



Study on the improved methods for animal-friendly production, in particular on alternatives to the castration of pigs and on alternatives to the dehorning of cattle

D.2.1.2. Report on farmers' attitude towards the practice of dehorning

SP2: Alternatives to dehorning: To develop and promote alternatives to the dehorning of cattle.

WP2.2: Assessment of benefits and drawbacks of dehorning and alternatives to dehorning in dairy and beef cattle.

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Table of contents

1. Objectives and method	3
1.1. Focus groups composition and organization	3
1.2. Interview guide and agenda	4
1.3. Analysis	5
2. Characteristics of the participants in the 9 focus groups	5
2.1. Type of production	6
2.1.1 Farms with dairy cows	6
2.1.2. Farms with suckler cows	6
2.1.3. Farms with fattening cattle	7
2.2. State of dehorning represented in the 9 focus groups	7
3. Results	
3.1. The perception of their profession as cattle farmers, and of interactions with the animals	9
3.2. To have animals with and / or without horns: motivation and management of the animals	10
3.2.1. Motivations to keep horns or dehorn	10
a. Stockman's safety	
b. Interactions between animals	
c. Housing, equipment and handling	
d. Tradition, aesthetics and image	
e. Commercial specifications	
f. Naturalness	
g. The extra-work and cost to dehorn, as a motivation	
h. The people who work with farmers	
3.2.2. How the farmers manage horned animals	14
a. Animals with and animals without horns in the same herd	
b. Fully horned herd	
3.3. Disbudding and dehorning methods	15
3.3.1. Disbudding or dehorning : which choice, why	
3.3.2. Disbudding method	
3.3.3. Dehorning method	
3.3.4. Animal pain	
3.4. Regulation and training about disbudding/dehorning	17
3.5. Prospects for the future	18
3.5.1. Modifying the method	
3.5.2. Stopping dehorning	
3.5.3. Begin dehorning	
3.5.4. Using polled cattle	
4. Conclusions	19
Annexes	
Annex 1: Characteristics of participants and farms represented in the 9 focus groups	23
Annex 2: Housing systems and state of dehorning represented in the 9 focus groups	24

1. Objectives and method

The objective of this task is to get a better understanding of the reasons why farmers rear animals with or without horns, how they manage them, and to get knowledge about the farmers' representations of the different disbudding and dehorning methods, of animal pain and of the different methods to reduce pain. A further aim is to have an idea of their willingness to change their practices, either to modify their disbudding / dehorning practices, or to stop or begin disbudding / dehorning, or to use polled cattle.

The focus group method¹ consists of gathering and interviewing a small group of people. The participants have to share a common experience or identity to consider themselves as peers and to express their view freely. From their contributions the common values, representations and norms inside the group, the different practices and the different views among the interviewees are identified and analysed.

The focus group method was chosen because it is relevant to analyse the view of different types of farmers.

It also enabled to analyse in a similar way farmers' views in 3 countries through interviews conducted by 3 different research teams in Italy, Germany and France.

A common approach has enabled to build a common interview guide, to coordinate the criteria for the participants of each focus group, and to build a common template for the analysis of the focus groups (reports and tables).

Remark: The term "dehorning" is used in this report with a general meaning of "taking away the horns of animals born with horns". Concerning the methods, we will use the terms "dehorning" when horns are removed from adult cattle, while "disbudding" is practiced in calves when only small buds are detectable.

1.1. Focus groups composition and organization

The project aims at developing and promoting alternatives to the dehorning of cattle. Alternatives to dehorning may be understood in 3 different meanings: not to dehorn, to keep polled cattle, or to switch over to less stressful methods to take away the horns.

The 3 teams tried in the composition of the focus groups to take into account their national situation towards dehorning. They gathered typical categories of farmers.

While in Germany one focus group consisted of farmers who almost exclusively did not dehorn, another of only farmers who consistently dehorned and a third where all farmers kept to a certain degree polled cattle, in the 2 other countries it was tried as much as possible to invite in the same focus group farmers rearing horned animals and farmers rearing animals without horns. However this happened to be difficult for certain types of farmers.

In Italy the focus groups were the following:

- Trentino (Cavalese), dairy farmers working in a mountain area and rearing mainly local breeds. Tied stalls and loose housing are both used in this area, and animals with or without horns are reared, 17 March (focus group I1),
- Piemonte (Cuneo), farmers with suckler herds and / or fattening bulls kept in tied stalls or loose housing (including some group pens) ; animals with or without horns, 20 March (focus group I2),

¹ Morgan D.L., 1996. Focus groups, Annual review of sociology, vol 22, pages 129-152

Duchesne S., Haegel F., 2005. L'enquête et ses méthodes, l'entretien collectif, Edition Armand Colin,

- Veneto (Grantorto), intensive dairy production located in a flat area, no summer grazing, free stalls are the most common housing system. They rear mainly animals without horns, 24 March (focus group I3).

In Germany the focus groups were the following:

- Region Bavaria (Allgäu), dairy farmers, organic farming (except one farmer) with horned cattle (except one farmer), in loose housing (except one farmer), 6 April (focus group G1),
- Region Saxony, conventional farmers with suckler cows in loose housing, animals without horns, polled or disbudded, 7 May (focus group G2),
- Region North Rhine-Westphalia, conventional (except 2 herds) intensive dairy production, loose housing, animals without horns (except one farmer), 12 May (focus group G3).

In France the focus groups were the following:

- Region Brittany, intensive dairy production, in loose housing, animals without horns, 26 March (focus group F1),
- Region Auvergne, mountain area, farmers with dairy and/or suckler cows (rustic breed Salers), in loose housing or tied stalls, animals with or without horns, 21 April (focus group F2),
- Region Limousin, suckler farmers in loose housing, mainly animals without horns (some have polled cows), 29 April (focus group F3).

1.2. Interview guide and agenda

A common interview guide was designed to enable a joint analysis of the material collected in the 3 countries.

The interview guide focussed on the following topics to understand farmers' attitudes towards dehorning:

1. Open questions:

In their view, what does it mean to raise animals, to be an animal farmer, to work with animals ?

What do they think about the physical interactions with the animals (sanitary care, medical treatments, dehorning, castration ...): which do they like / not like and why, which are easy or not easy to do and why ? in their view and regarding their experience, what are the differences between the different types of interactions ?

2. To have animals with and / or without horns:

Working with horned cows or fattening bulls: pros and cons, motivations, incentives and disincentives for keeping animals with horns.

How do they manage different categories of animals (dairy cows, suckler cows, bulls) with horns ? Have they experienced problems ? Have they found ways to solve them?

Working with a mixed herd including animals with horns, and animals without horns: same questions

Working with cows or fattening bulls without horns: pros and cons, motivations, incentives and disincentives for keeping animals without horns.

In which situation is it more relevant to have animals with or without horns ?

For people who rear horned animals: did they stop dehorning or have they never dehorned?

For people who rear animals without horns: have they ever kept horns?

3. Disbudding and dehorning methods

For each method: which animals are disbudded / dehorned, at which age, by whom, which type of handling, which devices used, which drugs used, which kind of care after disbudding and dehorning (e.g. disinfection), failures ?

