

**Description of the German horse
feed industry with a qualitative
analysis of problems due to change
of legislation**

Bachelor Thesis

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Leisure and Sports course at VHL

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Abstract

This bachelor thesis deals with the German horse feed industry and the connected legislation, especially with legislation EG No. 767/2009, and examines in this connection the appearance of demands and possible problems of horse feed manufacturers in Germany.

In the last years the horse feed industry as well as the whole animal feed industry has decreased steadily. The new legislation has the goal to simplify existing procedures and to improve the information about feed which is presented to the end user. Actually the reality shows another trend after the evaluation of the expert interviews: It became apparent that all interviewees think that clients aren't informed better than before the legislation changed and that the goal to ensure safety standards of horse feed and customer protection is not hasn't been reached at all. The higher amount of work in connection with the opinion that marketing in the horse feed business is getting more difficult after the changes in legislation completes the overall negative attitude towards Regulation (EC) No 767/2009 of the interviewed experts.

After discussing these results, finally suggestions and recommendations are summarized in a guideline for feed manufacturers, with the aim to clarify how they should handle, label and mix their products after the change of legislation.

Key words: EG No. 767/2009, German horse feed industry, Guideline

Kurzfassung

Diese Bachelorarbeit befasst sich mit der deutschen Pferdefuttermittel Industrie und der damit verbundenen Gesetzeslage, besonders mit dem Gesetz EG Nr. 767/2009, und behandelt die damit verbundenen Anforderungen und mögliche Probleme der in der Futtermittelbranche tätigen Personen durch diese Rechtslegung.

In den letzten Jahren gab es einen Umsatzrückgang in der Pferdefuttermittel Industrie, und auch in der restlichen Tierfutter Industrie war ein Rückgang bemerkbar. Das neue Gesetz hat das Ziel, die bestehenden Verfahren zu vereinfachen und die Informationen, die Landwirte oder Heimtierhalter über die Futtermittel erhalten, zu verbessern. Die Realität zeigt allerdings andere Trends nach der Auswertung der Experteninterviews: Es wurde deutlich, dass alle Interviewpartner denken, dass Kunden nicht besser informiert werden und dass das Ziel, Sicherheitsstandards von Pferdefutter zu erhöhen und somit Kundensicherheit zu gewährleisten, nicht erreicht wurde. Der höhere Arbeitsaufwand in Verbindung mit der Meinung, dass das Marketing im Pferdefutterbereich nach der Gesetzesänderung schwieriger ist, rundet das Bild der negativen Grundeinstellung gegenüber dem Gesetz (EG) Nr. 767/2009 ab.

Nachdem diese Ergebnisse diskutiert wurden, werden im Schlussteil Empfehlungen und Anregungen in einem Leitfaden für Futterhändler gegeben, wie sie ihre Produkte abwickeln und beschriften sollten.

Schlagwörter: EG Nr. 767/2009, deutsche Pferdefuttermittel Industrie, Leitfaden

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1 Introduction

The number of horses in Germany accounts to approximately 1,2 bn. (Deutsche Reiterliche Vereinigung (FN) e.V., 2001) and all these horses need to be supplied with water and feed to perform in sports or to be used in any other categories. Consequently the German horse feed market is a big part of the complex equine industry and therefore an important economic factor within the equine industry.

In the last years the horse feed industry as well as the whole animal feed industry decreased steadily. As predicted by "Deutscher Verband Tiernahrung e.V.", the production of compound feed declined about -7,6% from 2008 to 2009, while the whole compound production registered a decline of -4,6% from 2008 to 2009. Thus the compound horse feed production diminished from 282.000 t in 2008 to 261.000 t in 2009, which makes a difference of -21.000 t, while the whole compound feed production diminished from 21.825.000 t in 2008 to 20.829 t in 2009, which makes a difference of -996.000 t (Deutscher Verband Tiernahrung e.V., 2010). This decrease can be explained by the low market quotation for cereals, with the consequence that farmers had few incentives to put their cereals on the market rather than using them on their own farm as well as the financial crisis, which led to lower consumer demand for products of animal origin (European feed magazine Vol. 5-6, 2010).

