



**REPORT 2
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**STRATEGIC INFORMATION FOR THE DEVELOPMENT OF
AGRICULTURAL QUALITY PRODUCTS IN THE EUROPEAN MOUNTAIN
AREAS**

**Questionnaire 1 :
Overview of quality initiatives in
the mountain study areas**

**Compiled reports of
the 10 local synthesis**

CONTENT

FRANCE	Alps, the Savoie.....	3
GREECE	Pindos and Cholomondas Mountains.....	8
ITALY	Alps, Province of Trento	11
	Alps, Province of Turin	20
NORWAY	Vestlandet, Sogn region	24
POLAND	Tatras Mountains, Podhale region	30
ROMANIA	Western Carpathians, Mures & Harghita.....	33
SPAIN	Basque Country	36
	Andalusia, 3 mountain areas	48
UNITED KINGDOM	Highlands of Scotland, United Kingdom.....	53

NOTES FOR READERS:

In most of the cases, the texts were written in English by non English authors.

This publication comes from the first enquiry, concerning the study of many food products from 10 mountain areas within the framework of Euromontana's project. The compiled report is made of the 10 local synthesis of this first questionnaire and each draft is based on a single structured guideline.

P.D.O.: Protected Designation of Origin
P.G.I.: Protected Geographical Indication

ALPS, THE SAVOIE, FRANCE

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CHAPTER I - DESCRIPTION OF TWO MAIN TYPES OF PRODUCTS

Our survey has been done on 24 products in the Savoie / Haute-Savoie area, area designated by the word « region » in this document.

The **first category** is « agricultural products ». In this report « agricultural product » means that the raw materials are produced by the farmers of the region.

- 10 different types of cheese (goat or cow milk) produced by farmers or small dairies collecting milk from Savoie & Haute-Savoie
- lamb from summer mountain pastures
- beef and in some cases « mountain beef » : animals from farms specialized in meat production (beef cows) or from dairy-farms where meat is the secondary product (the first product is milk ; meat primarily from culled cows or from beef breeding cows).
- We have described 3 projects corresponding to 2 different types of organisation of producers for the collection, the slaughter of animals and the sale of meat. One group constitutes an organisation with the butchers and the two others constitute an organisation of the farmers themselves who sell directly the finished products (meat) to the consumers.
- Honey of Savoie
- Apples and pears of Savoie
- Wine

The **second category** is « industrial products »: produced by food industries with raw material from Savoie / Haute-Savoie or not (most of the cases) but following a traditional recipe or know-how which are sometimes specific of the Savoie region; it is for example:

- cured pork products and salted ham : traditionally produced in Savoie as it is in France in all mountain regions
- cider : traditionally produced in the region even if not specific to the region
- beer : some small breweries have opened in the region within the last 10 years

The agricultural products described in our survey concern:

- 91% and 90% of the farms « commercial and non commercial» of Savoie / Haute-Savoie.
- 94% of the « commercial farms¹ » and 92% of the « non commercial farms » of the mountain zone of Savoie / Haute-Savoie

It means that, with the survey we have undertaken, we have an accurate picture of the agriculture of the region.

There are only 2 categories of agricultural activities not taken in account in our survey, which are:

- Crops (grain farming, tobacco) and mixed farming
- Vegetables growers and horticulture.

The 3 productions of milk, wine and beef meat represent 63% of the agricultural production (value of 443 millions euros) of the region (73 / 74).

¹ « commercial farm » designates a farm in which :

- the gross margin is above the level of 8 EDU « economic dimension unity » (1 EDU = 1200 euros of potential added value or the equivalent of 1.5 ha of wheat)
- the amount of employment is above ¾ of the working time per year).

Milk and dairy products: nothing but cheese!

Almost the entire production of milk is transformed into cheese. A very small quantity of the milk produced and collected in the region is transformed into yogurt or other fresh products or is packaged as pasteurized milk sold to the consumers.

About 77% of these types of cheese are:

- Protected Designation of Origin (PDO) : 4 types of cheese (cow milk) and 1 goat cheese
- Protected Geographical Indication (PGI): 2 types of cheese (cow milk).

The 3 other types of cheese studied in our survey are:

- one goat cheese : a traditional one but without PDO or PGI.
- one traditional cheese (cow milk) elaborated at a monastery.

For the 5 PDO types of cheese (Abondance, Beaufort, Chevrotin, Reblochon & Tome des Bauges), the technical specifications of production impose:

- the use – partially or totally – of cow or goat breeds specific to the region ;
- the feeding of the animals with hay from the limited area where the name of the product is protected ; the use of fermented food of any kind (corn or grass) is prohibited ;
- in some cases, the maximum amount of milk production for cows must be on the average for farm herd of 5,000 or 5,500 kilos per lactation and for goats 800 kilos per lactation ;
- the use of unpasteurized milk (straight from the cow) for processing
- the respect of the traditional processing of the cheese.

Some of the specifications are decided and imposed for technical reasons and are linked to the final quality of the product. Some others are decided only for the reason of maintaining the image of the tradition.

The idea is to impose² all the conditions so that the product cannot be copied or reproduced in other regions.

For the 2 PGI products (Emmental de Savoie, Tomme de Savoie), the idea is similar but:

- the breeds are not as strictly limited to traditional mountain breeds,
- there are some possibilities of fermented corn grain for the feeding of the animals,
- the average milk production of the farm herd is not limited,
- until now the 2 products were elaborated with unpasteurized milk (one of them is considering changing it),
- some steps of the process have changed compared to the real traditional one.

For the last traditional product of the region (Tomme de Chèvre des Savoie), the technical specification of production is not precisely stipulated and there is no official restriction for the use of the name of the product with a PDO or PGI definition. A group of producers intends to do that. Until now, they have registered a trade mark « Chevrailon » to get the interested farmers to work together to set certain specifications (breed, feeding practices, the use of unpasteurized milk, processing, etc.).

The 2 types of goat cheese are produced mainly by farmers. Concerning the PGO one, Chevrotin, it is stipulated in the technical specification that only farmers can produce it. For the Tomme de Chèvre des Savoie, some dairies collect a small quantity of goat milk.

There are other very traditional cheese types in Savoie, at least 6 different ones³, known only by some connoisseurs and experts. They are produced only by a few farmers; sometimes only during 2 or 3 months in summer or autumn / winter and the total volume of production goes from several hundreds of kilos to a few tons. They were not included in our study even though they really are specific mountain products.

² In everyday standard language we often speak of constraints for the technical specification that farmers and dairies have to respect for PDO or PGI products, but actually, these are not constraints decided by any authorities; the producers, and cheese makers decide themselves what conditions they have to respect.

³ like Bleu de Termignon, Grataron du Beaufortain, Persillé des Aravis, Persillé de Tarentaise, Vacherin des Bauges, Vacherin d'Abondance

Wine

The majority of the wine production is A.O.C. (Guaranteed Vintage). The vineyards are located in the lower parts of the valleys and not at high altitude. Part of them is in the designated mountain zone but the majority of the vineyards is located out of the mountain zone.

In Savoie as in France, wine is not considered as a mountain product even if the vineyards are located in an official mountain zone.

For the consumer, wine is not a mountain product. This is the same for all products for which there is another region famous for it. For example, for the consumer cream is not considered to be a typical mountain product (even if there is a production of high quality cream in a mountain area) because there is another region « Normandie » which is famous for its cream. The same idea holds true for potatoes; some islands (Ré, Noimoutier) have a better climate and natural conditions for potatoes, which are therefore not considered as a mountain product.

For wine, the mountains zone is not as famous for its wine as « Bourgogne » or « Bordeaux ». Nevertheless, there is wine produced in Savoie, mainly in the lower part of the valleys. Like other vintage wines (A.O.C.) there is a link between the wine itself and the land it is from (the « terroir ») but you cannot consider that it is characteristic of the mountain.

On the contrary, to define the PGO zone for the Tome des Bauges, it was considered that a good indicator of the lower limit of the territory for this mountain product was the upper level of the wine production zone.

Meat

There is neither PDO, PGI nor national sign of quality for the meat produced in the region.

Once again, for the consumer the lamb or beef is not associated to the northern Alps. *The* sheep farming region in France is more the Southern Alps region. Others regions, such as Charolais and Limousin, both names of two famous beef-type breeds, are much more famous for their beef production.

However, meat production does exist in the mountains. In the defined areas of PGO cheese, it originates mainly from culled cows. It is difficult to identify the exact quality of the meat produced in these areas. According to the farmers and the butchers, there is a particular quality for the traditional breed of Tarine, but no research has been specifically done on this breed compared to others. Nevertheless, this assertion of the farmers and butchers seems to be confirmed by the studies undertaken by researchers making comparisons between the different types of cattle feeding.

In any case, the principle idea of the producers is the following:

- In a region where the agricultural products have a very good image among the consumers (residents or tourists), this image should be used to get a good price for the meat as we do for cheese. The idea of selling « mountain beef » is possible. Mountain products refer mostly to dairy products, but « mountain beef » is linked to the idea of preservation of nature and non-industrial products and it is possible to sell it to the consumers, if certain breeding, feeding or other conditions are respected.
- There is also a considerable consumer potential in the area; it should be exploited.

It is not that straightforward (because you have to compete with the traditional cattle traders, and sometimes with the butchers), but the producers committed to this kind of project find it really interesting. Their interest is not based on the price they get for their meat, but also on developing a positive message to the citizens, consumers and politicians concerning the role of agriculture in mountains and its capacity to offer a wide range of quality products.

Apples and pears

The production of apples and pears is estimated at 25,000 tons / year. If the product respects a standard of quality (size, colour, sugar and acidity rate) it can be sold with a quality label (official label with PGI). The part of the production certified with this official sign of quality is variable from one year to the other. The average amount for the last 3 years was 3,500 tons.

In 2000, we asked a marketing study company to conduct a survey about the products of Savoie to know if people, living in or on holiday in Savoie, knew its products, which ones they knew and what

they knew about them. None of the people questioned even quoted apples or pears as a product of Savoie. For some of them, if you speak of mountain fruit, they think of raspberries or blackberries but never apples.

We know that the combination of climate and altitude, the difference between the temperature during the night and day allows a better quality for the pears and apple, but we seem to be the only ones to know it!

Industrial products

For all the products, the companies and the places where the product is produced can be located in mountain zone or not. It is not that important. For almost all of them, the raw materials don't come from Savoie anymore, if they ever did.

Before, the raw materials were local for cider, cured pork products and salted ham.

It is no longer the case, even for those products, except perhaps for the cider of Savoie. Perhaps there were some beers breweries some decades ago. The recently established breweries, as the other food industries, take advantage of and exploit the good image of the agricultural products of Savoie.

All these productions (beer, cider ...) have been increasing for several years because of the increase of tourism and population.

CHAPTER II - CONSUMPTION AND MARKET

It is rather difficult to speak in general about the market and consumption of the different products. Each of them has a specific market, and there is no other way but to speak of the market of each product and even of each cheese.

Types of Cheese	Volume (t)	Price to consumer (€)	Market spread
Abondance (PDO)	1,300	12.5	National (37% in « Alpes-Jura » region and 14% in Parisian region)
Beaufort (PDO)	4,000	16.5	National
Chevroton (PDO)	100 (farmers only)	17 (goat cheese)	Regional
Reblochon (PDO)	17,000	11	National / Europe
Tome des Bauges (PDO)	500	10	Regional
Tomme de Savoie (PGI)	7,500	10.5	National (36% in the « Alpes-Jura » region)
Emmental de Savoie (PGI)	3,300	9	National
Tomme de Chèvre des Savoie	120 (farmers only)	13.5 (goat cheese)	Local

The « natural » evolution of the Savoie cheese is for it to be sold at a national level.

With only 500 tons, it is not possible for the Tome des Bauges. With 1,300 tons, Abondance can reach the national market but with half of the consumption in two regions (Paris and around the production area).

The Tomme de Savoie has a higher volume but the consumption of the product is primarily in the production area.

For the two types of farm-made goat cheese with only about 100 tons the local market is suitable. For the Chevroton, the PGO helps to reach the regional market but only for a small quantity.

Beaufort and Reblochon are present in almost 100% of the hypermarkets (more than 2,500 m²). Beaufort is offered in 85% of the supermarkets (400 to 2,500 m²). Reblochon is offered in 97% of the supermarkets.

Sale of Beaufort: 80% = hyper and supermarkets; 20% others

Sale of Reblochon: 85% = hyper and supermarkets (average price = 10.7 €); 11% = Discount Supermarkets (average price = 8.3 €) ; 4% others.

Meat: lamb and beef

The market for these products is completely different. The aim of the producers (farmers) is to obtain the best price with a short distribution chain (directly to consumers or through one butcher or hyper or supermarkets and always without a merchant or dealer).

The market is only local and sometimes limited to a couple of butchers in a valley (meat from the Maurienne) or to 1 or 2 hypermarkets in the county (lamb from summer mountain pastures). According to the quantities and the research of a good price, the objective is not to develop the volume but to offer local meat to the consumers.

Wine

Sale of Savoie wine:

- counties of Savoie, Haute-Savoie, Ain, Isère: 70 to 75%
- Rhône Alpes Region: about 10%
- rest of the world : 15 to 20%

About half of the quantity of wine sold from the cellar is sold to the wine dealers (about 12 companies). The other half is sold by the wine growers who not only sell the wine directly to the consumer but also to restaurants, specialised traders and supermarkets. The Savoie Wine Union doesn't know exactly the percentage of the different buyers.

Apples and pears

Part of the production comes from the mountain zone; part of it from the lower part of the valley. For the marketing, there is no identification such as « apple from mountain » or « pear from mountain ». Wherever the production is located, if the quality is good (according to size, level of sugar and acidity) the fruit is called « from Savoie » (PGI).

Production of apples and pears: 30,000 tons. Production sold: 25,000 tons.

Sale of Apples and Pears of Savoie (PGI): 3,500 tons (variable according to the climate and to the buyer policy or strategy).

Numbers of producers: about 180 ⇔ 745 ha.

Numbers of producers involved in Quality products

Apples and Pears of Savoie (PGI): 66 ⇔ 515 ha.

Distribution and consumption area

The apple and pears produced in Savoie are primarily consumed in Savoie: for the entire apple production sold, 2/3 of it is consumed in Savoie. Apples produced in Savoie represent a significant share in the consumption of apple in their production area (Savoie): one apple out of two consumed in Savoie and part of 2 counties around, is from Savoie.

Distribution: for Apples and Pears of Savoie (PGI): 80% = super and hypermarkets; 20% = others.

Price: for Apple and Pear of Savoie (PGI): price is about 10% higher than the standard.

PINDOS AND CHOLOMONDAS MOUNTAINS, GREECE

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CHAPTER I – THE TYPES OF QUALITY PRODUCT DENOMINATIONS

The six products of the questionnaire are divided into three groups:

1. Products transformed from animal raw material: Katiki Domokou (cheese), Mountovina (local liqueur, "eau de vie"), sausages, prosciutto
2. Direct animal origin products: trout
3. Direct vegetal agricultural products: saffron

The majority of the products are transformed from animal origin raw material, which explains the strong concentration on livestock in the studied mountain regions. The production and transformation know-how comes 100% from the mountain regions, and consequently these products are enriched by historic and cultural elements that make them different and unique.

For all the products (except the saffron that grows in mid-mountain) the production, transformation and also to a big extent the consumption have a strong link with the high mountain. There is a little nuance in the case of the Katiki Domokou (cheese), where the animals go to pasture equally in mid-mountain and neighbouring plains.

With the exception of saffron and the Katiki Domokou, the other products are not labelled, even though efforts have been made in this direction (in the case of sausages and prosciutto). For the other products, no steps have been taken for reasons beyond the product itself and having rather to do with the producers (Mountovina, trout).

All the studied products owe their quality and characteristics (notably the know-how) to the mountain environment. Their production and the current technology of transformation are perfectly adapted to the natural environment. Moreover, their cultural roots are as important as their natural roots. These products endow a subtle equilibrium that allows an added value of enjoying the mountain and mountain people.

CHAPTER II – THE SPECIFICITIES OF THE STUDIED PRODUCTS, PRODUCTION MODALITIES KNOW-HOW

The specificity of the studied products is based on three important elements that are original to the mountain areas:

- Natural elements (spatial and geoclimatic conditions)
- Human elements (traditions, culture)
- Combination of the natural and human element (know-how)

For all the products the specificity is linked with the production technique based on old traditional recipes of the extremely marginalised mountain areas. In consequence, they are not yet known enough by the majority of the consumers. (This holds true also for the saffron, even if the product is almost entirely exported)

On the other hand, the mountains, no matter how poor and marginalised, play a decisive role in the specificity of these products, giving them the biological characteristics necessary to make them quality products: for example, keeping the goats in the open air with a feeding based on acorns allows the

obtain meat with less fat and easier to transform into sausages and prosciutto; the trout grown in the clear river waters of the mountainous Department of Evritania; and finally the production of the quality saffron (autochthonous plant variety) that for strictly geoclimatic reasons only grows in the mid-mountain areas of the Department of Kozani.

The combination of two products, one of animal origin (pork) and other vegetal (leek), into one (sausage), is not only based on wanting to have a product with a specific taste, but also on the need for the product to be preserved for several months. The leek is a natural preservative. The old tradition of consuming trout cooked in goat butter is not only based on wanting to give the food a specific taste, but also on using available products, that is to say those from the mountain, because previously the olive oil was not known in the mountains (the olive trees grow below 600 metres of altitude in Greece). The specificities of these products come from recent entrepreneurial efforts to make them known by a larger part of the consumers.

