

TECHNICAL REPORT RELATIVE TO GRILL PATENT OF MR. GHEORGHE NECSULIU

On 22 July 2015, I was invited by Mr. Gheorghe Necsuliu to check the technical characteristics of the grate innovative low carbon grill he had created.

It is a new concept grill, consisting of a bowl of embers fueled with wood that is placed over a tray containing special sand with a grill for cooking vegetables.

Instead the meat is hung outside the bowl with embers on special holders, which allow baking by heat radiation.

Under holders are present “drawers” that can be removed and contain a wood powder, which can absorb the fat that melts from the meat without causing a return of the smoke, which could lead to the presence of Benzopyrene on food.

The grill is designed to ensure proper aeration under embers; smoke that develops only when embers are lit is routed through a chimney, which prevents smoke to pour over the meat.

Finally, were taken as samples two types of meat (pork ribs and chicken legs) cooked on the grill designed by Mr. Necsuliu and two samples of the same type of meat cooked on a traditional grill of control.

To carefully assess analytical results is fundamental to make an assumption on polycyclic aromatic hydrocarbons (IPA/PAH).

PAHs are ubiquitous organic compounds in food which may be due to environmental contamination, processing process or thermal processing of cooking.

Interest in PAH is related to the experimental carcinogenicity shown by various of these, and especially by benzopyrene (BaP), the most studied compound and generally used as an indicator.

PAH was formed during incomplete combustion or pyrolysis of organic material, therefore the grill cooking can also lead to increased formation of PAH.

After ingestion (or inhalation), FPA are rapidly absorbed through the gastrointestinal tract or lung epithelium, and distributed in various tissues (especially those rich in fat), including the fetus.



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Given the above, the following are the results revealed:

SAMPLE RESULTS of TRADITIONAL GRILL

	RIBBS	CHICKEN LEGS
benzopyrene	0.247	0.304

SAMPLE RESULTS PATENT DOROGRILL

	RIBBS	CHICKEN LEGS
benzopyrene	<0.10	<0.10

Analytical results are extremely important because it highlights how the same product, cooked on two different grills, has completely different results. This result reinforces the fact that cooking system devised by Mr. Necsuliu, not only does exalt the taste of meat but forbids carcinogens that normally form other types of BBQ grills.

Full results are attached.

We remain available for any further information in this regard.

Best regards.

KIMICONTROL
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FIRENZE, 4th of August 2015.