

## WHAT IS ALADIN?

The tradition tells that in the old Greek and Roman cultures smoking foods was a daily practice.

Smoking is one of the oldest preserving techniques. It was discovered by man while becoming sedentary and dominating the fire and was observed that food exposed to the smoke from the hearth not only lasted longer without decomposing but improved its taste.

Man discovered later and after learning how to extract the salt from the sea or saline lakes that salted food lasted longer and improved in flavor. A third important discovery was the preserving effect of spices such as clove, pepper, cumin, cinnamon and others. Nobody knows who or where these three discoveries combined, but this technique has been practiced in different parts of the world for a long time.

Nowadays smoked foods place an important space in the market and on our table. Meats, cured meats, fish, cheese, rinds...find in the smoke its best ally.

Thanks to the advance in science, man has satisfied their curiosity by thinking about not only the preserving methods but improving them technologically, and achieving the development of a whole industry that for countries like Spain, Italy or Germany is an important revenue source.

However, a new usage of smoke and the discovery of new techniques allows progress in favor of gastronomy. The SEMIPROFESSIONAL smoking requires certain knowledge and abilities that we would like to share with you in order to take maximum advantage of this technique.

*We invite you to participate and share your knowledge with us to continue to advance. Please direct your e-mails to [info@100x100chef.com](mailto:info@100x100chef.com). Thank you for your collaboration.*

## SMOKING TECHNIQUES

### 1. BASIC DESCRIPTION OF THE TECHNIQUE

The Five steps needed to follow to smoke correctly are: Salting/Brining, Rinsing, Seasoning, Classic Smoking and Ripening.

#### Salting

Salting is used when the pieces to smoke are big, like pig legs or loins and brining is used when small pieces are smoked, like fish.

Salting consists in the application of a thick layer of dry salt, sea salt or refined salt over the surface of the whole piece of meat making sure that no part is left uncovered. Next, place the flesh into a non metallic container with a cover as the PH decreases notably it can affect the metals and alter the results. Finally, apply more salt to cover and guarantee its dehydrating function. Turning the product at the appropriate time is necessary but depends on the size of the piece and the type of meat. For example, an approximate 600 gram trout should be salting for 8-10 hours, but a pig loin approximately 2.5 to 3 kilos, should be kept salted for three days.

#### Mixture recommended for salting

1 Kg. of salt

2 Kg. of sugar

1/2 Kg. of garlic salt or aromatized salts

1/2 Kg. salt to cure, nitrate salt or nitrate of sodium (NaOH4)

Aromatic herbs (Laurel thyme and marjoram)

Sugar reduces the harsh affects of salt and gives a light sweet flavor. Garlic salt adds flavor to the meat. Finally, the aromatic herbs transfer their aroma to the meats. (A guide for this mixture: 250 grams for each kilogram of meat).

#### Brining

This step consists on taking the meat out of the salt and submerging it in fresh water for 1 to 5 hours depending on the size of the pieces. The water extracts the excess salt and slightly rehydrates the flesh.

#### Rinsing

Este paso consiste en sacar la carne de la sal y sumergirla en simple agua durante 1 a 5 horas según el tamaño de las piezas. El agua extrae el exceso de sal y la rehidrata ligeramente. Después de este tiempo se saca del agua y se deja escurrir unos minutos.

#### Seasoning

In order to give a spicy flavor to the meat, protect it from flies that can lay eggs over it (and can spoil it with their larvae), prevent the establishment of bacteria and fungus, use spices with an antibiotic affect from their essential oils. Recommended spices that one should cover the whole meat surface with is a thick layer of black pepper powder, course pepper and paprika. It is an easy dry cure due to the humidity of the meat that allows the powder to adhere well to the surface.

#### Classic smoking

The quality of the selected product and the selection of the appropriate technique will determine the quality of the final result. This method consists of exposing food to the smoke that some woods produce. Woods that contain little "tar" (thick liquid, mixture of different products from the dry distillation of the wood) or "resins" like the ones from the pine tree. Recommended woods are sweet, rich in "esters" (solid and liquid sub-

stances that result from the parafinic series when combining an acid with an alcohol) that have a nice smell and antibiotic effect, that is why these essences are used in perfumes. These ones are liberated when we burn the woods and adhere themselves and penetrate into the foods, providing them with a good flavor and aroma as well as preserving them from decomposing. The usage of inappropriate woods can result in the product a flavor that sticks in your palate.