CHAPTER III - IDENTIFICATION OF DIFFERENT STUDIED PRODUCTION AND TRANSFORMATION SITES AND CHANNELS

For all the studied products the production (birth and the animal or vegetable life-cycle) and the transformation take place in the studied mountain areas. Only one stage of the chain takes place outside the mountain area in the case of Katiki Domokou, because the animals where the milk for the production of this kind of a cheese comes from go to pasture both in mid-mountain and the neighbouring plains.

CHAPTER IV – IMPACT OF THE NATURAL MOUNTAIN CONDITIONS IN THE PRODUCTS, PRODUCTION AND KNOW-HOW

First it has to be noted that for all the studied products there is a direct link between the cultural elements and the mountain. This is demonstrated by the custom of manufacturing and consuming the products on site.

For some (trout, pork, saffron) the impact of the natural mountain conditions is scientifically demonstrated and measured. For the others (Mountovina) the impact of the natural mountain conditions is not demonstrated directly, but rather in an indirect way through the specific know-how.

We can say that these products have been born from the need of the ancient inhabitants to live and nourish themselves in the mountain environment using all the elements available. This is also demonstrated by the history of the Greek mountains: they were widely inhabited and served as a refuge during the periods of troubles that crossed the country, the most important being the occupation of Greece by the Ottoman Empire during about 400 years. The inhabitants of this environment that lived in a relative freedom were practically cut off from the rest of the world. The commerce did not exist and so the inhabitants were forced to use only the mountain resources. In consequence, there is a strong link between the studied products and their production environment.

CHAPTER V – THE CONSUMPTION PRACTICES OF THE STUDIED PRODUCTS

The studied products are commercialised and consumed during the whole year, but their commercialisation and consumption varies according to the seasons:

- The sausages, the prosciutto and the Mountovina are consumed more during autumn and winter and less during summer.
- In the same way trout is consumed a lot more during winter and spring.
- Finally, the Katiki Domokou is more commercialised during summer (because is it a soft cheese usually consumed fresh).

On the other hand, in the production level, the saffron being cultivated only, it is produced seasonally but consumed during the whole year (after drying).

Finally, it should be added that the image of these products for the consumers is strictly linked to the geographic origin.

CHAPTER VI – THE SUPPLY CHAIN AND THE MARKETS

The supply chain differs according to the studied products, and their commercialisation includes the whole range of chains (short, middle and long).

The following table gives a more synthetic picture of the situation:

Products	Number of farms	Number of enterprises	Production in tonnes*	Type of market	Type of commerce
Saffron	1500		6-8	International	Traders***
Sausages		1	15	Local + National	Direct and traditional sale + Supermarkets + Restaurants
Prosciutto		1	10	Local + national	Delicatessen + direct and traditional sale + Restaurants
Trout		1	70	Local + national	Direct and traditional sale + Restaurants
Mountovina	70		1,2	Local + peripheral**	Direct sale
Katiki Domokou		2	25	Direct sale + National	Supermarkets + Restaurants

* On the average (varies from one year to another).

** The peripheral markets mean markets reaching a bigger agglomeration than the local market, but not reaching national level.

*** We cannot provide data on the saffron because almost all of the production goes abroad and the producers do not know the final destination.

The sausages and the prosciutto have a growing market, gaining consumers in all chain stages. It is a dynamic and promising market, as in a little while these products will be officially recognised as quality products.

The saffron market seems stable. The product sells very well abroad and it seems that the production will remain the same in the coming years.

The trout is a product also gaining national commercial importance with the Greek consumers that are more and more turning towards sweet water fish. This production could still increase if the producing enterprise solves its financial and organisational problems.

The Katiki Domokou seems to have a stable clientele with serious increase possibilities, if there is cooperation or fusions with other consumable product companies.

The market of Mountovina seems to have trouble extending from the local to more distant markets. It seems that the future of this product directly depends on the tourism. That is to say that if through the European Community programmes the flow of tourists from the sea to the mountains can be increased, the production of this "eau de vie" will also surely increase.

ALPS, PROVINCE OF TRENTO, ITALY

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GENERAL PRESENTATION

The Province of Trento is situated in North-Eastern Alps of Italy. The land surface is about 6.212 Km² and its population amounts to 470.000 inhabitants. It is a mountain region where:

- a) less than 10% of the land is used for agricultural purposes,
- b) forests cover more than 50% of the land,
- c) 17% of the land is Protected Area,
- d) only 2,5% is for urban and productive settlements.

From administrative point of view, it is represented by 223 Municipalities (NUTS 4) grouped in 11 Mountain Communities (in Italian *Comprensori*).

In mere economical terms, the primary sector contributes to Gross Domestic Product (GDP) only with more than 2%. Of course, the contribution to GDP grows substantially when further actors of the food chain are being considered.

According to the 5th General Census of Agriculture, more than 50% of farms have a size of less than 1 Hectare; only 8% are over 10 Hectares.

CHAPTER I – TYPE OF QUALITY OF PRODUCTS, PRODUCTION AND KNOW-HOW STUDIED

17 products have been analysed; they belong to the following groups:

1- Agricultural rough products of animal origin: 2 products;

Honey:

1 product has been surveyed:

Miele Trentino: because its production exists for more than 25 years, it is identified as Traditional Product (TP) according to art.8 of Parliamentary Decree n. 173/1998 and Ministry Decree n. 350/1999; there are also 4 organic producers; the beekeeping firm "Azienda Agricola Paternoster Andrea" obtained also ISO 9001:2000 certification;

Fish:

1 product has been surveyed:

Trote del Trentino: producers follow the Specification for Integrated Breeding elaborated by their Association; because its production exists for more than 25 years, it is identified as TP; the Producers Association is looking for PDO "*Trote del Trentino*" application; Trentino is the most known producer of trout from fresh water and trout eggs: the Cooperative "ASTRO" is a leading organisation in Italy; the cooperative "Astro" and a small trout breeding firm "Troticoltura Armani" obtained also ISO 9001:2000 certification;

2- Agricultural rough products of vegetable origin: 4 products;

Rough fruit

3 products have been surveyed:

- i) Marone Trentino: because its production exists for more than 25 years, it is identified as TP; the majority of producers follow integrated farming rules; there are also 4 organic producers; it has

already applied for PDO "*Marone Trentino*" and the Specification has been published on National Official Gazette;

ii) Mela: is the most known fruit of the Trentino thanks to two main Italian-wide known consortia: "Melinda" and "La Trentina" which are consortia that group different cooperatives of apple producers. They are among national leaders in cultivation of apples and are sponsoring national bike teams, bike races and big national athletes; the majority of producers follow the Specification for Integrated Farming elaborated by their Association, but there are organic producers (90), too; because of differentiation between plateau-apples and valley-apples two PDO applications have been submitted: "*Mela della Val di Non*" whose Specification has been published on Official Gazette of EC 2003/C 30/05; "*Mela del Trentino*" whose application and Specification will be audited by the Ministry of Agriculture (MA); it is to be remembered that 7 cooperatives of the Consortium Melinda and a small family farm "Azienda Agricola Bertamini Gianfranco" obtained also ISO 9001:2000 certification; the cooperative "Società Ortofrutticola Rotaliana" member of the Consortium "La Trentina" obtained a product certification according to the EUREPGAP Protocol "Fresh Fruits and Vegetables"; the cooperative "COVAL" member of the Consortium "La Trentina" obtained also ISO 14001 certification;

iii) Piccoli Frutti: Trentino is the most known producer of small fruits in Italy: the Cooperative "Sant'Orsola" is a leading organisation in Italy; the majority of producers follow the Specification for Integrated Farming elaborated by their Association (there are two Specifications: for Strawberry; for Blueberry, Raspberry, Red/ Blackcurrant, Blackberry; there are organic producers (15), too; linked to double classification of small fruits, two PDO applications have been submitted (both applications and Specifications will be audited by MA): "*Fragola del Trentino*" and "*Frutti di bosco del Trentino*";

Rough cereals:

Mais Nostrano di Storo: producers follow the Specification for Integrated Farming elaborated by their Association; because its production exists for more than 25 years, it is identified as TP; the Producer Association is looking for PGI "*Mais Nostrano di Storo*" application;

3- Foodstuffs: 11 products

Cheese:

all cow breeders and the majority of dairy firms in Trentino follow the Specification for Integrated Breeding and milk processing elaborated by their Association; there are organic breeders and dairy firms, too (44 are farms producing organic fodder); the dairy company "Casearia Monti Trentini" and the dairy cooperative "Caseificio Sociale Pinzolo Fiavé Val di Ledro e Chiese" obtained ISO 9001:2000 certification;

6 products have been surveyed:

i) Grana Padano – Trentino: 50% of the whole raw milk in Trentino is used to produce it; since 1996, it is PDO; the "Grana Padano" – that is produced with milk from cows bred in Trentino - is allowed to integrate the denomination with the wording "Trentino"; organic "*Grana Padano – Trentino*" is produced, too;

ii) Mozzarella: it is STG (in Italy since 1998; in Trentino since 2003) cheese that is produced with milk produced only in Trentino; the sole dairy cooperative producing it - the dairy cooperative "Caseificio Sociale Pinzolo Fiavé Val di Ledro e Chiese" - obtained ISO 9001:2000 certification; organic "*Mozzarella*" is produced too;

iii) Casolet: because its production exists for more than 25 years, it is identified as TP; it is allowed to use the brand Slow Food;

iv) Puzzone di Moena: because its production exists from more than 25 years, it is identified as TP; the Producers Association is looking for PDO "*Puzzone di Moena*" application; it is allowed to use the brand Slow Food;

v) Spresa delle Giudicarie: because its production exists for more than 25 years, it is identified as TP; the Producers Association applied for PDO "*Spresa delle Giudicarie*" and obtained the provisional protection of the denomination (on April the Specification has been published on Official Gazette of EC); it is allowed to use the brand Slow Food; the dairy cooperative "Caseificio Sociale Pinzolo Fiavé Val di Ledro e Chiese" - that is producing it - obtained ISO 9001:2000 certification; the dairy cooperative "Caseificio Sociale Pinzolo Fiavé Val di Ledro e Chiese" produces organic "Spresa delle Giudicarie", too;

vi) Vezzena: because its production exists for more than 25 years, it is identified as TP; it is allowed to use the brand Slow Food; the Producers Association is looking for PDO "*Puzzone di Moena*" application; the dairy company "Casearia Monti Trentini" – that is producing it - obtained ISO 9001:2000 certification; it is allowed to use the brand Slow Food;

Produce made of meat:

2 products have been surveyed:

i) Carne Salada: because its production exists for more than 25 years, it is identified as TP; the Producers Association is looking for PGI "*Carne Salada Trentina*" application; it is allowed to use the brand Slow Food;

ii) Mortandela Affumicata della Val di Non: because its production exists for more than 25 years, it is identified as TP; the Producers Association is looking for PGI "*Mortandela Affumicata della Val di Non*" application; it is allowed to use the brand Slow Food;

iii) there is a third TP "Speck Trentino" that is looking for PGI, but there are currently some legal problems with the PGI "Speck AltoAdige" that claims for the protection of the denomination; recently a Consortium of Produce of Meat from Trentino has been set up to coordinate each PGI request;

Olive oil:

1 product has been surveyed:

Garda - Trentino: since 1997, the PDO "Garda" – is produced with olives from Trentino - is allowed to integrate the denomination with the wording "Trentino" ("*Garda - Trentino*"); there is 1 organic producer of olives, too;

Vegetables transformed:

1 product has been surveyed:

Crauti Trentini: because its production exists for more than 25 years, it is identified as TP; the producers of the head cabbage – the raw material used to produce it - follow the Specification for Integrated Farming elaborated by their Association; organic farming and biodynamic techniques are used;

Wine:

1 product has been surveyed:

Teroldego Rotaliano: since 1971, an AOC wine, Teroldego is called the "prince" of wines in Trentino, so it has its own denomination (in Trentino there are 4 further AOCs); the Consortium CAVIT - that bottles and sells wine produced by several cellars cooperatives - and the firm "Casa Girelli" obtained ISO 9001:2000 certification;

There is a project carried out by Istituto Agrario di San Michele all'Adige (IASMA) aiming to recover and re-use autochthonous ancient varieties that until the 19th century represented the totality of production. Some of them are still cultivated with economic profit (Nosiola, Marzemino and Enantio). Some are still produced in marginal areas (i.e. Gropello di Revò; Casetta, Lagarino di Giovo, Negrara, Rossara, Pavana, Turca and Peverella). Some others are sampled by IASMA's fields (i.e. Biancaccia, Bianera, Cenerente, Cenerina, Corbera, Montagna, Negrone, Perini Nera, Rosetta di montagna, Valderbara, Verdealbara, Vattara, Vernazzola and Visentina).

CHAPTER II – SPECIFICITY OF PRODUCTS, PRODUCTION AND KNOW-HOW STUDIED

The specificity of products is established:

1- by law as products recognised as “traditional” according to art.8 of Parliamentary Decree n. 173/1998 and Ministry Decree n. 350/1999:

- i) Miele Trentino;
- ii) Trote del Trentino;
- iii) Marone Trentino;
- iv) Mais Nostrano di Storo;
- v) Casolet;
- vi) Puzzone di Moena;
- vii) Vezzena;
- viii) Carne Salada;
- ix) Spessa delle Giudicarie;
- x) Mortandela Affumicata della Val di Non;
- xi) Crauti Trentini;

101 products in Trentino are “Traditional”; this law allows producers to simplify the bureaucratic weight of Directive 93/43/EEC (in Italy Parliamentary Decree n. 155/1997);

For each product an “Information Schedule” specifies: area of production, concise description of the product, methods of production, storing as well as ripening, raw materials that have been used for the transformation, brief history of the products; moreover, the above-mentioned methods have to be consolidated over time (for a period of no less than 25 years);

2- by law as products recognised as PDO according to Reg. (EEC) 2081/92:

- i) Grana Padano – Trentino;
- ii) Garda -Trentino;

3- by law as products recognised as STG according to Reg. (EEC) 2082/92:

Mozzarella;

4- by law as products recognised as STG according to Reg. (EC) n. 1493/99 (Parliamentary Law n. 164/92):

- i) Teroldego Rotaliano;

Some Associations in Trentino started in 1986 a project named “Ecological Agriculture” aiming to set up Specifications for Integrate Farming for the most important agriculture products. Currently there are 6 Specification – called “Protocols of Self-Discipline” - for:

- a) Fruit,
- b) Vegetables, Strawberry, Small Fruit, Maize for “Polenta”,
- c) Viticulture and Wine Industry,
- d) Fodder production, Breeding and Dairy Industry,
- e) Fish (trout breeding),
- f) Grappa.

All these Specifications are based on low use of chemical products (pesticides, fertilisers, medical feeds ...). The fixed limits are lower than those fixed by EC and Italy. In some other cases, the use of particular chemical products has been forbidden. The requirements of these Specifications are yearly updated by Technical Committees. Samples of products are analysed and results on residues are published.

Currently, for Mela and Piccoli Frutti the specificity is linked to the above-mentioned Specifications; anyway PDO applications under way have to be remembered.

Organic (according to Reg. (EEC) 2092/91) and Biodynamic production are practised in Trentino; in Trentino there are 305 Organic Farms; Trentino has its own law (Provincial Law n. 4/2003) on organic method of production. The same law regulates the labelling of OGM-free agricultural products of

Trentino (meat, milk-derived products fed with GMO-free feeds can use also the following lettering: "*meat, milk, cheese, yogurt and so on from animal fed with GMO-free feeds*").

CHAPTER III - IDENTIFICATION OF THE VARIOUS PRODUCTION AND PROCESS LOCALISATIONS OF THE SUPPLY CHAINS

All firms producing TPs are using their own trade mark; as to registration of a mark in Italy (Italian Trade Mark) the following documents have to be applied: Royal Decree 929/1942 and Parliamentary Decree n. 480/1992 (the competent office is Ufficio Italiano Brevetti e Marchi); as to registration of a mark in EU (Community Trade Mark) the following document has to be applied: Reg. (EC) 40/1994 (the competent office is OHIM-Office for Harmonization in the Internal Market; as to International Trade Mark, firms have to refer to rules of Madrid Agreement ((the competent office is WIPO-World Intellectual Property Organisation).

In some other cases, they use territorial Trade Marks on the label, such as:

1- Trentino that gives a particular regional image, strictly linked to mountain area through reference to term "Trentino"; moreover this new mark allowed to bypass the legal controversy with EC about the local mark "DAL TRENINO NATURALMENTE" issued specifically to demonstrate the quality and the Trentino origin of agricultural products (the former Provincial Law - n. 32/1977 - has been abrogated); anyway, regulation of the use of the mark is under way (agrofood products that can obtain the use will be: a) guaranteed (PDO, PGI, STG, organic and as well as those complying with Specifications for Integrated Farming valid in Trentino; b) symbol (strong private brand and "TPs");

2- Slow Food that gives particular international image, but not strictly linked to mountain areas; 165 products in Italy are included (year 2003) on the list of Slow Food; 10 products of Trentino are included on the list of Slow Food (all are also classified as "TPs").

Labelling of each product has to comply with Directive 2000/13/EC and national legislation (Parliamentary Decree 181/2003) and its own mandatory vertical legislation; sometimes "mountain" or "typical" or "traditional", "agriculture farm or cooperative", "Trentino" or "Trento" are used, as well as names of known local mountains or valleys of Trentino or National as well as Provincial Parks; figures of mountains and traditional buildings.

Further logos are those for PDO, PGI, STG, VQPRD products as well as for organic production method.