Also the number and the dimension of feed companies changed over the years; the number of feed companies declined while the average dimension of the companies went up (LME, 2005). This trend towards an oligopoly market makes it more and more difficult to compete without a coherent marketing strategy and is a threat especially for small feed companies. A big competitive pressure in the whole feed industry is noticeable due to the fact that the turnover in the feed industry according to approximations of the "Deutscher Verband Tiernahrung e.V." 2009 is 3,8% lower than 2008. This decline is limited by higher prices of agricultural raw materials as well as by low sales volume. The decline of the whole feed distribution in 2009 shows also the results of the financial crisis- ennobled products like compound feed declined about -5% (Proplanta, 2010).

Besides the cost issue, the legislation issue in the feed industry has become more important today and will be in the future (Feed Mix Magazine Vol. 15 no. 2). Current topics like the Dioxin affairs in Germany lead to a permanent discussion about feed and therefore food safety, further regulations in this sector are hence indispensable. As

mentioned by Ilse Aigner, agricultural minister of Germany at 24.01.2011 in Brussels, the EU-Commission and the member states agree that they have to give reason to the current Dioxin case for drawing consequences on European level. Current standards have to be rose up and the safety net has to be improved. Feed manufacturers are one of the first institutions which are going to be concerned by these decisions although an already extensive EU legislation as well as the slightly different regulations in the 16 federal states of Germany have to be considered accurately.

The increasing globalization and advancing knowledge about feed, additives and their effect makes the feed industry even more complex and almost impossible to understand for “ordinary” horse people. Information of feedstuff in the literature usually concentrates more on the data value obtained and does not give a full description of the feedstuff related (Leche T., 1983). Furthermore, the research in the field of horse feed is still fragmentary.

The EU developed therefore a new regulation; Regulation (EC) N° 767/2009, which came into force at 1st September 2010. It is valid in all European member states and the intention of the new regulation is to clarify the labeling requirements with the aim to assure greater transparency and a high level of protection for animal health and welfare. Specific labeling norms relating to contaminant levels and pet food are supposed to act for customer interests. It provides proper information to customer’s concerning the true content of the feed they acquire for their animals (European Union, 2009).

1.1 Problem Definition and Research Objectives

The present bachelor thesis deals with the development in the German horse feed industry and the involved legislation. The change in legislation 2010 effects the whole animal feed industry in Europe and therefore also the horse feed industry in Germany. The intention of assure greater transparency and a high level of protection for animals is a benefit for customers. If the new regulation is also a benefit or even a disadvantage for feed manufacturers is not clear yet.

The mentioned points compose the foundation of this bachelor thesis. The objective is to describe the German horse feed market and its developments and to investigate what the change in legislation means to production, packaging and marketing processes for feed manufacturers and therefore what manufacturer’s problems with the new legislation are. Furthermore it has to be investigated what effects the additional

high competitive pressure means for manufacturers and in last instance what it means for customers, especially regarding the price of horse feed.

The general information about the German horse feed market and the involved legislation connected with the results of the qualitative analysis will lead to a guideline for feed manufacturers of how to handle, label and mix their products.

Problems of feed manufacturers regarding the change in legislation 2010 as well as a discussion about the changes in the processing of feed stuff regarding marketing and labeling are investigated additionally through answering the following research questions:

- How does the German horse feed market look like: What are the current figures and numbers on the German horse feed market? What is the current legislation in Germany around horse feed and supplements and especially what did change in the German horse feed legislation 2010?
- What direct effect and problems do German feed manufacturers experience due to change of legislation: What do feed manufacturers think about the regulation (EC) No 767/2009? What kind of problems did feed manufacturers have while implementing the new regulation?
- How does the change of legislation in labeling and packaging feed effect the German horse feed industry and what do feed manufacturers have to change concerning given products and marketing?

1.2 Procedure and Build-up of Thesis with Methodology Overview

This research is based on existing literature review of the topic. The theoretical part describes the German horse feed market, current figures and numbers and its development over the last years through the use of secondary sources in chapter 2. The legal background around horse feed in Germany concerning quality criteria, labeling, packaging and product traceability with an additional evaluation of the change in legislation 2010 is pictured in chapter 3.

In the consecutively practical part the method of qualitative social research and the procedure of the analysis is defined in chapter 4. Afterwards, in chapter 5, the collected data is organized into meaningful and related parts and categories, which enables a systematically exploration and analysis of the data (Saunders M. et al, 2007).The output of the interviews is here evaluated and the problems due to change of legislation

in 2010 are elaborated. Chapter 6 contains discussion and conclusion and finally a guideline including recommendations for feed manufacturers and suggestions of how to handle, label and mix their products is developed in chapter 7.