By submitting the foods to the action of the smoke:

- We facilitate its preservation through dehydration, eliminating the responsible germs that result in putrefaction through a chemical reaction.

- We endow foods with a characteristic and special flavor and color when we communicate certain substances that get detached from the wood.

The smoking process considers three factors:

- Smoking Temperature
- Smoke Humidity
- Smoke Origin

#### Ripening or Maturity

This is the last step and the easiest one since it consists in taking the meats out of the smoker and hanging them to air so they loose the high concentrations of elements acquired in the smoker and stay balanced from the first time that they are consumed.

This process although is easy but it should be done carefully! It should be done in cool places without light and well ventilated as well as in periods when the relative humidity of the air is low. Otherwise, the meat will gain humidity instead of losing it and with time develop fungus or bacteria that besides offering a bad aspect, could damage its quality.

## 2. THE WOODS AND THEIR AROMATIZATION

The woods used for the smoking should be, in any case, of low resin content and very dry to facilitate its preservation with the goal to incorporate necessary humidity at the smoking time.

The best woods should come from leafy species cut in small pieces especially (Fagus sp., Quercus sp.) Never should it contain coniferous wood.

Around 95% of dry wood extract is made of cellulose (approx. 45%), lignin (20-30% approx.) and half cellulose. The wood selection has as much to do with the kind of aroma and flavor that one wants to provide to the food.

This wood selection will be vital when the smoking process is long, since these particularities coming from the combustion will be determining the flavor of the food. Apple tree, cherry tree, oak, beech, cedar wood are the best possible selections.

It is a mistake that the woods used at the smoking time are too dry. This common mistake makes that, when lighting the fire, the combustion is fast and it reaches a temperature higher than 600 Celsius degrees. In this case, the aromatization will be too aggressive, spicy, little aromatic with toxins and will even offend the customer's palate.

This, in part, is due that when burning the wood too fast, the essences contained in the wood are not transported with the smoke and and the high temperature obtained in the combustion destroys the subtle aromas that have escaped with the smoke then leaving the product impregnated with toxic wood tar.

**Many times the aromatization with spices and dry herbs provide the smoke with a characteristic aroma. Whenever possible one should always use green and fresh products rich in essentials oils that are more resistant to the combustion.**

**Another commonly used technique is the aromatization of sawdust or shavings with essences.** Whenever possible it is always better to use natural essences without neutral added oils (usually glycerin oil) since the oils are a vehicle to transport aromas and assist to the aroma integration in doughs, ice creams, sauces or creams. In smoking with a high content of oil it hides the main aromas in the combustion so it is not always the best choice.

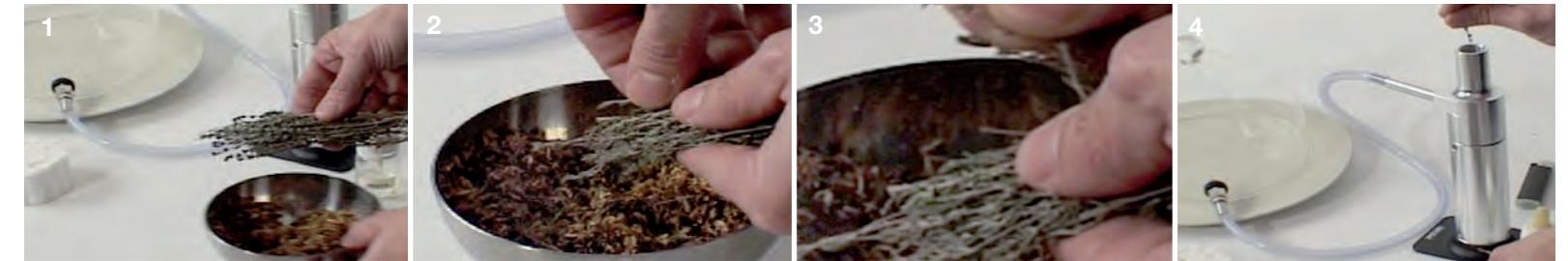
The smoke in its volatilization leaves in the food essentials oils or resins which confer to the exposed food its characteristic flavor and aroma.