As to localisation:

- a) Miele Trentino: Breeding and processing in Trentino.
- b) Trote del Trentino: Breeding and processing in Trentino.
- c) Marone Trentino: Cultivation in Trentino.
- d) Mela: Cultivation in Trentino.
- e) Piccoli Frutti: Cultivation in Trentino.
- f) Mais Nostrano di Storo: Cultivation in Trentino.
- g) Grana Padano – Trentino: Breeding and processing in Trentino.
- h) Mozzarella: Breeding and processing in Trentino.
- i) Casolet: Breeding and processing in Trentino.
- j) Puzzone di Moena: Breeding and processing in Trentino.
- k) Spressa delle Giudicarie: Breeding and processing in Trentino.
- l) Vezena: Breeding and processing in Trentino.
- m) Carne Salada: Breeding partially in Trentino; processing only in Trentino.
- n) Mortandela Affumicata della Val di Non: Breeding partially in Trentino; processing only in Trentino.
- o) Garda - Trentino: Cultivation and processing only in Trentino.
- p) Crauti Trentini: Cultivation in Trentino.
- q) Teroldego Rotaliano: Cultivation and processing only in Trentino.

It should be remembered that only PDOs and PGIs are allowed (see "Mountain Products Register" according to art. 15 of Parliamentary Law 97/1994; Decree of Agriculture Ministry 27 February 1998;

art. 85 of Parliamentary Law n. 289/2002) to use the following lettering on the label: "*produced on the Italian mountains*".

CHAPTER IV – IMPACT OF MOUNTAIN NATURAL CONDITIONS ON PRODUCTS, PRODUCTION AND KNOW-KOW

In general terms, the impact of mountain natural conditions on products exists clearly for rough agricultural products of animal and vegetable origin, whereas not so for foodstuff. In the latter case this is more evident when processing is carried out by industrial firms and the main goal is to maintain the quality of raw material.

Anyway, scientific evidence of this link is possible only in limited cases and needs specific investment on research.

The presence of Specifications and definition of physical, organoleptic and chemical requirements allows the measurability and monitoring.

Of course, current traditional products are a gift of past know-how and in some cases adapted to current taste of the consumers.

CHAPTER V – TYPE OF CONSUMPTION OF THE STUDIED PRODUCTS

- i) Seasonal: Marone Trentino, Mais Nostrano di Storo, Crauti Trentini.
- ii) Not-seasonal: Miele Trentino, Trote del Trentino, Mela, Piccoli Frutti, Grana Padano – Trentino, Mozzarella, Casolet, Puzzone di Moena, Sprezza delle Giudicarie, Vezzena, Carne Salada, Mortandela Affumicata della Val di Non, Garda – Trentino, Teroldego Rotaliano.
- iii) Not Traditional: Mozzarella, Garda – Trentino.
- iv) Moderately Traditional: Miele Trentino, Trote del Trentino, Mortandela Affumicata della Val di Non.
- v) Highly Traditional: Marone Trentino, Mais Nostrano di Storo, Mela, Piccoli Frutti, Crauti Trentini, Teroldego Rotaliano.
- vi) Nil consumer image: Mozzarella.
- vii) Weak consumer image: Miele Trentino, Marone Trentino, Mais Nostrano di Storo, Carne Salada, Mortandela Affumicata della Val di Non, Grana Padano – Trentino.
- viii) Strong consumer Image: Trote del Trentino, Mela, Piccoli Frutti, Casolet, Puzzone di Moena, Sprezza delle Giudicarie, Vezzena, Crauti Trentini, Teroldego Rotaliano.

CHAPTER VI – THE SIZE OF THE COMODITY CHAIN AND ITS MARKET

Miele Trentino	about 200 tons
Trote del Trentino	4.100 tons
Mais nostrano di Storo	800 tons
Marone Trentino	250 tons
Mela	450.000 tons
Piccoli Frutti	4.300 tons: 65% Strawberry, 4% Blueberry, 15% Raspberry, 10% Red/ Blackcurrant, 6% Blackberry
Carne salada	data not available
Mortandela affumicata della Val di Non	about 30 tons
Mozzarella STG	a) pack. 60 gr: 0,8 tons; b) pack. 100 gr.: 100 tons; c) pack. 125 gr. : 34 tons
Casolet	20 tons
Puzzone di Moena	300 tons

Spresa delle Giudicarie	300 tons
Vezzena	70 tons
Grana Padano DOP Trentino	about 3.600 tons
Garda DOP - Trentino	as to Trentino 2 tons (total of PDO 150 tons)
Crauti trentini	data not available
Teroldego Rotaliano DOC	4.400 tons

Spread of the market

Marone Trentino	local
Miele Trentino	mainly local
Mais nostrano di Storo	
Carne salada	
Mortandela affumicata della Val di Non	
Casolet	
Garda DOP - Trentino	
Crauti trentini	
Teroldego Rotaliano DOC	national
Trote del Trentino	mainly national
Mela	
Piccoli Frutti	
Mozzarella STG	
Puzzone di Moena	
Spresa delle Giudicarie	
Vezzena	EU
Grana Padano DOP Trentino	

Distribution

Miele Trentino	Mainly direct sale
Mais nostrano di Storo	
Marone Trentino	
Mortandela affumicata della Val di Non	
Casolet	
Garda DOP - Trentino	
Crauti trentini	
Puzzone di Moena	Mainly through traditional traders
Vezzena	Mainly through supermarkets
Trote del Trentino	
Spresa delle Giudicarie	
Carne salada	Mainly through hotels and restaurants
Mela	a) traditional traders: mainly for small producers not linked to cooperative system; b) supermarket: mainly for producers linked to cooperative system
Piccoli Frutti	a) direct sale: mainly for small producers not linked to cooperative system; b) supermarket: mainly for producers linked to cooperative system
Grana Padano DOP Trentino	30% direct sale; 40% traditional traders; 20% supermarkets
Teroldego Rotaliano DOC	All channels of distribution are used in the same weight

In order to improve interaction among institutional actors of the agro-food chain, PAT:

The Provincial Law 10/2001 promotes agro-tourism, "wine roads" and "flavour roads" in order to promote the development of rural areas, maintaining agriculture through income integration and improvement of living condition of farmers, protection of cultural tradition and environment as well as the use rural building property; development of hospitality and restaurant activity through typical and traditional products of Trentino;

Together with Chamber of Commerce, Local Association for Tourism, Association of Hotel-Keepers, Trade of Commerce and Tourism and others have promoted a specific "Clubs of product" aimed to "quality restoration", named "Osteria Tipica Trentina" (Traditional Tavern of Trentino) where menu has to follow the seasonality of the products and enhance those that are traditional of the area where the tavern is sited.

LEADER, INTERREG projects and other activities financed by PAT and EU have played and are playing an important role.

CHAPTER VII – SUMMARY OF THE REGULATION APPROACHES

The most significant as to mountains at national level are the following:

- *Parliamentary Law n. 97/1994*: is a global law for mountain areas; institution of National Fund for Mountain Areas; protection of "Typical Products" of mountain areas enhancing PDO and PGI products of those areas including them in the "Register of Mountain Products" that will be the only one allowed to use the mention "produced on the Italian mountains" when products are originated within "mountain municipalities", including their raw materials and processing/transformation; this law with good principles has never really been implemented;

- *Decree of Ministry of Agriculture 27th May 1998*: Institution of the Register of Mountain Products; the denomination "mountain" can be used according to Judgment of EC Justice Court of May the 7 1997; only PDO and PGI products originated in the so called "mountain municipalities" - according art. 1 of Parliamentary Law 97/1994 (see above) - may use the following added identification: "produced on the Italian mountain"; further denominations are forbidden;

- *Parliamentary Law art. 85 n. 289/2002*: Protection of Mountain Typical Products; the registration is possible when the good is produced by a Consortium grouping also non-mountain territories/regions; only PDO and PGI products originated (raw material, all production and processing activities) in the so called "mountain municipalities" (see art. 1 of Parliamentary Law 97/1994 (see above)) may use the following added identification: "produced on the Italian mountain";

- *Parliamentary Decree art. 8 n. 173/1998*: singles out "traditional products" and their know-how procedures (processing, storing, maturation); settling of dispensation for "traditional products" on hygiene matters according to EC regulation; settling of "Register of Traditional Products";

- *Ministry Decree n. 350/1999*: definition of "Traditional Products": products whose know-how has been consolidated over time (not less than 25 years; NUTS 2 have to check this know-how on their territory; setting up a "Regional Register of Traditional Products", the National Register is located by the Ministry of Agriculture); for each product information on: denomination, characteristics of product and consolidated know-how, materials and tools for processing and transformation as well as packaging, description of premises for processing, storing and ripening of product.

As to Trento:

- *Provincial Law n. 17/1993*: Services to enterprises; provides subventions for creation of quality trade marks, voluntary product certification, certification of ISO 9001 standard, certification of ISO 14001 standard, EMAS registration;

- *Provincial Law n. 17/1998*: THIS IS THE SO CALLED "PROVINCIAL LAW FOR MOUNTAIN"; promotes in marginal areas: economically viable activities, social development, protection of cultural identity of local population and protection of environment; the "Provincial Fund for Mountain" is established in order to fund (through provincial, national, EC subventions) all interventions for development in mountain areas. Intersectorial interventions are favoured. Municipalities can entrust full-time farms in works linked to environmental territory maintenance;

- *Provincial Law n. 10/2001*: disciplines agro-tourism, "wine roads" and "flavour roads" in order to promote the development of rural areas, maintaining of agriculture through income integration and improvement of living condition of farmers, protection of cultural tradition and environment as

well as the use rural building property; development of hospitality and restaurant activity through typical and traditional product of Trentino;

- *Provincial Law n. 10/2001*: provides subventions to primary sector economy, regulation of organic farming and "GMO-Free" Labelling;

- *Programme of Provincial Development 2002*: as to fruits and viticulture: rethink quality management and trade strategies (more investments on processing and transformation of products; support cooperation and integration of activities within and outside of P.A.T.), assure support of local research, to support organic productions; as to breeding and dairy products: support the utilization of less productive areas, overcome the fragmentation of properties, increase the value of products through PDOs, find out legal solution to simplify the weight of bureaucracy related to HACCP, integration both of actors of the chain and of the dairy-chain with other sectors (i.e. tourism) , assure support of local research (through maintaining investments); as to mountain traditional products: improve the link with environment issues, find out connection with tourism sector, convince to use EC quality labels (PDO, PGI, TSG, AOC) in order to overcome partially the strictness of EC regulations on HACCP (treaty on "traditional products" and "niche" products (i.e. cheese produced in "malga", a typical hut in the Alps where it is possible to produce also fresh-cheese with raw milk), promote these labels and quality of products of Trentino through a trade mark able to diffuse the global image of Trentino (see Trade Mark Trentino).

As to mountains:

in Italy and according to Directive 75/268/EEC, only 21 NUTS 3 are not classified as "non-mountainous"; as to official statistics, ISTAT - the National Body for Statistics – records 28 NUTS 3 as "non-mountainous" (NUTS 4 is considered as "mountain" when there are considerable mountain and hilly chains and the altitude is normally no less than 600 m.s.l. (in Northern Italy) and 700 m.s.l. (in Central and Southern Italy, islands included); in some cases ISTAT uses also this definition: more than 80% of its land surface is over 600 m.s.l in terms of altitude

ALPS, PROVINCE OF TURIN, ITALY

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The following analysis concerns in particular the products studied within the framework of questionnaire 1 but are also available for all the products from the area

CHAPTER I TYPES OF QUALITY IDENTIFICATION ON PRODUCTS

The 13 tested products are divided into 3 groups :

1) Transformed products based on animal raw material :

a - LC: "Saras del Fen", "Toma del lait Brusc", "Toma di Trausela", "Toma di Lanzo", "Cevrin di Coazze", "Murianengo", "Formaggio a crosta Rossa": **6 cheeses and 1"ricotta"** (like the Corsican Brocciu);

b - TC: "Prosciutto della Valle di Susa", "Mustardela";

2) TV : Transformed products based on vegetal raw material : "Genepi";

3) VE : Raw vegetal agricultural products: "Marrone della Valle di Susa", "Marrone della Val Pellice", "Antiche Mele Piemontesi".

The about 50 products identified inside the study area can also be classified into the same 3 groups. Most of the products are transformed from animal raw material, which explains the animal-oriented technical vocation of this study field (and in the same way, of the whole Piedmont region) and also the fact that the "competitive advantage", added value of these products is mainly based on the know-how and not on the raw material.

So it is the history, the culture, the tradition, and the human-being that make these products different and unique. Some diverse niche products have been preserved in the unfavourable and abandoned mountain areas. The links of these products to the mountains are not easily measurable because usually the breeds are almost the same as in the plains and (except for the Saras del Fen) it is not possible to prove the existence of a close link between the final product and the natural conditions of the pastures or the cattle farming conditions.

The situation is slightly different for the raw vegetal agricultural products of autochthonous varieties that are adapted to the mountainous conditions. Still, the link between the product and the territory is stronger towards a specific geographical zone of origin than towards the mountain in a generic sense.

None of these products have AOP/IGP labels, but most of them have private collective brands, which are officially recognized by Italian legislation and by the CE. 40/94 regulation (There are no red labels or any other international labelling in Italy).

In addition, all these products are on a national "Traditional Agricultural Products" (T.A.P) list, and therefore can derogate to some sanitary norms imposed by the European Directive CE 83/43 or the directive on the hygiene.

Four of these 13 products are identified by Slow Food as "Presidi", products "on the brink of extinction" and are object to a vast and efficient communication campaign at an international level and of a "Taste Fair" taking place in Turin every 2 years.

In the study there are a total of about 50 products that can be identified through some kind of quality sign. They are small-scale productions (each of them involving 5 to 10 producers), which concern about 10% of the agricultural producers of the study field. 50% of these products have also a collective brand, although there is no AOP/IGP labelling.

Apart from the biological products which have individual private brands, the other products owe their quality to the mountain know-how, the production technology and not to the environment or the breed. Therefore, the "cultural" root is much more important than the "natural" root. The fact that it is more the human being than the environment who is contributing to the measurable added value of these products reinforces even more their link with the specific area (Val Pellice, Valli di Lanzo, etc.) in comparison with mountains in general.

CHAPTER II - SPECIFICITY OF PRODUCTS, PRODUCTION AND KNOW-HOW STUDIED

For the products of the group 1) (see page 1), which are the most numerous, their uniqueness is linked to their production technology of old traditional recipes of the poor mountain valleys. For example the Saras del Fen and a "ricotta" mature for 25 days and contain a mixture of three milks: ovine, caprine, and bovine, to use the milk of the whole herd; the *mustardela* was prepared by families in order to use all of the pork leftovers; the *Tuma del lait Brusca* is a cheese which was left to "clot" naturally by the milk's acidity in the mountain pastures, etc.

For 2 products of this first group, there is a measurable link of the product's taste or of its chemical characteristics with the mountain pasture's grass: Both in the Toma di Trausela, a very fresh cheese, made of cow milk to be consumed within 1-2 days after its manufacturing, and in the Saras del Fen it has been shown that some volatile acids remain in the cheese and indicate the different pasture vegetal components. Therefore it is possible, at a scientific level in this case, to demonstrate with which grass the animal was fed to produce the milk used to make a particular "Saras del Fen".

The products of the group 2) (Genepi, to which the AOC mountain wines will be added) on the contrary show a more direct link to the mountain: the Genepi has to be cultivated in areas higher than 1500m.

Concerning the products of the group 3) the product characteristics are linked to the plant variety connected to a specific mountain area. These are autochthonous varieties adapted to the mountain conditions. The final organoleptic characteristics of the products, being fresh, connect them in a more direct way the mountain environment, although it has not been proved on a scientific level, perhaps because no-one has been searching for this.

Nevertheless it can be shown that the specific variety of the apple "Grigia di Torrania", part of the group "Antiche Mele Piemontesi" has some chemical characteristics, such as sugar/acidity ratio, smell and organolepticity. It is adapted to the mountain area and remained there where other more productive varieties did not arrive because mountain was outcast in the general agricultural development.

CHAPTER III - IDENTIFICATION OF THE VARIOUS PRODUCTION AND PROCESS LOCATIONS OF THE SUPPLY CHAINS

In all the cases the entire production cycle, from the cattle's birth, the product processing, to the wrapping, takes place in the mountain and in the study area (size of a Department). The only point of the chain outside the mountains is the slaughtering of the animals in the case of the products of the group 1), which is done in most of cases in the plains. For the pastry products on the other hand, only the processing takes place in the mountain, when the origins of materials like flour and sugar is non-mountainous.

CHAPTER IV - IMPACT OF MOUNTAIN NATURAL CONDITIONS ON PRODUCTS, PRODUCTION AND KNOW-HOW.

Except for the Tuma di Trausela and the Saras del Fen where the link with the vegetal composition of the pastures is easier to put in evidence, and the genepi and the wines, the link of the products with the natural mountain conditions is not demonstrable or measurable.

For some products it would probably be possible to show, such as for the "Prosciutto della Valle di Susa" ("Raw ham of the Susa valley"). But for most other products the link exists with the cultural conditions, history and traditions of the mountains.

It is the poorness and the philosophy of life in the mountains which has influenced over time the typical recipes and technologies, based on the need not to waste resources, to use the milk from different herds (cheeses out of mixing milks), to use the pork's blood (pudding), to have a double use (bread added with butter and sugar becomes a cake: e.g. the "*Focaccia de Susa*"), and to have breeds adapted to diseases.