Which are the pros and cons of the different methods / devices ?

Animal pain: how do they assess it, do they think the animals suffer ?

Regulations concerning disbudding and dehorning, do they know the content and what do they think about it ?

4. Prospects for the future, changes, alternatives

Modifying the practices: why, what ?

Stopping dehorning: why, how, under which conditions ?

Beginning dehorning, why, how, under which conditions ?

Using polled cattle, why, how, under which conditions ?

Do they think that new regulations could be useful, for what ?

What kind of incentives, motivations and regulations could help the farmers to evolve in their practices ?

A detailed agenda was built. We aimed at enabling each participant to give his own opinion, and enabling the group to discuss the different topics.

The agenda combined phases for individual thinking, each farmer filling in an individual short questionnaire, and phases of collective discussion.

Each focus group meeting usually lasted around 2 to 3 hours.

1.3. Analysis

The focus groups discussions were all tape-recorded, and a full transcription of each meeting was written in the native language. A thematic analysis² was carried out, based on the themes listed in the interview guide and on common analysis categories related to the different aspects of each theme. An English report was written for each focus group, and tables were supplied for the common analysis.

2. Characteristics of the participants in the 9 focus groups

It is worth mentioning that many farmers in the focus groups were positive about their participation, as they could share their view with other farmers, and be taken into account within the context of a European study. They mentioned that they do not usually have opportunities to discuss this topic which is nevertheless often a real issue for them.

However, a few farmers did not regard disbudding/dehorning as an important issue at all and complained that they see a severe imbalance between the readiness of official bodies to support their existence through safeguarding fair milk prices and the readiness to discuss stricter animal welfare regulations.

Additional to the farmers, some interested advisors attended some focus groups.

² Bardin L., 1977, L'analyse de contenu, PUF

The 9 focus groups (3 per country) gathered 94 participants in total, ranging from 6 to 16 participants per meeting with an average of about 10. The participants were males in majority (87 vs 7).

2.1. Type of production

See the comprehensive table in Annex 1.

2.1.1. Farms with dairy cows: 6 focus groups, 61 dairy farmers (G1, G3, I1, I3, F1, F2)

The participants were males in majority (55 vs 6).

Four focus groups gathered only dairy farmers, the two others gathered farmers with a double herd, a dairy herd and a suckler herd.

Animal feeding plan and rearing area:

- In 3 focus groups farmers produced milk and the diets provided to the cows were mainly based on grass and hay, of which 2 are located in mountain regions,
- 3 focus groups were located in flat lands, more intensive, and the farmers produced with grass and corn silage based rations,
Different breeds were used: Holstein (Prim'Holstein, Red Holstein, Italian Friesian), Rendena and Alpine Grey (Italy), Brown Swiss, Fleckvieh (Germany), Montbéliarde, Normande (France).

Dairy cows housing:

- In 3 focus groups the large majority of the farmers housed their dairy cows in loose housing (including some in cubicle housing) this accounts for 34 farmers,
- In 3 focus groups (of which 2 in mountain regions), some farmers had loose housing (including some in cubicle housing), and others had tied stalls. This accounts for 13 tied stalls and 14 loose housings (including some in cubicle housing).

Loose housing (including some in cubicle housing) account for 48 (4/5), and tied stalls for 13 (1/5) out of 61 dairy herds.

Herd size:

In 3 focus groups, the cows reared per farm were less than 60, while the herds were bigger in the 3 others.

Organic or conventional production:

One focus groups in Germany gathered mainly organic farmers (15 out of 16 participants).

In 3 other focus groups, 1 or 2 participants produced organic milk, and there was no organic producer in 2 focus groups.

The total amount of dairy organic producers met was 20, of which 15 participated in the same focus group.

2.1.2. Farms with suckler cows: 4 focus groups, 36 farmers (G2, I2, F3, F2)

Two focus groups gathered only suckler farmers.

One focus group in France gathered farmers with a double herd, a suckler herd and a dairy herd.

One focus group in Italy gathered farmers with a suckler herd and farmers specializing with fattening bulls.

In the 4 focus groups some farmers fatten some animals on farm.

The participants in the 4 focus groups were males in majority (34 vs 2).

Animal feed and region:

- In 3 focus groups the suckler herds were mainly fed with grass based diets, either in grassland areas or in regions with crops, using permanent pastures for grazing,
- In an Italian focus groups the suckler cows were fed with mixed rations, in a flat land region.

Different breeds were used: mainly Piedmontese (Italy), Limousin, Charolais (Germany and France), Simmental (Germany) Salers (France).

Suckler cows housing:

- In 2 focus groups the farmers housed their cows in loose housing (including cubicle housing), this accounts for 14 farmers,
- In 2 focus groups, some farmers had loose housing (including cubicle housing), and others had tied stalls. This accounts for 7 tied stalls and 14 loose housings.

Loose housing account for 29 (4/5), and tied stalls for 7 (1/5) out of 36 suckler herds.

Herd size:

The suckler herd sizes were quite different between the 3 countries: smaller in France (50 to 180 cows), bigger in Germany (75 to 500), and in Italy (120 to 450).

Organic or conventional production:

All the participants with suckler cows were conventional producers.

2.1.3. Farms with fattening cattle

Most of the dairy farmers participants in the focus groups sold calves around the age of 14 days.

Many suckler farmers raised animals to be fattened, males or even females. Some were fattened on farm, the others were sold to be fattened (for example the “broutards”, in France, sold to Italy at 8 to 10 months old).

Four specialized fatteners participated in a focus group in Italy. They fatten purchased animals, from 200 to 1700 per year.

In 4 other focus groups, some farmers fattened some animals, from 8 to 150 animals in France. In the German focus groups 5 dairy farmers and one farmer who mainly kept suckler cows raised fattening cattle as well.

2.2. State of dehorning represented in the 9 focus groups

When each team had defined the type of farmers to be gathered in each focus group, generally a local intermediate was contacted to suggest a location, a date, a list of farmers and to invite them to participate. The focus group meeting was introduced as an opportunity for farmers to give their opinion and to express their view concerning keeping horned or dehorned cattle.

The objective was also to understand the farmers’ view concerning the practices, therefore more farmers practicing disbudding and dehorning were invited for the focus groups than farmers with horned animals.

In 3 focus groups (G2, F1, F3) there was no farmer managing a herd with horned animals, because the majority of the farmers in the region and in this type of farmers use not to keep horns. This situation probably reduced the depth of the discussions about the possibility of stopping dehorning and of managing a herd with horns.

The farmers usually make a choice, to have animals with or without horns, but often have in their herd some animals differently treated towards dehorning (dehorned when the farmer said that he keeps the horns, or horned though the farmer has said that he dehornes). In the following figures, we consider the general answer of the farmers, and will comment later the differences.

Some suckler herds with polled cattle were met. A focus group in Germany (G2) focused on this situation.

