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EU AND ITALIAN REGULATION ON CRICKET FLOURS: NEW FRONTIER OF NOVEL FOOD¹

NORMATIVA EUROPEA E ITALIANA SOBRE HARINAS DE GRILLO: NUEVA FRONTERA DE LOS NUEVOS ALIMENTOS

Federica Pasquariello

Full Professor
Dipartimento Scienze Giuridiche
Università degli studi di Verona

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Abstract

Insects already make up a large part of the daily diet of hundreds of millions of people worldwide and in the European Farm to Fork strategy they are identified as an alternative protein source that could improve transition to a more sustainable food system. Indeed, the 17 Sustainable Development Goals set by the United Nations in 2015, to be achieved by 2030, include: an end to poverty; an end to world hunger; the introduction of responsible patterns of production and consumption; and action to combat climate change.

Resumen

Los insectos ya constituyen una gran parte de la dieta diaria de cientos de millones de personas en todo el mundo y en la estrategia europea “De la granja a la mesa” se identifican como una fuente alternativa de proteínas que podría mejorar la transición hacia un sistema alimentario más sostenible. De hecho, entre los 17 Objetivos de Desarrollo Sostenible fijados por Naciones Unidas en 2015, que deben alcanzarse antes de 2030, figuran: el fin de la pobreza; el fin del hambre en el mundo; la introducción de modelos responsables de producción y consumo; y la lucha contra el cambio climático.

Keywords

Regulation, European, Italian, cricket flours, novel food.

Palabras clave

Normativa, europea, italiana, harinas de grillo, nuevos alimentos.

Summary

I. INTRODUCTION. II. EU REGULATORY FRAMEWORK. III. ITALIAN REGULATORY FRAMEWORK. IV. FACTUAL ASPECTS. V. BIBLIOGRAPHY.

I. INTRODUCTION

Insects already make up a large part of the daily diet of hundreds of millions of people worldwide and in the European Farm to Fork strategy¹ they are identified as an alternative protein source that could improve transition to a more sustainable food system. Indeed, the 17 Sustainable Development Goals² set by the United Nations in 2015, to be achieved by 2030, include: an end to poverty; an end to world hunger; the introduction of responsible patterns of production and consumption; and action to combat climate change. On an empirical level, Cia- Agricoltori Italiani and Nomisma Italia have calculated that the increase in insect products in Europe will reach 260 thousand tonnes by 2030, for more than 390 million consumers³.

II. EU REGULATORY FRAMEWORK

The free movement of safe and wholesome food is an essential aspect of the internal market and contributes significantly to the health and well-being of citizens, and to their social and

economic interests. Differences between national laws concerning the safety assessment and authorisation of novel foods may hinder the free movement of such food, thereby creating legal uncertainty and unfair conditions of competition⁴.

The Union's rules on novel foods can be found in EU Reg. 2015/2283 and were already contained in Reg. 258/97 of the European Parliament and the Council on novel foods and novel food ingredients as well as in Commission Reg. (EC) No. 1852/2001, which lays down precise rules for making certain information accessible to the public and for the protection of information; Reg. (EC) No. 178/2002 then lays down the general principles and requirements of food law, establishes the European Food Safety Authority and establishes procedures in the field of food safety.

In this context, we would now like to focus on EU Commission Implementing Reg. 2023/53 of 3 January 2023 (amending EU Implementing Reg. 2017/2470), which authorizes the placing on the market of partially defatted powder of *Acheta domestica* (domestic cricket, a species of in-

1 According to the European Commission's institutional food security page, the Farm to Fork (F2F) strategy is at the heart of the European Green Deal with the aim of guiding the transition to a fair, healthy and environmentally friendly food system. This is the first time that the European Union is trying to design a food policy that proposes measures and targets involving the entire food supply chain, from production to consumption, passing, of course, through distribution. Each EU Member State will have to follow suit, adopting rules at the national level to help achieve the EU's established goals. Member countries will benefit from any additional support measures during the implementation of the strategy: see *slowfood.co.uk*, 1 June 2020.

2 The 2030 Agenda for Sustainable Development is an action programme for people, planet and prosperity signed in September 2015 by the governments of the 193 UN member states. It incorporates 17 Sustainable Development Goals -Sustainable Development Goals, SDGs- into a grand program of action with a total of 169 targets to be achieved by 2030. The Development Goals follow up on the achievements of the Millennium Development Goals that preceded them.

3 Data from *Il Corriere della sera*, 24 March 2023; according to the same source, the estimated growth of the novel food sector in Europe in 2023 was \$261 million.