CHAPTER V - TYPE OF CONSUMPTION OF THE STUDIED PRODUCTS

Commercialisation of these products is sometimes seasonal, especially the *Mustardela* is traditionally consumed in autumn and winter, as well as the vegetal products typically linked to the season. The commercialisation is made through a direct sale (short chain): directly from the farm, from the local markets (consumer/producer) or from the local shops. The commercialisation is usually limited within the study area because the products are not known outside, save for some which are included in the "Typical products' basket of the Turin Province". This umbrella brand is a strategic project of communication, valorisation and organization of the supply financed by the Province of Turin and the Mountain Communities in order to identify, standardise, create producer associations, and to make the province's typical products known. It includes 24 products, 10 of which are mountainous. For the consumers, the image of these products is strictly linked to the geographical origin.

CHAPTER VI – THE SIZE OF THE COMMODITY CHAIN AND ITS MARKET

On the basis of this data, we can state that these products are niche products: the study area's 50 products represent about 10% of the total agricultural producers, 1-2% of the total agricultural turnover and 10% of Turin Province mountainous parts' total turnover (study field).

The processing industry hardly exists, except for the *Mustardela*, because these are farm products directly transformed by the farmer.

These products are commercialized either directly (on the farm, in the pastures or to local markets), or to local restaurants (% rising), or to local shops (% decreasing). A few farmer associations now sell directly, in the framework of the Turin Province project, to hypermarkets (more than to supermarkets) and to specialized shops. The dimension is mainly local, but also international for some products like the Slow Food's "*Predis*" known in the whole of Italy. The current problem is organising the supply (transport and production), because for only 10 products there exists an association able at least to establish commercial relationships with partners in restaurants, shops and hypermarkets.

CHAPTER VI - SUMMARY OF THE REGULATION APPROCHES

Regulation framework:

- Reg 1081/92: AOP/IGP/STG

- 1930 National law concerning collective and individual private brands, part of the European framework of the 40/94 Reg and of the 89/7 Directive applied in Italy through the 480/92 decree (Law on the industry branding): this law, as it is said, thanks to the 40/94 Reg allows **private** (non public) geographical collective brands. E.g. : *Mustardela della Val Pellice*. This would allow bypassing the European regulation where the cost of obtaining and maintaining the controls is too high compared to the production dimensions: if this hypothesis is true, it may be a solution for the mountain products.

- Iso-EN-UNI 45011 norm (voluntary certification) : allows to establish a control and product certification system even for the non AOP/IGP products, either on the level of individual farms, or on the chain level, or on the business group level (e.g. producers of the "Tuma del Lait Brusci" who wish to certify standards for the selling to Carrefour apart from the AOP).

Beside these official certification forms

1/ Province of Turin has established a kind of "umbrella" brand: the "Typical products' basket of the Turin province". The brand is not registered because it is currently not recognized by any law (neither national nor European).

2/ The SLOW FOOD communication operation has identified "Predisi": products to be defended and made known. These products have a recognized Slow Food standard, accepted by the national commercial network working as well as the AOP, but much more flexible for the niche products. In Italy about 100 products are included, four out of which in the study area.

3/ The TAP list (Traditional Agricultural Products), established by the Piedmont region in application of the 155/97 decree (Dir CE 93/43) has an essentially sanitarian objective: it allows to identify the products allowed to derogate from the sanitarian norms (concerning the use of traditional materials). However, the identification of 100 products in the Province of Turin, 50 out of which are mountainous, also helps to make known the names, production areas and reference standards of these not well-known products on the brink of extinction.

The wines are part of the AOC rules.

There is no AOC any more for the cheeses.

There are no red labels or other labelling recognized at the national level.

And there are the biological products (2091/92 and following).

VESTLANDET, SOGN REGION, NORWAY

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CHAPTER I - TYPES OF QUALITY IDENTIFICATION ON PRODUCTS

We could identify three types of quality identification, mainly depending on the kind of producer for the product:

1. **Geographic name in connection to the product.** E.g. "Underdalsosten" ("Underdal cheese" or "The cheese from Underdal"). This kind of quality identification is common when a group of farmers co-operate in production or marketing of quality products.
2. **Farm name.** E.g. "Haugen Gardsmat" (Haugen farm food). Sometimes the farm name and geographic name of the area is promoted on the packing. This kind of quality identification often focuses on traditional food, handmade and natural foods in addition to food direct from the farm.
3. **Company brand.** E.g. Tine or Gilde. These are large national companies without any special preferences regarding raw material origin, except for a clear preference to raw material from Norway. In addition to the company brand, sometimes a label or name for different commodity groups is used, e.g. the Sognemorr (a smoked sausage) promoted under the commodity group name Birkebeiner and the company brand Gilde.

We have identified one company brand (Balholm) promoting quality products from the area different than the company above. Balholm is focusing on advertising the raw material origin on the packing.

CHAPTER II - SPECIFICITY OF PRODUCTS, PRODUCTION AND KNOW-HOW STUDIED

The main types of products studied are:

- *Cheese* made of goat or cow milk, or a combination. Cheese from both whey and curd is produced. Other ingredients are sour culture and salt. Some cheese is produced without salt
- Products from sheep and goat *meat* (smoked sausage and other salted and dried products)
- Transformed *fruits* (apple must/juice)
- Transformed *cereals* (crisp thin bread and sweet soft bread)

The area has also production of fresh vegetables and fruit marked as local food products from the farm. Some of these products come from organic farming. These products are not included in Questionnaire 1.

2.1 Production of raw material

Goat and sheep stock farming in the Sogn region is adapted to the conditions in mountain areas with animals on pasture during summer season and mainly locally produced fodder in the winter. The goat milk production and the sheep meat production have the following characteristics:

- in spring, summer and autumn the milk and meat is produced on high quality pasture in the mountains in a clean environment
- the animal husbandry system with extensive use of outlying fields contribute to the unique landscape qualities, both with animals on pasture and an open landscape with a diverse plant flora
- the animal breed used, the western Norway goat and to some extent the sheep breed, is adapted to local conditions
- during winter the goat and the sheep feed mainly on locally produced grass ensilage and some concentrate from outside the mountain area.

The two first points above contribute to the characteristics of the milk and meat used, and finally to the characteristics of the end-product.

These four characteristics are both traditional and typical for goat and sheep stock farming in the area and also the western Norway region. The length of the pasture season differs a lot depending on the local climate conditions, especially for goats. The more intensive use of concentrate during the winter season started 40-50 years ago.

During the last 50 years the goat farming has been specialised both geographically, to 2-3 districts in the study area, and on the farm level. Today, the usual goat husbandry in the area does not keep other animals. In the first half of the 20th century goats were common on the farms in Sogn. Sheep husbandry has been specialised on the farm level. Today, farms with sheep normally do not keep other animals.

During the last 40 years the cow milk production is increasingly not using pasture in outlying fields anymore. Milk is mainly produced during the autumn and winter season inside a dairy barn. Fodder is mainly based on local grass ensilage (70 % of fodder) and concentrate (30 %) from outside the mountain area.

Also in the horticulture processes towards specialisation and intensification have changed the production structure, but to a smaller degree. Many fruit farms still keep sheep as an integrated production. The trend is however towards specialisation in fruit and/or berries without livestock.

To describe the production process of the consumer products we divided the presentation into small-scale production and industry production.

2.2 Small scale products

Typical technical points in relation to process and know-how according to the products studied could be described as follows. The milk and meat products made on farm or in small-scale enterprises have these characteristics:

- use of local know-how and old traditional recipes from the area, often developed by the owner competence and with inspiration from other areas/countries
- handmade products or with a handmade image with special qualities often based on long processing time (e.g. the process of salting, drying and smoking)
- use of raw materials from the farm or farms in the local area without or with little use of additives (as chemicals e.g. nitrate)

- use of fresh unhomogenized milk, and to some extent unpasteurized milk for cheese production

For the on-farm production of "Flattbröd" (crisp thin bread) and "Lefse" (sweet soft bread) typical technical points in relation to process and know-how are:

- use of old traditions recipe and techniques, but also with more modern equipment facilities and production machinery
- based on local know-how
- handmade product or with handmade image
- produced from materials of both vegetable and animal origin.

The raw material of animal origin is produced in the mountain area, while the cereal is produced out of the mountain area.

For the small-scale production of fruit must, typical technical points in relation to process and know-how are:

- Use of local know-how about the fruit cultivation (variety)
- Use of only high fruit quality (direct from the trees)
- Production process without additives
- Pure fruit is pasteurised and bottled

2.3 Industry products

The cheese (Gamalost) and the meat products ("Sognemorr" and "Pinnekjøtt") studied are made in food industry in the rural municipalities of Vik (Gamalost) and Sogndal (meat products). These two food industry units are the only factories for milk and meat production in the study area. Typical technical points in relation to process and know-how according to the industrial production could be described as follows:

- raw material mainly from the western region, but being national companies the raw material could in principle come from all over the country
- local know-how and old traditional recipes are adapted to an industrial production with standardisation of processes and ingredients
- the milk used is both homogenized and pasteurised
- the cheese Gamalost is produced without fat and additives and has a specific taste and old traditions in the area

These points also give the products their character.

CHAPTER III - IDENTIFICATION OF THE VARIOUS PRODUCTION AND PROCESS LOCATIONS OF THE SUPPLY CHAINS

Location of the farms

There are three types of location of the farms producing *raw material* to the quality products in our data:

1. For all the products of animal and fruit origin processed on-farm or on small-scale enterprises, all the farms are located in the studied mountain area.
2. For the products of cereal origin, the farms are located outside the study area, and also outside other mountain areas.
3. For the products of animal origin processed in food industry, the farms are mainly (for cheese) and partly (for meat products) located in the study area or in other mountain areas.

The life of animals

The animals concerned spend all their lives either in the mountain area of the study territory or in other mountain areas. This is the case for all products in our study.

Location of the various steps of process

All the various stages of the animal foodstuff process are either located in mountain area of the study territory or in other mountain areas. This is the case for all products in our study.

CHAPTER IV - IMPACTS OF MOUNTAIN NATURAL CONDITION ON PRODUCTS, PRODUCTION AND KNOW-HOW

The natural conditions in the outlying fields in Sogn region produce animal foodstuff of high quality. These conditions result from the landscape with pasture ranging from the sea level up to more than 1000 metres above sea level and from the high quality soil (landslip soil). The soil, the good climate, the long days during summer and the availability of water give a rich plant flora as fodder and good conditions also for the fruit and vegetable production. In no other place on earth is it possible to produce fruit in this degree of latitude. This is due to mild climate influenced by the Gulf Stream, even temperatures caused by the temperature stabilising effects of the fjords and high light intensity during summer (very short nights). All in all, this gives unique plant growing conditions.

The impact of the natural conditions on products, production and know-how for products from goat and sheep husbandry processed in small-scale enterprises could be characterised as follows:

- Pasture quality with high plant diversification gives the products their special taste and consistency. This character could vary during the pasture period due to changes in plant fodder available for the animals
- Clean environment with clean air for drying processes is important, also the availability of local wood resources to the smoking and building processes

The ingredients in the on-farm production of "Flattbröd" (crisp thin bread) and "Lefse" (sweet soft bread) do not give important characteristics to the product. It is the *composition* of the ingredients that gives the product its character, e.g. use of potato in « flattbröd » and the specific butter (« kling ») used in the soft bread.

The impact of the natural conditions on products, production and know-how for the *fruit must* could be characterised as follows:

- High light intensity during summer (short nights) gives high levels of flavour
- Mild climate with stabile temperature (without very high summer temperatures) gives high levels of fruit acid
- Intensive artesanal work gives fruit raw material of high quality
- Local know-how about the fruit cultivation (varieties) contribute to the product quality

The impact of the natural conditions on products, production and know-how for the industry products is more difficult to detect. The cow milk used for the cheese, "Gamalost", is not produced on pasture in outlying fields, but on grass ensilage during autumn and winter or pasture on infields during summer. For the sheep meat products the situation is different due to the habitual use of pasture in outlying fields during summer. The likely problem here is the large-scale production, which does not allow any separation of the raw material to benefit special local fodder qualities. The industry separates only in relation to the traditional quality indication, the EUROPE quality system.

CHAPTER V - TYPE OF CONSUMPTION OF THE STUDIED PRODUCTS

Most of the products studied do not have seasonal consumption. Exceptions are products such as leg ham and rib meat. The consumption of all products studied is traditional and/or typical for the mountain area of the study territory. The impact of this geographical origin on the image of the product to consumers is strong for nearly all the products.

CHAPTER VI - THE SIZE OF THE COMMODITY CHAIN AND ITS MARKET

In general the products from the food industry differ substantially from the farm-food products in terms of the commodity chain and its market. We could characterise the commodity chain and markets for the quality food products from these industries as:

- High product volume
- Middle product price
- Many farms involved in producing the raw material
- Only one industry unit (one for meat, one for cheese and one for apple *must*) involved in our study area (there are no others)
- The number of retailers, wholesalers etc. involved is high
- The products have national distribution
- About 95% of the consumer products are sold through supermarkets

The farm-food products could in general be characterised in terms of the commodity chain and markets as:

- Small or middle product volumes
- High or middle product price level
- Few farms involved
- Often other producers of nearly the same product in the area
- The number of retailers and wholesalers is low
- The products have a local or regional distribution
- The main volume is sold directly to the consumer

There are some farm producers that sell their products mainly through local or regional supermarkets.

CHAPTER VII - REGULATION APPROACHES

Global politics for quality management

Global politics in this field is in Norway dominated on the one hand by the food quality legislation and ordinary tasks of The Norwegian Food Control Authority, and on the other hand by a major governmental ten-year-programme for quality food production :

- *Law on quality control of agricultural products etc. of 17 June 1932* is the main political instrument in Government's efforts to « prevent misconceptions regarding the (agricultural) product's origin, kind, composition, quantity or quality ». Together with *Law on food control etc. of 19 June 1933*, the Quality control act constitutes the legislation framework for the activities of *The Norwegian Food Control Authority (SNT)*.
- The overall objective of the *Programme on quality food production* is to contribute to «increased value creation» (value added) for food production and food processing industry. For the initial phase (2001-2002) the following strategy was settled : «The programme is to help primary producers and food processing industry that are developing specialized high quality food for sale in markets with high payment ability, and which contribute to adding value for the primary producers.»

Official quality marks and designations

The Norwegian Government has recently adopted (and slightly simplified) the EU quality marks and designations PDO/PGI/TSG. So far no products have achieved protection under these marks, but by the end of 2003 five products were expected to receive protection.

Both "Beskyttet opprinnelsesbetegnelse" (PDO) and "Beskyttet geografisk betegnelse" (PGI) have the potential to boost marketing of mountain quality products in general, and mountain quality products from Sogn in particular. It seems a disadvantage that products made of wild animals have not been included in the official designation. However, this will probably be done within a few years.

Private quality identification

Several private quality brands have been established in recent years, or are on the brink of being established. Only two of these brands are represented among the products described within our study area:

Norsk Gardsmat: This is a national brand for members of an organisation (with identical name) which is organising food producers with their own farm shop or market sales. Most members of Norsk Gardsmat (all members in Sogn) do not use the logo on food packing. Even though the brand regulations express that "the products shall be of high quality", members are not required to provide documentation of a claimed quality. Therefore the brand is no guarantee for a specific quality, but rather an indication of short a production chain.

Aurland Natur- og Kulutrav ANKA – (Aurland Nature and Culture Heritage): This is a newly established brand (April 2003) available for farmers producing *traditional food* within the boundaries of Aurland municipality (one of eight municipalities constituting our study area). The organisation has 32 members so far.

TATRAS MOUNTAINS, PODHALE REGION, POLAND

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CHAPTER I - TYPES OF QUALITY IDENTIFICATION ON PRODUCTS

Mountain products originate from Podhale region.

These belong into three categories:

- 1- cheese,
- 2- other milk products;
- 3- meat.

All specific mountain products are related to one breed of sheep – Polish Highland Sheep (PHS) (Polska Owca Górska) and mostly ewes' milk and processed ewes products. Three of these products are unpasteurised: oscypek, bundz, bryndza, one is whey obtained in bundz production, which after a heat treatment is similar to whey cheeses (sold in diluted form – as a very thick drink). The meat product is fresh lamb. Apart from lamb (untransformed product) the other products undergo processing (transformed dairy products).

As all aforementioned products are sold without labels, they have no brand or trade marks or any indication of quality scheme. Only oscypek cheese is sometimes vacuum packed, but it does not have a brand or quality signifiers on the packaging. In general these products are not related to registered and legally confirmed and protected brands and trade marks. Only recently there are initiatives aiming to protect these products, and the procedures and quality schemes are under development.

CHAPTER II - Specificity of products, production and know-how studied

All aforementioned products are traditional products for ages connected with the region and sheep production especially Polish Highland Sheep (PHS, Polska Owca Górska), This breed is characteristic for the region and does not occur in other regions. Extensive production in ecologically pure (organic) region, using traditional highlands based natural green feed of certain composition influence the quality of these products. The quality attributes manifested are taste, leanness, and absence of contamination. Unfortunately these aspects require further investigation due to limited knowledge and scientific justification. The PHS itself is suited for milk production, having better milking yield than other breeds, however characteristics of the breed's milk seem not to have particular influence on the general quality of the product.

Technological process that takes place in shepard's huts has the most prominent influence on the quality and specific features of ewe milk products. Traditional technology has been used for hundreds of years and only in the Podhale region. The process is characterised by specific operations such as: hand moulding of cheese, cooking, smoking, metal spike inserted into the cheeses to release gases and also use of traditional wooden moulds, which give the cheese its regional characteristics. All these factors contribute to specific shape, colour, texture and taste of a product, which is easily identified as part of the Podhale region, its heritage and culture.