2 The German Horse Feed Industry

2.1 Character of Horse Feed

Feed is a general term for all kind of animal feed. Today feeding stuff is often aimed very specific at particular animal species and their purpose of use in order to meet the nutritional requirements of livestock. This is especially important to achieve high levels of production required in today's competitive markets (Gizzi G. and Givens D.I., 2001) but also to ensure animal health and welfare.

Generally the term feeding stuff names nutrition for agricultural farm animals but also nutrition for pets. According to this feeding stuff is a generic term for different feed types like compound feed, feed materials and feed additives (Jeroch et al., 2008).

The established differences in horse feed can be appointed by their name and usage:

- Roughage is the basis of horse feed. For example hay and lucerne.
- Feed materials are the basis of horse concentrate. For example oats, corn, linseed and barley (cf. chapter 2.1.1).
- Compound feed, a mixture of at least two feed materials, whether or not containing feed additives. For example a mixture of barley flakes, corn flakes, alfalfa flour, molasses and sunflower oil (cf. chapter 2.1.2).
- Exclusive feed, a mixture which can be used without adding any other feed and see to a demand suitable feeding of necessary contents of energy, protein, minerals and vitamins.
- Supplements, cover all substances which are destined for adding feeding stuff to affect its composition or to achieve appointed impacts. Ingredients are for example vitamins, minerals (mineral feed) and trace elements.
- Nutraceuticals, a term combining the words "nutrition" and "pharmaceutical", is a feed product which provides health and medical benefits (Crandell K. and Duren S., 1999).

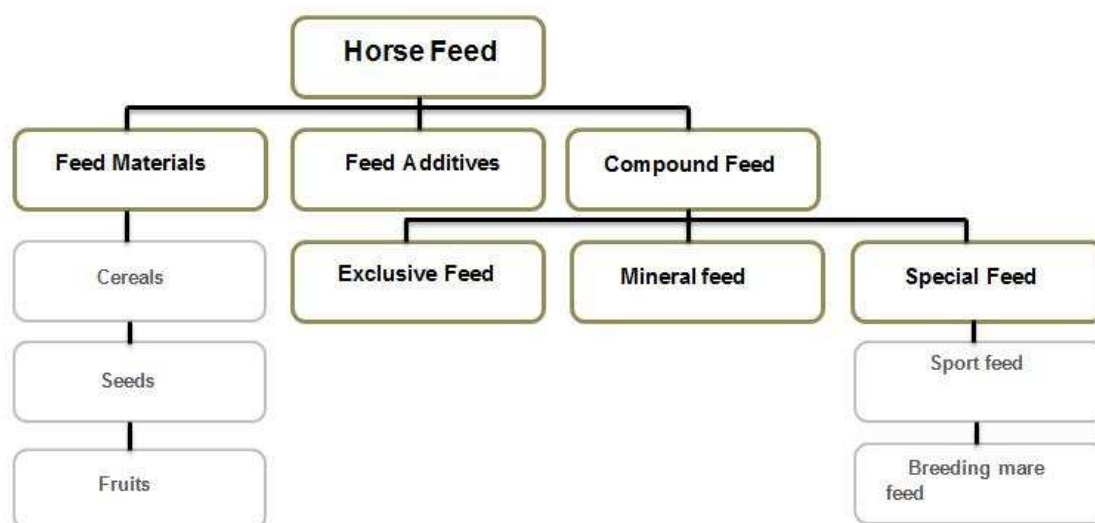


Figure 1: Character of horse feed

2.1.1 Feed Materials

Feed materials mean products of vegetable or animal origin, whose principal purpose is to meet animals' nutritional needs. Feed materials may occur in their natural state, fresh or preserved, and are intended for use in oral animal-feeding either directly as such, or after processing in the preparation of compound feed, or as carrier of pre-mixed feed. Mainly different kinds of cereals and grist like oats, barley or corn belong to feed materials, which can be exerted to compound feed with other feeding stuff (Kersten et al., 2010). Feed materials are divided into sections of character and origin. For the horse green fodder and its conservations like hay and silage as well as cereals and cereal products are of prime importance (Meyer, 1986). Anyway, simple feed materials are mostly not able to meet the demands of energy, proteins, minerals, vitamins and other essential feed ingredients. Big gaps of supply arise as well as exceeded intake. In an adequate compound feed, which means a proper combination of feed materials and feed additives, the demands of animals regarding energy and nutrients can be covered better.

