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AGRO – FOOD SYSTEM IN UMBRIA

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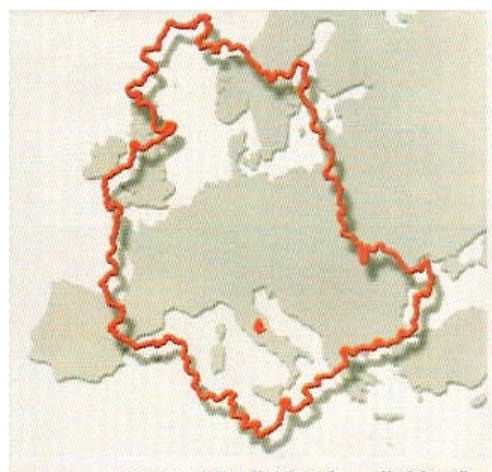
1. Introduction

Umbria is located at the Centre of the Italian Peninsula, and it is only 8.456 km² large (approximately 3% of Italian land area, 16th rank in size). It includes two provinces (Perugia and Terni) and 92 Municipalities. Since 1972, it has a Regional Government, democratically elected, based in Perugia and many subjects (including agriculture) have been devoluted from the State, which has also transferred local offices, personnel and resources.

Umbria has the lowest population density of the twenty Italian regions, with about 858,938 persons. In 2008, the Italian national institute of statistics ISTAT estimated that 75,631 foreign-born immigrants lived in Umbria, equal to 8.5% of the total population.

Geographically, there is a line of mountains (Apennines) on the eastern side, and two main valleys. The Tiber and the Nera are the main rivers; Lake Trasimeno is in the west.

It is often referred to as the "Green Heart of Italy" due to its beautiful woodlands and rolling hills. The climate is various, with hot and dry summer and not too cold winter. Rainfall is 800-1200 mm, mainly in autumn and spring. Snowfall is becoming less and less frequent.



2. Land use and main farming systems

On the mountains, pastures cover 83,000 ha (13% Agricultural Surface), while on hills and flatland the arable land is 234.000 ha (37% Agricultural Surface). Vineyards cover 14,227 ha and olive trees (on less fertile areas and mostly on slopes – difficult or impossible to mechanize) about 31,692 ha.

On irrigated areas, the richest crops have been / are tobacco, corn, veggies (melons, green pepper, tomatoes, etc.), while on rainfed areas the traditional crops are wheat, barley, on rotation with alfalfa or other forage crops. Mixed cropping (cereals and vineyards, for example) does not exist anymore.

Animal productions tend to be concentrated on specialized units: the main livestock are cattle (no. 63,000), sheep (no. 150,000), goats (no. 6,300), horses (8.200), pigs (no. 250,000) and poultry (8 million).

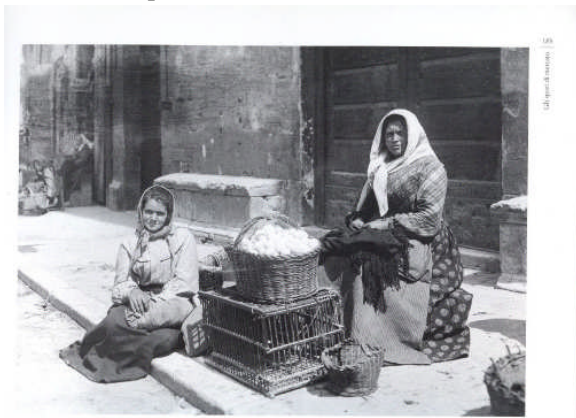
The woods cover 230,000 ha (36% Agricultural Surface) and the not-used Agricultural Surface is 22.000 ha (4% Agricultural Surface).

Organic agriculture began in the '80s, and it is actually practiced by 1,480 farmers (7.6% of the total), the main organic productions are extra-virgin olive oil, cereals, legumes, cheeses, processed veggies, jams, etc.