These essentials oils integrate better and are easier if the foods contain a high percentage of fat and even better if the fat is located on the exterior of the food. Products with little thickness and more surface are, because of their area of exposure to the smoke, likely to acquire this peculiar flavor than other products with greater volume. For these we should apply a few smoking sessions.

Remember that an inconsistent aromatization session can heat the piece too much and may contribute to helping bacteria grow.

It should be mentioned that smoking provides to the food a bacterial factor, although we recommend that the smoke exit is as far as possible from the combustion chamber so the smoke that is in contact with the food will be as cold as possible.

On the contrary, we should reinforce that a product too cold does not facilitate the integration of the aromatic elements since the fat closes the possible entry point through its pores.



**Aromatizing the sawdust with fresh herbs:** Before wetting it and some full herbs inside the aromatizing chamber. Cover it and let the sawdust impregnate with the aroma of the herbs. Before using it be sure to wet the sawdust.



**Aromatizing the sawdust with essential oils: Option 1-** Impregnate the dump sawdust with the selected essential oil (image 1). **Option 2-** In addition, we can magnify the aroma by placing a piece of cotton\* impregnated with the same essence in the aromatizing chamber (images 2, 3, 4, 5, 6 and 7). Then add the drops to the sawdust. After 4-5 smoking sessions you should add again a couple of essential oil drops to the sawdust, but not in the cotton (image 8).

\*The pressed cotton is an ALADÍN AROMATIC product (see our **CTLGO 2010 Aladín Aromatic**®).

### 3. SMOKING TECHNIQUE IN A BOX

If our smoking pipe has a special connection for the transmission of the smoke it can easily facilitate this work. **Super-Aladin®** has a special exit to connect any tube and a screw connection to be custom fitted to smoking boxes, gastronom tanks or tray cabinets.

#### 1

Connect the smoker exit escape to the box making sure that it is tight so there is no leaking. The tube or pipe can be longer and submerged into a water and ice bath. Using this method, we will obtain a more aromatic and cold smoke although this will reduce the impregnation action.

[If we do not have an specific box for the smoking you can use a gastronom tank with or without a lid and make a hole of 10 cm. in diameter on the tank wall or the lid].

#### 2

Place the food in the box or cabinet resting on a small grill to facilitate the passage of the smoke throughout the whole surface and to increase the maximum area of contact.

#### 3

Close with a watertight lid or cover with film (plastic wrap) any openings. Inject a smoke charge. Next, verify that the combustion is not fast at any moment. In order to do this turn the motor on and off a few times wetting the sawdust with a few water drops so the combustion temperature does not reach 500 °C and a flame formation is avoided.

#### 4

After a minimum action period of 30 minutes, repeat the necessary charges until obtaining the desired flavor. It should be taken into consideration that the smoking process requires a food resting time so the aromatic oils penetrate well, the smoke toxins volatilize, and the food matures to its toasty, characteristic flavor.

If the food is not too greasy we can brush it with a thin layer of neutral oil (less acid) to facilitate the wood essence retention. This oil will be absorbed little by little by the food and will assist the flavor in spreading to its interior.

### 4. SMOKING TECHNIQUE BY IMPREGNATION

The smoking by impregnation is a relative new technique. It consists of placing food in a box or container and create a vacuum environment. This vacuum will extract any air inside and around the food. Once the vacuum is achieved, we will recuperate the atmospheric pressure slowly by opening a point of entrance for air connected to another box where we will have previously injected a large quantity of smoke.

The air mixed with the smoke will enter rapidly taking the previous clean air space, obtaining a fast and strong smoking very easily. You will even be able to reach interior layers in no time.

#### Special Attention

The smoke has a high power of polluting aroma which leaves a permanent trace wherever it goes, especially in porous or absorbent products (plastics, rubbers, silicones, valves, filters, etc.). If these substances are used we recommend using them exclusively for smoking preparations. Metallic containers like stainless steel are highly recommended since even after repeated uses they can be used for other needs.

### 5. SMOKING A LA CARTE

This technique has been diffused very quickly amongst the professionals, as much as its ease of execution and its spectacular show at service time..