The German market for farm animal feed contained 2009/2010 referred to valuation of DVT e.V. about 5,9 bn. €. The field of compound feed assessed the DVT on about 5,1 bn. €, the field of simple feed materials on about 0,8 bn. € (Mühle+ Mischfutter Vol. 23, 2010), which shows significantly that compound feed is the main product sold in the sector of farm animal feed.

To reach an increased rate of passage, increased digestibility and an increased feed efficiency, feed materials are processed in different ways. The most common ways of feed processing are pelleting (cf. chapter 2.1.2), hydrotermic processes, popping and extruding. In extruded feed, all components are broke open as high as possible. 90% of extruded corn is digested by the horses' small intestine, which is an improvement of 100% over grains found in typical pelleted feeds (Equidae, 2009). This releases the digestive tract of horses. In hydrotermic processes the feed is treated with the impact of heat and damp, which improves the digestibility of the feed. Popped grains are broke open, which increases the volume of the grains and it is much easier to digest for the horse, because the peel is split.

2.1.2 Compound Feed

Compound feed is obtained through mixing feed materials and occurs 60-70% in pelleted form (Komplexe Anforderungen, Mühle+ Mischfutter Vol.10, 2010). This leads to a product which is perfectly adapted to the requirements of animals for which it was developed (Kersten et al., 2010) and are an important basis of a capable and productive animal production. Compound feed means a mixture of at least two feed materials, whether or not containing feed additives, for oral animal-feeding in the form of complete or complementary feed. Feeding is simplified through industrial produced compound feed for horses and has advantages like simple handling and low dust expansion. Mostly compound feed appears in pelletized form, which reduces the content of germs additionally (Meyer, 1986). Further advantages of pelleted feed are low dust, less weight loss in transport, reduce selective eating, increase digestion and an easier way of handling and store the feed. Disadvantages of pelleted feed are the increased costs per ton and possible difficulties with quality of pelleting procedure causing problems (Dr. Marshall T., 1990). Compound feed can be used as exclusive feed or in combination with other feeding stuff for complementation of nutrient requirements.

The production and use of compound feed shows several advantages:

- New findings of nutrition physiology and feeding stuff science can be taken into account in the creation of feed recipes
- The use of compound feed enables an effective supply of horses with energy and nutrients meeting the demands

- In compound feed, inappropriate characteristics of feed materials withdraw, which could be a threat for performance and health if they are fed alone.
- Through special technologies like homogenize, pelletize and others an improvement in quality of several components and the mixture can be reached. Also advantages regarding transport, storage, feed intake and feeding hygiene are achieved (Jeroch H., Drochner W. and Simon O., 2008)

The classification of mixed feed takes place through different aspects. **Exclusive feeds** are mixtures which can be used without adding any other feed and see to a demand suitable feeding of necessary contents of energy, protein, minerals and vitamins. Therefore this is the easiest way of feeding. **Vitaminised mineral feed** is used to ensure a demand suitable supply of trace elements as well as minerals. The composition of mineral feed can be arranged specifically on the composition of a ration. **Pre-mixtures** do not count as mixed feed because they are not allowed to be sold to agricultural businesses directly, but commercial delivery for feed businesses.

The moisture content of mixed feed may not be higher, except mixed feed from whole grains, seeds or fruits, than; 10% in mineral feeds with organic ingredients, 5% in mineral feed without organic ingredients, 14% in other mixed feeds. These specifications are not valid if the moisture content of the feed is indicated (Jeroch H., Drochner W. and Simon O., 2008).

2.1.3 Feed Additives

The term of feed additives is set very wide and covers all substances which are destined for adding feeding stuff to affect its composition or to achieve appointed impacts. Substances like flavoring substances, preservatives and vitamins are examples for feed additives and all of these substances need an accreditation before entering the market and need to consider the defined conditions (Abel et al., 1995). Feed additives conduce to upgrading and completing of basic feed. Through a specific combination an adequate nutrition of the horse can be reached (Jeroch H., Drochner W. and Simon O., 2008).