3. Farms and labour force

The main feature of land tenure, for several centuries, was the share-cropping, with extended families living and working on a farm owned by a landlord or by the Church. There were estates divided into tens or hundreds of

farms, about 8-12 ha in size, each one being an independent entity, with house, stables, wells, orchards, animals and implements. By the end of the “agrarian year”, on November 11, the farm supervisor and the family head “closed the accounts” and the result (output or money) was shared. This system entered into a profound crisis with the technical progress at the end of the XIX century (“who pays for the fertilizers? Who buys the seeds? Who purchases the tractor?”), and then because of the social changes induced by new political ideas and by the economic expansion.



74. Vendita di uova e poltine in piazza Gamboli (ca. 2011)

The newly established Italian Kingdom at the end of the XIX Century confiscated from the Church, fragmented and sold to the emerging rich middle class huge tracts of land, cultivated by share-croppers or by farm workers. Nowadays, sharecropping does not exist anymore and all farms are either managed by their owners or by tenants. Private property covers most of the agricultural land, but important realities still exist, owned by the Church, by Public Bodies (Municipalities, Regional or Provincial governments, State), or by non profit Foundations.

The last agricultural census in 2001 counted about 57,000 farming units (average size 6,5 ha), but this figure is largely

overestimated, considering also extremely small entities. The real number of operating farms, market oriented, registered at the Chambers of Commerce, Industry and Agriculture with a fiscal number, compulsory for VAT calculation, is about 19,000, with much larger area and diversified activities.

For example, in Umbria operate 1,026 farms (5,3% of the total) offering hospitality and many have their own restaurant. Horse riding, cooking courses, yoga, swimming pools, mountain biking, etc. are among the activities offered to visitors.

This strategy (horizontal and vertical diversification), combined with scale economies through cooperatives and associations is almost compulsory to ensure a decent income to the farmers and their families and employees: forty years ago the agricultural labour force was 45% of the total labour force; today is 4.5% (under the Italian average = 5.5%).

4. Main products

When only the raw agricultural products are considered, the most relevant group of products is cereals (mainly soft wheat and corn), which represent 47% of the output in value, followed by tobacco (16%), veggies (14%) and fruits (including grapes and olives) which account for 8%. The balance is due to fodder, flowers, nurseries and beans.

Among the animal sector, pigs contribute for 28%, poultry for 20% and cattle for 13%.

Happily, most agricultural raw products are processed in Umbria, either within the farm and at local food companies (see par. 5 and 6), with added value and jobs remaining within the farm or within the rural areas.

5. Agricultural cooperatives

In Italy, cooperatives – in all economic and social sectors - have been largely supported, by the national and regional governments. Only during the Fascism (1922-1943) cooperatives were closed and their leaders often persecuted and even killed.

Both political sides of the political spectrum – the leftist and the catholic parties, have always considered the cooperatives as an appropriate way to overcome the small size of farms and to distribute the wealth, accordingly to labour or other criteria – different from capital. However, at farm level, the number of agricultural cooperatives is not high: the few existing cooperative farms were established in the 80's and have been evolving into agro-tourism, services provision, etc. Cooperative societies are much more relevant post-gate: processing, milling, bottling, packaging, trading, etc. There are 17 olive mills, 7 wineries, 5 meat processing plants, 3 cereals processing plants, 5 dairies, 3 tobacco processing plants, etc. The cooperatives normally adhere to one of the two major national unions (Confcooperative or Lega delle Cooperative). Another important reality are the Consorzi Agrari, once under the control of the Ministry of Agriculture, which are retailers for inputs, machinery, irrigation plants, and still manage some processing plants.

6. Food industries and Agro-industries

In the food sector, as well as in other sectors, most Italian firms are classified Small and Medium size, meaning a relatively small turn-over, small labour force, limited investment capacity, relatively small markets. In Umbria operate hundreds of medium and small units, with an output of very high quality.

Also some international industries operate in Umbria, such as COLUSSI (pasta and bakery), MONINI (olive oil), BUTTONI (pasta and bakery), PERUGINA (chocolate).