4 Reg. UE 2015/2283, Whereas 1.

sect belonging to the family Grillidae) as a novel food⁵. The authorization followed the adoption of a positive scientific opinion by the European Food Safety Authority (EFSA)⁶: the partially defatted powder of *Acheta domesticus* was thus included in the EU list of novel foods.

Such a regulatory option aims to respond to the problems of the agri-food system and to reduce the environmental impact of products: with this in mind, in July 2023 the EU Commission adopted a package of measures for a sustainable use of key natural resources, which also aims to strengthen the resilience of the European agri-food sector, within the framework of the proposals set out under the 'Natural Resources' pillar of the Green Deal⁷.

III. ITALIAN REGULATORY FRAMEWORK

In Italy, the debate on the use of insects for food started out after the 'cricket-bird' bar eaten by astronaut Samantha Cristoforetti. According to a Coldiretti/Ixe survey, '54% of Italians are just against insects at the table, while 24% are indi-

fferent, 16% are in favour and 6% do not answer' (*Ilpuncoldiretti.it*, 28th February 2023). Filiera Italia is also on the same line (see *Sole24Ore*, 5th January 2023).

On the Italian regulatory front, according to the Ministerial Decree of 6 April 2023 (in the Official Gazette of 29 December 2023), the Ministry of Agriculture has regulated the subject of Food and preparations, intended for human consumption, obtained through the use of partially defatted powder of *Acheta domesticus*. In particular, it is established (Art. 2) that the product is not identified on the label by the use of the lemma 'flour', which could be deceptive, but by the lemma 'powder'. In order to better inform the consumer, in the main visual field of the label, or of printed packages or containers (in different fonts respectively) in such a way as to be easily visible and clearly legible, one of the following must be clearly marked: 'Food contains partially defatted powdered *Acheta domesticus* (house cricket)' or 'Food contains frozen *Acheta domesticus* (house cricket)' or 'Food contains dried/powdered *Acheta domesticus* (house cric-

⁵ This is the third insect approved for consumption. In February 2022, yellow flour grub (*Tenebrio molitor*) were authorized; and in November 2021 the migratory locust were too.

⁶ In its report of 23 March 2022, EFSA concluded that the partially defatted powder of *Acheta domesticus* is safe and can therefore be used during the production of 'bread and multi-grain sandwiches, crackers and breadsticks, cereal bars, dry premixes for bakery products, biscuits, dry stuffed and unstuffed pasta products, sauces, processed potato products in legume and vegetable dishes, in pizza, in pasta products, in whey powder, in meat substitutes, in soups and concentrated or powdered soups, in maize meal snacks, in beer-type drinks, in chocolate products, in nuts and oilseeds, in snacks other than crisps and in meat preparations, intended for the general population'.

⁷ The regulatory framework includes new legislation on soil monitoring, which will contribute to healthy soils in the EU by 2050, a regulation on plants produced by genomic techniques and measures to reduce food and textile waste. Regarding the Green deal, the EU's objectives are: to ensure food security in the face of geopolitical uncertainties, climate change and biodiversity loss; to reduce the environmental and climate footprint of the EU food system; to strengthen the resilience of the EU food system

ket)'. The same must appear in the list of ingredients. These requirements are in line with the general principles (see EU Reg. 1169/2011) regarding "food information to consumers".

All these warnings must be specified in a way that is immediately visible to the purchaser, and must not in any way be hidden, obscured, restricted or separated from other written or graphic indications or other elements that are likely to interfere. The same label must state that this ingredient may cause allergic reactions in consumers with known allergies to crustaceans and crustacean products, molluscs and mollusc products, and dust mites.

In addition, these products must be sold in separate compartments, signposted with appropriate signs (Art. 2). In order to ensure correct and complete information to consumers and to strengthen the prevention and repression of food fraud and unfair competition, it is also compulsory to clarify on product labels the indication of the place of origin, according to the same graphic methods prescribed for the label (Art. 3), pursuant to EU Reg. 1169/2011, on the provision of food information to consumers.

Finally, in the case where the newly authorized food constitutes the primary ingredient of the marketed product, stricter rules of EU Reg. 2018/775, on the provision of food information to consumers, apply with regard to the rules on the indication of the country of origin or place of provenance of the primary ingredient of a food⁸. As can be seen, the approach of the legislator is very cautious and strict. The regulatory apparatus is also accompanied by a system of controls and sanctions in the event of violations of the regulations (Art. 4): unless the act constitutes an offence, and without prejudice to the competence of the AGCM, the Ministry of Health and the Local Health Authorities (according to Legislative Decree No. 2 of 2 February 2021), the sanctions provided for by Legislative Decree No. 231 of 15 December 2017, which sets out the sanctioning discipline for the violation of the provisions of the aforementioned EU Reg. 1169/2011, apply.