Important feed additives in animal nutrition are amongst other things **antioxidants**, which play a very important role in maintaining health and prevent disease through delay or prevent the oxidation of an oxidizable substrate. Some antioxidants are also nutrient vitamins such as E and C but there are a lot more compounds occurring in

feed which also have useful antioxidant activities. Furthermore, **organic acids** are added to compound feed. The function of this is to create an acid environment to inhibit growth of micro-organism. **Non-digestible oligosaccharides**, which are natural constituents of plants and feed products of vegetable origin, seem to have some beneficial systemic effects in reducing blood triglycerides and cholesterol, and may provide a valuable alternative to the use of antibacterial compounds in animal production. **Enzymes and Emulsifiers** do also count to the category of feed additives. The addition of enzymes to feed improves the utilization of nutrients, because many feed components cannot be digested without. Emulsifiers are also important in assisting the digestion and absorption of nutrients. **Flavours and sweeteners** are also feed additives, which play the essential simple role which is to ensure that feeds are readily accepted by the animal target (Clifford A., 1999).

Antioxidants, emulsifiers and organic acids belong to the category of technological additives, while flavors belong to sensory additives. Vitamins, trace elements and amino acids are nutritional physiologic additives. Zootechnical additives are probiotics and enzymes.

In the category of feed additives, nutraceutical is an important term, which combines the words “nutrition” and “pharmaceutical”. These feed products provide health and medical benefits (Crandell K. and Duren S., 1999). Also the prevention and treatment of disease is included in the effect of nutraceuticals. Such products may range from isolated nutrients, dietary supplements up to herbal products. A potential difference between a feed and a nutraceutical is that the nutraceutical is unlikely to have an established nutritive value (Boothe, 1997). But, nutraceuticals are also no drugs, because they have not gone through an approval process. According to those facts it seems nutraceuticals fall somewhere in between feed and drug. Examples in the horse feed are carnitine, coenzyme Q10 and creatine.

2.2 Development in Horse Feed Production

2.2.1 Feed Manufacturers

Although feeding stuff is aimed very specific at particular animal species and their purpose of use (Jeroch et al., 2008), horse feed is one part of a very complex feed industry in Germany. Most of the feed manufacturers are producing compound feed for many animal species. The company “Josera” for example produces feed for agricultural

animals as well as for pets. The products range from cows, pigs, sheeps to dogs, cats and horses (Josera, 2011).

The number of feed manufacturers for compound feed in Germany amounted to 346 in the economic year 2007/2008 and 330 in 2008/2009 (Struktur der Mischfutterhersteller 2010, BMELV). A steadily decline of numbers of feed manufacturers is visible. Important to consider is the fact that feed manufacturers are not obligated to announce themselves at BMELV. The average numbers of produced feed per company amounted to 63.217 tons in the economic year 2007/2008 and 63.945 tons in 2008/2009 (Struktur der Mischfutterhersteller 2010, BMELV). The declining amount of feed manufacturers leads to a decreasing amount of compound feed produced per company despite lower overall production of compound feed (BMELV, 2011). The number of feed manufacturers shows this long-time trend and accounts to 330 in Germany in 2010, while the number in the previous year was 346. The change in structure is not completely observable in this sector and occurs increasingly in terms of mergers and cooperations. This also reflects the overall development in the agricultural sector in Germany; There are more and more bigger agricultural companies and less smaller. At the end of 2003, 388.094 agricultural businesses with a size of less than 75 ha agricultural area were counted- 10.6% less than 2002. The agricultural businesses with a size of 100-200 ha grew in contrast about 19.1% (LME, 2005).

	2008/09	%	2007/08	%
Number of feed manufacturers for mixed feed	330		346	
In region nord:	187	56,7%	198	57,2%
In region south:	78	23,6%	79	22,8%
In region east:	65	19,7%	69	19,9%
Production of compound feed:	21.101.889 t		21.873.126 t	
Average production:	63.945 t per manufacturer		63.217 t per manufacturer	

Figure 2: Most important data of the economic year 2008/07 and 2007/08
 (Source: Struktur der Mischfutterhersteller 2009, BMELV, 2010)

2.2.2 Structure of Compound Feed Market according to Regions in Germany

Raw materials we take for granted today, may not be available tomorrow (Feed Mix Magazine Vol. 15 no. 2)

The distribution of compound feed production in Germany is visible in figure 2. A relatively high concentration of compound feed manufacturers, according to the size of federal state, is apparent in the northwest of Germany. Schleswig-Holstein/ Hamburg, Niedersachsen/ Bremen and Nordrhein-Westfalen show the highest concentration of compound feed manufacturers according to their size. Sachsen, which is quite a small federal state, shows additionally a high number of manufacturers according to its size. The amount of produced compound feed in Niedersachsen/ Bremen is the highest with 8.721.000 tons, followed by Nordrhein-Westfalen with 3.419.000 tons.

