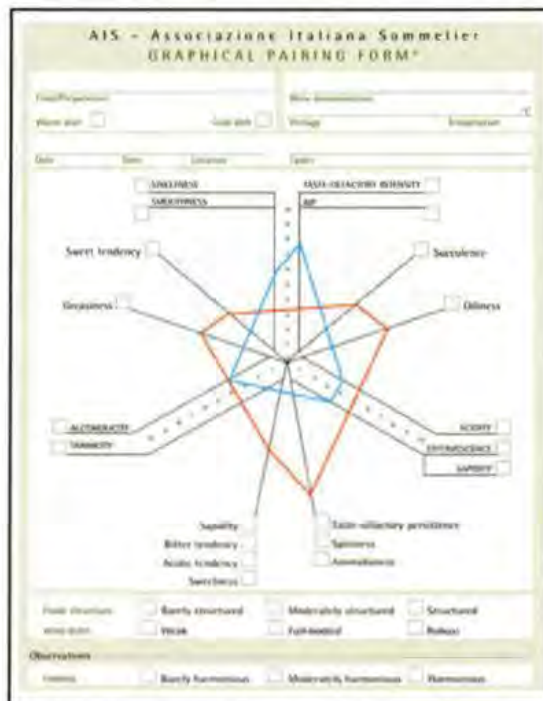


3 - The polygons are quite similar to each other, with wide surface areas and various pronounced pitches.

The food and the wine are well structured and highlight taste, tactile and taste-olfactory sensations that are perceptible and mutually balanced. This hypothetical pairing may therefore result harmonious.

4 - The polygons of the food and wine have different shapes and surface areas. In particular, the polygon corresponding to the sensations perceived in the food, presents a particularly pronounced pitch, whereas the polygon corresponding to those of the wine results more regular. The food and the wine are of little structure, highlighting taste, tactile and taste-olfactory sensations that are barely perceptible, with the exception of one in the food (sapidity, acidic tendency, bitter tendency or sweetness) that emerges in a clear-cut way in comparison to the others and that is in no way balanced out by those in the wine. This hypothetical pairing therefore always results barely harmonious. The judgment would be the same in the opposite situation, in which a sensation perceived in the wine is dominant and not balanced with the corresponding sensation in the food.

5 – The polygons of the food and wine have very different shapes. The polygon constructed on the sensations perceived in the food has a wide surface area and numerous pronounced pitches, whereas that of the wine has only one single very pronounced pitch. The food is therefore structured and complex, with taste, tactile and taste-olfactory sensations that are perceptible. The wine, on the other hand, is rather simple and weak, highlighting taste, tactile and taste-olfactory sensations that are barely perceptible. Instead of one, that stands out in a dominant manner. Whichever this sensation may be, the sensations perceived in the food are not adequately balanced with the ones of the wine and clearly prevail. This hypothetical pairing will therefore result **barely harmonious**. The judgment would be the same in the opposite situation.



### A practical case

A practical case, simple and succulent, traditional and reassuring: oven-baked lasagna with ragout and cream, paired to a Reggiano Lambrusco of the latest vintage.

The wine runs with a discrete consistency in the glass, in which it emphasizes a beautiful ruby red colour, with a creamy pinkish foam. The scent has a nice intensity but is rather simple, a weaving of vinous notes and hints of fruit like strawberry and raspberry, on a delicate background of red flowers. On the palate it is crisp and dry, even if we can perceive a slight sugary vein, whereas it does not carry with it a great smoothness or alco-







holicity, tannicity or sapidity. In the mouth it is intense and balanced, of medium body and good taste-olfactory persistence. A wine that expresses itself on a discrete quality level, but with a perfect typological correspondence, a wine produced in the latest vintage that should be enjoyed within a few months, in order to offer the best of itself.

The analytical-descriptive form of the wine takes into examination all the parameters of the sensorial analysis of the wine, but for the objective of pairing only a few aspects are considered: the smoothness and possible sweetness, the alcohol component and tannicity, the sapidity, the acidity and possible effervescence, taste-olfactory intensity and persistence as well as the structure.

Inside the intervals of perceptibility detected for each sensation, one chooses the precise value and enters it on the graph, indicating in the appropriate square with a cross or the number, depending on the case. For example, the wine is moderately warm: the interval includes the values 4, 5, 6, amongst which, in this case, we choose 6. In the small square we put a cross, whereas we have to indicate the numbers in the small squares for sapidity (5) and effervescence (5): the value to be placed on the line shared by the two sensations is therefore 5.

The polygon obtained corresponds to that of a wine of medium body, indicated with a number (5) in the small square corresponding to *full-bodied*. Even if, in this case, we are leaning towards the term *weak* instead of *robust*.

We therefore proceed with the tasting of the food, soft and inviting.

Dominating in its gentle pleasantness, the *sweet tendency* is the sensation that is the most noticeable. This does not happen quite often. Almost all the ingredients exalt its intensity: egg *pasta*, cream (milk, flour, butter...), the meat ragout and the dusting of Parmigiano Reggiano that also determine a good *greasiness*. Sapidity, aromaticness and spiciness express themselves on a discrete level of perceptibility, accompanied by a delicate *bitter tendency* only in the parts where the gratin caused slight burnings. However, it is barely noticeable. Everything, on the other hand, contributes in giving a *good succulence*. Despite the richness of the ingredients, the dish does not offer strong and dominant sensations. It is indeed the sweet tendency that has the chance of protruding unopposed.

THE POLYTOPIC EVALUATION



## AIS - Associazione Italiana Sommelier ANALYTICAL-DESCRIPTIVE WINE TASTING FORM®

|  |  |
|--|--|
| <p><i>C.D.</i> _____<br/>Taster</p> <p>Wine category _____ Sample no. _____<br/><i>Reggiano Lambrusco Doc</i></p> <p>Wine denomination _____<br/><i>12.5%</i> _____<br/>Alcohol content Year</p> | <p style="text-align: center;"><i>16</i> °C      <i>20</i> °C</p> <p>Wine temperature      Room temperature</p> <p><i>10/15/2007</i>      <i>13.30</i></p> <p>Date      Time</p> <p><i>Milan</i></p> <p>Location</p> |
|--|--|

**VISUAL EXAMINATION**

Limpidity      *limpid*

Colour      *ruby red with purple highlights*

Consistency/Effervescence      *moderately consistent*

Observations      *presence of CO<sub>2</sub>*

**OLFACTORY EXAMINATION**

Intensity      *intense*

Complexity      *moderately complex*

Quality      *fine*

Description      *vinous, fruity, floral (strawberry, raspberry, rose...)*

Observations

**TASTE-OLFACTORY EXAMINATION**

|  |                   |  |
|--|-------------------|--|
| Sugars <i>dry</i>                        | Structure or body | Acids <i>fresh</i>                         |
| Alcohols <i>moderately warm</i>          | ↕                 | <i>moderately tannic</i> Tannins           |
| Polyalcohols <i>moderately smooth</i>    | ↕                 | <i>moderately sapid</i> Mineral substances |
| Balance <i>balanced</i>                  |                   |  |
| Intensity <i>moderately intense</i>      |                   |  |
| Persistence <i>moderately persistent</i> |                   |  |
| Quality <i>moderately fine</i>           |                   |  |
| Observations                             |                   |  |

**FINAL CONSIDERATIONS**

State of evolution      *mature*

Harmony      *moderately harmonious*

Food matchings

Observations

Signature \_\_\_\_\_



The sensorial analysis chart of the food foresees us to also evaluate the sensations and characteristics of the visual and olfactory examination, but only those pertaining to the taste-olfactory analysis are accounted for on the graphical pairing chart, indicated with a cross or with the number in the appropriate square.

The polygon obtained corresponds to that of an aliment rich in ingredients and of good structure, indicated with a number (6) in the small square corresponding to a moderately structured food.

Once the two polygons concerning the sensations perceived in the food and wine are constructed, we observe the graph in its entirety. From the comparison of the two surfaces, that appear to be similar, we can formulate the hypothesis that the pairing is harmonious. The decisive step for expressing the judgment on the harmony of this pairing is the retasting of the food followed by the wine, that which is normally done when one enjoys a nice dish at a table.

The separate tastings of the wine and the food, at times, may not give the exact perception of what will be the interaction of their sensations. If even after having retasted the food, swallowed and tasted a sip of wine, all the sensations combine adequately, like the pair of polygons made us guess, we can conclude that the pairing is harmonious, choosing in the interval 7-10, the value that seems the most suitable to indicate its pleasantness or... perfection!

*Baked lasagna, soft and creamy, is rich in sweet tendency and greasiness, sensations that, by opposition, demand acidity and sapidity, possibly livened by the carbon dioxide.*







## AIS - Associazione Italiana Sommelier FOOD SENSORIAL ANALYSIS FORM®

Oven-baked lasagna  
Food/Preparation

Warm dish  Cold dish

C.D.  
Taster

10/15/2007 Milan 13.30  
Date Location Time

| EXAMINATION         |                       | INSUFFICIENT          |   |   |   | ACCEPTABLE |   |   |   | INVITING |   |   |    |   |  |
|---------------------|-----------------------|-----------------------|---|---|---|------------|---|---|---|----------|---|---|----|---|--|
|                     |                       | 1                     | 2 | 3 | 4 | 4          | 5 | 6 | 7 | 7        | 8 | 9 | 10 |   |  |
| VISUAL              | Appearance            |                       |   |   |   |            |   |   |   |          |   | X |    |   |  |
|                     | Presentation          |                       |   |   |   |            |   |   |   |          |   |   | X  |   |  |
| OLFACTORY           | Frankness             |                       |   |   |   |            |   |   |   |          |   |   |    |   |  |
|                     | Harmony               |                       |   |   |   |            |   |   |   |          |   |   | X  |   |  |
|                     | Intensity             |                       |   |   |   |            |   |   |   |          |   |   | X  |   |  |
|                     | Quality               |                       |   |   |   |            |   |   |   |          |   |   | X  |   |  |
| TASTE-OLFACTORY     | Sapidity              |                       |   |   |   |            |   |   | X |          |   |   |    |   |  |
|                     | Bitter tendency       |                       |   |   |   |            |   |   |   |          |   |   |    |   |  |
|                     | Acidic tendency       |                       |   |   |   |            |   |   |   |          |   |   |    |   |  |
|                     | Sweetness             |                       |   |   |   |            |   |   |   |          |   |   |    |   |  |
|                     | Sweet tendency        |                       |   |   |   |            |   |   |   |          |   | X |    |   |  |
|                     | Greasiness            |                       |   |   |   |            |   |   |   |          |   |   |    | X |  |
|                     | Oiliness              |                       |   |   |   |            |   |   |   | X        |   |   |    |   |  |
|                     | Succulence            |                       |   |   |   |            |   |   |   |          |   |   |    | X |  |
|                     | Spiciness             |                       |   |   |   |            |   | X |   |          |   |   |    |   |  |
|                     | Aromaticness          |                       |   |   |   |            |   |   |   | X        |   |   |    |   |  |
|                     | Persistence           |                       |   |   |   |            |   |   |   |          |   |   |    |   |  |
|                     | Structure             | BARELY STRUCTURED     |   |   |   |            |   |   |   |          |   |   |    |   |  |
|                     |                       | MODERATELY STRUCTURED |   |   |   |            |   |   |   |          |   |   |    | X |  |
|                     | Balance               | BARELY BALANCED       |   |   |   |            |   |   |   |          |   |   |    |   |  |
| MODERATELY BALANCED |                       |                       |   |   |   |            |   |   |   |          |   |   |    | X |  |
| HARMONY             | BARELY HARMONIOUS     |                       |   |   |   |            |   |   |   |          |   |   |    |   |  |
|                     | MODERATELY HARMONIOUS |                       |   |   |   |            |   |   |   |          |   |   |    | X |  |