In the wine sector, the most famous private brands are LUNGAROTTI, CAPRAI and ANTINORI, but they are followed by tens of private and cooperative wineries, which are aggressively searching for national and export markets.

In the olive oil sector, FARCHIONI bottles almost 7% of the olive oil consumed nationally, while MARFUGA is considered one of the best oil producers. An interesting sector is represented by truffles and truffle-based products (dips, sauces, oils, spirits), with the famous URBANI brand and many other smaller companies.

Another important sector is pork processing, into several dozens of different products (sausages, salamis, ham), with a cluster of companies in the area of Norcia.

A well established seed company operates near Perugia, BAVICCHI, specialized in veggies, while in the northern part of the Region there is a cluster of agro-mechanic firms, producing all sorts of equipments, notably for irrigation and for the tobacco production / harvesting and processing. Another important sector is represented by the animal feed industry, with large companies such as PETRINI and MIGNINI with their headquarters and some plants in the region.



7. Applied research and education

The most important institution, for both applied research and higher education, is clearly the University of Perugia, with its Faculties of agriculture and of veterinary sciences, both established at the end of the XIX Century.

The formal education for teenagers is represented by a vocational school in Città di Castello, which offers a basic (3 year, age 14-16) education to become skilled agricultural workers and by a Technical School in Todi, offering a

certificate after 5 years of education (14-18). Both schools have dorms, labs and farms. Both now offer further education programs. Both schools also have branches scattered in various parts of the region.

The National Research Council manages three research units in Umbria: a) genetic improvement of olive trees, b) genetic improvement of fodder crops and c) mountain agriculture and forest management.



INEA – the National Institute of Agricultural Economics – has its regional office in Perugia, which manages the Farm Accounting Network and regularly produces studies about different aspects of the agro-food sector in Umbria.

CESAR – Centre for Agricultural and Rural Development, is a joint operation supported by the University of Perugia and by some local institutions, that competes for EU funds and then organizes training programs for youth and adults, and also implements applied research programs

Similarly, some years ago, the Regional Government of Umbria promoted, with EU funds, a Technological Park, near Todi, where some firms have established their offices and labs. Some of them successfully compete for EU funds and then organize training programs for youth and adults, and also implement applied research programs.

8. Agricultural administration and Farmers' unions

After 1972, most agricultural functions have been transferred and then devoluted to regional level, where two main bodies operate:

The Department of Agriculture, Forestry, etc., elaborates, implements, and supervises the agricultural and rural development policies.

The Agency for Development and Innovation, which is more technically oriented, and can be considered the technical arm of the DAF. The Agency also implements and cooperates in some research projects.

Both bodies have nowadays quite small personnel, because many functions (advisory included) have been delegated to the main Farmers' Unions: a) Coldiretti, b) Confederazione Italiana Agricoltori – CIA, c) Confagricoltura. These three unions employ tens of staff, who provide real services to their members: book keeping, insurances, VAT declaration, labour management, income statement, and of course also support the farmers in the so-called “paper farming”, i.e. the application to get EU grants and subsidies. All unions elaborate projects to receive EU and Regional or State funds, often in cooperation with university, NRC, INEA or other entities. (see paper by Baillet and Santucci for more information about the union's role concerning information to farmers).

Since its beginning, the rural development LEADER approach has allowed to implement in Umbria several projects, co-funded by EU, Italian Government, Umbrian Government, local bodies and private stakeholders. These projects always have an applied research and extension component, implemented through agreements with other actors.

9. Private agricultural advisors

In Italy, many public documents concerning agriculture must be signed by a person, holding the university degree in agriculture and who have also successfully passed another public exam, to be accepted into the “Order of Agronomists”.

Without such post – degree exam, it is not allowed to submit farm development projects, applications for EU grants, Environmental impact assessments, etc.

In Umbria, there are presently about 1,000 people (men and women) holding this recognition. Many work within the public administration or within the Unions, cooperatives, university, etc., but many are also free lance advisors, often working in cooperation with lawyers, architects, etc. to provide their services to farmers and other people who might require their advice and support.