IV. FACTUAL ASPECTS

The partially defatted powder of the whole domestic cricket, as described in the EU Regulation, is obtained through a series of steps: before killing by freezing, a minimum period of 24 hours of fasting is required to allow the in-

⁸ According to Art. 2 Reg. 2018/775 The indication of the country of origin or place of provenance of a primary ingredient, which is not the same as the country of origin or place of provenance indicated for the food, shall be provided: a) by reference to one of the following geographical areas: (i) "EU", "non-EU" or "EU and non-EU"; or (ii) a region or any other geographical area within several Member States or third countries, if defined as such under public international law or well understood by the average normally informed consumer; or (iii) the FAO fishing area, or the sea or fresh water body if defined as such under international law or well understood by the average normally informed consumer; or (iv) one or more Member State(s) or third country(ies); or (v) a region or any other geographical area within a Member State or a third country that is well understood by the average, normally informed consumer; or (vi) the country of origin or place of provenance, in accordance with specific Union provisions applicable to primary ingredients as such; (b) or by a statement as follows "(name of the primary ingredient) does not come from (country of origin or place of provenance of the food)" or wording that may have the same meaning for the consumer.

testinal emptying of the adult specimens, then they are frozen, dried, their oil is extracted and finally they are ground. The novel food is intended to be marketed in three different forms, namely (i) heat-treated and frozen whole *A. domesticus* (frozen AD), (ii) heat-treated and freeze-dried whole *A. domesticus* (dried AD) and (iii) heat-treated, freeze-dried and ground whole *A. domesticus* (whole AD powder).

Following an application dated 24 July 2019, the EU Commission granted permission for the placing on the EU market of partially defatted powder of *Acheta domesticus* to the Vietnamese company Cricket One Co. Ltd, for the next 5 years; “unless a subsequent applicant obtains an authorisation for such novel food without reference to the scientific data protected under Article 3 or with the consent of Cricket One Co. Ltd”. The EU Commission also granted the applicant company protection of its proprietary scientific studies and data for a period of five years from the date of entry into force of the Regulation.

The market reaction is now awaited: cricket flour and other insect-based products could replace some foods of animal origin, as they are rich in protein⁹, but it is currently a niche product ‘which, moreover, costs a lot: we are talking about 70 euros per kilo, while wheat flour costs two euros per kilo and soya flour, a vegetable

flour that is nutritionally closer to cricket flour, about three euros per kilo at the moment¹⁰.

V. BIBLIOGRAPHY

AGOSTINO MACRÌ, “La farina di grilli è sicura? E ne vale la pena? Parla l’esperto” in *Quotidianosanità.it*, 23 March 2023: https://www.quotidianosanita.it/governo-e-parlamento/articolo.php?approfondimento_id=17909

European Commission’s institutional food security page, the Farm to Fork (F2F).

The 2030 Agenda for Sustainable Development.

REGULATION (EU) 2015/2283 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 25 November 2015 on novel foods, amending Regulation (EU) No 1169/2011 of the European Parliament and of the Council and repealing Regulation (EC) No 258/97 of the European Parliament and of the Council and Commission Regulation (EC) No 1852/2001.

EFSA. Report of 23 March 2022.

European Green Deal.

COMMISSION IMPLEMENTING REGULATION (EU)

⁹ Cricket powder contains a very high protein value, about 75 % protein (unlike wheat or maize flour, which are vegetable foods with a high carbohydrate value), very little fat (9 %) and carbohydrates (5 %). Other important elements such as iron and vitamin B12 are also present. It has a slight aroma of hazelnuts, but is mostly odourless and tasteless. According to data provided by the Italian Cricket Farm, the protein value of insects is about 69 %, almost double that of beef, and crickets require 0.05 % more water than a cow to produce the same amount of protein.

¹⁰ Thus Agostino Macrì, former director of the Department of Food Health of Italian Istituto Superiore di Sanità and food safety consultant of the Unione Nazionale Consumatori, in *Quotidianosanità.it*, 23 March 2023

2018/775 of 28 May 2018 laying down rules for the application of Article 26(3) of Regulation (EU) No 1169/2011 of the European Parliament and of the Council on the provision of food information to consumers, as regards the rules for indicating the country of origin or place of provenance of the primary ingredient of a food.

Il Corriere della sera, 24 March 2023.