# AIS - Associazione Italiana Sommelier GRAPHICAL PAIRING FORM®

*Oven-baked lasagna*

Food/Preparation

Warm dish

Cold dish

*Reggiano Lambrusco Doc*

Wine denomination

2006

Vintage

16

Temperature

°C

10/15/2007

Date

13.30

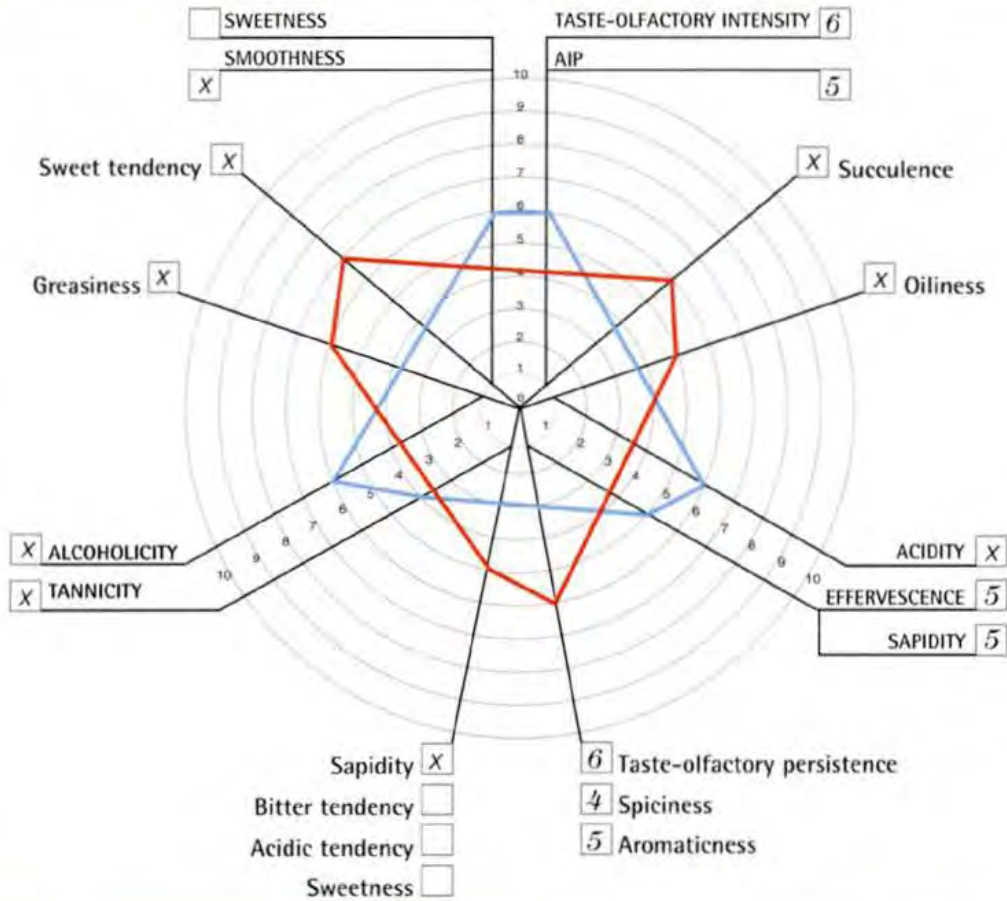
Time

Milan

Location

C.D.

Taster



Food structure

Barely structured

Moderately structured

Structured

WINE BODY

Weak

Full-bodied

Robust

Observations

PAIRING

Barely harmonious

Moderately harmonious

Harmonious



# Eggs and sauces



FOOD AND WINE



## Eggs and sauces

As a sacred symbol of life that ancient Egyptian priests would have never eaten, the egg is an aliment that, thanks to its versatility, has been able to cut itself a great space in the kitchen. Creams and sauces, salty cakes and fresh pasta, soufflés and pies, are just a few of the preparations that would not be the same without eggs, without mentioning all those in which eggs are the primary protagonists, cooked in numerous different ways.

The egg is not satisfied of being the irreplaceable ingredient of many dishes, from starters to desserts, but it is also the base of certain sauces, mayonnaise above all, that accompany pasta and rice, meat and fish, eggs and vegetables.

Fluid or semi-fluid, cold or warm, with an oil or butter base, flavoured with aromatic herbs or with spices, sauces enrich the entrées with new sensations and complete their taste-olfactory profile. The character of sauces has to perfectly adapt to that of food, without overwhelming or suffocating, instead it has to give food a certain tone and create a pleasant harmony.



## Eggs

Versatile and fundamental in today gastronomy like the one in the past, eggs have maintained their symbolic value throughout centuries. Alabaster, lapislazuli, ivory, wood, lava rock, glass and ceramic eggs, are good luck objects and motifs for splendid collections. Still today, multi-coloured eggs create decorations and table-centers and chocolate eggs decorated with sugar and dried fruit, are the most glutinous symbols of Easter, as a metaphor of renewal in nature that repeats itself every spring.



## Did the egg come before the chicken?

This unsolved culinary dilemma rotates around the egg, aliment that leads in the kitchen but also irreplaceable companion, which is able to weave its own flavours with those of numerous other ingredients. Greasiness and sweet tendency, succulence and oiliness, aromaticness and taste-olfactory persistence, are the sensations that, in a more or less pronounced way, can be perceived tasting an egg depending on the cooking method utilized, the prevalence of egg white or yolk and the other complementary elements of the preparation. As underlined various times, the sensorial effect of every food cannot be defined beforehand, but it is only the tasting that can give us the real perception of the different sensations. Especially on their different intensity.



The egg is an almost complete aliment, due to the fact that it is rich in proteins of high biological value as well as fats, minerals and vitamins, sugars in small traces. However, be careful with the cholesterol!

Fine, fragile and porous, the shell is composed primarily of calcium carbonate. White, ivory, cream or rose, its colour is linked to the race of the chickens: eggs with a white shell are most common in the United States, the others, for example, in Italy. Under the shell, two white skins form the testaceous membrane, amongst which, towards the bottom end of the egg, a bladder is formed: the more this bladder is reduced, the fresher the egg is, expressing the best of its flavour.

Egg white is an aqueous solution, viscous and rich in albumin, a protein that coagulates under the effect of heat, transforming into a solid white mass like porcelain. Tasting a piece of solidified egg white, one perceives very delicate sensations of sweet tendency and succulence.



Rich in fats and proteins, the **yolk** is enclosed in the invisible **vitelline membrane**. Its colour varies from yellow to orange depending on the chicken's nutrition: if it is nourished with corn and other aliments rich in *B-carotene*, the yolk will have a very intense yellow-orange colour, whereas if it has been nourished with fodder, it fades into a pale yellow. The colour of mayonnaise, cream and egg *pasta* will reflect this very much. The yolk is the part that gifts our taste buds with aromaticness and taste-olfactory persistence, other than sweet tendency and greasiness. If the cooking has maintained the fluidity of the yolk, the greasiness is coupled with oiliness.

Other than chicken eggs, small delicacies are those of **quail**, with a dark dotted shell, used in aperitifs and appetizing



starters, like the quail eggs salad with bacon and goat cheese. Furthermore, we can find those of **turkey**, slightly bigger than the normal chicken ones, **duck**, more flavoured and with the yolk larger than the egg white, those even bigger of **goose** and finally **ostrich** eggs, with a record weight of 700-800 g (25-28 oz).

## The cooking of eggs

Egg white and yolk have clearly different compositions and give different sensations, also depending on the different cooking methods. They are also differently digestible. The egg white is more digestible if cooked or whipped, whereas the yolk is more digestible by even a slight cooking. Heat coagulated egg white and fluid yolk therefore represent the best combination, like in pan fried eggs or similar cookings.

What happens during the cooking of eggs that transforms the yolk into solid yellow-orange and the egg white, transparent and mucilaginous, into a compact and white mass? The protein chains unfold and the filaments, by now free, bond together and encompass water. Egg white coagulates between 60-64 °C (140-147 °F), the entire egg and the yolk, richer in fats and with a lower tendency to coagulate, between 65-70 °C (149-158 °F).

Oyster eggs, pan fried, hard-boiled, floated, scrambled or in omelet, eggs cooked and prepared in many different ways assume very different aromas.



A couple of minutes or slightly more, in water, and eggs assume a creamy yolk and a partially solidified egg white, doubling the time we obtain a **boiled egg**, and cooking up to 8-10 minutes, a **hard-boiled egg**, completely solidified. Always very delicate is the **floated egg**, dropped in boiling water without a shell and cooked for 3 minutes with the addition of a little acidity (lemon or vinegar), without salt.

These egg preparations are simple and very fast, expressing very delicate sensations at the tasting, that only equally simple wines, young and crisp, know how to respect.