10. Some Umbrian specialities (it is not possible to list them all!!!)

Olive extra-virgin oil (GI): The local conditions allow the fruit to ripen very gradually and to have a very low acid content. The maximum allowed acidity is 0.65 percent. The colour ranges from green to yellow. The scent is medium fruity with leafy tones, while the taste is fruity with bitter and peppery tones;

Prosciutto (Ham) di Norcia (GI): the art of preserving pork was already known in the Norcia area in Roman times. Indeed, given the poor farming conditions in this mountainous zone and the lack of agricultural activity in the cold season, the inhabitants of Norcia concentrated on animal processing and trade. Prosciutto di Norcia is a salted and naturally-aged meat from the haunch or rump (at least 8.5 kg) of heavy hogs. The sliced ham varies from pink to pinkish-red in colour and is savoury rather than salty in both smell and taste. Beside ham, pork is processed into dozens of different sausages, salamis and more.

Chianina cattle (GI): (see also the paper by Fioriti and Santucci) calves of either gender aged between 12 and 24 months. The meadows and fields in the central section of the Apennines, a mountain range that stretches like a backbone down the Italian peninsula, constitute an ecosystem with ideal climatic and environmental conditions that allow a wide array of flora to prosper. All these factors combine to create a meat with high organoleptic and nutritional value.



Pasta: Umbria produces a major share of dried pasta for the national market; its homemade egg pasta is called *tagliatelle* with ragout; other hand-rolled types are *ciriolo* and *stringozzi*, which resemble rustic spaghetti.

Bakery products: Huge loaves of unsalted *pane casereccio* (home made bread) are baked in wood ovens, as are torte, spongy flour and egg breads flavored with pecorino or pork crackling. Bakers also make sweet buns called *pan nociato* (with walnuts, grapes, cloves and pecorino) and *pan pepato* (with almonds, walnuts, hazelnuts, raisins and candied fruit) and cakes called *ciaramicola* and *torcolo*.

Vegetables: The Umbrian diet relies on salads and cooked vegetables, notably cardoons (called *gobbi*) and lentils from the mountain village of Castelluccio protected by Geographical Indication. Most lentils are also certified organic. In autumn, woods abound with porcini mushrooms and chestnuts. **Truffles:** the Apennines are Italy's prime sources of black truffles, served fresh with pasta, meat and egg dishes, or even pounded into paste with anchovies and garlic. The "black diamonds" are preserved in various ways, including in sheep cheese known as *pecorino tartufato*.

Wines: Umbria has long been renowned for white wine, thanks mainly to the historical prominence of Orvieto. But evidence is now irrefutable that the scenic hills of the "green heart of Italy" have an aptitude for a multitude of varieties, white and red, native and foreign. The region's two DOCG wines, Montefalco Sagrantino and Torgiano Rosso Riserva, are red.

Orvieto was once the most celebrated of Italian whites as a semisweet wine, but as tastes changed, Orvieto was modified from a soft, golden wine into a pale, pure, crisp wine. Recently, some producers have achieved more character through lower grape yields and more meticulous selection and by letting the grape skins remain in contact with the juice for a while before fermentation. Just lately Orvieto's abboccato and amabile versions have made a comeback as dessert wines.



Grechetto is an ancient variety, typical of Central Umbria, which had been almost totally wiped out during the 50's because of its small productivity. Happily, some growers did not cut away all Grechetto and nowadays there is revival of this crispy and fruity white wine, to be served well cold.

Sagrantino, again, it is an ancient variety grown only around the hill town of Montefalco, is an intriguing native that makes both dry and sweet wines of unmistakable grandeur. It, too, has been granted a special DOCG, separate from the DOC Montefalco for lighter red and white wines.

Vin Santo (holy wine), pressed from semidried Grechetto or Malvasia grapes, is usually sweet and most prized as a dessert wine for any occasion

Among the many foreign varieties planted in Umbria, Merlot and Barbera have been prominent for more than a century. More recently, Pinot Noir, Cabernet Sauvignon and Chardonnay have shown promise in varietal wines and in blends.