The smoking a la carte or instant aromatization is a technique that allows one to give to a specific dish a smoking touch at an instant before service. It even allows to bring to the customer the smoke covered with a bell, bowl, "papillote" or simply smoke at the table in front of the customer. To execute this it is necessary to have a communal smoking machine commonly called a Smoking Pipe.

This technique started being known from the application that the Brothers Roca made in their restaurant el Celler de Can Roca. A glass bell (with or without valve) or a bowl wrapped with plastic film can give us a perfect solution for its transportation to the table.

Certainly it must be understood that the smoking a la carte is not designed to achieve a proper smoking of the food. It consists on a procedure that pursues to seduce the customer's sense of smell and incite, in the best of the cases, a surprise reaction.

In order to do this we should be careful when preparing the smoke by trying to make an extremely slow combustion to extract the wood essences without damaging them with aggressive heat. In addition to achieve the proper aroma, we will obtain a cold smoke that is very white in color. To do this properly we need to wet the sawdust at the last minute. We can also add a few essence drops to reinforce the smoke aroma. If the smoking is done by a cold technique, we can obtain a floating smoke over the dish.

### 6. SMOKING TIMES

This is perhaps the most common question! It is difficult to calculate the time in which a product should be exposed to the smoking action. There are a great quantity of factors that influence this process. Ultimately, experience is what marks the path to success at any given moment.





## COME VISIT OUR EXCLUSIVE VIDEOS ABOUT TECHNIQUES AT:

[www.100x100chef.com](http://www.100x100chef.com)  
at YOU COOK chanel

### Smoking with Super-Aladín

1. Fill the capsule with the damp sawdust and connect the tube to the bell. turn on the motor and light the fire.
2. Turn on the motor and light the fire.\*
3. You will observe a white smoke without lighting the sawdust.
4. You will notice that despite the time lighting and the smoke produced that there has not been a significant amount of combustion in the sawdust.
- 5-6. When you lift the bell you will see a dense smoke stuck to the plate which is more aromatic while respecting the woods natural aromas.
- 7-8. If the wood dries because of the repeated lightings, add a few drops of water so a few more bell fillings can be done repeating the same process.

\*In this catalog you can find our sawdust **Aladín Chips®**

The factors that, basically, can influence are:

Equipment to use
That a product is going to be cooked or not
Culinary process applied to the food prior to smoking
Type of food
Personal taste

Another question that comes up is if one should make a cold or hot smoking. There is no noticeable difference between both techniques. The nuance of the hot smoking is that it is applied to a product that should be kept for longer periods of time and without freezing. The hot smoking is basically used for raw and non salted products, like small size fish.

Another visual difference is that the hot smoking creates a toasty color that can suggest a stronger flavor. In any case, hot smoking uses two techniques in one: a hot smoking is done in a chamber where smoke and heat are injected at a controlled rate, as well as the humidity level depending on the type of product used. Depending on the product to be smoked, the temperature in the chamber should range between 50 °C and 80°C, with a relative humidity between 35% and 70%.

Cold smoking is appropriate when the food has been already cooked, cured or will be cooked afterwards. Cold smoking determines a temperature between 21 and 31 °C where the humidity oscillates between 70% and 80 %. It is ideal for large and salted pieces that will receive a long period of smoking and maceration.

The smoking time should also obey many variants. For example, a fatty product will take more time to smoke although it will be milder and more aromatic. The same will happen, logically, with a thick product that will take longer to smoke.

An approximate rule for a great smoke is:

- short duration / 1 or 2 hours: small pieces of fish.
- long duration / 4 to 5 hours: larger pieces of meat.

A continuous commercial smoker will allow us to smoke and cook the product at the same time (although it requires professional equipment and it is difficult to pay for the equipment unless you dedicate yourself professionally to this occupation). On the contrary, an easy and practical smoker with charges like Aladín will allow us to add smoking touches to raw and cooked products. Additionally, the use of these techniques in food will need to be consumed in the near future.

It is essential that all the products that we are smoking are as fresh as possible and without bruises. Many of the usual smoking processes are the continuation of a curing through the use of brining. The brining technique will be done with more or less salt dissolution depending on the chosen product, its curation time, the desired final result, bath duration, the thickness or size of the product, etc. This curation process which is previous to the smoking allows the water extraction from the product prolonging the duration and preservation of the product. The decrease of water activity in the product allows the product to be more open to receive the characteristic smoked flavor (we recommend "The Smoking Manual Book", published by Acribia).