The region Nord, which contains Schleswig-Holstein/ Hamburg, Niedersachsen/ Bremen and Nordrhein-Westfalen, is the strongest region in Germany concerning compound feed manufacturers and amount of produced compound feed. Also the reduction of produced compound feed in comparison to the previous economic year shows with -2,6% a number below German average. Region north achieves 71,2% of the whole compound feed production in Germany (BMELV, 2010).

A thread regarding compound feed in Germany are the growing settlement- and traffic areas, which are growing about 104 ha in Germany per day. In the first instance the German agriculture suffers from this loss of space and therefore the feed industry in Germany (Mühle+ Mischfutter Vol. 10, 2010, p. 308).

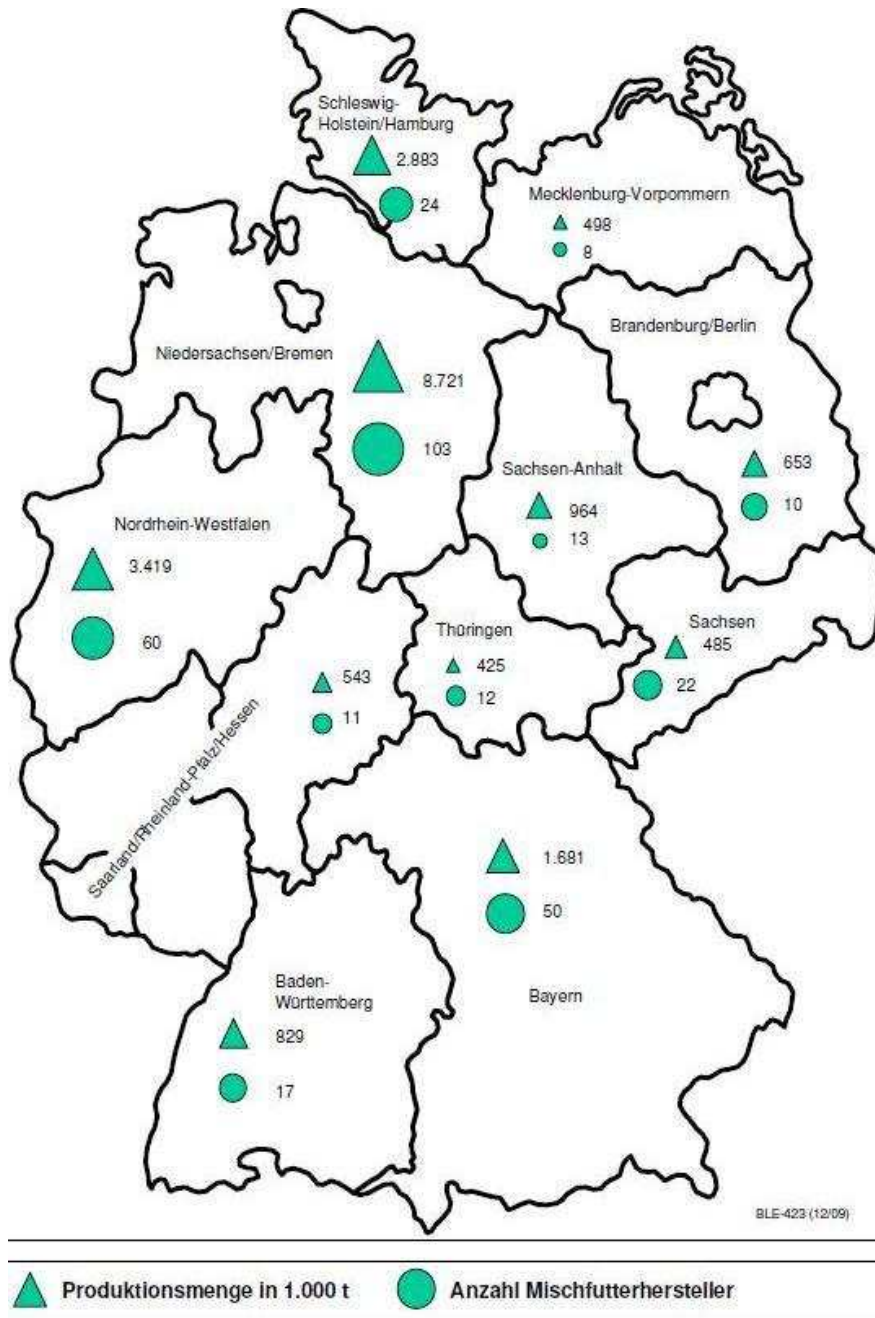


Figure 3: Compound feed production and amount of produced compound feed in Germany, 2008/2009
 (Source: Struktur der Mischfutterhersteller 2009, BMELV, 2010)

