

PET TREATS production pilot project to obtain high added-value by-products of slaughter

Summary

The most common way to dispose of by-products of slaughter is the production of meal for animal feed. However, it is not the only one. The conversion of a part of the by-products of slaughter into "pet treats" was evaluated. "Pet treats" are usually freestanding products, which are kept without refrigeration, obtained from connective tissue, muscle, bone or organs that normally have been processed by thermal processing and/or dehydration that ensures the destruction of pathogens and microbiological stability. PADESA's and MAFRICA's participation in the project is considered a partnership full of synergy and complementarity.

Objectives

- Promote by-products of slaughter and reuse energies from the main activity to produce "pet treats", in an energetic-efficient way.
- Diversify markets with complementary activities that do not compete with the principal and generate value and benefit.
- Optimize current product + create new concepts that allow the exclusivity and higher margin.
 - oAdapted structures or distribution of pet products
 - oOffering a wide range in animal origin (poultry and pork).
 - oRecognized as a reward (animals) and safe and healthy (humans)

Description of project activities

WP1: Benchmarking of Pet Treats products. Review of raw materials available in each of the two slaughterhouses. Review of available production technologies and wasted energy sources usable in every slaughterhouse.

WP2: Tests of "Pet Treats" pilot productions. Optimization of formulations and processes.

WP3: Validation of food security, products' stability, and industrial and commercial suitability of the tested products.

WP4: Documentation and dissemination of results.

Final results and practical recommendations

1. Definition of by-products, pork and turkey
Swine: ears - spleen - trachea - brinza - bones - ear - sternum - tumes - coil
Aviram: legs - hearts - quartz - MDM - neck
2. Definition technologies process
Lyophilization / Drying / Thermal treatment (pasteurization and sterilization)
3. Residual energy pork slaughter equipment
Energy cold equipment, channeled to the pilot dessert (42% approx.)
4. Pilot test: formulations, processes and validation of food safety

Bone Ossos - Brine + acid / basic bath
Poultry hearts - Freeze drying
Ear, Ear, Coll - Drying (oven + air)
Various - Pasteurized cooked reformulated, cooked sterilized and fermented + dried

In total, 8 new pork and 5 poultry-based products have been obtained from the creation of new formulations, process control and the validation of food safety. The new pet food products are cooked, cured and fermented and innovative formats in this sector, such as lyophilization, have been investigated. In addition to the new formats, the nutritional quality of snacks has also been taken into account, and the acceptance by the animals of municipal kennels. The new products, in addition, are made by reusing some of the residual energy of the slaughterhouses, mainly refrigeration systems. The tests carried out allow to reuse up to 42% of the residual energy of the MAFRICA slaughterhouse.

Conclusions

Not all the whole pieces are suitable for Pet Treats (eg: chicken feet).
The TT in organs and / or soft pieces give very good results. In bones are quite aggressive, best option is brine + bath.
You can use residual energy of equipment, redirecting it. In this case it represents an energy saving of 42%.
Freeze-drying offers a unique and very innovative format. We need to study its profitability.
Re-formulated products offer a wider range and added value: cooked, cured and fermented. Additionally, they allow adding other claims based on the ingredients used (eg: Omega 3).
All products processed at the pilot level are safe at the microbiological level.

Operational Group Leader

Entitat: **MATADERO FRIGORÍFICO DEL CARDONER, SA**
E-mail de contacte: **jordi.marti@mafrica.es**
Tipologia d'entitat: **Indústria agroalimentària**

Operational Group Coordinator

Entitat: **INSTITUT DE RECERCA I TECNOLOGIA AGROALIMENTÀRIES (IRTA)**
E-mail de contacte: **anna.carabus@irta.cat**
Tipologia d'entitat: **Centre de recerca**

Other Operational Group members (beneficiaries of aid)

Entitat: **PAVO Y DERIVADOS, SA**
E-mail de contacte: **comercial@padesa.es**
Tipologia d'entitat: **Indústria agroalimentària**

Other Operational Group members

Keyword-category

Food quality / processing and nutrition

Territorial scope

Province

County

Tarragona
Lleida
Girona
Barcelona

Alt Penedès
Alt Empordà
Alt Camp

Project dissemination *(publications, seminars, multimedia...)*

Notes de premsa
Fitxa resum DARP
Fitxa resum / pòster amb imatges (penjada a la web dels socis)
PPT jornada PATT Vic 2017 penjat a la web dels socis
Vídeo Youtube amb el títol "Pet Treats Grups Operatius"
Xarxes socials dels socis i coordinador

Pàgina web del projecte

https://www.carndeporc.cat/noticies_empresa/creen-snacks-per-a-animals-a-partir-de-coproductes-descorxador_2267/
https://www.carne.3tres3.com/noticias_empresa/crean-snacks-para-animales-a-partir-de-coproductos-de-matadero_1481/
<https://www.agrodigital.com/2017/09/28/316572/>
<http://mafrica.com/i-d/>
<http://www.padesa.es/id/>

Other project information

Projecte period

Approved budget

Starting date (month-year): Novembre 2015

End date (month-year): Setembre 2017

Project status: *Finalised*

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Funding source DARP: 108.300,00 €

Funding source UE: 81.700,00 €

Own funds: 77.142,86 €

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Basic regulation: Ordre ARP/258/2015, de 17 d'agost, per la qual s'aproven les bases reguladores dels ajuts a la cooperació per a la innovació a través del foment de la creació de grups operatius de l'Associació Europea per a la Innovació en matèria de productivitat i sostenibilitat agrícoles i la realització de projectes pilot innovadors per part d'aquests grups, i es convoquen els corresponents a 2015.

Id. projecte: 41 2015