A better practice is the one that exposes the product to the minimum time possible when smoking. This is possible if we cut the product in medium size pieces. The smoking of big pieces will require an exhaustive bacterial control.

We should remember if we introduce a wet or soaked product it will considerably slow down the smoking process that will ultimately deteriorate the quality. Excess humidity is not an ally of the smoking technique!

## 7. THE DIFFERENT WOODS TO USE

There are different techniques to obtain a determined perfume with the smoke although each will need to provide different solutions for desired results.

### Smoking with aromatic woods

The wood selection, sawdust or chips allows to aromatize our smoking products with more toasty notes. For example, beech wood has a little spicy aroma, but residually, leaves a mild flavor allowing the possible aromatic components added to the wood (herbs, species, etc.) to leave a more pure smell. Cherry wood leaves a fruity and acidic aroma ideal for river fish. On the contrary, apple wood provides a toasty and mild smoking because of its floral aroma, like the beech.

But whatever the choice of wood, the flavor will be fixed softly and its aroma in the food only will be reflected if we deal with a slow and long smoking process.

There are different woods in the market, although it is not easy to find sawdust for smoking under sanitary registration. In Spain, the marketing of these products only happens in the industrial area.

Our wood in sawdust “pelts” has been selected among other woods for its neutrality and excellence in industrial and sanitary treatment. It is necessary to be able to assure and guarantee a sanitary registration in addition to the authorization for its use in food, always under the European legislation and reglamentation.

**Aladín Chips®** (beech or oak) is a wood that allows, without any difficulty, to be aromatized with spices, aromatic herbs, fruit peels, or be mixed with other exotic woods, seeds, etc. Thanks to its low resin content which allows the transfer of any added aroma with higher neutrality.

### Sawdust Size

The choice of the appropriate size of wood depending on the procedure needs a section!

A good smoking wood functions better using a wood cut in pieces depending on its application. A commercial smoker requires a wood cut in big pieces, as well as a small smoking machine needs a fine sawdust (that is not powder).

The explanation is based on that if the smoking time is long, bigger should be the wood size, since it allows a slow combustion to liberate all its essences. However, if we choose an instantaneous and fast smoking we need that the wood liberates rapidly all its aromas requiring a finer and smaller sawdust.

### Wood Preparation

For the preparation of the sawdust or shavings different methods are applied. Preserve it in a sealed container until needed. First, we should wet the wood to lower its combustion point. It is good to wet small quantities and use them in a relative short period of time otherwise we will promote the appearance of ferments and fungus in the wood damaging its aroma and characteristics.

Right at the moment of the combustion add the additional aromas. In the case of adding aromatic herbs, choose ones that are lightly green since if they were dry they would burn very quickly increasing the temperature of the sawdust combustion.

We discourage the use of herbs and species in powder, since due to its small size would burn fast and would not be able to provide an effective aromatic charge.

If you use aromatic oils or essences we recommend to add them at the last minute and in a separate point during the smoking period.

Another preparation technique consists of the natural impregnation to the wood. Since the sawdust or shavings are a very absorbent material we can use it in our favor: lock the sawdust in a container with the aromatic material such as lemon zest, coffee, vanilla, herbs, anisette, etc. These products will provide scents to the wood. Although it is an added value to the smoking, it can provide a final touch of powering aromas at the combustion time.

If we use the technique of humidifying the wood at the moment of usage, a very concentrated infusion can be used to help us in the process of humidifying the wood.

We should understand that when using added aromas, the smoke will have the smell of that aroma and never will be “Smoke of”, since the smoke smell is intense and masks easily any aroma.

At the time of selecting a scent, we will consider the selection of strong and very personal aromas knowing that it will have to compete with the intensity of the smoke. This fact forces us to discard light aromas that perhaps can be brought to the plate with other complementary techniques. For example by combining a mild smoke injection through a discharge with the new **Aladín Aromatic®**.

We insist that the humidification of the wood is very important to obtain the most pure aroma possible!

## 8. THE COLD SMOKE

This method well used can provide a surprising purity and transparency of aromas. To obtain a better aromatic quality we will try to cool the smoke as fast as possible after doing the combustion. In order to do it we should permanently cool the conduction pipe in a water and ice bath. With this method we will also obtain a thicker smoke that is less volatile, staying in the recipient as a low fog.