**Pan fried eggs**, cooked with a little butter or oil, **scrambled eggs**, whipped with milk or cream, salt and pepper, cooked in a water-bath or in a pan with a little butter, assume a higher aromaticness, also depending on the different ingredients added, likewise in **omelets** and **fried eggs**. In both cases the eggs are whipped with salt, pepper and a little cream. **Pan-fried eggs** are completely solidified and at a certain point are overturned, so that it assumes a golden colour on both sides, the **omelet** is not overturned, but left to fold onto itself until it forms a sort of half moon, in order to maintain the inside extremely creamy.

Finally, **meringue**, sweet and light, porous like a sponge. Snow whipped egg whites encompass air between the proteic weaves, that during the cooking, under the effect of heat, expand and create a fine porosity, stabilized by the coagulation of the proteins.

## Eggs and wine

The eggs, so versatile, can be prepared and served in many ways.

A fresh yolk in a **raw egg** is dressed with salt, pepper and lemon, few drops that compromise any pairing! If the raw egg is savored with white wine, roast-beef jus or Cognac, the slightly more complex flavours can pair with a white wine of discrete crispness but with a sufficient alcoholic component.

Also all other simple preparations based on eggs, **boiled**, **hard-boiled** or **floated**, can pair with dry white wines that are delicate, preferably young and gifted with a nice

*Terrine of asparagus  
with caviar eggs,  
intriguing dish in  
the flavour and the  
presentation.*



crispness, but of little complexity and simple structure. Unless the eggs are accompanied by rich and aromatic sauces, sapid or even spicy.

Pan fried eggs, omelets and scrambled eggs with meat or salami and sausages, pair with red or white wines depending on the complementary elements, but always young and not extremely structured, dry and fresh, discretely smooth and warm. Fish and crustaceans increase the delicious sweet tendency of these preparations and the wine that pairs with them has to be white and dry, fresh and gifted with a good sapidity, with delicate smoothness and alcoholic component, characteristics that perfectly adapt to the possible presence of certain vegetables. However, the presence of mushrooms can increment the aromaticness and the aromatic intense persistence, increasing the requirements towards wine. Fried eggs with zucchini flowers, for example, can perfectly pair with a young white wine, dry and delicate, with a good crispness and discrete sapidity, possibly slightly sparkling, in order to avoid overwhelming the characteristics of the dish, like a Frascati or a Viognier for example.

Fresh creamy cheeses, like Mozzarella or Italian Crescenza for example, render these preparations suitable for a pairing with young white wines, fresh and fragrant, with good smoothness and only discrete alcoholicity, whereas if one adds a few shaves of Parmigiano Reggiano, Pecorino or other seasoned cheeses, the wines have to be smoother and with a more important AIP.

If the eggs are the base ingredient of refined and complex dishes, like fondue with truffles, the pairing can reserve bigger satisfactions, with a full-bodied red wine, possibly even mature, warm and sapid, with a good tannic component and a suitable aromatic intense persistence. A Barbaresco of medium evolution could be ideal.







## Appetizers, the most inviting opening

Cold and warm, scarce or fat, based on vegetables and eggs, fish and cured meats, appetizers represent the most colourful and varied entrée. Appetizing start of a meal, the appetizers are traditionally subdivided into cold and warm.

Amongst the first we encounter small puffs, tarts and canapés, composed salads based on vegetables and fruit, eggs and products of the ocean, fat liver and salami, mousse and pâtés, terrines and gelatins, whereas amongst the second we find soufflés, salted cakes, pizzas and croquettes, enriched by **more assorted ingredients**. It is therefore not difficult to intuitively guess how the pairing of appetizers with wine can be equally varied and interesting.

If it is true that according to one of the general rules of pairing, at the beginning of a meal one has to propose younger and more delicate wines, it is equally clear that this choice depends on the appetizer served. A refined and sumptuous example? A small scallop of fat liver served with some pine kernels and dried grape berries, embellished with a few drops of Aceto Balsamico Tradizionale di Modena o di Reggio Emilia, can be accompanied by a glass of Sauternes, smooth and warm, with a long aromatic intense persistence.

**Tarts, canapés and puffs**, can be stuffed with smoked salmon or sturgeon, caviar and foie gras, tuna or shrimp mousse, cheese and salami. The lively bubbles of a Classic Method Sparkling wine will know how to revive the flavours, unless an ingredient is too sapid or spicy, in which case the choice needs to fall back onto a wine with a higher smoothness, structure and evolution, that in some cases can accompany the subsequent entrées as well, like a Blanc de Noir or a Vintage Sparkling wine.

Small onions and pickles, mushrooms in sweet and sour sauce or garlic scented eggplant, avocado with drops of lemon and Tabasco, vegetable salads with slices of grapefruit and orange, can give a few problems due to their acidic tendency. In certain cases it is appropriate to avoid any contact with wine, whereas in other cases its smoothness will dissolve the aggressiveness of the dish.

*Rice salad is an appetizer that in the summer season becomes a pleasant entrée, to pair with the crispness of a lightly fruity white wine.*



Composed salads like **Nizzarda, Caprese, rice salad and Waldorff**, fresh and faded in Mediterranean scents, pair well with young and crisp white wines, even a pleasant Prosecco from Valdobbiadene, that will also adapt to certain vegetable moulds, like zucchini, broccoli and asparagus, that greatly increment the sweet tendency of the dish. If the tomato plays a decisive role, like in all the variables of stuffed and filled tomatoes, a greater smoothness of the wine will be necessary.

**Savoyard, Vienna, Russian and chicken salad**, enriched by mayonnaise, require instead a crisp white wine with good sapidity, but slightly warmer and of greater body, like a Soave Classico, that will be capable of also accompanying a vegetable pie flavoured with delicate cheese fondues.

**Raw fish carpaccio, sea salads of various types, crab with potatoes and black olives, squid with garlic and parsley, lobster and prawns with raw artichokes** - careful that the latter don't prevail on the crustaceans! - but also **sushi and sashimi**, generally have a good sweet tendency, delicate aromaticness and taste-olfactory persistence, a slight oiliness given by the extra virgin olive oil. A crisp white wine of discrete structure can be the ideal suggestion for these dishes, same goes for the fine bubbles of a Blanc des Blancs Champagne.

A few slices of **salmon and sturgeon, tuna and smoked sword fish**, more aromatic and sapid, fat and with an excellent taste-olfactory persistence, require a smoother wine, structured and persistent, like a few expressions of Chardonnay, Sauvignon blanc and Pinot grigio from Friuli-Venezia Giulia. If one does not want to renounce to the tantalizing prickliness of a sparkling wine, one can choose a Pinot noir based sparkling wine from Oltrepò Pavese in Italy.

**Marinated anchovies and small soused fishes** lift the usual anxieties linked to the acidic tendency, that will require a great smoothness in the wine, excellent structure and suitable AIP, characteristics of mature white wines, with a personality capable of withstanding a relatively daring challenge.





A classic appetizer like **Bourguignon snails** can be paired to an equally refined wine, like a Chablis Grand Cru, in which the chardonnay grape is expressed on high taste-olfactory levels.

**Cured meats and veal, beef and pork**, roasted and boiled, also marinated or sauced, presented with jelly and various dressings, compose a heterogeneous group of starters. The most traditional dishes of Italian cured meats - served with the frightful pickles, to be kept at a distance from wine! - rich in greasiness and sweet tendency, sapidity and aromaticness, often pair with young and crisp red wines, lively and without great structure. However, the **Culatello (pork rump) di Zibello** or the **Prosciutto di San Daniele**, more delicate and elegant, will be perfect also with a medium body white wine, with good crispness and sapidity, that can also accompany a slice of veal in tuna fish sauce. The extremely fine slices of **beef carpaccio** with flakes of Parmigiano Reggiano, rings of celery and slices of porcini or ovoli mushrooms, dressed with extra virgin olive oil, require a white full-bodied wine, with a good alcoholic component, smoothness and sapidity.

*Prosciutto di San Daniele, one of the most precious charcuteries, expresses its delicate aromaticness alone or in several recipes.*



# Sauces



Sauces, fluid or creamy complements of many dishes, are often decisive in drawing out the traits of their taste-olfactory harmony. The balance of the dish is equally fundamental. If the sauce is a little scarce, the preparation may result colourless and insignificant, but if its presence is abundant, almost invasive, it may risk becoming heavy and excessive.

Salsus, that is *salty*, is the Latin term from which the word SAUCE derives. It is indeed salt, that was the major dressing and base element of the preservation of any aliment, already in antiquity.

The creation of a sauce, especially its cooking, is a very delicate phase, often to be carried out slowly and at medium fire. In great kitchens we can find the presence of the chef saucier, who has the responsibility to guarantee the excellence of the sauces and the cooking bases (stocks), that slightly represent the heart of the



*Sauces are fluid or creamy complements of many dishes that often clearly influence the sensorial characteristics.*



kitchen and that should always be extremely fresh. The new requirements of the kitchen however, request ever more often, lighter and more delicate cooking bases as well as less elaborated sauces, prepared with the maximum care in the dosage of the ingredients, avoiding extensive cooking times, that can reduce the spontaneity of the flavours. Or, at times, one can base himself solely on simple blends of various ingredients with extra virgin olive oil.



## The roux and cooking bases

At the base of the preparation of the different sauces, we can find the **ROUX** and the cooking bases, or stocks.

The **ROUX**, formed by heat incorporated flour into butter, are the elements that bind the warm sauces. Depending on the cooking time one obtains the white roux, the blonde roux, slightly golden, or the dark roux, with the same colour as hazel nuts, due to an increased caramelizing of the sugars.

The **COOKING BASES** are the foundation for the preparation of the most classical and traditional sauces, whose elaboration often requires long periods of time. Many new recipes are created regardless of the cooking bases, therefore more fresh and immediate, leaning towards sensations linked to the better and original characteristics of the primary elements.



Bones and cut-outs of veal and beef meat, with the addition of tomato purée and of mirepoix with the objective of aromatizing (cubic mix of carrots, onions, celery and leeks, garlic, laurel, thyme, rosemary, clove, pepper...), give the **dark stock**. Certain variants also foresee the usage of dry mushrooms, or cut-outs and bones of game meat, always adding aromatic herbs and spices, white or red wine.



The white veal stocks, poultry or fish (fumé) are obtained, respectively, from bones and cut-outs of veal, carcasses and giblets of poultry or from an entire chicken, fish bones and cut-outs, aromatized with garnished nosegay (leeks, carrots, celery, onions, thyme, laurel, pepper...), with white wine and possibly champignon mushrooms.



