TECHNOLOGICAL NOTE NUMBER1

SAUSAGES

THE ORIGIN OF SAUSAGES

Through the whole history of Mankind, Man has made countless discoveries in his fight to survival and search for perfection.

Man has always faced the problem of how to preserve meat and, in order to do so, he developed several processes, among which the brine and the smoking of this sort of food. To ease those processes, Man minced meat and used the intestines of animals to put it in. This lead to the creation of sausages, the oldest preserved food known to Man.

The Greeks and the Romans were the responsible for introducing this art in our country.

Portugal is a country where farming has always been of great importance. Thus, feeding the families, especially during winter, depended mostly on pigs' meat.

TECHNOLOGICAL PROCESS

1. **MEAT SELECTION**

This process consists on the selection of different meats and fats according to the different types of sausages to be produced.

The relationship between muscle and fat is very important, since the quantity of fat affects the quality of cured products. It is, in fact, the responsible for its softness, succulence and taste. Besides that, it also keeps the humidity of the muscle fiber, making it easy for fermentations to occur during the curing (January, 1948)

2. **MINCING THE MEAT**

This process reduces the meat and fat to smaller fragments, thus obtaining an homogeneous dough. Traditional Portuguese sausages have an average of 30% of fat.

3. **PREPARING THE DOUGH**

This process consists in completely blending all the ingredients together. However, the blending should not be excessive, otherwise it will be produced too much O2 in the dough which may cause and oxidation and, on the other side, make it difficult for the fermentation and acidification processes to occur.

4. **MATURATION**

After the homogenization there should be a period of resting during which the meat gains the taste of the condiments. During this time, the dough blends and the maturation of the sausages begins (Janeiro, 1948).

5. **FILLING**

This process consists in introducing the dough into a wrapper made of the animal's intestine. Here the sausages are shaped so that the transformation of the meat into sausage can continue (Janeiro, 1948). This is when all the exchange processes between the interior and exterior will begin which will lead to a decrease in the AW and an intensification of tastes and aromas.

6. **BANDAGE AND PIERCING**

The dough should be compressed by hand on its exterior and equally distributed so that no empty spaces are left in the interior of the wrapper. It should then be tied with a string or a thread (Paiva, 1944).

After being tied the sausages are pierced throughout with a needle or a "pico" (specific tool). The piercing of the wrapper will allow unwanted water and air to come out (Janeiro, 1948).

7. **CURING**

The curing is the most important stage in the preparation of sausages because this is when some physical and chemical changes occur. They will modify and give the meat some bromatological features. This will make the sausage more appealing to the consumer and, at the same time, enlarge its conservation period. It is also during this stage that a decrease in the AW occurs as well as an intensification of the taste of the product.

8. SMOKING

The smoking is one of the oldest techniques used in the preservation of sausages and other meat products. It is the first step on the curing of sausages process. This method consists on submitting the fresh sausages to the effect of the gases that result from the slow combustion of wood.

9. DRYING

Nowadays, sausages still go through a drying process and, in order to do so, they are kept in specific chambers. The changes that began to occur during the smoking process should continue here, namely the dehydration and acidification.

10. PACKING

11. DISTRIBUTION

There is a wide range of packages available that help to keep the quality of the sausages (Patarata et al., 1998).