CHAPTER III - IDENTIFICATION OF THE VARIOUS PRODUCTION AND PROCESS LOCATIONS OF THE SUPPLY CHAINS

Podhale sheep – PHS are born in the region and never leave it (never transferred beyond mountains). There are two stages in breeding – first is the grazing period from May till October when the flocks are in the pastures - glens of Podhale. Usually one flock has 200-1000 sheep and is served by one

hut. Sheep are in the open throughout the summer and come back for the night to "night fences". Within the fences they are milked 3 times a day. During the day they graze and return for milking and to spend the nights. The processing of milk takes place in huts that are close to pastures. In winter (November till April) sheep return to roofed shelters, also in the Podhale region. Winter feeding comprises of highlands hay, mixture of hay and silage and oats. Lambing takes place in late winter (January-February). Lambs are sold for slaughter after few weeks of fattening. During pasture season and in winter sheep are supervised by vet services and are monitored (traceability scheme) by Polish Association of Sheep and Goat Breeders.

The whole processing of ewe milk takes place in mountain huts. This involves: milking, production of bundz, żętyca and cheese-oscypek, salting and smoking. Only production of bryndza can partly take place in specialised dairy plants. These are located near-by also in the Podhale region.

CHAPTER IV - IMPACT OF MOUNTAIN NATURAL CONDITIONS ON PRODUCTS, PRODUCTION AND KNOW – HOW

Sheep are located in the highlands throughout all of the production cycle. As the production takes place in clean environment without industrial pollutants, fertilisers, pesticides and in the extensive mode of husbandry, the products can be easily branded as organic. Additionally a specific composition of highland flora contributes to unique sensory characteristics –flavour of milk and dairy products. Although there is only a limited scientific evidence of this, consumer perceptions and buying behaviour confirms exceptional and very much sought after features of the highland (Podhale) products.

CHAPTER V - TYPE OF CONSUMPTION OF THE STUDIED PRODUCTS

Consumption pattern of traditional products has a seasonal character, and is concentrated in the regions considered for this investigation. These products are both the major attraction for numerous tourists and also a major component of a staple diet of local people. There is a close link between geographical location and consumer perception of these foods.

To any Polish resident oscypek, bundz or żętyca are clearly signifiers of the Podhale region.

CHAPTER VI - THE SIZE OF THE COMMODITY CHAIN AND ITS MARKET

The volume of production of these products has local character and is rather limited. As such the compounded statistics of production volume and sales are difficult to access. Most of the lamb produced in Polish highland is exported to Italy. According to press data in the Podhale region, 30,000 lambs (450 t) in livestock were procured in 2002 and 2003. Amongst dairy products oscypek and bundz prevail, whereas bryndza and żętyca output is small. These products are sold via direct channels i.e. farm shops, farmers and also directly at huts. Significant sales are contributed to local markets and even streets of Zakopane, Nowy Targ and Cracow. Some of the production is also distributed via specialised wholesale channels. Żętyca is consumed by farm workers (on the production spot) and also sold directly from the huts. The excess is used for animal feed. The sales of this drink are limited due to weak demand, lack of promotion and information with regards to its nutritional and sensory value. The other factor are problems with distribution.

CHAPTER VII - SUMMARY OF THE REGULATION APPROACHES

At the moment there is no specific legislation related to the aforementioned products. As far as Polish law used to be concerned, unpasteurized milk products were illegal and not available to broad public via shops and supermarkets. The situation has changed when the Polish Ministry of Agriculture by the decree of 5 July of 2002 allowed to use unpasteurized milk (under certain specific conditions) to manufacture processed dairy products. In 2000 former mayor of Zakopane city applied to the Polish

patent office to protect the verbal and graphic symbol of the trade mark oscypek/oszcypek and bundz/bunc. This was done to give the rights to Podhalański Związek Gmin (Podhale Association of Gminy) or Polish Association of Sheep and Goats Breeders (Związek Hodowców Owiec i Kóz). As the application was rejected, local authorities (Starostwa Nowotarskie, Tatrzańskie i Żywieckie, Związek Podhalański and Regionalny Związek Hodowców Owiec i Kóz) in spring 2002 applied for trade mark protection to Polish Patent Office (Urząd Patentowy RP). The application included: bundz/bunc, bryndza, oscypek/oszcypek, żentyca (15.03.2002). With the application there was a request to protect 5 geographical designations of origin for bryndza, bunc, żentyca i oscypek (4.04.2002). Unfortunately the application process is going to last 3 years.

In summer 2002 Polish producers of oscypek cheese (bacowie) applied for Polish quality scheme logo: "Polska Dobra Żywność" ("Good Polish Food" GPF). Polish Ministry of Agriculture awards GPF "Polska Dobra Żywność" mark to the products that have exceptional quality and sensory properties. GPF Programme promotes best Polish foods produced only with raw materials of domestic origin.

Under this scheme the Ministry of Agriculture controls hygiene of production, origin of raw materials, and the fulfilment of strict sanitary and health regulations.

Local Podhale Authority (Starostwo Powiatowe) in Nowym Targu is trying to obtain official recognition for oscypek cheese. In this they are assisted by the French organisation GRET⁴, which has investigated the technology of production, health conditions and quality requirements of oscypek. Next stage will involve registration of the name and the technology of Oscypek cheese production.

⁴ Groupe de Recherche et d'Echange Technologique

WESTERN CARPATHIANS, MURES & HARGHITA, ROMANIA

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(FAER: Fundatia pentru Promovarea Agriculturii si Economiei Alimentare)

CHAPTER I - TYPES OF QUALITY IDENTIFICATION ON PRODUCTS

The majority of the Romanian food products are going through an official identification process. The notion of "quality mark" or identification of the quality on the product does not exist in Romania. For Romania the "brand" is an essential element of the company's strategy ; the "brand" distinguishes the products and services of a company from those of its competitors'. For the consumer a brand represents a means of recognising a product or a service.

In conclusion, the majority of the products are recognized directly by the consumers without any real identification and standards.

CHAPTER II - SPECIFICITY OF PRODUCTS, PRODUCTION AND KNOW-HOW STUDIED

The way the mountain people live from the activities bound to agriculture is mainly autarchic, more than 80% have a self-sufficient agriculture, and the mountain food products are not diversified. The production and the know-how are very traditional and steady.

At home mainly bovine, ovine, pork and fish food products can be found, or venison is eaten, mainly none sophisticated products, with a very simple production process. The cattle breeds are traditional, do not have a high productivity, but are very well adapted to the climate and farming conditions. The most used vegetable is the potato that comes from the region itself, and there are only little different vegetables and fruits. The potato is also the only vegetable cultivated in the studied region in order to sell to the exterior.

One of the characteristics of the studied region is that the population tries to valorise the wild vegetal products (e.g. forest fruits, medicinal and aromatic plants, etc...).

The know-how is influenced by the mountainous conditions, which are a limiting factor for the development of new technologies.

In the countryside, food and farm products are obtained using wood as heating, without any running water or canalisation of the residues.

The consequence of these conditions is a lot of hygiene problems.

The studied species have been:

- Potato
- Trout
- St. John' Wort
- Rosehip
- Blueberry
- Sheep
- Sheep
- Deer
- Wheat
- Horse

- Blackcurrant
- Fir
- Boar
- Cow

The principal characteristics of the product during its life cycle/production are bound to:

- Low water oxygenation and temperature ;
- Plants are cultivated on heavy soils with a short vegetation period ;
- Manure is mainly used for the soil fertilization ;
- Ecological fodder is given to the cattle ;
- Medicinal and aromatic plants have a high iron content ;
- Products have medicinal attributes.

CHAPTER III - IDENTIFICATION OF THE VARIOUS PRODUCTION AND PROCESS LOCATIONS OF THE SUPPLY CHAINS

Animal products are obtained from cattle which spend their complete life cycle within the mountain area.

On the contrary, vegetal products are produced also of raw materials coming from other regions (e.g. bread, made from wheat which is not cultivated in the region).

Producers do not have an associations, and their products are not valorized through a common effort. It's almost like everyone sells his product the way he can.

CHAPTER IV - IMPACT OF MOUNTAIN NATURAL CONDITIONS ON PRODUCTS, PRODUCTION AND KNOW—HOW

The lack of pollution, the low temperature and the fact that the region does not have viruses induce that the most important crop is the potato.

Some species can be found only in this region thanks to both altitude and distance from industrial sites (trout, fir, forest fruit, etc...).

The quality of the mountain pastures due to the floral composition, altitude, water and microclimate protects the animals from parasites, and the disease risk is low. There is also a great variety of wild growing food (oak's acorn, roots) for the wild animals.

CHAPTER V - TYPE OF CONSUMPTION OF THE STUDIED PRODUCTS

Most of the region's products have a great impact on the consumers. They are traditionally consumed by the local populations.

The vegetal production is seasonal but products are consumed throughout the year. On the other hand, the animal products are both produced and consumed all year round.

The mineral water studied, BORSEC ® is the best known and most consumed in Romania. It has a strong economical, social and touristic impact on the region.

CHAPTER VI - THE SIZE OF THE COMMODITY CHAIN AND ITS MARKET

It is very difficult to quantify the exact volume of the commercialised products, because of the lack of verifiable information. Many products are made at home or in small-scale businesses, and used mostly in the families. Products which are sold are commercialised outside the markets. In Romania, it cannot be spoken of an organized market for the mountain quality products.

The market is found at the local level for more than 70% of the products and the rest is divided between a regional and a national level.

The commercialisation types encountered in the majority of the studied cases are the direct selling and the selling through traditional shops.

The exception to this rule is the mineral water BORSEC®.

CHAPTER VII - SUMMARY OF THE REGULATION APPROACHES

At present the legislation is in a transition in order to line up with the EU legislation.

In Romania 19 national regulations exist, elaborated by the Agriculture Ministry to define quality, manufacturing, and labelling of some food products, as well as some analyse methods. Efforts are being made in Romania to line up with the European regulations.

For instance:

- Certification of the BORSEC® mineral water quality on the microbiological, physical and chemical aspects.
- Certificates have been given for the production of preformed and for the filling of glass and PET containers.

BASQUE COUNTRY, SPAIN

Authors: Rafael Herran, Clara Icaran (IKT)

CHAPTER I - TYPES OF QUALITY IDENTIFICATION ON PRODUCTS:

There are currently five products in the study territory protected by the “**Denominación de Origen**”⁵ denomination, three entirely produced within the CAPV (Comunidad Autónoma del País Vasco) and two with production areas that include also other territories. The first three products correspond to the D.O. “Txakolí de Getaria”, D.O. “Txakolí de Bizkaia” and D.O. “Txakolí de Alava”, three young wines of annual consumption, mainly white, very characteristic of the study territory. These D.O. have been established in 1989, 1994 and 2001 respectively. We also find in the CAPV the D.O. “Idiazabal” for cheese made of raw milk of the autochthonous ovine breeds *Latxa* and *Carranzana*, whose production area also includes some part of the territory of Navarra and that has been established in 1987. We must also mention the D.O. “Rioja” for wines, whose production area covers a part of the CAPV (Rioja Alavesa), La Rioja and part of Navarra. This last D.O. has not been included in the present study, because the production area is mainly located in zones not classified as mountain area and we found it out of the field of the study. However, we must note the high social and economical importance of this D.O. in its production area and that it is, since 1991, the first D.O. in Spain receiving the distinctive of “Calificada” (Qualified) because of the high amount of analysis and the dimension of the control performed in the elaboration of wines.

Continuing with the official marks, the number of producers working with **Organic Farming** in the CAPV is increasing, especially since 1996. Even if they are not the only ones, in the present study we have included cattle products (cow, sheep, goat and hart) and vegetables, since we considered them the most important ones.

Apart from the mentioned official marks, the quality mark playing the most outstanding role in the CAPV, because of the number of products covered and the amount of producers working with it, as well as the dimension of the control and requisites demanded of the product, is “Eusko Label Kalitatea” (Basque Label Quality). This mark was created by the Basque Government in 1989 as an official mark in order to provide an instrument for the producers of the CAPV that could be used for making their products distinguished and appreciated in the market and to become more competitive. However, since 1998 the mark consists of a Guarantee Mark (Marca de Garantía) whose new owner is Kalitatea Fundazioa (non profit making private organisation) that lets the mark to be used by those producers and manufacturers accomplishing all the requisites given in the internal regulations regarding each product. Even if it is a private mark, it still consists of an initiative of the public administration of the CAPV. At the moment there are eleven products under this mark, ten included in the present study (fresh tuna has not been included, not being considered agricultural product), and it is expected that this number will increase due to the incorporation of new products, such as the pork also included in the study. It must be mentioned that, at present, “Euskal Okela” (Basque Meat of Bovine), one of the eleven products using this mark, is in process of registration as PGI. The products using the mark “Eusko Label Kalitatea” analysed in the present study are the following ones: Basque Bovine Meat, Basque Farm-House Chicken, Basque Suckling Lamb, Basque High Quality Milk, Basque Honey, Potatoes from Alava, Peppers from Gernika, Chilli Peppers from Ibarra, Basque Quality Tomatoes, Basque Beans and Basque Pork (next incorporation).

⁵ In Spain this distinctive is used for all those products registered as PDO according to European 2081/92 Regulation, as well as for wines that accomplish the requisites given in the national Ley 25/70 (that are automatically registered, at European level, as “Quality Wine Produced in Specific Region” according to European 2002/753 Regulation).

There are also other marks in the CAPV in addition to "Eusko Label Kalitatea", however, they have not been included in the present work, and we have just focused on the study of those quality marks we considered most important, those mentioned in the previous paragraphs. At present, Technical Regulations dealing with the production of certain products by means of Integrated Production Systems are also being developed in the CAPV, but they have not been included in since they are not yet working.

Dealing with the quality identifications mentioned on the product package, the four products with "Denominación de Origen" studied mention that they have this distinction, indicating the name of the product and providing their respective logos. The labels of the Idiazabal Cheese also include the indications "ovine cheese" and "made with raw milk". In the case of Organic Farming products, they carry a specific logo for Organic Farming in the CAPV which includes a geographical mention by means of the term "Euskadi" (Basque Country).

Regarding the products using the mark "Eusko Label Kalitatea" the quality indications used can be different depending on the product. All of them carry the logo of the mark (consisting of a "K" for Kalitatea that means Quality in Basque language) together with the words Eusko Label (Basque Label) and Kalitatea. All the products mention also their specific name that in general includes a geographical mention. This geographical mention can refer to the Basque Country (e.g. Basque Beans), the production area (e.g. Potatoes from Alava) or a specific location where the product has a higher tradition or a deeper market even if the product is not exclusively produced in that location (e.g. Peppers from Gernika). Some names also include the term "Quality" (e.g. Basque Quality Tomato). In addition, some products include mentions regarding specific aspects about the breeding or culture practices: "produced respecting the nature" in the case of tomatoes and peppers, or "grown free in pasture" and "feeding based on cereals (at least 65% of maize)" in the case of farm-house chicken to give some examples. The milk is a particular case including the following mention: "Because of its high quality differentials and its high amount of proteins this milk has attained the Basque Label of Quality".

CHAPTER II - SPECIFICITY OF PRODUCTS, PRODUCTION AND KNOW-HOW STUDIED

In the case of the products with "Denominación de Origen" studied, we see that the grape varieties used in the elaboration of the three Txakolis, as well as the ovine breeds used for the production of milk and the production of Idiazabal Cheese, constitute one of the main differentials of these products. The principal varieties of grape used in the three Txakolis, Honadarribi Zuri and Hondarribi Beltza, are autochthonous varieties from the study zone, very typical and traditional in it and with a production area practically limited to the CAPV. The same happens with the ovine breeds Latxa, whose expansion area covers the CAPV and some zones of Navarra and French Basque Country, and Carranzana, characteristic of the surrounding areas of Carranza in Bizkaia, used in the production of milk in the case of Idiazabal Cheese. We were told that 80% of the quality of an Idiazabal Cheese could be related to these breeds.

The culture practices in the case of the grape as well as the breeding of sheep also present characteristic aspects of mountain areas. In the case of the Txakoli, this can be seen in practices destined to optimise the growing conditions in a territory very conditioned by its climate and orography. Some examples could be parcels located on slopes oriented to south protected from winds coming from the north and north-west and maximising the exposition to sun, the establishment of terraces and conservation of vegetal cover in order to limit erosion, or the use of pruning techniques destined to protect the grape from the humidity of soil. In the case of Idiazabal Cheese, the breeding of sheep has traditionally been characterised by a short distance transhumance from valleys to higher zones in order to make a maximum utilisation of the natural resources of a territory characterised by the abundance of pastures and the presence of high pastures that stay green during the whole year. This short distance transhumance has conditioned the production of milk and thus the production of cheese to be seasonal, because due to a higher facility of handling and a higher control of the feeding

during the milk production, traditionally this production has been made to coincide with the period in which the animals stay in the farm.

Dealing with the elaboration of these products, in the case of the Txakoli, standard procedures common in viticulture and not exclusive of mountain areas are used; however, this elaboration has a long tradition in the study territory. The elaboration of the "Txakoli de Getaria" presents a characteristic aspect that is the fermentation on the own dregs and the absence of movement of wine until the bottling, providing aromas and a higher content of carbonic acid. Dealing with the elaboration of Idiazabal Cheese, even if similar procedures can be followed in the elaboration of other cheeses, it has a long tradition in the territory and it presents characteristic aspects such as using raw milk, a maturation period between 4 and 8 months or smoking the cheese in some cases. In all these products, the application of new technology (higher level of process control) to traditional principles and the establishment of various parameters in the respective regulations are contributing to the achievement of more homogeneous and defined products.