## In all sauces...

Mother and derived sauces, hot and cold, based on butter and oil as well as many others, create a type of complex genealogical tree. Everything begins with the cooking bases, from which the mother sauces are obtained, further elaborated in order to create base sauces and further on, derived sauces. But there are also some abnormal derivations because the two mother sauces, white sauce and tomato sauce, do not have any predecessor!

The first mother sauce, the reduced and veal binded dark stock, ex Spanish, is obtained from the reduction of a dark base, degreasing and binding it with a small quantity of thickener, corn flour or arrow-root. From the dark base we obtain the veal or game demi-glace base sauce, depending on the meat utilized. From the demi-glace we can elaborate a myriad of dark composed or derived sauces.



The white veal stocks, poultry or fish, binded with a roux, give the corresponding mother sauces, the veal velvets, poultry or fish, whose name - velvet - relates back to faded and smooth sensations. From the velvets we can indeed prepare the most gentle base sauces. The creamy blend that derives from the white base and roux delicately incorporated by, respectively, the Allemande or Parisian sauce from the veal velvet, the supreme from that of poultry, the white wine from that of fish.



*Sauces with extra virgin olive oil and delicious aromatic herbs enhance the splendid sweet tendency of crustaceans.*

The third mother sauce, the white sauce, is obtained incorporating flour in melted butter and milk, enriching the sapidity and spiciness with salt and a pinch of nutmeg. From this, the cream base sauces take shape and, subsequent step, the different derived sauces as well. It is indeed from the velvets and from the white sauce that we obtain all the derived white sauces, often creamy and wrapping.

Finally, the tomato mother sauce, with many variations and many derived sauces. The ingredients? Largely or finely minced tomatoes, sieved to form a dense or fluid sauce, extra virgin olive oil, salt, pepper and garlic cloves, a fine mince of celery and carrots or a few leaves of basil, that render it more aromatic, fresh and scented. Furthermore capers and eggplants, green and black olives, tuna and small polyps,



minced beef meat and sausage, bacon and onions, flavours often linked to the most traditional Mediterranean cuisine.

Other than the classic warm sauces, we can remember a few special warm sauces, like curry, onion sauce and the smetana.

Many preparations require the company of cold sauces, often obtained with a far more rapid but equally attentive preparation, in order to avoid, for example, that the mayonnaise... deranges.

The most important butter base sauces are the Dutch and the Bernese, clarified butter emulsions with egg yolk and a white wine reduction with vinegar, served mainly with seafood dishes, eggs and vegetables.

The Dutch, the base of all these sauces, is prepared with egg yolks and clarified butter, white wine reduction and vinegar, salt and black pepper: from this one derive the Maltese, the mousseline or Chantilly and the noisette.

From the Bernese, similar to the previous one, but with the addition of green onion and chervil, we obtain the choron, the foyot, and the rachel.

The oil base sauces instead, are the mayonnaise (egg yolk, oil, mustard, salt, lemon juice and vinegar) and the vinaigrette (oil, vinegar, mustard, salt and pepper). Also in this case the addition of different ingredients transform them into numerous variants, amongst which, firstly, the cocktail sauce, Gloucester, Andalus, Russian and Italian sauces, Tartare and bagration, whereas amongst the second we can recall the gribiche and the ravigote.

Certain cold sauces have independent origins, like the citronette, similar to the vinaigrette but with lemon juice instead of vinegar, the green sauce, those made with horseradish and mint, the Cambridge and the Cumberland, other than the scented Genovese pesto.







## W A R M   A N D   C O L D   S A U C E S

|  |  |  |  |   |
|--|--|--|--|---|
| <ul style="list-style-type: none"> <li>■ Stocks</li> </ul>         | <ul style="list-style-type: none"> <li>■ dark               <ul style="list-style-type: none"> <li>common</li> <li>veal</li> <li>game</li> </ul> </li> </ul>   | <ul style="list-style-type: none"> <li>■ white               <ul style="list-style-type: none"> <li>veal</li> <li>poultry</li> <li>fish</li> </ul> </li> </ul>   |  |   |
| <ul style="list-style-type: none"> <li>■ Mother sauces</li> </ul>  | <ul style="list-style-type: none"> <li>■ dark reduced and binded base</li> </ul>   | <ul style="list-style-type: none"> <li>■ velvet sauce</li> </ul>   | <ul style="list-style-type: none"> <li>■ white sauce</li> </ul>  | <ul style="list-style-type: none"> <li>■ tomato sauce</li> </ul>  |
| <ul style="list-style-type: none"> <li>■ Base sauces</li> </ul>    | <ul style="list-style-type: none"> <li>■ demi-glace               <ul style="list-style-type: none"> <li>veal</li> <li>game</li> </ul> </li> </ul>   | <ul style="list-style-type: none"> <li>■ Parisienne sauce (or Allemande)</li> <li>■ supreme sauce</li> <li>■ white wine sauce</li> </ul>   | <ul style="list-style-type: none"> <li>■ cream sauce</li> </ul>  |   |
| <ul style="list-style-type: none"> <li>■ Derived sauces</li> </ul> | <ul style="list-style-type: none"> <li>tarragon</li> <li>aromatic herbs</li> <li>bone marrow</li> <li>red wine</li> <li>bigarade</li> <li>Bordeaux</li> <li>Breton</li> <li>Bourguignon</li> <li>cacciatora</li> <li>champignons</li> <li>dark chaud-froid</li> <li>civet</li> <li>diable</li> <li>Diane</li> <li>duxelles</li> <li>Geneva</li> <li>godart</li> <li>hachée</li> <li>Italian</li> <li>Lionnaise</li> <li>Madera (finanziera, tortue)</li> <li>Pèrigueux (Perigourdine)</li> <li>piquante</li> <li>poivrade (chevreuil, Diana, grand veneur, Moscovita, venaison)</li> <li>reggenza</li> <li>Robert (charcuterie)</li> <li>Roman</li> <li>zingara</li> </ul> | <ul style="list-style-type: none"> <li>lobster</li> <li>curry</li> <li>tarragon</li> <li>fine herbs</li> <li>albufere</li> <li>bercy (marinière)</li> <li>cardinal</li> <li>champignons</li> <li>chaud-froid</li> <li>chivry</li> <li>homard</li> <li>matelote</li> <li>norman (with anchovies, shrimp, oysters, diplomatic, joinville, reggenza, riche, veron)</li> <li>livonienne</li> <li>poulette</li> <li>raifort</li> <li>reggenza</li> <li>Toulouse</li> <li>villageoise</li> <li>Villeroy</li> </ul> | <ul style="list-style-type: none"> <li>aurora</li> <li>crème</li> <li>mornay</li> <li>Nantua</li> <li>soubise</li> </ul> | <ul style="list-style-type: none"> <li>Portuguese</li> <li>Provenzale</li> <li>numerous variants (with seafood, Amatriciana, boscaiola, marinara, various ragouts)</li> </ul> |



## Marinates, dressings and aromatized butter

White or red wine, lemon juice, vinegar or extra virgin olive oil, aromatic herbs or spices, form the **marinates**, in which fish and meat are submerged and left to rest for longer or shorter periods of time, before the cooking, in order to soften and flavour them. In the case of game meat, in order to weaken that peculiar **wild taste** which is not always pleasant.

Widespread in the United States and in different countries of Northern Europe, the **dressings** are the accompaniments of salads, convenient but often marked with various aromatizing agents.

Suitable for non-bitter nor prickly green salads, with tomatoes or aromatized with celery, the **French dressing** is based on vinegar, salt, oil, mustard from Dijon and minced white pepper.

**Oil and vinegar dressing** is a mix of vinegar, extra virgin olive oil and white pepper, elaborated also in the **Italian dressing**, with a little garlic, that can also be rubbed against the sides of the salad dish in order to accentuate the final aromaticness. Mayonnaise, liquid whipped cream, ketchup, salt, white pepper and Tabasco form the **Russian dressing**, whereas the **Roquefort dressing**, other than small fragments of this blue cheese, is flavoured with vinegar, extra virgin olive oil and white pepper.

**Aromatized butter** is not a true sauce but can be another complement of many dishes. Basil, parsley, dill, truffle, mustard, garlic, anchovies, shrimp and lobster, are a few of the ingredients most used in the preparation of different types of aromatized butter, added after having created a **smooth and creamy foam**. A few are simple, others more complex, like the **Bourguignon**, with parsley, garlic and green onions, perfect with the classic dish of escargot, or that like **Colbert** and **maitre d'hotel**, with drops of lemon juice and parsley, as well as the most elaborated, the **café de Paris**, with aromatic herbs, green onions, horseradish, anchovies, mustard, lemon and Cognac.





## Sauces and wine

To every food its sauce, to every dish its wine.

The sauces that derive from a dark base are often characterized by a good sapidity, sweet tendency and oiliness, whereas the characteristics of spiciness and aromaticness can reveal themselves more or less intense. If the sapidity is the most prominent characteristic, the wine being paired has to be smooth, whereas the sweet tendency requires a good acidity/sapidity in the wine and the oiliness a discrete tannic component. The pairing is oriented towards smooth and full-bodied red wines, balanced and with an adequate aromatic intense persistence, also because often these sauces accompany meat based preparations, especially red meats.

In dishes where an important role is played out by a velvet sauce, sweet tendency and oiliness are well perceived, whereas the sapidity is generally dimmer, same goes for aromaticness and spiciness. The best wines, in this case, can possess a more gentle structure, often young whites, fresh and with a discrete alcoholic component and - why not? - livened by prickly bubbles. Also because often these sauces are served with crustaceans, mussels, fish and white meats.

If the sensorial profile of the dish is enriched by white sauce, greasiness and sweet tendency are the two main sensations, even if the first can slightly fade into oiliness if the sauce is more fluid and abundant. One can also clearly perceive the spiciness of the nutmeg, if the hand of the chef wanted it a bit more stimulating. The choice of the wine, in this case, depends on other possible ingredients. If there is nothing else, a white wine, fresh and fragrant, with a good sapidity and the liveliness of carbon dioxide, can be ideal. If the white sauce accompanies a meat ragout - how can

*Salmon and broccoli sauce,  
a delicate weave of sweet tendency  
and aromaticness.*





one not immediately think about a dish of oven-baked lasagna? - the best wine will always be crisp and lively, but it could have the discrete tannins of certain red wines, because often, in these cases, oiliness and succulence become more perceptible.

