Truffles market in Piemonte: chain valorisation and spillover effects

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Research problem

Piemonte Region, in Northern Italy, has great traditions in the field of the white truffle (Tuber magnatum Pico) and a significant potential for black truffle development (T. melanosporum Vittad. and T. aestivum Vittad.). This work summarises the main results of a research aimed at enhancing territorial outcomes of truffles, describing market system, value-chain and economical results of truffles cultivations.

The research has been financed by the Piemonte regional administration which is particularly interested in promoting these products as a way to valorise marginal areas.

Truffles are niche goods, with small productions and commercialisation, but they have a great image and a strong appeal for the gastronomic tourism (Maistrelli and Mosso, 2006). Official information about productions are not reliable, because market transactions are mostly informal, thus, productions are largely underestimated. Truffle prices can be extremely high: from 800 € per kilogram of melanosporum to 3,000 € of “white Alba truffle”, but prices are subjected to strong fluctuations during the season, depending mainly on product availability and on several characteristics as size, quality, ripeness. These variations are confusing consumers which buy truffles in a not transparent market, where asymmetrical information are usual; thus the definition of quality standards could aid in making it more efficient.

In recent decades, the amount of truffles gathered each year in natural sites is decreasing in all European production areas (Hall et Al., 2007). On the other hand, surface of plantations with mychorrized trees has increased, but while these plantation are well developed in France, Spain and several regions of central Italy, they are not yet in Piemonte and there is a lack of trustworthy information about productions and profitability.

Method

As a first step, an analysis of official statistics (ISTAT) - on quantities and values of truffle productions - has been carried out, at national and regional level; then average prices and main trends have been calculated.

Import and export flows of fresh and transformed truffles have been analysed, according with COEWEB official data, for the last two decades. Based on information gathered from direct sources, we have then made an estimate of Piedmont truffle productions, which has been confirmed by sector operators.

The survey on the value-chain has been carried out at enterprise-level, in the Marche and Piemonte regions, through interviews with managers using a specific questionnaire directly filled during company visits (Brun and Mosso, 2010).

Similarly, the survey of local truffle fairs has been directly carried out in the involved municipalities, using a questionnaire designed to identify objective parameters for evaluating the event and its outcomes.

Finally, economic evaluations of truffle cultivations were made, estimating production costs and Net Present Values of different plantation systems. For such evaluations, prices of all used inputs
(both internal and external costs) have been considered in a private perspective, building an evaluation model which allows to simulate results in different price and production conditions.

**Results**

According to recent official sources (ISTAT), Italy produces about 82 tons of truffles, of which 70 are black truffles, and Piemonte is only in the 9th position among other regions, with 2.5 tons per year. On the contrary, our own estimate, based on the number of authorized truffle diggers, leads to a triple regional production, despite rather prudent assumptions.

Two different value-chains for black and white truffles can be identified, with several common structural features, being the black cultivable and more suitable for industrial transformation.

The white chain has the truffle digger in his basic point, and largely depends on the environmental potentials of climate and natural stands where this fungus lives. In the black truffle chain growers are very important, together with food industrial processors: the former are in fact able to increase and regulate supply, while the latter are essential to valorise the product.

A particular attention must be dedicated to the nursery, which at the moment represents, at least in Piemonte, the weakest point of the chain, both in terms of insufficient quantities of mycorrhized plants and of their quality.

The truffle fairs are interesting means to promote the territory and are sharply increasing in the last decade, as they have reached the number of forty in the single Piemonte region. This development must be properly managed, in order to avoid generating conflicts between marginal areas that can result in loss of typical characters.

With regard to the food processing industry, in Marche Region it is more established and has satisfactory economic performances even in these years of crisis.

By contrast, in Piemonte this food industry is quickly developing, even in the absence of an integrated supply chain system, which obligates to import raw material from outside the region. In fact, the truffle cultivations are not yet widespread, and those present are not fully productive so far.

Economic evaluations carried out on these crops prove their profitability, which will hopefully lead to a rapid spread in suited marginal areas, as happened in France, Spain and Central Italy. Obviously, it is necessary to respect the ecological requirements of trees involved and plantation sites must be chosen opportunely. Furthermore, particular attention must be paid to tending operations, since initial investment is quite high.

**References**


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