Table 1 : State of dehorning represented in the 9 focus groups for the dairy herds and the suckler herds
(see the comprehensive table in annex 2)

	Type of animal reared	Number of focus groups where they are present	Number of farmers	total
Farmers with animals mainly horned	Dairy cows	5	24 (of which 15 in the same focus group)	30 <i>18 in loose housing 12 in tied stalls</i>
	Suckler cows	2	6	
Farmers with animals mainly without horns	Dairy cows	6	38	66 <i>58 in loose housing 8 in tied stalls</i>
	Suckler cows	5 (of which 2 with polled animals in some herds)	28 (of which 8 with some polled animals)	

62 farmers with dairy herds were participants in the focus groups, of which 24 were horned (of which 15 in the same focus group), and 38 were without horns.

34 farmers with suckler herds were participants in the focus groups, of which only 6 were horned, and the majority (28) were without horns.

Amongst the 8 farmers with polled animals, 5 had also dehorned animals, and 3 had only polled animals.

In total 63 farmers disbudded or dehorned animals, while 3 farmers had only polled animals.

4 farmers had a double herd: dairy cows and suckler cows: 2 dehorned both types of animals, one did not dehorn at all, and the last one dehorned his dairy cows but not the suckler cows.

The herds without horns were much more often housed in loose housing (58 out of 66 herds) than in tied stalls (8 out of 66 herds).

Table 2 : State of dehorning represented in the 9 focus groups for the fattening animals
(see the comprehensive table in annex 2)

		Number of focus groups where they are present	Number of farmers
Farmers with fattening animals	mainly horned animals	4	10
	mainly animals without horns	5 (of which 1 with polled animals)	14 (of which 1 with polled animals)

Conclusion about the sample diversity, limits:

The focus groups and participants showed a large diversity regarding the type of production:

- Dairy herds (62) and suckler herds (34), and a few fatteners,

- Loose housing (including cubicle housing) (76), and tied stalls (20),
- Diversity of regions and of feeding systems: mountain and flat land, either mainly grass based diet or fed with corn based or mixed rations,
- Diversity of breeds.

Few organic producers participated, but one German focus group focused on organic farming. There are very few organic producers in France and Italy, so it was not relevant to organize a specific focus group. It also happened to be difficult to have some organic farmers participating in a focus group with conventional farmers.

The sample diversity regarding the state of dehorning is large also, but fewer farmers with horned animals were participants, especially in loose housing.

The characteristics of the focus groups and of the farmers enable us to say in conclusion that the sample was quite diversified and relevant for a first approach on farmers' views in relation to the objectives of the task.

3. Results

3.1. Farmers' perception of their profession and their interactions with the animals

To begin the meeting, 2 open questions were asked to the farmers, concerning the definition of their profession as cattle farmers, and their perception of the physical interactions with the animals. These questions aimed at favoring a spontaneous expression of the farmers, and at getting some elements on their representations of their animals and on the work with cattle.

Firstly the farmers were asked about what it means for them to be a cattle farmer or to work with cattle.

The discussion was sometimes very easy and rich, and sometimes more reserved. Clear differences in perceptions of their work and relationship to animals among farmers became apparent as specified below. However, they could not be attributed to specific production systems. Moreover, a comparison between countries was not within the scope of this task and not possible.

For most of the participating farmers, the animals are the core of their profession, and often have motivated them to be a farmer, even when they inherited the farm from their parents. Many farmers like having daily contacts with their animals, in particular dairy and suckler farmers. Among them some farmers explicitly stated that they do not regard their cows as mere means of production, but esteem them as living beings. Others consider the animals more as their source of income, or as an appropriate means to use poor lands, and have a more distant relationship.

They were then asked about the interactions they have with their animals, the ones they like, the ones they dislike. Some farmers firstly emphasized that they have to do all activities, irrespective of what they like or not.

The favorite activities they mentioned were for instance milking for the dairy farmers, calving (they appreciate the moment, and it has many consequences for the farm), observing the animals, bringing them to pasture or preparing them for an exhibition. Some of these activities are appreciated as they put them in direct contact with the animals without causing pain to them.

The unfavoured activities on the other hand are potential sources of something negative for the farmer (a source of danger for example) and very often for the animals, including the induction of pain, discomfort, or even death.

In 7 focus groups out of 9, hoof trimming was mentioned as something farmers don't like at all, for different reasons: they have to do it in uncomfortable conditions, the equipment is often not well adapted, and for some farmers, the smell is unpleasant.

Medical treatments and injections have been mentioned in several focus groups, particularly in the 3 French focus groups where the Blue Tongue vaccination is currently done, which needs several injections in a short period. The farmers explained that the animals dislike it and dread the intervention when it occurs for the second time. Some of them said that they understand the cows, as they don't like injections for themselves.

In 2 focus groups some farmers said that they don't like having to sell a cow to be slaughtered, and in another one, that they don't like having to do something painful to the animals, like urgent treatments for example during calving, or for a sick animal, because the animal is already uncomfortable in this situation.

In 4 focus groups, disbudding or dehorning were listed by some farmers under the dislikeable activities, either because the farmer does not like to do it, or because of the negative effects on the animals: "*One of the worst work to do ...*"(G1)³. For other farmers it is just an activity as another.

Some farmers state that they have less time than 10 to 15 years ago to dedicate to the animals' care and to be in close contact with them, and thus the animals are more difficult to manage than in the past (I1 and F3).

3.2. To have animals with and/or without horns: motivations and management of the animals

3.2.1. Motivations to keep horns or to dehorn

The farmers brought forward different pros and cons of keeping or removing horns.

a. Stockman's safety

Stockman's safety was often mentioned as a motivation not to keep the horns, from farmers who dehorn and from farmers who manage polled cattle. Some farmers had an accident themselves with horned animals "*My wife had got a butt, and I did too ...*" (F2). Others heard of accidents which might have been mortal if the animal had horns, therefore they were afraid of horned animals.

Many farmers, rearing animals without horns, think that the presence of horns worsens the situation, and increases the risks, for 3 reasons:

1. The consequences of horned cows' assaults are more serious than if they have no horn;
2. Cows with horns feel more confident, and as a consequence are more difficult to manage, and more prepared to use the horns to fight. On the contrary, cows without horns are more often perceived as calm and docile: "*...the cows are consciously aware of their horns. I use the word 'weapons of the cow', because they know that this is for fighting what they have on their head. And cows, who have horns, wear them proudly, and in situation in which they need them, they use them without fear.*"(G3)
3. In suckler herds, several farmers state that they have less contacts with their cows than in the past, with the consequence of "wild animals" that are not so familiar. Under such conditions, having for example to gather the cows scattered on a large pasture, in order to treat them, may become very difficult, and dangerous with "shy or not tame" animals.

Some farmers have never reared horned animals, as they have been dehorning for 20 years, or have always seen (and worked with) dehorned animals on the family farm. They specified that they have been used to working with animals without horns, and that it would be too dangerous for them to work with horned animals: "*I would put farmers' safety in the first place.*"(G3)

³ A farmer's citation from focus group G1

Some farmers with horned animals said that farmer safety is not a problem. For example, German dairy organic farmers in loose housing said that they have never heard of accidents with horned animals in loose housing, and that a good human-animal relationship plays an important role to ensure farmers' safety and reduces the risk of accidents. In their view the animals are all the more prepared to defend themselves if the farmer usually does not treat them well. Moreover, they argued: *"when a cow bashes her tail into ones face, serious injuries can arise, too, but no one gets the idea to cut this tail off, or when I get kicked, no one gets the idea to cut the foot off"* (G1).