Finally, the numerous preparations based on tomato sauce have the common denominator of a certain acidic tendency, that requires a good smoothness in the wine, but structure, crispness and the other characteristics of the wine, will vary depending on the simplicity or richness of the various ingredients.

It is always the combination of structure and of all the taste-olfactory and tactile nuances of a preparation, that will make one prefers a white wine or a red wine, a young and drinkable wine instead of an evolved and important one.

Spaghetti and maccheroni, tagliatelle and pici, trofie and orecchiette, delicate sub-layers in which the sweet tendency of the starch stands out, perfectly blend with sauces based on tomato, but also with meat ragout and game. With warm rice, cooked in abundant salted water? Again, tomato and curry based sauces or Genovese pesto. For certain cold pastas the most suitable sauces are the Tartar and the citronette, also utilized for cold rice, proposed in various salads.

A dish of tomato pasta, dressed in extra virgin olive oil and a few leaves of basil, requires a white wine or a rosé wine, young, but gifted with a pleasant smoothness that blunts the acidic tendency - even if not excessive - of the tomato. An example can be a Vermentino di Sardegna. If instead, one tastes a dish of nut sauce with *trenette pasta*, richer in aromaticness, greasiness and taste-olfactory persistence, it is preferable to choose a crisp and sapid white wine, a bit more structured and with a more important AIP. The best pairing, with a wink towards tradition, will be a Riviera Ligure di Ponente Vermentino.

In order to accompany raw vegetables, often served as fresh appetizers, one can choose *bagna caôda* (from Piedmont), mayonnaise, various dressings, anchovy sauce, all suitable for boiled vegetables as well and with Allemande sauce, citronette, aioli, Dutch sauce and many types of composed butter. Potatoes, cooked in ash or in wrapper, can be accompanied by anchovy sauce or aromatic herbs butter.



Eggs also match well with many sauces. Float cooked eggs match well with aurora sauce, the Nantua or a demi-glace of Madera, as well as with cream sauces and various ones based on tomatoes, whereas warm boiled eggs can be proposed with anchovy sauce, Allemande, garlic sauce and green sauce, particularly indicated for cold boiled eggs as well, equally to mayonnaise, tuna sauce with capers and Tartar sauce, vinaigrette or aioli. The wines being paired will almost always be white, delicately scented, fresh and sapid, most of the times without excessive structure. A simple appetizer of boiled eggs in green sauce, given that the acidic tendency of the latter is delicate, can be paired, for example, with a Locorotondo from the Apulia region, crisp and delicately smooth.

Sea bream and oven-cooked bass with aromatic herbs, dover sole and pan seared sea bream with a spray of parsley and garlic, are perfectly matched with sauces like the riche, the diplomatic and the Normand sauce, whereas frogs and grilled mullet, enriched with a little aromaticness and, at times, with a delicate bitter tendency, less perceptible if the skin is eliminated, pair with a tarragon or anchovy aromatized butter. White wines of good aromaticness, fresh and sapid, with a discrete alcoholic component and structure, are most suitable to be paired with these dishes, like a Vernaccia di San Gimignano (Tuscany). Same goes for these preparations with lobster, prawn and shrimp. If the prawns are accompanied by a curry sauce and pilaf rice, the wine has to be smooth and aromatic, far more structured and with a long AIP, like a Gewürztraminer from Alto Adige.

Smoked fish, with a stand out taste-olfactory personality, requires a determined sauce like cren, that further intensifies the aromaticness and taste-olfactory persistence. In this case the wine has to possess an optimal smoothness, structure and a significant AIP, like for example that of a Collio Pinot grigio from Friuli-Venezia Giulia.

To the contrary, all white fish cooked in water or steam, very delicate, can be matched with an anchovy sauce, warm or cold, aioli, mayonnaise or Tartar, but also Allemande sauce and marinère, that well adapt to shrimp and lobster as well, scampi and all seafood. The pairing with a wine will always be oriented towards more or less intense white wines, sapid and fresh, with a higher or lower alcohol component and structure, depending on the character and quantity of the sauce.

Finally, meat. White, red and game meat, with very different characteristics. The more delicate

meats, like boiled chicken or turkey, match very well with Allemande sauce, aurora and cream sauces, as well as with a few tomato sauces, Tartar and finanziera sauce. Chicken with cream, for example, can be paired to a Chardonnay with good sapidity, possibly submitted to a light passage in oak.



Seared or grilled chicken and oven-baked kid can be accompanied by diavola or bitter-sweet sauce, soubise, Cumberland and Bernese sauces as well as various aromatized butters. Mint sauce in particular, well adapts to lamb meat, whereas apple sauce is perfect with pork. A carré of pork in apple sauce, for example, can be proposed with a smooth Rosso di Montalcino. Roasted turkey matches well with a mandarin or orange mustard sauce, citrus that also fuses its dowry with sauces that accompany roast duck. Continuing along the line of fruit based sauces, roasted goose and guinea fowl are well matched to apple sauces, blueberry sauces and pomegranate ones. Duck with orange sauce? To be enjoyed with a Torgiano Rosso Riserva.

Cutlet and other breaded fried meats are well matched with tarragon, anchovy and maître d'hotel aromatized butter, also suitable with pan seared white meat.

Red meats are more intense and flavoured, but yet again, the cooking and sauce are fundamental. If boiled and served cold, beef matches well with anchovy and green sauce. If served cold, they are well accompanied by tomato sauces, cren and ravigote, whereas if roasted or grilled, they can be served with Port or Madera demi-glace, poivrade sauce, reggenza, Bordeaux sauce or various types of aromatized butters. The wines being paired have to possess a good structure and alcoholic component, with tannins and sapidity integrated with the smoothness. A red wine filet mignon can be paired, for example, to a Chianti Classico Riserva of medium evolution.

Maximum intensity and aromaticness is expressed by game meat, enhanced by red wine sauces, blueberry sauce or currant sauce, but also with Cumberland and poivrade, suitable for feather game as well, with more faded and refined flavours. The wines have to be red and deep, with great body, smooth and sapid, warm and persistent, with smoothed tannins. Dear with red blueberries will therefore be perfect with an Alto Adige Lagrein Riserva.





# That extra taste...



FOOD AND WINE



*The sensorial delicacy of a white fish is made more intriguing by a basil sauce and a gratin with aromatic herbs.*

## That extra taste...

A bit of extra virgin olive oil, a ringlet of butter or a pinch of pepper... and a lot, in a dish, can change. Oil and vinegars, butter and cream, aromatic herbs and spices, add to every food an extra touch of oiliness or greasiness, acidic tendency, aromaticness or spiciness, that render the dish more intense, persistent and structured, more demanding towards the wine to be paired.

The measured and wise use of these ingredients, common or sought, allow who is in the kitchen to perform ancient and new recipes, to give shape to contaminations inspired by tradition or the taunt of combinations of flavours apparently unfitting, to new tendencies linked to the evolution of gastronomic habits.







## Olive tree and olives

Soft hills of ochre soil studded with cypresses and terraces steep over the sea, are both landscapes so different to each other that they seem to have nothing in common. Only the olive tree, with its nubby branches and its silvery small leaves, sets an invisible link between the different Italian regions and some areas of Spain, the two major producers of the world, as well as Greece, Portugal and France, with a few niches in the rest of the world.

Nowadays in Italy the **cultivar** on stream are about 300: a true maze of names and colours, scents and tastes that render each extra virgin olive oil so different one from another.

Most probably originating in Central and Western Asia, the *Olea europaea sativa* is very wide spread nowadays, especially in the Mediterranean Countries, where it finds the best climatic conditions to give its most precious fruits, but it is also expanding in other continents, following a similar path to the one of the vine.

The olive is formed of a **thin skin** that wraps the **soft pulp**. The hard inner soul, the **pit**, wraps the **nut**, which is the olive seed.

What does this small oily fruit contain, besides a **fat quantity** of about 20-25%? Water 50%, sugars and a bit of fiber, but especially the 2% of **unsaponifiable substances**, vitamins and various **polyphenolic substances** that give the colour, scent and taste of the different oils and render them more resistant to oxidations.

Olives are not used only for oil extraction, even though less than the 10% of world production is intended for the production of **table olives**, concentrated especially in Spain and Greece, Turkey and Morocco, lately in the United States, too. Some cultivars have a **double aptitude**, like the **taggiasca** from Liguria, delicious with **rabbit alla Ligure** or various oven-baked fish.



*In Italy, more than three hundred cultivar give extra virgin olive oils, with brush paintings from gold yellow to intense green, with scents that fade from fruity to herbaceous, with delicate or penetrating aromatic sensations.*

## Extra virgin olive oil

Often we speak about olive oils in a generic manner, mistaking the extra virgin with the virgin one, the olive and the pomace one. Even coming from the same fruit, these oils are very different in value and acidity, sensorial qualities and... price! Also their production is very different, at least in some phases.

The extra virgin olive oil contains almost only triglycerides, made of a glycerol molecule linked to three fatty acids, especially oleic acid, monounsaturated. The sensor-





ial profile of the extra virgin olive oil is clearly traced from the small percentage of unsaponifiable substances.

Essential concentration of energy, only if used into certain limits, the extra virgin olive oil performs very important functions in our organism. Pay attention because oil – any oil! – is pretty much all fat. And one spoon, about 10 g (0.35 ounce), is enough to give about 90 kcal. However, it does not contain cholesterol.



### The production of extra virgin olive oil

All the stages that lead to the extraction of oil must guarantee the maximum quality levels, starting from the growth of the olive tree, that should give healthy fruits, avoiding damages from oxidation or parasites like the *Dacus olearia* or olive fly.

The choice of the harvesting moment of olives should consider the usual factors related to cultivar, seasonal flow and local traditions.

Usually, the ideal time for the harvest is from October to March, when the colour of the skin turns towards a dark-red or violet shade according to the variety, before the pulp becomes dark.

The steep and impervious grounds where olive trees often grow, make the expensive hand-picking very difficult, while sometimes one appeals to the use of nets suspended under the branches, over which the olives fall spontaneously when fully ripened. Or, alternatively, only where the ground allows, one appeals to modern mechanical systems.