Rang	Unternehmen	Mischfutter gesamt (in t)
1	Agravis Raiffeisen AG, Münster	2.100.000
2	Peter Cremer Holding, Hamburg	2.350.000
3	Bröring, Dinklage	1.000.000
4	HaGe Kiel, Kiel	948.000
5	For Farmers, NL-Lochem	900.000
6	ATR Landhandel, Ratzeburg	800.000
7	GS agri, Schneiderkrug	600.000
8	Flemming & Wendeln, Garrel	340.000
9	RKW Süd, Würzburg	600.000
10	Rothkötter, Meppen	415.000
	Top Ten gesamt	10.053.000
	Deutschland gesamt	20.310.000

Figure 4: The ten biggest producers of compound feed in Germany 2007
(Source: http://www.zds-bonn.de/images/statistik/mischfutter_isn2007.jpg)

2.2.3 Development in Production Numbers of Horse Feed

After a high level of compound feed production in 2008, the production of compound feed recorded an invasion of production about -4.6% in 2009. The whole compound feed production diminished from 21.825.000 t in 2008 to 20.829 t in 2009, which makes a difference of -996.000 t. The demand for horse compound feed had even a decline of -7.6% from 2008 to 2009. Thus the compound horse feed production diminished from 282.000 t in 2008 to 261.000 t in 2009, which makes a difference of -21.000 t (DVT, 2010). Key factors for this significant downturn are the low market quotation for cereals, with the consequence that farmers had few incentives to put their cereals on the market rather than using them on their own farm as well as the financial crisis, which led to lower consumer demand for products of animal origin (European feed magazine Vol. 5-6, 2010, p.6). The production of compound feed for horses in Germany in the last three economic years declined steadily (BMELV, 2011).

2.3 Feed Organizations in Germany

High quality of animal feed and nutrition has to be assured through regulations of higher instances. The ministry of nutrition, agriculture and consumer protection (BMELV) is occasionally responsible for safe feed and responsible handling of animal

pharmaceuticals (BMELV, 2010). In Germany three main organizations are present which are responsible for animal feed and agricultural products;

- **Bundesanstalt für Landwirtschaft und Ernährung (BLE)**

The “Bundesanstalt für Landwirtschaft und Ernährung” (BLE) deals with activities to strengthen a sustainable agricultural- and nutritional economy as well as the rural development.

The tasks of BLE are the conversion of agricultural rules, the accomplishment of control methods, the management of research and transfer of knowledge and many tasks in cooperation on European and international level. Advice for contact persons is another task of the BLE. Animal feed companies have to deliver information to the BLE on a regular basis and the BLE works here as market control system in the European Union. Also if feed companies want to import or export products it has to be accredited by the BLE.

The BLE is subordinated to the control of legality from BMELV, which is the federal government department for nutrition, agriculture and consumer protection in Germany and therefore the organization on highest level for feed manufacturers in Germany.

- **Deutscher Verband Tiernahrung e.V. (DVT)**

„Deutscher Verband Tiernahrung e.V.“ (DVT) is an independent trade association and represents the interests of companies which produce, store or trade with animal feed. About 260 member companies from Germany, which is approximately three-quarter of the whole German animal feed industry, belong to the DTV and present the DTV as biggest representation of interest in the animal feed industry in Germany.

The function of DTV is to coordinate and represent the interests of their members to agriculture, policy, publicity and media. Furthermore it gives support in any cases of professional questions and help on exchange of economic and scientific findings.

- **Deutsche Landwirtschafts Gemeinschaft e.V. (DLG)**

The DLG is a political independent association and supports the future development of agricultural- and nutritional economy. New knowledge and advancement is analysed, discussed and advocated. Quality criteria and methods of evaluation are developed from the DLG and better transparency of the whole agricultural- and nutritional sector is accomplished. The degree of

efficiency range from trade, agriculture, nutrition and supplier to consumer. Employees are working on current problems in these sectors and looking for solutions and the DLG helps therefore to find guidelines and present these in publicity. Another task of the DLG is to award high quality nutritional products and show this with their official logo.

