Forum on Best Practices in the Agri-Food Supply Chain
Farm to Fork Forum

José Manuel Moreno Rojas
Researcher at the Andalusian Institute of Agricultural and Fisheries Research and Training (IFAPA)
Head Dept. of Agroindustry and Food Quality
Brussels
November 16, 2023
Index

1. IFAPA

2. Agri-Food Industry at IFAPA
   2.1 Black Garlic & Small Company
   2.2 (Organic) Vegetable Drinks + Cooperative + Local Products
   2.3 Traceability + Added Value + Biodiversity
Andalusian Institute of Agricultural and Fisheries Research and Training (IFAPA)

www.ifapa.es
www.servifapa.es

Research and training centers
Index

1. IFAPA

2. Agri-Food Industry at IFAPA
   2.1 Black Garlic & Small Company Innovation
   2.2 (Organic) Vegetable Drinks + Cooperative + Local Products
   2.3 Traceability + Added Value + Biodiversity
Black garlic

Chamber Control
Humidity and
Temperature

T (70-80 °C)
HR 85-90%
20-45 days

- No pungency
- Liquorice taste
- Bioavailability
  Bioactive
  Compounds

0.50-1 €/kg

4-5 euro / 80
grs. pack
50-70 € /kg
(added value)

Surplus
 Production
Black garlic

-3°C y 70% HR (storage x 8-9 months) + circulating air
Black garlic

Other spill-over effects

Increase Self-life at room temperature

Use of health claim as marketing strategy

Use of aged garlic (lower quality) for Black Garlic production with same quality
In Vitro Colonic Fermentation of (Poly)phenols and Organosulfur Compounds of Fresh and Black Garlic

Alicia Moreno-Ortega, Giuseppe Di Ped, Gema Pereira-Caro, Luca Calani, Pedro Mena, Daniele Del Rio, and José Manuel Moreno-Rojas

Antioxidants

Bioavailability of Organosulfur Compounds after the Ingestion of Black Garlic by Healthy Humans

Alicia Moreno-Ortega, Gema Pereira-Caro, Iziar A. Ludwig, Maria-José Motilva, and José Manuel Moreno-Rojas

Nutrients

Effect of Black Garlic Consumption on Endothelial Function and Lipid Profile: A Before-and-After Study in Hypercholesterolemic and Non-Hypercholesterolemic Subjects

Debora Villaño, Javier Marhuenda, Raúl Arcusa, Josef Manuel Moreno-Rojas, Begoña Cerda, Gema Pereira-Caro, and Pilar Zatrilla
Black garlic

Food Bioactives and health as marketing strategy
Index

1. IFAPA

2. Agri-Food Industry at IFAPA
   2.1 Black Garlic & Small Company Innovation
   2.2 (Organic) Vegetable Drinks + Cooperative + Local Products
   2.3 Traceability + Added Value + Biodiversity
**Organic Vegetables Drinks**

- Oatmeal: 0.50-1 €/kg
- Oatmeal Drink (8-14%): 1.50-2.50 €/L

Small Local Organic Producers (vegetables, cereals and fruits)

Cooperative Association

Network Local shops/stores

Consumers

Traders/Intermediaries

Proximity trade (short distribution circuits, intraregional trade)

**returnable glass bottles**

Junta de Andalucía

Vegetable Drinks
Index

1. IFAPA

2. Agri-Food Industry at IFAPA
   2.1 Black Garlic & Small Company Innovation
   2.2 (Organic) Vegetable Drinks + Cooperative + Local Products
   2.3 Traceability + Added Value + Help Biodiversity Systems
Traceability + Added Value. Iberian Pig Products

DEHESA (Open field)
Acorn + grass
BELLOTA

Mixed systems
CEBO DE CAMPO

FARMS
Feed
CEBO
BELLOTA  
80-100 Euro/Kg

CEBO DE CAMPO  
25-35 Euro/Kg

CEBO  
15-25 Euro/Kg

Developing tools for assuring food traceability
Traceability + Added Value + Biodiversity DEHESA systems

- Unique savannah-like ecosystem
- Low livestock density
- Adapted to the ecosystem
- Animal welfare
- Differentiated quality products
Thank you for your attention

josem.moreno.rojas@juntadeandalucia.es

Andalusian Institute of Agricultural and Fisheries Research and Training, Alameda del Obispo (Córdoba)
Avda. Menéndez Pidal s/n
14004 Córdoba
Tlf: 0034 671532758

@IfapaAlameda_AS
@IfapaBioactivos
@Ifapalsotopos