However, from the demonstration farm keeping horned cattle (G3) safety concerns were expressed regarding situations with frequently changing personnel and public access to the stable.

Dairy and suckler farmers in tied stalls had diverse views: some thought that it is less risky to keep cows with horns in tied stalls rather than in loose housing, but others judged that it is risky, as you have to be very close to the animals to tighten them.

The Italian fatteners of purchased "brouards" often do not dehorn. The risk of attack for a farmer is rather low because of few opportunities to be in contact with the bulls (medical treatments, unloading at the arrival and loading for the transport to the slaughterhouse).

b. Interactions between animals

Negative interactions between animals were also mentioned as an important drawback of managing horned cattle. All farmers stated that there is a social hierarchy in the herd, and that there are dominant cows, and dominated ones. The farmers who manage cows without horns think that there will be more aggressive interactions, and as a consequence, some cows will be under stress or injured, or will not have free access to feed and will have a growth delay. Therefore more attention is needed when introducing new animals into the herd, for example young cows after their first calving. According to some of them, this is amplified in loose housing, as in tied stalls the cows have fewer opportunities to be in contact with the others, and have their own access to feed.

Some Italian and French farmers referred to their experience to move the herd from a tied stall to loose housing, with horned cows (2 farmers in I1: dairy cows ; 2 farmers in F2: suckler cows, Salers breed, keeping traditionally their horns). They said there were aggressive interactions, and particularly for some animals who suffered under others' assault. One could overcome the problem by giving more space, specifically at the entrance of the milking parlour, but the 3 others could not, and finally decided to dehorn the whole herd, and to begin to disbud the young calves *" my brother did not want to dehorn ... but we had to, because some dominated cows were beaten up from the morning to the evening ...there were bruises on their flank ..."* (F2).

The farmers keeping horned cows specified that they pay much attention to the temperament of the cows, and that they avoid keeping aggressive cows in the herd in order to reduce the risks of stress and injuries. They also pay specific attention to the introduction of new animals into the herd. For them, the interactions between the animals depend on the herd management and there is less aggressiveness and agitation when the management is more respectful.

Some suckler farmers mentioned that the fatteners are interested in buying dehorned animals, to reduce injuries, but that they do not want to pay more for it. And the fatteners in the focus groups had different views: some considered that they have to do with horned as well as with dehorned animals, and they accept a certain number of accidents. Some farmers who fatten their own animals prefer to dehorn them, to reduce such troubles. Others try to group the purchased animals in pens with horns and pens without horns.

c. Housing, equipment and handling

Housing and equipment are linked to a certain degree with the decision to dehorn or not. Many farmers held the view that tied stalls are consistent with horned animals, but loose housing is not,

because of the feeding-racks on the one hand and on the other hand because the space allowance needed would be considerably larger than for cattle without horns.

In the three French groups and in an Italian one (I3), the views were similar: when a farmer changes from tied stalls to loose housing, he can not keep the horns: *“It is not a choice, it is an obligation, as they are in loose housing ... and with horns they could not use the feeding racks ...”* (F1)

Cows, but also fattening bulls, have difficulties to use inadequate feeding-racks if they have horns. A high risk of partially broken horns, linked with an increased infection risk was mentioned in this connection. Such injuries mean animal pain, and economic loss, because an injured animal will be reluctant to use the feeding rack, and its growth will slow down.

On the other hand some farmers use the horns to tighten the animals or to handle them. For example a French Limousin farmer reported that he dehornes his animals partially, keeping about 10 cm long, to tighten them more easily. This is a common practice in different regions in France for suckler cows.

However there were also farmers keeping dehorned animals in tied stalls, and other farmers keeping horned animals in loose housing.

The German dairy farmers keeping horned animals stated that loose housing is consistent with horned animals as long as space allowances in the stable are sufficient and housing facilities are adjusted to the cows with proper feeding racks and large milking parlour. According to them the way the herd is managed is a key point, and particularly the farmer attitudes and skills to ensure a good human-animal relationship.

Farmers wanting to keep horned cows said that they have difficulties to comply with the farm subsidy policy if they build a larger housing. One German farmer reported: *“I tried to build my stable as spacious as possible. However, you get punished right away. You see, I wanted more space and additional outdoor cubicles, but they said, for additional cubicles you need additional milk quota. Therefore, I was not allowed to build these cubicles if I wanted to receive building subsidies ...”* (G1).

d. Tradition, aesthetics and image

Many farmers have always seen and worked with either horned or dehorned (or polled) cattle, and often explain this by tradition, family habit and / or local tradition. When they inherited dehorned animals, it seems to them difficult to change, or they do not even think about it.

Some of them add aesthetic considerations.

For example, in Italy (I3) Italian Friesian, in France (F1, F2) Prim'Holstein and in Germany (G3) Holstein Friesian cows are almost never horned, so farmers and people in general are used to it as this is their common look: *“They are not pretty with horns, we are no longer used to it ...”* (F1) and *“I do not remember any horned Italian Friesian cow ...”* (I3)

But in the same region in Italy, Rendena dairy cows are horned, reared in tied stalls, because it is the natural look of this breed. In France, Salers suckler cows are usually horned (their horns are big, often 50 cm long), and reared in tied stalls too, and this breed is a symbol of the Cantal region. Several Salers farmers do not like to see Salers cows without horns, and 2 farmers dehorning their cows, explain that they are badly considered by their neighbours, for this reason, because it is not yet frequent.

This image may also have a social or commercial interest, as the French Salers and the Italian Rendena and Alpine Grey farmers mentioned. Some farmers say that it is more attractive for the tourists and consumers, for example in case of direct product selling on farm.

The German farmers keeping horned cows claimed that *“horned cows have much more charisma and are prettier in general”* (G1). They perceive the removal of the horns as the first step to industrialize their animals. Being quite aware of the quasi compulsion to enlarge the herds to produce profitable in the future, they all emphasized that they do not want to keep herds with over 100 cows which at the same time might be difficult to keep horned. Sustaining their *“peasant culture”* is very important to them, which, among others, seems to stand for a special emotional

connection between the farmers and their animals and the land they both live on, but also implies the practical and mental skills (and the will) to handle and manage a horned herd. The horned cows seem to be some kind of symbol, which should express the reluctance to sacrifice their traditions to economic gain.

e. Commercial specifications

In some situations, it may be of commercial interest to dehorn. Firstly, for several farmers who rear and sell young animals to be fattened removing horns enables not to focus on the precise age of an animal. Animals without horns seem to be younger. In a group with only dehorned animals those that have grown more slowly do not stand out, and the farmer will get a better price: *“For the broutards”, I practice disbudding because the group looks more homogeneous, prettier ...*” (F3). Secondly, in some regions, like Limousin, dehorned animals became the norm, and for example bulls without horns get a better price than with horns. The farmers (F3) explained that it was difficult at the beginning to change the habits, particularly in the cattle shows, but now the trend is to have animals without horns. Horns are not needed anymore to get a prize. However in the same focus group a farmer with Charolais cattle explained that the farmers are still looking for horned animals, as many beliefs link nice horns with prime quality. Similarly, the farmers of an Italian group (I1) said that horned Rendena and Grey Alpine heifers and cows had a higher commercial value due to their look.

f. Naturalness

Another argument for keeping cattle with horns was the importance of respecting cows and their physical integrity, and adapting the farming conditions to their needs and their characteristics, rather than adapting the cows, by dehorning them. Horns are natural parts of cattle and some farmers don't think that it is their right as humans to remove those parts by means of mutilation: *“At one time I borrowed a hot iron disbudder, because I thought, yes, I have to dehorn, but then I already was in the process of thinking, may I, must I? And then I found that truly I do not have the right to take something away from the animal, just because it does not suit me”* (G1), and *“From a practical point of view cows should be dehorned, but for ethical principles cows should have horns”* (I1).