The not yet fully ripened olives give very aromatic and sapid oils, also a bit bitter, while the fully ripened olives give sweeter oils, fluid and more delicate.



Brought carefully and fast to the olive oil mill, the olives can be processed with different extraction systems. According to the traditional system, the washing and removal of leaves are immediately followed by the grinding with stone rollers on a slab of granite, metal toothed grinder or hammer mill. The nut chips are left in the paste, in order to favour the following drain of liquid through the solid part. The olive paste is submitted to a further reshuffle, the mixing, to separate the oil from the paste and water in an easier way. The classical extraction by pressing is carried out by distributing the paste on the mats, nylon filtering panels piled up to form columns in the hydraulic press that extract almost all the oil during the first pressing, done cold to maintain the best organoleptic characteristics.

What remains, the solid part, is the pomace that can be treated with solvents to obtain the crude olive pomace oil, subsequently always refined and of low quality.

The extraction of oil can also be carried out with a continuous system by centrifugation or by percolation, where the pulsing metal blades are dipped in the olive paste and alternately extracted, so that only the oily part adheres.

In every case, the oil is separated from the mix oil-vegetable water by centrifugation.



After the necessary checks, oils with acidity below 2% (virgin and extra virgin) are submitted to settling or filtration, in order to obtain respectively veiled or perfectly limpid oils, but they are never adjusted. The lamp oils, with 2% acidity or more on the contrary, are always submitted to rectification (refining), same as crude olive pomace oil and vegetable oil.

Time is the enemy of oil because light and oxygen cause a slow but continuous worsening of its organoleptic and nutritional characteristics. By law, the label on oil bottles must report the expiration within 18 months from the bottling, but it is better that it is used as fresh as possible, within the same year, often reported with double vintage, for example 2007/2008.

Closed in dark glass bottles or wrapped with opaque paper, oil must be kept in a fresh environment, in darkness, far from odorous substances, even more if the bottle is open.

## Olive oil classification

Starting from the oil campaign 2002/2003, in Europe, new regulations were established that classify the oils extracted from olives and regulate the commercialization and labeling. Fact remaining that the oils extracted from olives with free acidity expressed in oleic acid superior to 2 g/100 g are defined as lamp oils and always have to undergo rectification, the categories of oils on the detail market are:

- extra virgin olive oil, with free acidity expressed in oleic acid of maximum 0.8 g/100 g and with the other characteristics in conformity with those established for this category, that is practically perfect scent and taste
- virgin olive oil, with free acidity expressed in oleic acid of maximum 2 g/100 g and with the other characteristics in conformity with those established for this category
- olive oil, blend of refined olive oil and virgin olive oil, with free acidity expressed in oleic acid of maximum 1 g/100 g and with the other characteristics in conformity with those established for this category.



*The extra virgin olive oil is the dressing that more than any other can exalt dishes of the tasty Mediterranean cuisine.*

## The tasting

Pleasant and typical, the scents and flavours of extra virgin oil vary depending on the cultivar and the area of origin, the level of ripeness and the level of integrity of the olives as well as the method of extraction and the freshness of the actual oil itself.

The oil tasting technique is similar to that of wine, even if the glass is without stem, made of dark glass with a wide base and narrow mouth.

The **COLOUR** is not evaluated on an official level, even if certain Decalogues of DOP olive oils consider the colour an element of typicality of the oil, similar to amateur tastings that also evaluate limpidity and density.

Other than the scent, the official analysis concentrates on the evaluation of the intensity of the stimulus of bitterness and prickliness, as well as the tactile sensations of fluidity and pastiness, smarting sensation and astringency.

The limpidity of the oil depends on the optimal decantation or filtration.

The colour varies from straw yellow to intense green and different is also the fluidity.

The **SCENT** is strictly linked to the cultivar, the ripeness of the olives and the freshness of the oil and is evaluated based on the intensity, quality and different odourous nuances perceived, of citrus and flowers, fruits and spices, vegetables and balsamic scents, like the taste-olfactory recognitions that recall artichokes and tomatoes, apples and bananas, walnuts and pine kernel, sage and basil, cinnamon and red pepper... and many more.





Intensity, structure and recognition of the various scents, followed by balance, quality, final taste and evolutionary state, represent the most important parameters of the taste-olfactory examination of extra virgin oils.

Extra virgin olive oil does not contain sugars, but at times it can be defined as sweet if it does not present any bitter sensation, unless the latter is not linked to natural substances of the oil, in which case it may be a characteristically appreciated note, like the one of prickliness.

### Extra virgin olive oil in the kitchen and in the dish

Extra virgin olive oil is the dressing for excellence of Mediterranean cuisine, that expresses its splendid aromaticness raw on *pizza* and *bruschetta*, sauces like green sauce and *pesto*, as well as next to soups and salads, fish and crustaceans, poultry and red meats... and oiliness, in order to remain within pleasant and balanced limits - of fried foods as well! - should never be excessively perceivable.

The most delicate and fruity oils, obtained for example from *taggiasca* and *leccino* olives, are perfect with composed seafood salads, soups and entrées with vegetables, *bruschetta* and steamed fish, fried food and vegetables with stand out sweet tendency.

If the personality of the oil is more firm, even with a few bitter notes, typical of the *frantoio* cultivar, *casaliva*, *moraiolo*, *carboncella* or *biancolilla*, the dishes can be of a greater structure, like grilled or gratin fish and crustaceans, fish soups, legume salads and rich soups based on cereals, legumes or vegetables, white and red meats.

If the oil is even more incisive, maybe slightly spicy as well, one can pair it with *pizzas* or tasty *focaccia* bread, as well as with roasted red meats and game meat dishes.

Oil should coronate the dowry of a dish, not overwhelm its personality.

Extra virgin olive oil is ideal for frying as well, provided that the choice falls on ones with



a delicate aromaticness, in order to avoid overpowering the food... and that the frying is executed in the best of manners, crunchy and delicate. For example, a mixed seafood fry, aromatic and with good sweet tendency, slightly oily and succulent, requires a pairing with a wine of discrete structure, with good crispness and adequate taste-olfactory persistence, like a Soave or a Friuli Sauvignon blanc.

Nowadays, certain restaurants present an extra virgin olive oil list, in order to aid the client in the choice of the one that will exalt every dish to the best. Some examples extracted from an oil list of a restaurant?

*In the valley of Lamone in Romagna, from olives of the nostrana cultivar harvested with the browsing and worked with a cold percolation, a green olive oil with excellent fluidity is obtained, net scent of olives, fruity and intense flavour, with a finish of artichoke and almond, perfect raw with salt and pepper or with legume and cereal soups.*

*On the splendid hills that surround Montalcino, the olives leccino, moraiolo and frantoio, harvested with browsing and exposed to a traditional extraction with cold press, give a green oil with golden yellow fades, a clear herbaceous scent and a fruity flavour, slight-*

*ly prickly and with notes of artichoke, to be utilized on bruschetta and the typical ribollita soup, but also in the cooking of roasted and braised meats.*



*Crunchy croquettes with Valpadana Provolone are lightened by a soufflé of fresh tomato and basil.*



## ■ The olives and the regions...

**carolea**  
Calabria (Catanzaro area)

**casaliva**  
Lombardy and Veneto,  
Garda lake coasts

**coratina**  
Apulia

**frantoio**  
Tuscany, Umbria and Lazio

**gentile di Chieti**  
Abruzzo (Chieti province)

**leccino**  
Central Italian regions  
Garda lake coasts

**moraiolo**  
Tuscany, Emilia-Romagna, Lazio,  
Umbria and Abruzzo

**nocellara del Belice**  
Sicily

**nostrana**  
Romagna (Brisighella area)

**pendolino**  
Tuscany

**raggia**  
Marche, Umbria

**taggiasca**  
Liguria (Riviera di Ponente Area)

## ■ ... the oils...

intense yellow, vegetable and dry fruit scents, excellent taste-olfactory thickness with a good bitter-sweet balance

golden yellow colour or greenish yellow, with slight bitter and spicy notes, vegetable and dry fruit nuances

brilliant green colour, intense scent, fruity and vegetables with accents of tomato, artichoke and almond, spicy and bitter taste

intense green or golden yellow colour, green olive and artichoke scent, slightly fruity, slightly bitter-spicy final taste

golden yellow colour, fruity and vegetable scent, delicate bitter-spicy taste

golden yellow colour, fruity, floral and vegetable scent, slightly bitter final taste

golden yellow colour with green fades, balanced sweet and bitter-spicy taste

golden yellow colour, vegetable, fruit and toasted scent, herbaceous taste-olfactory sensations

golden yellow colour, fruity and floral scent, with nuances of parsley, tomato, scarcely bitter-spicy taste

golden amber-yellow colour, vegetable and toasted scent, bitter taste

golden amber-yellow colour, delicate scent, fruity and vegetable, balanced taste

straw yellow colour, fruity and delicate scent, sweet and fine taste of fruit, with nuances of aromatic herbs, almonds and pine nuts, excellent fluidity



## ■ ... the uses

eggplant parmesan, pizzaiola scallops, oven baked eels

oven-baked or grilled lake fish, mushroom soup

*friselle*, *minestrone* with legumes, Bari roulades

raw on *bruschetta*, *minestrone*, fresh vegetables and legumes, roast meats, game as well

seafood salads with aromatic herbs, legume and vegetable creams, fish soups

vegetable *ravioli*, crustaceans and tomato salad

typical Tuscan dishes like *fettunta*, *panzanella*, *ribollita* soup, *bruschetta* and cooked with braised meats, ragout and roasted meats

veal scallops with mushrooms, fish soup

legume soup, chicken, tripe, grilled meats

stuffed Guinea fowl, grilled ribs

broad bean soup, *crostini* with olive pâté, stuffed cuttlefish

seafood appetizers, oven baked fish with aromatic herbs, cold sauces as well as delicate warm ones, roasted and grilled fish, crustaceans and vegetables, traditional dishes of Liguria like *pesto* sauce, *farinata* or *focaccia* bread





## Seed oils

Oleaginous seeds like sunflower and sesame, legumes like soy and peanuts, oleaginous fruits like palm and copra, corn sprouts and vine seeds, are the primary elements from which **seed oil** is extracted.

