



# Antibiotic-free labelled poultry meat

*How much more are the Italian consumers willing to pay for poultry meat produced without the use of antibiotics?*

## Problem

According to European statistics, Italy is in the group of EU countries with the highest antimicrobials use (AMU) in livestock farming and this may increase the risks to spread pathogens developing antimicrobial-resistance (AMR) in the environment and along the agri-food supply chain. However, in the country, public institutions and private operators are taking actions to improve this situation and relevant changes are happening. One example comes from the poultry industry that achieved important advancements in farms' animal welfare and biosecurity and scaled up production of labelled antibiotic-free meat and eggs by obtaining more than 80% reduction in AMU. But, how much more are the Italian consumers willing to pay for chicken meat produced without the use of antibiotics?

## Background

In Italy, since 2016, the main supermarket chains have been proposing lines of animal products obtained without or with a reduced use of antibiotics in farms, which recorded a 203% increase in sales between 2017 and 2019. In the poultry meat market, about 40% of total sales are certified production obtained without using antibiotics (2020 estimations). Health institutions, policy makers and private stakeholders encourage the initiatives for a more prudent use. Even if retailers are increasingly requiring antibiotic-free products for their supply chains actors, AMU in livestock animals continue at high levels in Italy.

## Solution

In order to identify the premium price that consumers are willing to pay for meat produced without antibiotics, a hedonic price model<sup>1</sup> was developed. The data collection was carried out through the direct observation of the sample units (poultry breast packed in trays) in supermarkets of Forlì, Bologna, Cesena and surroundings. 173 product observations led to identify 75 product attributes. Such attributes were grouped into 14 variables used in the final model. The validity of these variables in defining prices was discussed with quality and marketing staff of two large poultry integrators: Amadori and Guidi, two of the large poultry companies in Italy.

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## Publication

[“Consumers’ Willingness to Pay for Meat Produced Without Using Antibiotics: A Hedonic Price Analysis in Italian Supermarkets”](#) World One Health Congress 2020

## Additional resources

<https://worldonehealthcongress.org/>

## Keywords

Antibiotic-free label, hedonic prices, Italian consumers, poultry meat, antimicrobial use, antimicrobial resistance

## Images



*Data on prices and marketing characteristics of broiler breast were collected in supermarkets of three towns in Northern Italy.*

<sup>1</sup> The concept of Hedonic Price is based on the hypothesis that one good incorporates different qualities or attributes and its price, in a perfect competition market, depends on the willingness to pay of consumers for such attributes. On this assumption, for example, if we compare the prices of two goods that are identical except for one attribute, the price difference between the two goods expresses the willingness to pay of consumers for the attribute.





## Outcome

The study results indicate that, Italian consumers are willing to pay 14.6% more for broiler breast produced without the use of antibiotics and with improved animal welfare standards with respect to similar products not claiming these characteristics. The attribute that has the most positive effect on the price is, the "Organic" label with an average increase of 66.4% with respect to non-organic products.

## Practical recommendations

- Antibiotic-free labels are an important tool to inform consumers and promote AMU reduction;
- It would be useful to verify the level of consumers' awareness regarding the possibility to use antibiotics in organic animal production;
- Initiatives to improve consumers' awareness regarding the use of antibiotics in livestock production and the measures that guarantee traceability of AMU and absence of residuals in all marketed products would support conscious and informed purchases.

## On-farm application

- Producers, processing companies and retailers should promote antibiotic-free supply chains, since consumers appreciate this product characteristic;
- Veterinarians and public health operators should motivate a more prudent use of antimicrobials in animal production and increase awareness of farmers and supply chain operators regarding AMR risks;
- Technical assistance for farmers is necessary for guidance and promotion of improvements in animal welfare and biosecurity;
- Incentives to farm investments would support and enable such changes.

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