Some consider that other parts of the cows may be dangerous or source of accidents as well, like hoofs and tail, and that they cannot cut these away either.

Moreover, the organic farmers of one group (G1) saw specific benefits of keeping horns. They claimed that cows need their horns for better digestion, vitality and fertility which also results in a better milk quality. This is a view especially held by anthroposophic farmers based on theories from Rudolf Steiner. For example, one farmer reported that he always had health problems in his herd, especially with the calves, and that the situation improved since he stopped disbudding. Others agreed that horned cows are easier to keep healthy without medication.

g. The extra-work and cost to dehorn, as a motivation

Some farmers explained that they do not like at all practicing the disbudding or the dehorning, either for themselves, as a laborious work, and/or for the animal as it is painful. Some of them have stopped dehorning for this reason, but others still dehorn or disbud, but with reluctance. One farmer explained that he does not like disbudding, and as a consequence he always postpones the moment to do it, and then he has to do it with too old animals, in bad conditions.

Other farmers consider that it is a useful work, it is worth spending time to do it: *“It means work, but you make a choice, either do dehorning or not ...”* (F3).

The fatteners of purchased “broutards” prefer not to dehorn, because it is costly, both in time and money, with too few advantages, as the animals do not stay very long on their farm.

h. The people who work with the farmers

Not only the farmers themselves, but also veterinarians, technicians, transport drivers or replacements on farm interact with the horned or dehorned animals. The German farmers keeping horned cows reported that some transport drivers do not like having to load horned animals, because it is more difficult for them. Additionally, some farmers have difficulties to find someone skilled and accustomed to horns for a replacement on farm, because the usual habit in their region is to dehorn.

3.2.2. How the farmers manage horned animals

a. Animals with and animals without horns in the same herd

For fattening animals, some farmers said that it is not a problem to mix animals with and without horns, because, again, the animals stay a relatively short time on the farm, and few accidents arise. Moreover the feeding gate design allows the presence of horned animals due to the absence of individual separators but it implies a stronger competition for feeding for the lower rank animals.

Injured animals are preferably sent to slaughter, as their growth would be slowed down. Nevertheless some of the farmers expressed a certain interest in dehorned animals, to build homogeneous groups with a lower risk of aggressive interactions, the pens being relatively small.

Concerning dairy or suckler cows, some farmers may have a mixed herd for different reasons: they move from dehorning to leave the cows with horns, or the contrary, they keep their previous animals with the young ones being progressively disbudded; or they buy animals with horns or without horns. They often said that it is possible if there is a low proportion of animals being different in the herd, for example one or 2 out of 50 or more cows: *“Two with horns is OK, but if they fight, they remember that they have horns, and use them ...”* (F1).

When there are much more animals being different, it may cause much more difficulties. A farmer is used to keeping horns in the young cows and to dehorn them after the second calving, arguing that their introduction into the herd is easier, because they can better defend themselves with horns amongst older cows without horns. Nevertheless, all the farmers having a mixed herd with a significant proportion of animals with and without horns share the same view that it seems not to be satisfactory, as there are too many aggressive interactions between the animals.

b. Fully horned herd⁴

As mentioned above, farmers specializing in fattening bulls did not see a high level of risk of injuries for the animals and for them. For the dairy farmers keeping horned dairy cows in loose housing (15 farmers in G1, 2 in I1), it appears manageable if you are motivated to this choice.

According to those farmers, the following aspects have to be taken into account to manage a horned herd properly:

- The housing conditions including equipment have to be adapted; space allowances have to be larger ; housing and management should aim at reducing feed competition, e.g. a proper access to feed should be ensured for each cow ; concerning the equipment, for example the feeding rack should be open at the top to enable a quicker exit ; some types of milking parlours seem to be more favourable (tandem instead of fishbone), etc.
- The composition of the herd is important too: the farmers suggested that it is easier to keep just one breed in one herd. Moreover they try to avoid frequent regrouping to get quite stable groups (in terms of social order), and they pay attention to the temperament of each cow. They give preference to peaceful⁴ and agreeable cows, and remove aggressive cows. As a consequence the integration of new animals needs specific attention and methods. For example some farmers suggest to avoid doing it in winter in housing, but to do it in summer on pasture, where the animals have more space.
- Farmer ability is requested to ensure a good human-animal relationship; the farmers have to be calm and self-confident ; they spend time observing their animals; experience helps

⁴ with sometimes a few dehorned animals

to learn how to behave, to become a skilled farmer: "...*the cows detect fear in stockmen immediately, and than the situation can become problematic...*" (G1).

Other methods were also mentioned, like putting balls on the horns, or rounding the tips of the horns of the more aggressive cows, to prevent injuries. The farmers who keep horned herds successfully seem to be quite proud of themselves, because they have the abilities to gain the respect and friendliness of their cows.

Farmers from other focus groups rear horned cows in tied stalls, with no problem linked with the presence of horns. For example in France (F2) on some farms the dairy or suckler cows are housed in tied stalls in winter and graze outdoors during the summer. Some of these farmers think that they would dehorn their animals if they had to move to loose housing.

Some farmers managing a dehorned herd do not always know in their neighborhood any farmer with a horned herd in similar housing conditions as their own herd. They do not know how it is possible to manage a horned herd " *On some farms it works well with horns, I really do not know why*" (F2, a farmer who tried and failed in keeping the horns in loose housing).

3.3. Disbudding and dehorning methods

In the framework of this project, disbudding was defined as the removal of the horn-buds in calves of up to 2 months of age, whereas dehorning was defined as the removal of the horns of a more aged animal. However, the farmers spoke of disbudding when hot iron or chemical paste are being used and this can be the case up to an age of 3 or 4 months. They spoke of adult dehorning when the horn is being cut, from about 10 months up to several years.

3.3.1. Disbudding or dehorning: which choice, why

Nearly all participating farmers with hornless herds practiced disbudding, except 3 farmers who only dehorned adults.

However many farmers have already experienced adult dehorning because they dehorn adults from time to time, for instance injured animals with a broken horn or purchased horned animals, or they have dehorned their herd once in the past. Some farmers keep the horns to tighten the animals when they are young, and dehorn them before they join a group in loose housing, or a collective pen for fattening animals.