Now focusing on the products using the mark "Eusko Label Kalitatea", we see once again that the breeds and varieties used can often constitute one of the main differential elements of the product. This is the case of the Basque Suckling Lamb, Chilli Peppers from Ibarra, Pepper from Gernika and Basque Beans that use autochthonous breeds and varieties, very typical and traditional in the study territory, with distribution areas limited to specific zones of the CAPV and, and in the case of the lamb (breeds Latxa and Carranzana) also to some bordering areas. In the case of Chilli Peppers from Ibarra this relation with the territory is intensified by a traditional culture system, characterised by a continuous gathering in which all the fruits are taken with the development degree that identify Chilli Peppers from Ibarra, and by their characteristic processing as pickled preserve, what all together makes us consider them a different product, typical of the territory. In the case of the lamb, in addition to all those aspects dealing with the breeding mentioned when talking about D.O. "Idiazabal", the short age at the moment of slaughter (3 to 5 weeks) in order to destine the milk production to the elaboration of cheese (many times under the D.O. "Idiazabal"), makes it a product with specific organoleptic characteristics completely integrated in a particular mountain economy very traditional of the study territory.

The breeds and varieties used in the Basque Farm-house Chicken, Basque Pork or the Basque Quality Tomato also constitute a differential element. In these cases, even if the breeds and varieties are not original from the study territory, breeds and varieties of slow growth, more rustic and closer to those traditionally produced in our farms have been selected, giving priority to quality rather than productivity. In the same way, some aspects of the animal breeding such as the composition of the feeding or growing in the open air (in the case of the chicken and one of the two pork production systems using the mark "Eusko Label Kalitatea") that leads to a differential development of muscles and fat distribution, can be differential elements in these products. However, we would not say that they consist on cultivation or breeding systems and breeds or varieties typical of mountain areas, so even if these products present differential elements in all these aspects, their relation with the territory is not so clear as in the case of the products mentioned in the previous paragraph.

In the case of the Basque Bovine Meat, approximately 85% of the animals produced correspond to the breeds Pirenaica and Limousin or their crossbreeds. The first one is considered autochthonous, and the second one, even if it is common to find it also out of mountain areas, is original from the French Central Massif and is very well adapted to the conditions of the study territory. The breeding of these animals also presents traditional aspects of our territory, such as an utilisation of pastures often linked to a short distance transhumance from valleys to higher zones. Anyway, this utilisation of pastures does not have a considerable influence on the characteristics of the meat, because during the last months prior to the slaughter the feeding is mainly composed of natural fodder with a specific composition destined to obtain a homogeneous and defined final product. In the same way, the maturation processes applied to some pieces of the animal, traditional in the study territory, are essential in regarding the final characteristics of the meat.

A different case is that of the Basque High Quality Milk, in which the breed used (Frisian breed) is an important factor with respect to the quality of the product but not a differential element, since its use is extended all along Europe. In this case, in addition to an exigent level of requisites regarding the

composition of the milk, the main differential of the product consist on the process of pasteurisation that, even being a standard technology, makes possible to recuperate a product traditional in the study territory, the fresh milk, keeping all its properties but with the guarantee derived from the pasteurisation.

In the case of the Basque Honey, the types of bee used do not constitute any differential element in the product or link to the territory, since they are neither typical nor traditional of the study territory. Even if the main link between the honey and the territory is based on the specific vegetation of the area as it will be explained in point 4, if we compare it with some other honeys, we see that its processing also presents differential aspects such as no pasteurisation (raw honey), short period of time between extraction and bottling (fresh honey) and extraction by centrifugation and never by pressing the honeycombs (clean honey). In that way a raw and fresh honey with all its natural properties is obtained. Anyway, it must be said that this production also presents some aspects of recent implementation such as a transhumance of the beehives following determinate types of flowers in order not to limit the honey production to the vegetation surrounding a specific location and the flowering period of that vegetation.

With respect to the Potato from Alava, potato for cooking, we can say that none the varieties used and none the culture practices represent differential aspects specific of the study territory. Actually, the long tradition of the territory in the production of potato for seeding (not for cooking) is what served to create this image of traditional product for the Potato from Alava. The main quality differential of this product consists of the selection of varieties with good cooking aptitudes and a strict selection of the best tubercles.

With respect to the products of Organic Farming studied (cattle products and vegetables), we see that apart from the ovine cattle, in which the autochthonous breeds Latxa and Carranzana are exclusively used, for the rest of the products there is a high diversity of breeds and varieties, having autochthonous ones as well as imported ones. Regarding the culture and the breeding of animals, these are characterised for all those practices usual in Organic Farming given in the UE 2092 Regulation, common for mountain areas and zones out of mountain areas. However, applying some of the principles given in that regulation in a territory with these particular characteristics (hilly and mountainous topography, abundance of rain, etc.) presents some particularities as it will be explained in point 4.

Fore more detailed information about different aspects regarding the specificity of the studied products the respective individual questionnaires can be consulted.

CHAPTER III - IDENTIFICATION OF THE VARIOUS PRODUCTION AND PROCESS LOCATIONS OF THE SUPPLY CHAINS

The production/elaboration areas of the different products with "Denominación de Origen" are given in the respective Technical Regulations of these products. In the case of the three Txakolis, the production/elaboration areas cover determinate zones entirely included within the territory of the CAPV. In the case of D.O. "Txakoli de Getaria" this production/elaboration area is quite small and concentrated, whereas in the case of D.O. "Txakoli de Bizkaia" it is more atomised and disperse, being the D.O. "Txakoli de Alava", whose production/elaboration area is limited to the "Comarca Cantábrico Alavesa", something in the middle.

Dealing with the D.O. "Idiazabal", the production/elaboration area covers, according to the respective regulation, the natural diffusion areas of the breeds Latxa and Carranzana in the three provinces of the CAPV and in Navarra (except Roncal Valley). These natural diffusion areas mainly consist on mountain areas characterised by the abundance of pastures, and it is in these areas where the animals use to spend their whole life.

Regarding the products using the mark "Eusko Label Kalitatea", all of them are characterised by the fact that their production area and, when existing, also the elaboration area always take place within

the administrative limits of the CAPV. In some cases this production/elaboration area can include the whole territory of the CAPV and in some other cases it can be limited to determinate zones of that territory. In the case of Chilli Peppers from Ibarra, Peppers from Gernika and two of the three types of bean commercialised as Basque Bean (Bean from Tolosa and Bean from Gernika), the production area is limited to zones of the CAPV with Atlantic Climate, aiming at a product presenting characteristics that traditionally have identified it. In the same way, the production area of the Red Bean from Alava is limited to zones with Continental Climate within the CAPV, where the conditions under which it traditionally has been produced can be found. In the case of the Potato from Alava, the production area is limited to the territory of Alava.

Dealing with the time the animals implicated in products of animal origin spend in mountain areas, in general, they spend the whole life or practically the whole life within the study zone, but there can be small exceptions. In the case of Basque Bovine Meat and Basque Suckling Lamb, the animals are born, grown and slaughtered in the CAPV. In the case of bovine cattle for milk production (Frisian Breed), even if in general the animals are born in the the farm, in punctual cases cattle can be imported from other areas, which could include non-mountainous areas, in order to increase the livestock. In the case of the Basque Farm House Chicken, newborn chickens are brought to the farms of the study territory, where they spend the rest of their life. Bees are a particular case in that, due to the transhumance of the beehives performed with the aim of obtaining different types of honey, they can spend determinate periods of time in bordering areas of the CAPV, even if they normally reside on mountain areas.

With respect to Organic Farming, the products studied are completely produced within the study territory. Anyway, this is due to the simple reason that the study was focused on products of the study territory, because, as we know, Organic Farming can be developed in non-mountainous zones as well as in mountain areas. In the case of the cattle products studied, the implicated products spend, in general, all their life within the study territory.

CHAPTER IV - IMPACT OF MOUNTAIN NATURAL CONDITIONS ON PRODUCTS, PRODUCTION AND KNOW-HOW

Starting with the products with "Denominación de Origen" and focusing first on the Txakoli, we can say that this product is a direct result of the climatic conditions of the study territory, which are strongly influenced by a mountainous relief. The production areas of the three Txakolis present an Atlantic Climate with abundance of rain and with considerable limitations of sunshine that condition the maturation of the grape and determine the attainment of young wines with relatively low alcoholic graduation and with a characteristic acidity. In addition, this climate and a hilly relief with strong slopes, determine that traditionally some measures, typical of territories with these type of limitations, have been applied in the culture of the grape as explained in point 2 (location of the parcels in south oriented hillsides, establishment of terraces and maintenance of the vegetal cover to limit erosion, pruning systems aimed to protect the grape from soils humidity and to improve ventilation and exposition to sun) as well as the need to emphasise the treatments against fungal diseases favoured by the high humidity.

Dealing with the D.O. "Idiazabal", even if it is difficult to establish up to what level the natural conditions of the territory influence the characteristics of the cheese, it is evident that the characteristics of the territory have favoured a strong pastoral activity, ovine and also bovine, and it would be difficult to imagine the presence of such a deep rooted product in this territory without the abundance of pastures derived from such particular climatic and relief conditions. In the same way, these climatic and relief conditions determine that with the aim of making a maximum utilisation of pastures, traditionally a short distance transhumance has been performed from the farms to higher zones (high pastures) where the animals spend about half of the year (from May to October approximately). This short distance transhumance has also led the milk and cheese production to be seasonal as explained in point 2.

With respect to the products using the mark "Eusko Label Kalitatea" different levels of influence by the natural conditions of the territory can be observed. The clearest example of a product whose characteristics are directly linked to the natural conditions of the territory is honey. The vegetation of the study territory and some bordering areas determines the attainment of the following types of honey ordered from higher to lower volume of production: Honey of Prairie, Honey of Eucalyptus, Honey of Heath, Honey of Forest, Honey of Lavender and occasionally Honey of Acacia and Honey of Rosemary. In addition, it has been proved that even in the case of honeys of the same predominant flower produced in different territories, differential nuances related to the specific composition of the vegetation of each area tend to appear.

Another case of products with characteristics influenced by the natural conditions of the area where they are produced is that of the Chilli Peppers from Ibarra and the Basque Bean. It was explained to us that the varieties used are very sensible to variations in the cultivation conditions and that the optimum conditions in order to get products presenting the characteristics that traditionally have identified them are found in the zones with Atlantic Climate of the CAPV in the case of the Chilli Peppers from Ibarra, Bean from Tolosa and Bean from Gernika and in the zones with Continental Climate in the case of the Red Bean from Alava. For example, in the case of the Chilli Pepper from Ibarra, when they are cultivated under more extreme climatic conditions they get a hotter taste, when actually one of main differentials of this chilli pepper is that it does not burn.

Dealing with the Basque Suckling Lamb, the influence of the natural conditions of the territory on the management of the sheep herds has already been explained when talking about the D.O. "Idiazabal". This product presents seasonality linked to the milk production, since with the aim of making this milk production to coincide with the period the animals stay in the farm, the births are concentrated, in general, at the beginning of this period. In some way, a similar management has traditionally been applied to the case of the bovine cattle for meat production. In this case, as well, the births appear to be seasonal, mainly concentrated in spring, linked to an interest of making a maximum utilisation of the pastures. Anyway, the characteristics of the meat are mainly determined by the feeding of the animals during the last months before the slaughtering, period in which they are mainly fed with fodder. Thus, this utilisation of pastures does not influence, at least in a relevant way, the characteristics of the final product.

In the case of the Basque Farm House Chicken, we could say that even if the natural conditions of the territory do not seem to influence the characteristics of the product in a considerable way, they are adequate to perform a breeding in the open air during the whole year, something that would not be possible in areas with more extreme climatic conditions. The same could be said about the pork produced in the open air (one of the two initiatives of pork production that will use the mark Eusko Label Kalitatea).

The natural conditions of study territory do not seem to play such an important role in the case of the fraction of Basque Pork produced inside stable or the Basque High Quality Milk in which the animals implicated also spend most of the time stabled. The same could be said about the Basque Quality Tomatoes and the Peppers from Gernika, produced in many cases inside greenhouses.

In the case of the Potato from Alava (potato for cooking), the high altitude of the area limits the flight of aphids, what makes the tubercles to present a high sanitary quality (this is the reason why the production of potato for seeding has been so traditional in this area). However, we would not say it is a relevant differential aspect with respect to the consumers, being more important the type of variety selected or the quality control performed on the tubercles.

Dealing with the products of Organic Farming studied, we have seen that some aspects of a mountain territory can provide specific characteristics to the products related to the application of these production systems. In the case of cattle products, for example, applying Organic Farming principles implies a production linked to the utilisation of pastures, with a minimum surface of 1 Ha per two LUs (Livestock Units). In a territory with this hilly relief, this implies the utilisation of pastures located in steep slopes that cause the cattle to make more physical exercise that in flat areas, leading to a differential development of muscles and fat distribution. In the same way, the abundance of pastures in the area makes possible a high self-sufficiency of the farms based on the utilisation of these natural resources compared with other areas. At present, approximately 60% of the feeding of the cattle

consists on pastures, and there is a trend to increase this fraction aiming to achieve 90%, which would constitute a clear differential aspect with consequences to the characteristics of the meat or milk produced. In the case of vegetables, even if we could say that the climate of the territory is in some ways adequate for the cultivation of these products, we do not see that they present differential characteristics coming from the particular natural conditions of this mountain area and sometimes the hilly orography can turn its culture difficult.

CHAPTER V - TYPE OF CONSUMPTION OF THE STUDIED PRODUCT

With respect to the four products with "Denominación de Origen" studied, we must say that they are very typical and traditional in the study territory. In the case of the Txakolis, after being a bit displaced during some decades, this tradition has received a strong impulse in the last years due to the role played by the "Denominaciones de Origen". They are four products whose origin generates a strong impact on the consumers, who see them as typical products of the territory with a high gastronomic value and associate them to the tradition and culture of the territory. Dealing with the seasonality of the consumption, in the case of Idiazabal Cheese it is linked to the seasonal character of the milk production mentioned before (the milk is produced mainly from November to May), even if the new media of conservation and distribution make possible to find Idiazabal Cheese at any moment along the year. Dealing with the Txakoli, it is a type of wine that is mainly consumed in the warmest months of the year. Anyway, at the beginning of the year the first bottles of the campaign start to appear and even if the present conservation systems makes possible to have Txakoli in the market at the end of the year, due to the small volumes of production the stock tends to be sold out after the summer.

Among the diverse products using the mark "Eusko Label Kalitatea" studied, those whose consumption is more typical and traditional in the study territory would be probably the Basque Bovine Meat, the Chilli Peppers from Ibarra, the Pepper from Gernika, the Basque Bean and the Basque Suckling Lamb. Bovine meat is a product that is consumed in big quantities in the study territory. With respect to the other four products mentioned, even if their consumption can be more occasional, they are typical elements of our gastronomy.

The consumption of honey is also very traditional in the study territory, but maybe the consumption of the products mentioned in the previous paragraph is more typical.

In the case of the tomato, it is a type of tomato very appreciated in the study territory and similar to the type of tomato that traditionally has been produced in the area. It is having a great success among the consumers and the increasing volume of production is being completely consumed. Anyway, this volume of production constitutes only a small fraction of the whole volume of tomato consumed in the CAPV, the rest imported from other territories in high amounts and that often consisting of intensively produced tomato.

Something similar happens with the Basque Farm-House Chicken, that consist of a type of chicken of slow growth similar to the one traditionally produced in the farms of the study territory until the introduction of the white chicken.

The Potato from Alava, potato for cooking, is a product of more recent implementation that actually has been favoured by the image created in the territory by the potato for seeding traditionally produced, so we would not say its consumption is traditional or typical.

The pasteurised milk using this mark is also a new product that in some way serves to recuperate the tradition of consuming fresh milk, substituting the former traditional raw milk.

Dealing with the periods of consumption of the products, we see that the pasteurised milk, the farmhouse chicken and the bovine meat are, more or less, uniformly consumed along the year, except a small decrease of the meat consumption in summer time. The other products studied present a seasonal production and consumption, even if these two aspects are not always linked. For example,

the gathering of beans is performed from the end of August to the beginning of October, but the custom of the consumers is to consume beans mainly during the winter. In the case of the Chilli Peppers from Ibarra, even if they are processed as a pickled conserve that can be consumed all along the year, traditionally they have been consumed mainly in winter as accompaniment for the beans. However, an effort is being made to change this consumption habit by means of implementing new ways of consumption not limited to winter time (as aperitif, etc.). In the case of the honey, even if production periods are linked to the flowering seasons of specific plants, it is mainly consumed in winter.

In general, for all the products using the mark "Eusko Label Kalitatea", we can say that the origin of the product generates a strong impact on the consumers. We could say that there is high sensibility among the consumers of the CAPV towards all the products of this territory.

Regarding the Organic Farming, the consumption of these products is still not very extended in the study territory, but it is true that there is a considerable segment of consumers that chooses these products and that this consumption is increasing. Dealing with the periods of production and consumption, in the case of the vegetables these are determined by the natural cycles of the cultivated varieties. With respect to cattle products, the production of bovine cattle meat and milk are, more or less, uniform along the year. On the other side, the sheep and goat milk production, as well as the production of sheep lambs are seasonal and take place mainly from November to May. The fact that these products are produced in the CAPV (what is indicated in the logo) generates a considerable impact on the consumer.