### Sawdust preparation:

Wet the necessary quantity for each session with a little water or infusion. The sawdust comes dry to preserve it longer but never use it this way. We should leave the sawdust resting in the liquid for the necessary time to absorb and have an optimal level of humidity.

A good trick is to use a silicone pipe (long 1m. minimum) and replacing it for the connection pipe to our smoking pipe. This way its flexibility will allow us to maneuver easily. Otherwise, with the cold, the other pipe would turn rigid and be difficult to place where one desires.

**100%Chef** is finishing the development of a useful and practical product called **Cold-Kit®**, a necessary complement to obtain a more aromatic and stable smoke (advertised in [www.100x100chef.com](http://www.100x100chef.com))

## 9. SMOKER MAINTENANCE

A good practice to the smoking requires a rigorous cleaning and maintenance of the equipment. We should avoid humidity at all times in any of the motor pieces ! As a mandatory rule **DO NOT** use products that in their combustion loose abundant liquids or can melt due to the heat action.

AVOID the usage of resinous woods or sugars since these are dangerous for the moving pieces of these type of smokers.

After a continuous usage of the smoker we should remove, once in a while, with a cloth or paper towel the oils or tar that accumulate and deposit on the fan. This will avoid the tars entrance through the motor axis.

**Never finish the wood that is in the combustion chamber.** This will prolong the life of the grills and will notably improve the smoke quality.

**After usage it is recommended to clean it immediately:**

**1**

We should notice that the tar or resin will dye your hands and so we should avoid its manipulation with bare hands; we recommend using gloves.

**2**

Unscrew all the pieces with insertion tool and remove all the solid residues.

**3**

Place all the pieces to soak in hot water with soap. Clean with a sponge and rinse with abundant water.

**ATTENTION:** THE MOTOR IS THE MOST DELICATE PIECE OF THIS TOOL AND WE SHOULD PRESERVE IT AT ALL TIMES, SINCE ITS ELECTRICAL MOTOR IS NOT WATERTIGHT.

**4**

With the help of a thin lever or screwdriver use light pressure under the plastic piece that serves as propeller support and wash like the pieces mentioned above. With a paper towel or a soapy paper towel remove all the liquid residues from the deposit and the screwing wall.

Dry all the pieces very well. Assemble the propeller again and turn the motor on to check if it functions.

**5**

If one is not going to use the smoker in the following hours, put it away without assembling it. If one is not going to use the tool for an extended period it is recommended to remove the batteries from the compartment. ■



### Super-Aladín Cleaning:

**1-2.** Remove the sawdust socket and empty it.

**3-4.** Untwist the connection tube and the aromatizing chamber.

**5 y 6.** Using some pliers bring the propeller up.

**7.** Using a soapy paper towel or one soaked in alcohol clean the waste chamber.

**8.** Wash all the components in hot water and a neutral soap, do not use abrasive products.

Dry and assemble in order to start all over again for a new smoking session.

## SUPER-ALADÍN® | Accessories

### 10/0005

#### Grilles Aladín XS®

Set of 5 replacement grilles **Aladín XS®** for the chamber of aromas of **Super-Aladín®**.

### 10/0006

#### Grilles Aladín XL®

Set of 5 replacement grills **Aladín XL®** for the pot of the smoking pipe **Super-Aladín®**.

### 10/0010

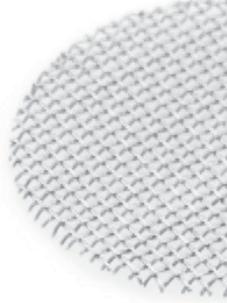
#### Rotor Super-Aladín®

metallic propeller, switch in the base, metallic body, and a great work resistant motor. A replacement motor is available for your **Super-Aladín®**, pipe, or if you have an **Aladín Pro®**, you have the possibility of obtaining the metallic motor base and instantly have a **Super-Aladín®**.

### 10/0012

#### Heavy Wheel Kit

Metallic propeller and replacement motor, set of tools and instructions. All you need to have your **Super-Aladín®** working at full production.



Heavy Wheel Kit



Super-Aladín Rotor