Disbudding is considered by the majority as an easier method for the farmer, because the handling of calves is easier. At the same time it is considered to be less painful for the calves than the dehorning for adults. Many farmers have a very unpleasant recollection of adult dehorning, that they have already practiced or seen, for example when the whole herd was dehorned before moving from tied stalls to loose housing: "*The cows had a strong after-effect, they stayed half a day lying ...*"(F1), and "*I would prefer to keep the horns instead of dehorning adults ...*" (F3, a farmer used to disbudding the calves).

They linked it with bleeding and with negative reactions of the cows, which have shown signs of suffering such as producing less milk during 2 days or more.

Others (F2, Salers breed), paying attention to the look of the cows, mention that the scar is prettier when an animal has been disbudded, rather than an adult who keeps a kind of unaesthetic "stump".

3.3.2. Disbudding method

Among 63 farmers disbudding calves, about 50 use a hot iron (either gas or electric), while the remaining use caustic paste. Regardless the method, they mostly think that their method is the best one.

They usually do it themselves, and few ask the veterinarian or a technician to do it. They mainly think that disbudding needs a good handling of the calves, for the comfort of the farmer as for the calf, which will be less put under stress if well restrained.

Few farmers (around 10 farmers) use drugs, sedation or anaesthesia⁵. They all participated in 2 focus groups, one in Germany (G3) and one in Italy (I1). The farmers using sedation or anaesthesia claimed that this eases the process of dehorning largely.

The farmers using hot iron emphasize that the iron has to be very hot to ensure a quick, less painful and more effective (less horns re-growth) operation. Some emphasized that it is important to cut the hair in the area of the buds to ease the location of the buds. In a German focus group the differences whether the buds are removed or left with only burning the skin and vessels around the bud were discussed. Farmers leaving the buds argued that it has the advantage of avoiding larger wounds, but that the calves need to be young enough in order to achieve an effective disbudding. Farmers removing the bud emphasized that this safeguards a satisfactory result also in aesthetic terms.

Some use a disinfectant afterwards, but other farmers think that there is no need because of the cauterization. They do it at different ages. According to what they said in the groups, the animals are from 15 days to 3 or 4 months old, and the views concerning the ideal age are divergent. Usually the calves are disbudded in groups with hot iron, and may have different ages. The farmers considered as advantages firstly that it may be done at an older age than the chemical method, and secondly that it is less painful, because the caustic paste unfolds its effect over a longer period. Some have already tried the chemical method, but have stopped it and now prefer the hot iron.

The farmers using caustic paste find it a good method, less painful than hot iron, and more effective, but it has to be used on very young animals, within 15 days of age. The handling is also easier with very young animals. But it generally forces to an individual disbudding, when a calf comes to the right age. Farmers who want to disbud in groups often prefer hot iron for this reason: *“The use of stick forces me to disbud each calf at a very early age, so I prefer the cauterization because I wait to gather several calves (at least 4-5 animals) before performing the practice ...”* (I1).

3.3.3. Dehorning method

For adult dehorning, the farmers often ask to a veterinarian or a technician, and the majority, but not all, use drugs for sedation or anaesthesia. The equipment consists of an electric dehorning saw, or a hydraulic guillotine dehorner, less noisy, or a wire saw, harder and longer to use. They handle the animals mainly in the feeding racks, and tie them with a rope. In France the farmers use a tourniquet (a rubber or a rope), which is set before or during the operation to limit bleeding and removed a few hours later. We have little information about the disinfection after the procedure, however some use it.

3.3.4. Animal pain

Many farmers are convinced that disbudding and dehorning are painful. They dislike having to inflict pain to the animals, but they consider that it is brief, and that there are real benefits for both the farmers and the animals: more safety, less aggressions, less injuries: *“Well, when we are disbudding calves on our vacation farm and the calves bawl briefly, you have to say in the same breath: the danger to human life counts 20 times higher than the one week headache that they have now”* (G3).

In some focus groups some farmers point out that disbudding or even dehorning is less painful than having a broken horn or being injured by horned animals: *“People who say that dehorning is a barbaric practice, they should come and see when a cow has a broken horn ... that is really barbarous !”* (F3).

⁵ It should be noted that often farmers use the term of “anaesthesia”, but they mean either sedation or anaesthesia, which are completely different from each other. Sedation may be applied by the farmer, when anaesthesia should only be applied by the veterinarian.

The case of adult dehorning is differently assessed than the disbudding one. The farmers, even those dehorning adults, are all convinced that it is painful, because the horns are grown, it bleeds, and the operation is impressive. For many farmers, the bigger is the horn (linked with the age and/or the breed like Salers), the more painful is the dehorning operation.

They describe the calves' pain during disbudding through 2 different aspects:

1. Some suppose that this kind of operation is painful, as it could be for themselves. For example the disbudding with hot iron or caustic paste consists of a burn which is expected to be painful: *"...5 minutes of disbudding with hot iron without wearing gloves, everybody knows how hot the thing is. At last, I cannot imagine that it works differently in calves, if we set a burn on the head, then, well then the pain for the calves is extremely intensive."* (G3). Others judged that they just inflict a small burn, not really painful. They sometimes compare the procedure with other operations, and consider that disbudding is not worse than ear tagging, or injections. And the advantage is that there is no need to repeat it, when injections have to be repeated: *"yes it is worse than an injection, but there are 4 injections per year currently!"* (F3).
2. Most farmers base their judgments on overt symptoms they see. For example, if the animal struggles a lot, and tries to get away during the operation, it is supposed to suffer: *"During 30 seconds, they move, sure there is pain!"* (F2). It is partly the reason why in their view very young calves suffer less than older ones, because they struggle less: *"the calf stands still, almost does not move, it is quiet"* (I1). If the calves stand up promptly after the operation, or go quickly back to the feeding rack for eating, or if they quickly go back to lick the farmer, they consider that the pain was not too intense: *"Well, I do not notice pain in the calves. Well, there is the short-termed effect, but otherwise, if done properly it is tolerable"* (G3), *"They also come quickly for feeding afterwards"* (G3, also said in Italy and France). However, others noticed that the calves' responses to the farmer were different afterwards when they had used sedation: *"You notice very strongly when you have used sedation; the animals are quicker friendly towards humans again"* (G3).

A number of farmers claimed that the animals are mainly under stress by the handling during the procedure, because they can't move and they struggle, but they are not sure that there is real high pain, and they admit that it is difficult to assess: *"they are as much under stress being blocked in the handling box ... they react as if they were already burnt, even before being really burnt ..."* (F3).

Only few farmers saw a need of sedation before the operation, or analgesia to reduce pain afterwards.

Nevertheless several farmers had questions about anaesthesia (Is it effective against the pain? How has it to be used ?), because they would like to reduce animal pain during disbudding or dehorning.

3.4. Regulation and training about disbudding/dehorning

Most of the farmers did not exactly know about specific regulations on disbudding or dehorning and clearly stated that new regulations and requirements are not needed, and would bring constraints to the farmers, without taking into account their current practices and the feasibility of recommendations. However, it was also mentioned that regulations should be better harmonized across Europe.

In one focus group (G1, organic farmers keeping horned cows) it was discussed that the stopping of disbudding or dehorning should be the long-term goal. However, this would require proper housing facilities which are currently not present in many farms. Furthermore, they emphasized that the decision not to dehorn should be made "by heart" and not due to a regulation.