CHAPTER VI - THE SIZE OF THE COMMODITY CHAIN AND ITS MARKET

Production volumes of the four products with "Denominación de Origen" studied are given in Table 1. In the case of D.O. "Idiazabal", this production represents 68% of the total cheese production of the CAPV. Regarding the Txakoli, practically all the Txakolí produced is included in any of these D.O.

Idiazabal (Kg)	Txakoli de Getaria (l)	Txakoli de Bizkaia (l)	Txakoli de Alava (l)
1.135.000	900.000	550.000	250.000

Table 1: Production Volumes of the products with D.O. studied.

Production volumes commercialised under the mark "Eusko Label Kalitatea" in comparison with the total commercialised production volumes of the CAPV are given in Table 2. In that table we can see how in the case of chicken and chilli pepper (expected also in the case of pork), the volume produced under this mark represents a very important fraction of the total amount produced and commercialised in the CAPV, whereas in the other extreme, the production of potato and pasteurised milk represent a very small proportion. Notice that, in the case of bovine meat, even if it constitutes the biggest production among products using this mark, it still represents only 27,6% of the amount produced and commercialised in the CAPV.

Product	Eusko Label Kalitatea	Total of CAPV	Unit	%
Chicken	729	1.532	Tm	47,6
Pork (next incorporation)	2.630	6.297	Tm	41,8
Chilli Pepper	86	206	Tm	41,7
Tomato	1.548	4.004	Tm	38,7
Bovine Meat	4.458	16.131	Tm	27,6
Honey	81	296	Tm	27,4
Suckling Lamb	120	705	Tm	17,0
Beans	43	271	Tm	15,8
Pepper	171	1.742	Tm	9,8
Milk of Bovine	31.190	2.051.696	HI	1,5
Potato (for cooking)	426	62.500	Tm	0,7

Table 2: Production Volumes of products using the mark Eusko Label Kalitatea compared with total Commercialised Production Volumes of the CAPV.

With respect to the products of Organic Farming studied, even if we do not know the value of the different production volumes, the following data can give us an idea of their magnitude:

	Organic Farming (Ha)	Conversion (Ha)	Year 0 (Ha)
Vegetables	22,44	4,94	4,46

Table 3: Land surface registered for production of vegetables according to Organic Farming practices at different conversion stages.

	Organic Farming (Ha)	Conversion (Ha)	Year 0 (Ha)
Prairie and Fodder	212,30	69,81	33,52
Pasture	72,02	18,48	2,96

Table 4: Surface land associated to cattle managed under Organic Farming practices at different conversion stages.

The number of producers, implicated industries, agents acting in the distribution of the product and selling points for the different products studied are summarised in Table 5. In that table we can see how the Basque Bovine Cattle Meat is by far the product representing the highest number of producers, followed by the Idiazabal Cheese. A quite high number of producers work as well with the D.O. "Txakoli de Bizkaia", the Basque Suckling Lamb and Basque Honey, indicating that if we consider the volume produced, they consist on quite atomised productions. Opposite to that, The Potato from Alava presents the lower number of producers working on the product.

A similar analysis can be done if we look at the number of industries implicated, the numbers are highest in the case of the D. O "Txakoli de Bizkaia", Basque Bovine Cattle Meat, Basque Quality Tomato and lowest, with just 1 industry implicated, in the case of the D.O. "Txakoli from Alava", "Basque High Quality Milk" and Potato from Alava.

	Producers	Industries	Distribution Agents	Selling Points
Txakoli de Getaria	57	17	17	
Txakoli de Bizkaia	272	76		
Txakoli de Alava	34	1	13	
Idiazabal	554	97		
Basque Bovine Cattle Meat	2855	39	6	253
Basque Farm House Chicken	53	2	1	
Basque Pork	30	3	3	
Basque Suckling Lamb	196	4	2	300
Basque High Quality Milk	40	1	1	
Basque Honey	94	6	6	
Potato From Alava	15	1	1	
Pepper from Gernika	44	10	10	
Chilli Pepper from Ibarra	50	5	5	
Basque Quality Tomato	65	39	39	
Basque Bean	57	5	3	
Organic F. Cattle Products	20	8		
Organic F. Vegetables	45	2		

Table 5: Number of producers, industries implicated, agents acting in the distribution of the product and selling points. Data missing in the table are unknown.

Note: In the case of Organic vegetables approximately 10% of the production is transformed in the mentioned 2 transformation industries. With respect to Idiazabal Cheese, 80 of the indicated 97 industries consist on artisans that elaborate cheese with milk produced by their own herds.

With respect to the spread of the market, the biggest part of these productions is commercialised within the CAPV. In the case of the D.O. "Txakoli de Alava", the Pepper from Gernika and the Chilli Pepper from Ibarra, 50%, 50% and 60%, of their production volume, respectively, is exported out of the CAPV (mainly to other territories of the country). In the case of the other three products with D.O. studied, approximately 90% of the product is sold in CAPV. For the rest of the products studied, practically the whole production volume is consumed within the study territory.

No precise data on the percentages of the different sale methods have been obtained, anyway, according to the estimations given by the interviewees; it seems that the pattern changes considerably from one product to another. In the case of products using the mark Eusko Label Kalitatea, small traders (both traditional and specialised) and supermarkets seem to be the main channels for selling the product, even if in the case of honey, chilli pepper and beans direct sale also plays a considerable role (20%, 10% and 40% respectively). In contrast, the direct sale is the main method used in the commercialisation of organic products, most times sold by the producers in their own farms, in markets or by visiting the consumer. In the case of products with D.O., all the sale methods mentioned in questionnaire 1 are used for selling the products, but we do not know the relative importance of each one, except that in the case of the Txakoli the commercialisation through Bars and Restaurants plays an important role.

CHAPTER VII - SUMMARY OF THE REGULATION APPROACHES.

We will start explaining some aspects dealing with the implementation of official quality marks; even if the study of axis 3 related to European regulations regarding these marks will be undertaken by Euromontana. In the case of products with "Denominación de Origen", the process leading to their registration at European level is different in the case of wines (not included in the UE 2081/92 Regulation) and the rest of products.

The steps followed to register a food product from any place of Spain as PDO at European Community level are the following ones: the respective Autonomous Community, according to R. D. 1643/99

(National application of the UE 2081/92 Regulation), sends a proposal to the MAPA (Ministerio de Agricultura, Pesca y Alimentación) that transfers it to the EC. In the case that the production area of the product includes more than one Autonomous Community, it is the MAPA, in agreement with the implicated Autonomous Communities, who directly sends the proposal to the EC. Once this proposal is approved by the EC, the "National Transitory Protection" will take place by means of the approval of the respective regulation by the Government of the Autonomous Community and its posterior ratification by the MAPA. Later on, a last ratification by the EC leads to the definitive registration as PDO.

In the case of wines the process is different. It is the MAPA who directly decides the national registration of the wine as "Denominación de Origen" according to the Ley 25/70 (national law regarding to vineyards, wine and alcohol) and its posterior modifications. Later on, the MAPA communicates this registration to the EC that automatically registers the wine as Quality Wine Produced in Specific Region according to EU 753/2002 Regulation.

With respect to Organic Farming, in the case of the CAPV, the UE 2092/91 Regulation is directly applied by the Government of the Autonomous Community. A registration of the producers practising Organic Farming in the CAPV is carried out. Later on, this data is sent to the MAPA, who communicates them to the EC.

Dealing with the implementation of these quality marks, and focusing first on the products with "Denominacion de Origen", the producer associations (mainly sectoral producer associations) implemented under the supervision of the public administration a very important part of the initiative. In the same way, each "Denominacion de Origen" is managed by its "Consejo Regulador", organism dependent on the public administration but separated from it, in which producers, manufacturers, as well as the public administrations implicated are represented.

In the case of Organic Farming, the producer unions have also played an important role in promoting this production system in the CAPV, even if it is managed by the public administration.

With respect to Private Marks, in Spain all the marks are registered in the "Registro de Patentes y Marcas" (Patent and Mark Registry). The different types of private marks are established by the "Ley 17/2001 de Marcas", that also indicates the cases where geographic mentions can be included, that is only in the case of Collective Marks and Guarantee Marks.

In the case of the mark "Eusko Label Kalitatea" included in the present study, as it was mentioned in point 1, it consists on a Guarantee Mark, owned by Kalitatea Fundazioa (non profit making private organisation), that comes from an initiative of the public administration of the CAPV. This mark was created in order to provide an instrument for the producers of the CAPV that could be used for making their products distinguished and appreciated in the market and to become more competitive. With respect to consumers, the origin of the products, as well as the guarantee of an exigent level of quality, are important differential elements in the case of this mark. When we talk about quality, even if depending on the product particular aspects can appear, in general this mark guarantees a high organoleptic or sensorial quality, hygienic and sanitary quality, traceability of the product and transparency of information, as well as various ethical, social, economic, cultural, in some cases environmental, etc., aspects linked to these products.

Kalitatea Fundazioa lets the mark to be used by the producers accomplishing all the requisites established in the internal regulations regarding each product. Kalitatea Fundazioa itself controls that all the producers using the mark fulfil the indications of these regulations. In the case of the Basque Bovine Cattle Meat, that at present is in process of being registered as PGI, Kalitatea Fundazioa is accredited for its control according to EN 45011 standard by ENAC (Entidad Nacional de Acreditación). For the rest of the products using the mark, even if there is no obligation for being accredited according to the standard, Kalitatea Fundazioa fulfils the indications given by it.

Dealing with the types of quality identifications on products that this mark gives the right to use, there would be those mentioned in point 1, the ones that normally figure on the products. Mentions referent to the social seat of the producer/manufacturer can also be included, but always with an adequate

typography that allows separating it from the name of the mark. It has never been proposed to include mentions regarding mountain origin, because, anyway, the mark Eusko Label Kalitatea is directly associated to the particularities of the study territory.

According to recent polls, the mark Eusko Label Kalitatea is known by 86% of the population of the CAPV. This mark, in addition to increase the economic yield, helps the producers to improve, still more, the quality of their products. It is also performing a traction function on the different productive subsectors with the aim of getting their internal organisation as well as their co-ordination with distribution and transformation agents.

The main obstacles faced by this mark when promoting its products are the following:

- The production of many of these products is seasonal, so it is difficult to promote them without generating confusion on the consumer, who not always has access to the product.
- Often, the volumes of production are low, so it is difficult to access big distribution media. In the same way, the study territory is a quite particular mountain area that shelters a high population, so an important market will always remain for imported products that will compete with local products.
- Many farms are small and no professional.

We could say that, in general, each of the quality approaches analysed in the present study perform a synergetic effect on the others and that all of them are favoured by an increasing tendency for consuming products from the study territory using quality marks. However, in some way, there is some confusion among producers and consumers that often do not receive clear enough information to be able to determine what each of the quality marks imply.

It must be said that for many small and medium sized producers of this territory, opting for this type of marks, in order to get a competitive differential for their products, can be one of the few economically viable alternatives and chances to continue with their activity. These marks play a key role in the maintenance of the Basque Farm-House (Caserío), as well as many social and cultural aspects linked to them by means of supporting an economic activity. In addition, in many cases, the sustenance of agricultural and cattle raising activities also play a key role in the maintenance of the environment. Clear examples can be the traditional utilisation of high pastures by sheep or, in the case of Organic Farming, the wide prairie and pasture areas managed under environmentally friendly practices linked to cattle production.

ANDALUSIA, 3 MOUNTAIN AREAS, SPAIN

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CHAPTER I - TYPES OF QUALITY IDENTIFICATION ON PRODUCTS:

Andalusia is a leading agrarian region in Europe in terms of the value of its production. It has developed its own initiatives for the differentiation and promotion of its quality food products. There are two regional brands: "CALIDAD CERTIFICADA" and "PARQUE NATURAL DE ANDALUCÍA" which, along with "LANDALUZ", a brand managed by a private group of agro-food businesses (previously known by the label "Alimentos de Andalucía"), represent the greatest collective effort of regional agriculture and food promotion involving a wide range of businesses and sectors, especially the ones with the highest quality.

Along with the above brands, the quality awards of the European Union give the consumer a guarantee that Andalusian products with a quality label meet the highest demands.

However, numerous high quality products especially in mountain regions (44% of the territory in Andalusia) still do not have quality awards. This in spite of the fact that due to the quality of their ingredients, processing, the typical know-how, tradition, etc., they could easily be worthy of such awards

In the selected study area, comprising 3 Andalusian mountain regions: Sierra de Segura, in Jaen, Sierras Subbéticas, in Córdoba and Sierra de Cádiz, in Cádiz, 3 types of products were analysed:

- A) In Andalusia, because of having 8 Protected Origin Denomination (PDO) for olive oil, all from mountain regions, three PDO olive oils, one from each of the following regions were studied: Sierra de Segura, Sierra de Cádiz and Priego de Córdoba.
- B) Two mountain products, increasingly a part of the processes of promotion and commercialization with a recognized quality and long tradition, Anis from Rute and Christmas Pastries from Rute, were also studied. Both in Sierras Subbéticas.
- C) Five products which, in spite of their special quality, typical nature and their evident character of being products of the Andalusia mountains, have not yet achieved a sufficient level of agro-industrial and promotional development, were also studied: Honey from Sierra de Segura, Segureño lamb, Quince from Zagrilla and Cheese and Products of Iberian pork from the Sierra de Cádiz. They are products which represent the Mediterranean mountains: honey, fruit, goat, sheep – caprine meats and cheeses, and Iberian pork products.

CHAPTER II - SPECIFICITY OF PRODUCTS, PRODUCTION AND KNOW-HOW STUDIED

The olive oil PDO is based on centenary native variety olive trees, mainly located in Natural Parks, benefiting from permeable land, illumination and temperature in a Mediterranean and mountainous climate conditions. A lot of effort has also gone into improving oil elaboration processes in the 3 regions. The result is very high quality fruity, sweet tasting oils, which are well-balanced and harmonious and outstanding for their aroma and flavour. There is also a growing movement of ecological production.

The honey of Sierra de Segura is especially famous for the Rosemary honey variety (Ros Marinus, S.P.), that of Thyme (*Timus vulgaris*) and the honey of Thousand Flowers (Mil Flores).

The Segura lamb comes from a specific breed, which gets its name from the region. It is noted for its origins and the transhumance practice of changing pasture according to the seasons, dating back to the 15th century as a practice of the Order of Santiago in cooperation with the residents of "Segura Commune".

The home-made sheep and goat cheeses of the native breeds, Grazalema Merino and Payoya (both endangered species) in Sierra de Cádiz are a rare delight and in growing demand by rural tourism.

The products of Iberian pork from Sierra de Cadiz, raised in open range meadows in mountain regions, are of an exceptional quality. Especially known are the hams, palettes, loin cuts, hot sausages, and home-made sausages, elaborated traditionally with native natural additives from the Sierra.

The anis from Rute is known for double distilling in copper alembic, the century-old know-how, artisan character and pure elaboration. There used to be as many as 30 distilleries of very prestigious dry and sweet anises in Rute. Currently noteworthy are: Distilleries Duende, with its Anis museum, and Hijos de Rafael Reyes, S.A., whose Machaquito anis is sold through diverse distribution channels at higher prices than the competition, especially the dry anise with a quality enhanced by slow bi-distilling.

The quince from Zagrilla is a native variety; its quality is further enhanced by the soil, climate and the periodic contribution of fertile earth from the surrounding mountain sides – similar to what occurs in the Nile Valley. There is a special micro-climate in the area with dense plantations that forms real small forests with summer temperatures close to 40°C.

CHAPTER III - IDENTIFICATION OF THE VARIOUS PRODUCTION AND PROCESS LOCATIONS OF THE SUPPLY CHAINS

The production and elaboration regions of the three virgin olive oil PDOs are confirmed by regulation. Integrally, the production takes place in the counties of the PDO and mostly in National Parks, at altitudes ranging from 500 to 1000 metres on steep slopes.

Details of surfaces, production and elaboration are shown in the table from paragraph 6.

The honey from Sierra de Segura is produced by transhumance in the mountains of Jaén. There are 40 beekeepers, half of which belong to a cooperative that markets the label "Colmenar de Segura".

The Sierra de Segura area has 97.154 heads of Segureño lambs on 310 farms. 130.000 lambs are marketed annually through 4 or 5 dealers in the neighbouring region of Murcia, from where they are then sold to Catalonia, the Balearic Islands, etc.

Sheep and goats producing milk for cheese production in Sierra de Cadiz are raised on open ranges and under semi-pasture conditions, depending on the availability of feed.

There are 260 sheep farms with 40,850 heads and 325 goat growers with 45,000 heads. Milk production does not entirely remain in the region due to competition maintained by the cheese makers and shops. Large outside companies divide the milk also to other dairy products.

The Iberian pig is raised on open meadows in the mountains of Cádiz. There are 618 farms with 32,000 hectares of meadow and 10,298 heads.

The anis in Rute is entirely elaborated in facilities owned by 5 distilleries, three of which do their own bottling. The anis grain comes from nearby mountain regions.

The quince from Zagrilla is grown in groves in the Subbética Mountains, mainly in Priego and Carcabuey around the river Genilla and the town of Zagrilla (Priego). It is the principal region producing quince in Spain. 600 growers on 600 hectares produce more than 4000 tons of high quality quinces. Another 200 hectares are situated in Puente Genil, where the industry for the elaboration of quince is located (6 companies). The quince from Zagrilla is essentially commercialized by the OPFH SCA Virgen del Castillo in Carcabuey. Part of the production and elaboration is ecological, especially the brand name "La Vega de Zagrilla".