**Very rich in fatty polyunsaturated acids**, these oils generally have a rather low smoke point, that renders them **unsuitable for frying**. The only one that is well suited for this purpose is **peanut Oil**, with a composition of fatty acids similar to that of extra virgin olive oil, even if lacking its prestigious aromaticness. The sensorial contribute of seed oils is therefore strictly linked to its **oiliness**.

A positive aspect of the composition of seed oil is linked to the presence of three essential fatty acids for our organism: linoleic acid, linolenic acid and arachidonic acid.

Seed oils are extracted with the use of organic chemical solvents, subsequently separated by vacuum distillation and then submitted to **rectification (purification, deacidification, decoloration, deodorization and demargarination)**, like lamp and olive residue oils.

In the latest years, oils **suitable for frying** have been formulated, being none other than blends of oils like **sunflower oil, fractioned palm oil and peanut oil**.





**Peanut oil**, limpid and light straw yellow, does not have any scent but does possess a hinted flavour of peanuts. The composition, similar to that of oils extracted from olives, makes it the best alternative to the latter for frying. Following hydrogenation, it comes into play in the formulation of margarines, but especially in the production of **peanut butter**, of light hazel nut colour and typical flavour, very diffused in the United States.

From **corn sprouts** we extract an oil, clear and practically without flavour, suitable for dressing, cooking at low temperatures and to produce margarine and mayonnaise, like **sunflower oil**, with good organoleptic characteristics as well, and **sesame oil**, with a dark-yellow colour and a rather pleasant flavour.

**Soy oil**, extremely rich in polyunsaturated fatty acids, is unsuitable for frying, like **vine seed oil**.

**Palm oil**, extracted from the pulp of the oil palm fruit, **almond oil** from almonds and **copra oil** from the dried pulp of coconuts, are suitable for the production of margarines and shortenings.

**Fractionated palm oil**, that is separated in its most low melting components, has a rather elevated smoke point and is therefore suitable for frying.



Hydrogenated **coconut oil** is a rapid-melting fat, that provokes a particular sensation of **freshness** on the palate, therefore very suitable for the filling of chocolates and biscuits, ice creams and sherbets.

*Hydrogenated coconut oil gives a pleasant sensation of freshness and for this reason is often used for the stuffing of chocolate bon bons and cookies.*



## Butter

Soft and creamy, aromatic and characterized by a good sweet tendency, butter is one of the most utilized animal fats, especially in Northern Europe, France and the Northern Italian areas. In the latest years the consumption of butter has decreased, under the influence of the new dietary trends that invite one to reduce the quantity of cholesterol in their diet. However, its aromatic properties remain undisputed, to cream *risotto* and to sauté vegetables and meats in the pan, to bond sauces, to prepare tarts with salmon and seafood and for many desserts. Furthermore, its low melting temperature, 28-35 °C (82-95 °F), allows it to quickly melt in the mouth, giving a delicate sensation of smoothness.

Other than the pleasant aromaticness and sweet tendency, the sensation most linked to the presence of butter is greasiness, when this ingredient is found at the solid state or when it comes into play, for example, in preparations like puff pastry. As already observed previously, one must pay attention and not be deceived, because if butter is found at a melted state, used in the dressing of numerous dishes, one will perceive an increased oiliness!

Butter is defined as the product obtained from the cream of cow milk after the churn and sufficient separation of the dairy, until we obtain a minimum fat content of 80%. The fats are especially triglycerides, formed by an elevated percentage of saturated fatty acids, even in short strands, whereas water and traces of protein, lactose, mineral salts and vitamins (A, D): 100 g of butter give a slightly more than 750 kcal and 250 mg of cholesterol.

Definitely more sapid is salted butter, with an excellent structure and far more preservable.



On the market we can also find two types of light butter, reduced and low fat content (60-62% and 39-41% of fat), other than low cholesterol content, that contains only about 58 mg/100 of the substance.



Concentrated butter contains at least 99.8% of fat, whereas clarified butter, obtained by heating butter in a pan and eliminating the water and casein, has a higher smoke point than normal butter and can therefore be utilized for frying, for example, eggs and cutlets.

If it is heated, butter quickly melts, and then becomes brick red - ready for the aliment - then hazelnut and later black; when it reaches this point it can only be used for certain particular preparations, especially based fish based.

Finally, we obtain various types of aromatized or composed butter, mixing various ingredients and working them until it becomes smooth and soft. Fish and crustaceans, white or red wine, aromatic herbs and spices, are mixed in order to obtain garlic butter, anchovy butter, dill, lobster, basil, caviar, horseradish, tarragon, shrimp, almond, maître d'hotel, mustard butter, paprika, red pepper, pistachio, polish, green onion, truffle, salmon, hazelnut, Montpellier, Bercy, Chivry and Colbert butter... and many others. In all these cases, to the typical sensations of butter are joined by aromaticness and spiciness, sapidity and sweet tendency or bitter tendency, with higher or lower intensity and taste-olfactory persistence.



## The production of butter

Cream from centrifugal or surfacing effect is the primary element from which one begins to obtain butter, even if the second is almost and solely an Italian exclusive, under produce of the manufacture of various Grana cheeses, like Parmigiano Reggiano. The milk is left to rest for one night, so that the fat surfaces spontaneously and the lactic bacteria produce lactic acid and aromatic substances that will render the butter far more aromatic.



*Butter contributes to create the aromaticness of pandoro, cake from Verona with raised dough, soft and light.*

Centrifugal cream is obtained mechanically and has neutral characteristics. In this case the production of butter foresees insemination with selected cultures of bacteria, that will increment the acidity and the aromaticness of the milk cream during the phases of maturation (15 °C/59 °F, for a few hours).

The subsequent angling is a mechanical process that provokes the inversion of the phases: from the milk cream, fluid emulsion of fats in water, to butter, emulsion of water in fats. This occurs thanks to the breakage of the fat globules and their coalescence, that creates bigger globules, from which the vast majority of dairy is expelled, liquid that is eliminated during the subsequent wash and knead.

Butter is then packed with sheets of aluminum paper or parchment in plastic basins, always opaque to light, in order to limit the butter from going rancid.

Butter is also produced with continuous systems, from which long strands of solid ivory coloured fats are produced, cut in the desired sizes and packed.

The colour of butter may vary from white to yellow: during the summer animals are nourished with fresh fodder rich in *β-carotene* and therefore the butter will result more yellow, whereas during the winter... paler.

Other than being implemented in the production of butter, milk cream, always obtained by centrifugation, presents increasing percentages of fat depending on the purpose: cafeteria cream, to accompany coffee, or cooking cream, to bind sauces and dress dishes as well as pastry cream, to prepare whipped cream, Bavarians, crème caramel and other desserts. The more the cream is rich in fat, the easier it can be whipped, giving a soft and creamy foam, often aromatized with vanilla sugar in exquisite desserts, or served with an abundant dusting of cinnamon.





# Margarine

Shortly after the mid 1800's, the French chemist Mège-Mouriès, invented margarine, mixing bovine fat and milk fat. Only when the bovine fat began to lack, vegetable fats and oils were utilized.

The definition recites that the blends and emulsions packed with foodstuff fats of animal and vegetable origins different from butter and pork fats, containing more than 2% of humidity, have the generic margarine denomination. Even if in Italy, on the detail market, only margarine of vegetable origin is sold.

Margarine is an emulsion of water in fat, whose production is preceded by the hydrogenation of liquid fats, mainly unsaturated, to solid ones, saturated or less unsaturated than the previous ones, blowing hydrogen into the oil at 160-180 °C (320-356 °F) in the presence of catalysts (nickel or platinum) in a vacuum. Hydrogenated fats can be directly utilized in the foodstuff industries, with consistency and physical and mechanical characteristics similar to butter, or with the addition of salt, aromatizing substances, emulsifiers, antioxidants, colouring substances and anti-microbe substances. Also emulsified in order to obtain margarine, packed like butter to limit the same types of possible alterations.

Crucial point of this production is the hydrogenation, if carried out at excessively high temperatures, because it can lead to the forming of trans fatty acids (trans fats), on which there is a lot of perplexity in regards to their nutritional value.

Mono-seed or poly-seed, margarine always contains at least 80% of fat, that brings to a caloric value which is identical to butter, even if, as already seen for butter, we can find two types of margarine on the market, light, with reduced fat content and with low fat content (60-62% and 40-42%).

In the kitchen, margarines can directly substitute butter, especially if they are added with its typical aroma, diacetyl, even if butter maintains more varied and composite sensorial characteristics. Their smoke point is intermediate between butter and that of the majority of vegetable oils, fact that does not render it suitable for frying.





# Vinegar

Already used by the ancient Romans for its preserving and healing qualities, vinegar began to be produced on a large scale around XIV century. Only in the XIX century, Lavoisier and Pasteur studied and clarified the chemical-biological mechanism thanks to which some acetic bacteria transformed wine into this liquid with a penetrating odour and with an acidic and prickly taste.

White, rosé and red, flavoured with fruits, herbs and spices of various kind, sometimes obtained by apple cider or strawberry and other fermented berries, vinegar is produced in several typologies, capable of enhancing the acidic tendency of a dish and stimulate salivation, causing the induced succulence sensation to be more pronounced.

Wine vinegar is the product obtained by the acetic fermentation of wine with a low alcoholic rate, thanks to certain bacteria of the *Acetobacter* gender that, in an aerobic atmosphere develop an oxidizing fermentation of ethyl alcohol into acetic acid. The acetic acid produced partly reacts with the residual ethyl alcohol and forms ethyl acetate, an ester that greatly contributes, together with the same acetic acid, to give the peculiar scent of vinegar. Other than this, many secondary compounds form and enrich the aromaticness.

Once the vinegar was produced with the simple home-made method. The wine was placed in small barrels or glass bottles, where the *mother* was added, a viscous membrane formed by acetic bacteria coming from a previous processing. Every now and then it was aired and the wine slowly transformed into vinegar, with a discrete aromatic bouquet. Today the most used method is the industrial one, in big fermentation tanks, fast and continuous, giving high productivity with standard characteristics.