Other organic farmers who practice disbudding themselves agree with the current regulation.

For many French farmers, anaesthesia would necessarily be recommended, as well as disbudding for very young calves. The eventual role of the veterinarian has been discussed in the focus groups, and the farmers often think that they are skilled enough or even more skilled than the vet, and that

there is no need to require a vet specifically for disbudding. Some farmers would like to use anaesthetics, if they would be allowed to do the injections themselves.

3.5. Prospects for the future

3.5.1. Modifying the method

10 farmers out of the 63 disbudding or dehorning would be interested in modifying their method, they mention the following aspects:

- to disbud instead of dehorning, or to disbud younger animals,
- to reduce animal pain during the operation, by the use of anaesthesia for example
- to handle the animal better
- to use a hotter iron.

In one focus groups, the farmers show interest in incentives to help modifying the methods : *“Rewards would be well accepted by anyone, not to change methods rather for improving what they currently do ...”* (I1)

The others were satisfied with their current method.

3.5.2. Stopping dehorning

Most farmers stated that they do not want to stop dehorning, for the reasons they have given during the focus group meeting. They would consider it a set-back.

5 farmers were prepared to stop: 3 farmers will stop it when polled cattle are available in high quality, and 2 others (of which 1 organic farmer) consider that they can not, due to their improper housing facilities. One farmer thinks that he could stop dehorning his dairy cows housed in tied stalls, for animal welfare reasons: *“maybe we could stop, if someone tells us, for animal welfare ...”* (F2).

In 2 Italian focus groups, some farmers would be interested in incentives to support housing investments and extra-time to keep horned cattle. But for others, money is not the central aspect.

The organic German farmers who had stopped dehorning and those who have always kept horned cattle emphasized, that it is more costly to keep horned cattle, since the proper keeping of horned cattle requires investments in the housing facilities and more management efforts. Therefore they would welcome financial support for their efforts to minimize animal suffering, or at least that the milk they produce obtains a special status, that consumers can distinguish their milk from other milk and thus are able to decide consciously to buy milk of horned cows.

3.5.3. Begin dehorning

6 farmers said that they consider to begin dehorning:

- in an organic demonstration farm, it would be safer for the visitors and trainees,
- 3 farmers think they would do it if they had to move from tied stalls to loose housing,
- 2 farmers consider to dehorn their male calves, to sell them at better price conditions.

3.5.4. Using polled cattle

Among the 94 participants, 8 were already rearing polled cattle, with 3 rearing a 100% polled herd (G2). They mentioned a lack of genetic diversity within the polled breeds, due to a small basis of selection, and state that the carcasses at present often still have a lower quality. In their opinion this drawback should lower in the future. These farmers reported that the French breeding organizations long opposed to the breeding of polled cattle because of the selection criteria regarding horns that are laid down in the breeding standards. However, this drawback should also decrease in the future.

In Germany the breeders of polled cattle would welcome a stricter cattle breeding law, which should forbid the use of unlicensed bulls of low quality in order to support genetic progress in polled cattle.

In total 57 farmers were prepared to begin (or to go on) using polled cattle, but they generally mentioned that the available quality is often not satisfactory. They currently choose the reproductive animals on other criteria, concerning production and reproduction, and ask for animals without horns that are as good as the others. Some farmers were rather reserved in this respect: *“If you could get polled animals, it would be a positive additional trait. But basically I consider other traits more important for a proper dairy cow ... I do not choose a bull just because it is polled. If all its other traits do not fit into my scheme for breeding, it won't be considered.”* (G3).

Additionally some farmers emphasized that they do not want to be obliged to have polled animals. They think that they should have the right to choose their animals independently of the horns.

37 were not prepared to use polled cattle. Among them the organic farmers with horned herds disapprove such genetic selection because they think that the cows need the horns for their health and to produce milk of higher quality.

Some farmers prefer to keep animals with horns, either for tradition or for practical aspects to tighten them more easily.

4. Conclusions

In total, 94 farmers from 3 countries participated in 9 focus groups. This is a qualitative study, with a sample not being statistically representative for the 3 countries or Europe. With only 3 focus groups per country, it was not possible to cover all the situations towards dehorning. Specifically there were relatively fewer participants keeping horns (particularly in loose housing systems) and organic farmers.

However for a first approach, the sample shows a significant and interesting diversity of characteristics, and a diversity of views concerning keeping horned cattle or polled cattle or dehorning in cattle herds. It is worth noticing that the farmers' views are often convergent within and between the three countries.

The farmers were often interested in the focus groups, in sharing their views with other farmers on a topic which worries many of them. They said that they have few opportunities to debate this topic, either with other farmers or with advisers.

To keep horns or not:

Many farmers have chosen to keep horns or not a long time ago: they are used and skilled to working like this, the cows got used to, they have adapted their housing and equipment accordingly. It seems to them to be the right way, and changes are difficult to face or imagine.

Working with horned or hornless animals is not just a detail. Instead it results from and implies different views on the farmer profession and on the practical and daily work with the animals.

The farmers have often several complementary reasons, to justify their choice.

In favour of dehorning or keeping polled animals, farmer safety and animal safety (less consequences from aggressive interactions) are often mentioned together, especially in connection to loose housing in dairy and suckler cows. The local habit or norm plays also some role : *“a modern cattle farm has dehorned animals”*.

In favour of keeping horns, different aspects are combined: ethic considerations towards the animals (integrity of the animal, avoidance of pain and stress), a strong farmer-animal relationship, and assumed better health and product quality. Keeping cows with horns may also contain an ideological statement of resistance against rural industrialization.

For farmers keeping horns with rustic cattle breeds in tied stalls (Salers in France, Rendena in Italy), tradition, aesthetic and tourism considerations are essential.

It is very important to underline that working with hornless animals is not necessarily related to a worse farmer-animal relationship. Many farmers place the animal at the centre of their work, but decide differently on the question of horns. Those that do dehorn or keep polled cattle also think that this is in the interest of the animals or even make their decision from animal welfare considerations.

For the animals to be fattened, the situation towards dehorning is more variable and less discussed because of the shorter life span and the reduced safety risks.

The methods:

The farmers often dislike having to disbud or to dehorn cattle, the procedure being unpleasant both to the animals and to the farmers.

Nearly all the farmers interviewed disbud. They are used to the methods they apply and are mostly satisfied with them. More farmers use hot iron than caustic paste. Only few of the participating farmers use sedation or anaesthetics and no one analgesia. Some farmers would be interested to apply anaesthesia if they were allowed to do it themselves. Others think that there is no need, as the operation is very quick.

For most of the farmers, adult dehorning has to be avoided, as it is too stress- and painful for the animals. Even those practicing adult dehorning are critical and often prepared to move to disbudding.

Most farmers think that the animals suffer during disbudding, but their views on the extent differ largely. They additionally mention that the handling itself puts the animals under stress.

Prospects for the future :

The majority of the farmers would not spontaneously change their practice as they are strongly motivated in keeping either horned or dehorned cattle.

Most farmers with dehorned animals see dehorning as a ‘necessary evil’ for which there is no alternative.