Christmas Pastries from Rute: This is a religion-based tradition, which is now being up-graded from artisan production to industrial. The Christmas pastries are produced seasonally (September - December) by 3 businesses that elaborate and package their products and maintain 3 museums in Rute: Museum of "La Flor de Rute" pastries, Museum of "Productos Garrido" pastries and the "Gallero Artesanos" Chocolate Nativity Scene.

CHAPTER IV - IMPACT OF MOUNTAIN NATURAL CONDITIONS ON PRODUCTS, PRODUCTION AND KNOW-HOW

The geographical and climatic characteristics of the 3 PDO olive oil regions within environmentally protected territories (inside Natural Parks), with high altitudes (from 500 to 1,000 metres) and with relatively warm continental summers and cold winters and an acceptable rainfall (450-700 litres annually) allowing the reduction of hydro-stress in summer, produce excellent quality oils.

The risk of marginalisation because of high crop and harvesting costs due to the mountain slopes and limited production are leading some growers to change to ecological production. The elaboration and packaging industries in the 3 regions are changing similarly, as part of promotional and marketing strategies.

The topographical characteristics impeded orientation toward extensive crops (cereals and sunflower) in 60s and 70s. Consequently, centuries-old olive tree growing predominates in these regions.

Mountainous conditions reduce risks of plagues and diseases, allowing high quality crops that require little workforce or extra phyto-sanitary treatments.

Honey from Sierra de Segura is produced with mountain flower species in a Natural Park.

The characteristics of the Segureña breed and the open range system of seasonal migration, which demands a continuous movement of the animals fed on the green and soft pasture, give the Sierra de Segura lamb a special value and quality of distribution of fat in the muscles.

Native breeds, adapted to open range or semi-open range mountains allow an optimal use of the mountain pastures for the production of original, high quality soft sheep and goat cheeses.

Ibérico pigs are perfectly adapted to open range meadow conditions in Sierra de Cádiz with pastures and feed on acorns. The products, rich in oleic and monounsaturated fatty acids reach their high quality through an accumulation of these positive factors.

In anis from Rute the water quality from the mountains of Rute, the use of fire wood from olive trees and holm oaks and know-how acquired over centuries of exploitation are especially notable. The anis grain from the surrounding mountain is what, along with the high tradition of consumption in cold mountain regions, has facilitated this quality liquor's survival among the highly competitive environment of liquors.

The quince from Zagrailla, conserved thanks to the resistance of the variety to the wetness and coldness which prevented the occupation of this land by olive groves, obtains a maximum quality. This is also due to its mountain condition, the soil contribution and very high summer insulation.

Self-consumption, the traditional Christmas celebrations and an abundance of lard left over from the family pig slaughter contributed to the specialization to the elaboration of high quality Christmas pastries in certain mountain regions, such as Rute. The production is now getting industrialised, but the ingredients of almonds, nuts, honey, spices and other quality elements from the nearby mountains remain the same.

CHAPTER V - TYPE OF CONSUMPTION OF THE STUDIED PRODUCTS

In the three studied regions improvement in quality imposed by the respective Regulating and Norms Councils of the PDO is increasing the proportion of top quality olive oil (extra virgin) that obtain the denomination.

In addition, the increasing awareness and scientific research on the positive effects for the health of the Mediterranean Diet and in particular of the consumption of olive oil are leading to a continuous increase in the consumption of especially of extra virgin superior quality olive oil.

These oils are consumed in the region, as well as in Andalusia, Spain and abroad in fried dishes as well as in stews, fish and meats, and salad and other dressings. They are also used in the preparation of pastries and desserts.

Production and consumption has doubled over the past 10 years, with a growing tendency toward quality extra virgin oils.

5 litre PET containers are used for self-consumption by producers and local consumption in production region and in Andalusia.

Only 25% of the production is directly packaged as extra virgin olive oil. Most of the quality production is exported to European countries, Italy, France, Portugal, etc., as extra virgin or to improve the quality of other olive oils.

The excellent PDO oils - always top quality extra virgin - are mainly consumed in upper class Spanish areas and, increasingly, abroad.

Honey from Sierra de Segura is marketed in quantities of 0,5 and 1 kilo and is used as a natural sweetener in pastries and gastronomy.

The high quality, expensive Segureña lamb is mainly consumed in Catalonia, the Balearic Islands and Madrid.

The cheeses, lamb and goat from Sierra de Cádiz have an essentially regional market, due to the great demand from rural tourism. The cheeses are marketed mainly as fresh cheese (soft white cheese). The aged and semi-cured cheeses are dedicated to the HORECA sector.

The consumption of Iberian pork products from Sierra de Cádiz has a long tradition in the region.

The consumption of "aguardiente" (a liquor), both dry and sweet varieties, is traditional in mountain regions in the form of shots, whether at home or in a bar, before starting a day's work in the fields, in construction or in industries, especially on cold, winter days. It is also an invitation during the annual pig slaughter or at parties, especially accompanying the tradition Christmas pastries.

The quince from Zagrilla is consumed in fruit preserves and slow-cooked roasts as well as in jellies and quince meats, the latter being the main product today. It is elaborated in Puente Genil, Córdoba, by 6 firms. It is also exported to intensify the taste and aroma in apple and other fruit sauces.

Christmas pastries are consumed in winter months – December and January - both in Andalusia and the rest of Spain. They are mostly sold in assorted boxes of different shapes. A small part is sold directly from the factory through the respective museums.

CHAPTER VI - THE SIZE OF THE COMMODITY CHAIN AND ITS MARKET

Olive oils from Sierra de Segura and Priego de Córdoba are dedicated in similar proportion to the national market and for export. Their success is due to the marketing strategies of the production and packaging firms, especially in the case of Priego de Córdoba, the first PDO in Spain for its quantity and quality of prizes won in recent years. The Sierra de Segura Cooperative makes an important effort in marketing, especially with its ecologic olive oils.

The oils from Sierra de Cadiz are still destined to local markets.

Details of surfaces, production and elaboration are shown in the table below

3 Andalusia Olive Oil PDO - The size of the commodity chain

PDO Olive Oil	Surface HAs	Nº Farms	Total Production Virgin Olive Oil (1000 Tm)	Production Extra Virgin Olive Oil PDO (1000 Tm)	Nº Mills	% Coops	Nº Trade marks
S.Segura	46.300	8.200	18.300	4.200	24	85	23
Priego de Córdoba	29.628	6.200	18.000	3.000	18	50	16
S. Cádiz	15.000	3.000	5.000	170	8	50	2

18-20 thousand kilos of honey are produced in Sierra de Segura for the national market.

Sierra de Segura is the leading county in the Segureño lamb breeding, having the greatest number of heads. Still on a national level the importance of this breed is only relative with 13,480 heads out of a total of 18 million.

The 5 distilleries of Anis in Rute produce around 500,000 litres of alcohol. Three of the distilleries have their own packaging department and one has a Museum (Distilleries Duende).

The distilleries market very well known popular brands, generally with the names of legendary bullfighters (Machaquito, Arruza, Lagartijo, Bombita). They serve fundamentally a regional market, besides Extremadura, Levante and Castilla La Nueva.

4.000 tons of quince from Zagrilla is produced annually, most of which (80%) is marketed by Virgen del Castillo SCA (OPFH) who sells around 50% to quince jelly industry in Puente Genil, and the rest fresh and natural for exportation to France, Portugal, Germany, etc.

Christmas pastries from Rute, with an overall production of 1,000 tons, are elaborated by 3 firms which thanks to their respective museums sell 20-25% of their products directly. The rest is sold regionally, nationally and abroad through traditional stores (25%), supermarkets (17,5%), department stores (17,5%), HORECA (10%), delicatessen (5%) and institutions and business firms (5%).

HIGHLANDS OF SCOTLAND, UNITED KINGDOM

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CHAPTER I - TYPES OF QUALITY IDENTIFICATION ON PRODUCTS

Across the whole breadth of food products produced in the Highlands, the use of independently assured quality identification on products is not extensive, mainly confined to the main primary (commodity) products. All of the ones that there, are promote the product as 'Scottish' or 'Scotch'.

Many of the smaller indigenous companies promote their geographical location within their company name or product name. Examples are Summer Isles Foods, Highland Smoked Salmon, Loch Fyne Oysters, and Cairngorm Brewery. And they build sales on their reputation of product quality and customer service.

Due diligence is a major issue in the food sector in the UK and all the multiple retailers and large catering buyers, as well as an increasing number of independent retailers, hotels and restaurants, require producers to have their procedures and processes accredited by a recognised independent organisation before they will buy from them. Accreditation by a number of such organisations is now widely recognised by buying organisations, so an increasing number of producers in the Highlands hold such accreditation.

The supermarkets are the dominant force in the UK food retail sector, including in the Scottish Highlands. They believe their own brand is the mark of quality, and their suppliers are required to reach their laid down standards.

CHAPTER II - PRODUCTS, PRODUCTION AND KNOW-HOW STUDIED

The Scottish Highlands is characterised by open and exposed hills and mountains interspersed with more sheltered glens. Grazing quality is typically poor due to the peat and acidic soils, the short growing season, and the wet and windy climate. Sheep and, to a lesser degree, cattle are the main farming enterprises in the Highlands and, generally, the livestock are sold as stores to be finished in more productive low ground areas. Good productive areas for livestock production and arable cropping are restricted to the sheltered east coast fringes of the Highlands, away from the mountain regions.

While much of the land within the Scottish Highlands is of poor quality, the waters in the sheltered sea lochs and off the west coast of the Scottish Highlands is highly productive, and it is from the sea that many of the communities within the study area have over countless generations obtained a key part of their livelihood, and this is still the case today.

The selection of products studied in Questionnaire 1 reflects the above and the fact that the Highlands is primarily an area of primary production. The products studied are the main primary products which are farmed and caught from the inshore waters, or products which have a strong tradition of being processed or manufactured in the communities of the mountain areas of the Scottish Highlands. They were also the products which, in most cases, have quality initiatives associated with them.

The products selected are:

Farmed salmon	Lamb
Smoked salmon	Beef
Langoustines	Whisky
Venison	

It is important to note that there over 150 food processors and manufacturing companies in the Scottish Highlands producing a wide variety of food and drink products, many of which have not been researched as part of this study. The following is just a selection of other products produced:

cheese	liqueurs	crab	speciality breads
ice-cream	shortbread	lobster	sausages
chocolates	oatcakes	mussels	haggis
confectionery	honey	oysters	speciality meat products
real ale	preserves	scallops	trout

90% of the food and drink businesses in the Scottish Highlands are small, employing less than 50 people. 60% of these businesses have an annual turnover of less than 1.5 million euros. Most of these companies use local ingredients in their products. The main markets for most of these producers are the rest of the Scotland, the UK and Europe. This means that the producers are physically isolated from their main markets and transport costs are higher because of the area's peripheral location.

CHAPTER III - IDENTIFICATION OF THE VARIOUS PRODUCTION AND PROCESS LOCATIONS

There is quite a variation across the products studied in terms of the extent which the final product originates from the Highlands.

As wild animals, red deer (venison) and langoustines spend their whole life in the area up to harvest or slaughter, but most are sold from the area with little or no processing.

Most of the salmon are totally reared in the Highlands, though some may have originated from freshwater hatcheries outwith the area. Some of the salmon is processed or smoked in the Highlands, though much is shipped out following harvest and gutting to be processed or smoked elsewhere.

All the area's lambs and feeding cattle are born and initially reared in the Highlands and, while some are finished here too, the quality of the grazing means that most are sold as stores to be fattened on farms in lower ground areas.

A significant amount of malt whisky is produced in the Highlands. However, almost all the blending, bottling, sales and distribution of Scotch whisky is undertaken outwith the Highlands.

CHAPTER IV - IMPACT OF MOUNTAIN NATURAL CONDITIONS ON PRODUCTS, PRODUCTION AND KNOW-HOW

A wet, windy climate, a short growing season, poor quality soils and little natural shelter typify the natural conditions in the hill and mountain regions in the Scottish Highlands. These natural conditions generally make it much harder to produce quality products than is possible in other areas and yields are also lower, reducing returns.

Conversely, the sea lochs and inshore coastal waters of the Scottish Highlands are very productive and, for countless generations, those living close to the sea and sea lochs have caught fish and shellfish to earn a living. The high quality of the fish and shellfish is highly recognised, particularly in export markets.

The natural shelter of the sea lochs, the good tidal water flow, the cleanliness of the water, and the relatively stable seawater temperatures are natural conditions which have proved ideal for the farming

of fish and shellfish. So too the freshwater from mountain springs, rivers and lochs which is ideal for the rearing of the early stages of salmon.

Fish farming is a major employer in the Highlands, particularly in some of the remotest areas where there is very little other economic opportunity. The following species are now farmed in the area – salmon, trout, mussels, oysters, scallops, turbot, halibut and cod.

CHAPTER V - TYPE OF CONSUMPTION OF THE STUDIED PRODUCTS

It has been very difficult to define the type of consumption for most of the studied products because of the form in which the products are sold and because the products are generally sold to intermediaries and not direct to consumers or even retailers or caterers.

Much of the lamb and beef is sold as live animals at auction and bought by other farmers for finishing (fattening) on low ground farms. Of the lambs and cattle which are finished in the Highlands, a minority is slaughtered locally due to limited slaughtering facilities and small local population. Many butchers in the Highlands do sell locally produced beef and lamb, and consumption is traditional in the area. However, the market share of supermarkets in the towns, which generally bring in their meat from outwith the area, has grown sharply over recent years.

All Scottish salmon is produced in the Scottish Highlands and Islands totalling 138,000 tonnes in 2001. While fresh salmon is consumed locally, fish consumption generally is low. Given the large tonnage produced the vast majority is sold outwith the Highlands, primarily in the rest of Scotland, the UK and France, as well as other export markets. There is some processing carried out in the Highlands such as filleting, various cuts and smoking. However, the majority leaves the area gutted and iced for further processing closer to the main markets.

Smoked salmon is a high value delicacy consumed principally as a starter. Until salmon farming became established, smoked salmon was a product for the rich, so consumption in the Highlands has typically been low. The majority of sales are made at Christmas, with a much smaller peak at Easter, and a low level throughout the rest of the year. Most of the 25 salmon smokers in the Highlands are small scale producers who sell principally through wholesalers, independent retailers or direct to consumers. The few large producers sell to the multiple retailers.

Wild red deer are extensively found throughout the Highlands, and an annual cull is carried out by the various Highland Estates who have deer on their land. The carcasses are sold to game dealers who may sell the bulk to importers in European countries or game processors in other parts of Scotland. Some will also do their own cutting and sell locally to caterers or to consumers through their own shop. Venison was traditionally consumed by the landed gentry, and local consumption is still low today.

Langoustines (locally known as prawns) is the species which represents the largest catch of shellfish made by the Highlands local inshore fishermen. Consumption of shellfish is very low in the Highlands except by some in the traditional fishing communities, though the number of restaurants serving seafood has risen significantly in recent years, particularly in the more popular tourist areas. Most of the langoustines are sold fresh or live to importers in Europe or to restaurants in the main UK cities. Some of the prawns are processed at a few factories in the Highlands, principally as frozen whole prawns or frozen tails.

Whisky is strongly associated with the Highlands. The distilling and maturing of Scotch Whisky has been undertaken in the Highlands of Scotland since at least the 15th century. Of the 98 distilleries in Scotland, 71 are located within the Highlands of Scotland, with 229 million liters of whisky being produced annually in the Scottish Highlands, 40% of total production. Some of the whisky from the Highlands is sold as single malt, while much of it is blended with grain whisky produced in lowland Scotland to produce blended whisky. Almost all the blending, bottling, sales and distribution is

undertaken outwith the Highlands, so the Highlands are essentially a production region. Whisky consumption is traditional in the Highlands.

CHAPTER VI - SIZE OF THE COMMODITY CHAIN AND ITS MARKETS

The nature of production already described, the small population within the Highlands relative to production levels, and the distance from main markets means that the supply chain is quite long with the bulk of sales being made to intermediaries such as wholesalers, merchants or processors, who then sell on to retailers and caterers. Local sales and sales direct to consumers are low. Much of the processing of the product is undertaken outwith the region closer to the main markets. This is particularly so for fresh, perishable products such as salmon where processing closer to the end consumer means shelf-life of the final product can be maximised.

CHAPTER VII - SUMMARY OF THE REGULATION APPROACHES

In the Highlands, collective quality initiatives with associated marks have largely focused on commodity products, with the aim being to differentiate them by geographical origin and product quality assurance. Examples are schemes covering salmon, smoked salmon, lamb, beef and, just recently, venison.

These are all based on product certification schemes run by a producer collective organisation. Each scheme has a set of product and process standards, and each scheme member has to abide by these standards, and they are inspected by an independent product certification body (accredited to EN45011) which has been nominated by the collective organisation who owns the mark.

Most of these product certification schemes are case 2. The only case 1 quality initiatives are Label Rouge for Scottish salmon; and also Scotch Beef and Scotch Lamb which are both PGI registered products. There are only 3 PDO's and 2 PGI's for food products in Scotland, so these are instruments which producers in Scotland have not sought to use as extensively as many other EU countries.

There are no collective quality initiatives for food products relating to the Scottish Highlands only; they all cover the whole of Scotland. This is even the case for Scottish salmon, all of which is produced in the Highlands and Islands. This is because consumer markets in both the UK and abroad are known to recognise and relate to "Scotland" but not regions within Scotland. However the image consumers tend to have of Scotland is of the hills and lochs of the Scottish Highlands.