## But... there is vinegar and vinegar

If a few drops of vinegar, white or red, increase the acidic tendency of food, a few dense and flavoured drops of Aceto Balsamico Tradizionale di Reggio Emilia or di Modena, give



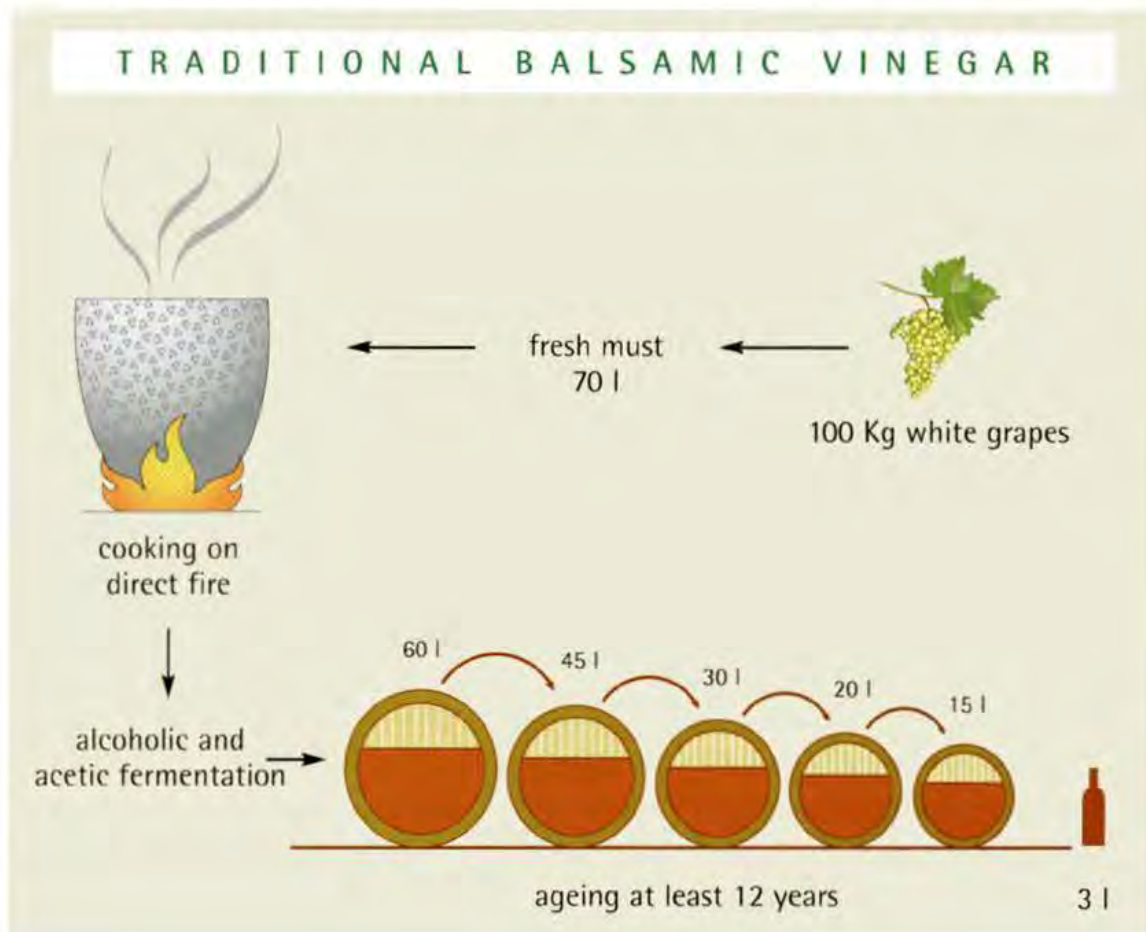
*For many years, the Aceto Balsamico di Reggio Emilia or di Modena rests in small barrels of oak, mulberry and cherry, juniper and chestnut, and gets an unmistakable, amazing complexity.*

aromaticness and sweet tendency, taste-olfactory intensity and persistence, structure and complexity, making every food preparation richer and more precious. The wines being paired, white or red according to the food preparation, should always be particularly smooth but also full-bodied, intense and with a great aromatic persistence. Not always easy pairings, but for this reason capable of giving great satisfactions.

For these two great DOP (Protected Designation of Origin) the term vinegar does not do them justice because their qualities of intense aromaticness, grace every food, from entrée to dessert. Moreover, the starting point is not the wine but grape must, cooked on direct fire at 70-80 °C (158-176 °F), where sugar partially caramelizes and forms many flavoured substances, sweet and penetrative, smooth and pungent. The cooked grape must is then subjected to the alcoholic fermentation, carried out by yeasts and to the oxidizing fermentation, carried out by acetic bacteria. From here on everything changes because this vinegar will rest many years in the cellar, inside small barrels of chestnut, mulberry, cherry, juniper and oak, assembled in series of five or more, filled only to 2/3 of their volume. The following tucking proceed with the *solera method*, used for certain Sherry and Marsala, and last at least 12 years. Starting with 100 kg of grapes (220 pounds), at the end only 2-3 l of this brown and shiny syrup will be obtained, penetrating and persistent, smooth and wrapping.

The Aceto Balsamico Tradizionale di Reggio Emilia includes three versions, represented by the labels Red, Silver and Gold that translate a different evolution length and characteristics, from the simplest and fresh to the most dense and complex, that can give great harmony with the sweetness of spoon desserts and ice creams. For the *Extravecchio* (extra old) the ageing lasts at least 25 years and the tasting of a product aged 60-70





years - or even more - gives sensations difficult to describe and non-easy nor common pairings, but always very interesting.

A simple salad with shrimp tails and pine nuts can be paired to the elegant bubbles and smoothness of a Vintage Champagne, while a foie gras cutlet with raisins demands the sweet, intense and velvety character of a Late harvest.

Also a flake of aged Parmigiano Reggiano or a slice of Culatello di Zibello, with a few drops of Aceto Balsamico Tradizionale di Modena o di Reggio Emilia give great pleasure to the palate, to improve with classy and smooth wines, a great red in the first case, an aged white in the second case.



A carpaccio with ovoli mushrooms can find suitable characteristics in a smooth and full-bodied Chardonnay, with a light barrique passage, while risotto with cheese in a Verdicchio of Castelli di Jesi Classico Superiore, equally warm, velvety and persistent. A few slices of smoked goose-breast demand the smoothness of a Merlot from Collio, lamb with thyme the elegant structure of a Pinot nero from Alto Adige, and a simple filet mignon the body and the mature elegant complexity of a Brunello di Montalcino, aged a few years in the bottle. Finally, some strawberries with custard fulfill in one of the most surprising pairings, with a sweet and silky Moscato Passito di Pantelleria (Sicily).

The Modenese Balsamic Vinegar is a lesser precious product compared to the previous two. Besides the normal alcoholic and acetic fermentation of grape must, a possible partial fermentation or concentration by direct fire is considered, with the adding of a part of wine vinegar aged even 10 years, so to give the product the typical organoleptic characteristics, linked also to the possible adding of caramel.

On the market, one can find a great variety of wine vinegar flavoured with flowers, fruits, herbs and much more, obtained with the addition of infusions or extracts, or with their direct maceration.

The basil vinegar is perfect to flavour tomato based salads, same as the ones flavoured with rosemary, mint, thyme, and sage, highly suitable also for dressings to pair with fish or meat. Always delicate, the refined herbs vinegar is suggested for many vegetables and sauces, especially to marinate white meat, so as the tarragon one, use also for emulsion sauces like the tartare and bernese. The lemon vinegar is delicious with pork meat, lamb and all the white meats, but it also matches well with strawberries and berries. Horseradish vinegar is prepared by immersion of grated radish in warm vinegar, same practice followed for the onion vinegar and garlic, with whom it shares the penetrating aroma.

Black pepper vinegar and the red pepper one have both an intense ruby colours and are very spicy, to be used in small quantities, also to marinate red meats and game. Always red but much more delicate is the raspberry vinegar or the blackberry one, to be used for dressings served with raw or steamed fish, for game or goose but also for sweet-sour food preparations and to accompany cups of wild berries.



## Aromatic herbs and wine

Deliciously scented, spontaneous or farm raised, aromatic herbs give to dishes inviting and fresh aromas, that call to mind bushes and meadows, light and faded colours, shady and relaxing landscapes, Mediterranean and ventilated climates. Leaves and stalks, seeds and barks, fruits and flowers, contain vesicles and small glands filled with concentrated essential oils that deliver unmistakable scented sensations.



Often used in loneliness, the aromatic herbs can also shape very pleasant collections of scents, like chervil, tarragon, chives and parsley that form the refined herbs or *fines herbes*, even if someone includes thyme, basil or rosemary. Besides the mixing, that cannot be accidental but has to exalt the best qualities of each herb, the cooking and preservation status can influence the effectiveness accordingly, as they are added in the middle or at the end of the cooking, in the shape of leaves, seeds or powder.



The presence of aromatic herbs decisively influences the aromaticness and the taste-olfactory profile of a food preparation and, sometimes, if particularly abundant or after cooking, some substances can be formed that give sensations of bitter tendency.



Small bulb vegetable, garlic is characterized by a strong and sharp smell, linked to the allyl sulfur that is released, especially if slightly crushed. White or pink, fresh garlic that can be found in the summer is less strong and fit for more delicate food preparations. Rarely the main element of a dish, with the exception of spaghetti with garlic, oil and red chili pepper or of some sauces like aioli, garlic is one of the most used aroma-givers for stocks or mirepoix, bruschetta or salads, charbroiled meats and fish. Garlic has also nutritional virtues, because it contains



a lot of potassium that helps to maintain a low blood pressure and allicin, with bacteriostatic effects.

The shallot (green onion) looks like a small onion but is more delicate and refined, used in the composition of sauces like the Bordeaux and Bernese. A similar aroma is the one of chives, with thin threadlike hollow leaves, that give their light aroma to salads and sauces, omelettes and fresh cheeses.

Leeks, from the same family as onion and garlic, are more delicate and tender; as well as aromatizing elements, they are often used as vegetables in oven cooking with white sauce and in first courses, like cream with potatoes and leeks, possessing a marked sweet tendency, to be paired with a crisp and medium-body wine, like a Collio Ribolla gialla.



Always amongst aromatic herbs, even if often classified among spices due to the strength of its sensations, horseradish is a light or reddish radish originating from Northern Europe and farm raised in Asia and Africa. It can be used fresh and grated on roast beef and salmon, where it releases an essence reminiscent of mustard and that can be found also in the wasabi, to match sushi and sashimi. Although if cooked, it loses all its power. Horseradish is often con-

*Lamb cutlets, made more aromatic by some sage and chives leaves and lightly spicy by some berries of green pepper.*