There are several kind of barriers to move from a dehorned cattle herd to a horned one :

- the farmers’ working habits (some have been dehorning forever or for a long time),
- the representations shared by the farmers and by many operators (regarding loose housing and dehorning in modern herds for example),
- the housing facilities (space allowance per animal, equipment),
- the production system and the working organization (calving outdoors, or calving in groups for example),
- the stockman’s skills to manage horned animals.

These barriers are all the more effective because the topic of keeping horns and dehorning is rarely discussed, and the farmers have few opportunities to share their views and to know how they could change their practice.

Farmers keeping horned cows in loose housing emphasize their higher costs for housing and management and ask for support of their voluntary efforts, instead of “punishment” due to subsidy practices which do not allow spacious cow housing. They would welcome a market differentiation

with regard to milk from horned or hornless cows, but they also said that keeping horns has benefits like a better health for the animals.

Some farmers are considering to modify their practice regarding dehorning (10 out of 63 farmers who currently disbud or dehorn) in that they would disbud instead of adult dehorning, or disbud the animals at a lower age, and it meets what seems obvious for the majority to reduce animal pain.

In general, there are strong objections against new legislation on dehorning. Firstly the farmers with dehorned cows are opposed to a ban of dehorning. Secondly they fear stricter regulations concerning the methods, for example which would force them to ask to the vet for disbudding.

Many farmers are rather interested in polled cattle which also have a high quality for production and reproduction. But mostly they do not believe that it is feasible at short notice. All state that they must have the right to choose which animals they would like to work with.

Changing the practices would necessarily need to take into account all the barriers and face specifically the consequences in terms of:

housing facilities and skills to reduce the risk of accidents and to increase the farmers' and animals' safety, without or with horns, through for example recommendations, incentives or training sessions.

animal pain, in promoting good practices of dehorning (including age, handling, medication before, during and after the procedure, etc.) based on an objective assessment of the pain and consistent with the farmers' allowance and skills to use themselves drugs or not.

Training sessions and specific advice would be useful concerning either the management of a horned herd, or the good disbudding/dehorning practices (including handling, medication, etc.).

The farmers are concerned but also the operators such as veterinarians, technicians, transport drivers, etc., who also have to be implied.

ANNEXES

ANNEX 1 : Characteristics of participants and farms represented in the 9 focus groups

	Italy 1 (I1)	Italy 2 (I2)	Italy 3 (I3)	Germany 1 (G1)	Germany 2 (G2)	Germany 3 (G3)	France 1 (F1)	France 2 (F2)	France 3 (F3)
Venue	Trento (Cavalese)	Piemonte (Cuneo)	Veneto (Grantorto)	Allgäu (Bavaria)	Saxony	North Rhine Westphalia	Bretagne (Questembert)	Auvergne (Murat)	Limousin (Limoges)
Date	17-march	20-march	24-march	06-march	07-may	12-may	26-march	21-april	29-april
Nb participants (including females)	11 (0)	15 (0)	10 (1)	16 (1)	6 (0)	11 (2)	8 (1)	9 (2)	8 (0)
Production type (number of farms)	dairy cows	suckler cows (11) and/or fattening bulls (13)	dairy cows	dairy cows	suckler cows	dairy cows (11) and: fattening cattle (2) suckler cows (1)	dairy cows	dairy cows and/or suckler cows	suckler cows (8) and: dairy (1) fattening cattle (4)
Main breeds (number of farms)	Rendena Alpine Grey	Piedmontese: suckler cows Several French meat breeds: intensive fattening bulls herds	Italian Friesian Rendena	Brown Swiss (8) Fleckvieh (3) Holstein (1) Grey Swiss (1)	Simmental Limousin Charolais	Holstein Friesian, Red Holstein, Limousin	Holstein Normande	Holstein Montbéliarde (dairy cows) Salers (suckler cows)	Limousin (7) Charolais (1)
Regional characteristics	Trentino Alto Adige, mountain area with large use of summer grazing	11 farmers from Piedmontese, 4 farmers from Veneto 1 summer grazing others: flat area, all mixed rations	Veneto Region, flat area no summer grazing, highly specialized dairy cattle farms	mountain area with high proportion of permanent pasture	mainly crop production residual areas improper for crop production (eg mountainous areas or flood plains) used as permanent pasture	flat areas often used for crop production and highly specialized animal production (poultry, pigs, cattle) and rangy areas with permanent pasture	flat area, grass and corn	permanent pasture mountain (1000 m)	permanent pasture
Production characteristics	20 to 150 dairy cows (average: 72) 2 organic and 9 conventional	fatteners : 200 to 1700 purchased fattening animals, per year	50 to 200 cows	17 to 60 dairy cows (average: 32) 15 organic and 1 conventional	45 to 1100 suckler cows (average: 440)3 specialized in cattle farming, for the others additional income to crop production	40 to 500 dairy cows (average: 163)1 demonstration farm of Chamber of agriculture with 2 herds including 1 organic 2 organic and 10 conventional	30 to 60 cows (average: 41) 1 organic and 7 conventional	2: only dairy cows (about 55)4: only suckler cows (50 to 114)3: both (10 to 40 dairy cows, and 50 to 70 suckler cows)	58 to 180 cows (average: 111)

ANNEX 2 : Housing systems and state of dehorning represented in the 9 focus groups

	Name of the focus group		I1	I2	I3	G1	G2	G3	F1	F2	F3	Total
	Number of farms		11	15	10	16	6	11	8	9	8	94
Dairy cows	horned	loose housing	2 (1 org) ¹			14 (13 org) ⁴		1 (1 org)				17
		tie stalls	4 ²		1	1				1		7
	without horns	loose housing	3 (1 org)		6	1 (1 org)		11 ⁶	8 (1 org) ⁷	3		32
		tie stalls	2		3					1		6
Suckler cows	horned	loose housing				1						1
		tie stalls								5		5
	without horns	loose housing		9			6 (3: fully polled, 3: polled and dehorned ⁵)	1		2	8 ⁸	26
		tie stalls		2								2
Fattening bulls	horned	loose housing		5 ³		1				1	2	9
		tie stalls		1								1
	without horns	loose housing		6			2	2		1	2	13
		tie stalls		1								1
Disbudding or dehorning			all disbud dehorn injured animals	10 disbud and they dehorn only injured or purchased animals, or exceptions 1 farmer prefers to dehorn	9 disbud, 1 dehorns the purchased adult animals	1 disbuds	all disbud	all disbud	all disbud in addition , 3 often dehorn adults	5 disbud 4 dehorn adults (1 the fattening females 1 the purchased replacement heifers and 2 occasionally)	all disbud 4 also dehorn adults	

¹ : 2 herds, of which 1 is organic

² : including sometimes some dehorned animals

³ : all farmers from Veneto region + 1 from Cuneo

⁴ some of them have still a few dehorned animals but do not dehorn any longer

⁵ Simmental: all polled, Charolais > Limousin > Blonde d'Aquitaine: decreasing proportions of polled animals

⁶ males sold at 14 days old (as veal calves) generally not dehorned

⁷ most do not dehorn the males, 1 does

⁸ 2 farms have some horned and 2 some polled cows with the dehorned ones
1 dehorns, but keeps 10 cm long horns