2.4 Monitoring of Animal Feed in Germany

The monitoring of feeding stuff like mixed feed, feed additives and pre-mixtures in Germany is the mission of the federal states. In some federal states this mission is realized by the government directly, others have a delegation for monitoring. The monitoring does not only cover production and marketing of the feed; direct feeding is also part of the federal state monitoring which is important regarding undesirable contents and the use of feed additives and aims protection of farm animals. The agricultural government department tries to ensure a homogeneous implementation of the legislation in Germany, but small differences between the federal states can't be avoided. Important general conditions for feed monitoring are appointed in the FMPAV, which includes analytical methods and forms of sample drawing. The results of feed monitoring in Germany are outlined in a statistic on yearly basis since 1984 and accessible for publicity (Abel H. et al, 1995).

An analytical quality control is carried out already through the mixed feed manufacturers. It shall ensure that the labeled ingredients of the produced feed are available. These analysis are not accessible for customers. The regulations of feed additives in horse feed is not a problem anymore today, but the demands to the analysts are high (Pape H., 2006).

The granting of certification marks is another possibility of quality control. The most common one in Germany is the DLG. Mixed and mineral feed with this certification mark are distinguished through producing on fixed quality rules (DLG standards) and strict control with the publication of all results.

3 German Feed Legislation

“The developments both in the feed business and in the legislative environment around the feed sector revealed the need to modernize and simplify the current law” (Dr.

Wolfgang Trunk, European Commission)

And this is not just the opinion of one member of the European Parliament- many members of the European Parliament as well as representatives of several feed organizations agree with this statement, which is the background of implementation of the Regulation (EC) N° 767/2009. After almost two years of negotiation in the European parliament, Regulation (EC) N° 767/2009 about the placing on the market and use of feed has entered into force in September 2009 with a date of application 1/9/2010. The year 2010 marks a “historical” chapter in the feed legislation of Germany and Europe because standardized EU feed regulation takes over the last national regulations in feed legislation. The aim of the new regulation is to have one regulation with clear rules covering the feed for all animals in the EU. The intention is to achieve legal clarity and a harmonized implementation, the relief of smooth functioning of the internal market by clear designations and proper information of the customers, the simplification of technical requirements and the remove of unnecessary administrative encumbrances. Furthermore the increase of competitiveness of the EU feed and farming sector as well as the possibility to enable users of animal feed to make choices without being confused or misled (EU Health & Consumer Protection).

The development of feed legislation shows that safety aspects are intensified and less attention concerning marketing or advertising is given- Doping in horse sport is a big current issue for example. Therefor Safety standards for horse feed have to be strict, but in another way as for productive livestock like pigs and cattle. The discussion about classify horses as pets and not as farm animals anymore is still current and the fact that fewest horses are kept for meat production encourage professionals in their opinions.

3.1 Regulation (EC) No 767/2009

The regulation (EC) No 767/2009 of the European Parliament and of the Council of 13 July 2009, amending European Parliament and Council Regulation (EC) No 1831/2003 and annul Council Directive 79/373/EEC, Commission Directive 80/511/EEC, Council

Directives 82/471/EEC, 83/228/EEC, 93/74/EEC, 93/113/EC and 96/25/EC and Commission Decision 2004/217/EC. That means that the regulation lays down a set of rules on the marketing and use of animal feed which is intended to be used for oral feeding for food-producing animals, non-food producing animals or pets (www.europa.eu):

- **“Food producing animal”**: Any animal that is fed for the production of food for human. Animals that are not consumed but that belong to species that can be normally consumed in the Community are included as well.
- **“Non-food producing animals”**: Animals kept or bred but not used for human consumption such as pets and animals kept in zoos or circus.
- **“Pet” or “pet animal”**: Non-food producing animals normally not consumed by humans in the Community.

The objective of this Regulation is to harmonize the conditions for the placing on the market and the use of feed, in order to ensure a high level of feed safety and therefore a high level of protection of public health. Furthermore adequate information for users and consumers shall be provided and the effective functioning of the internal market shall be strengthened (Regulation (EC) No 767/2009). With regards to content it is of great importance that the new regulation allows giving more meaningful information about feed as the old regulations allowed (Proplanta, 2010).

Safety and marketing requirements have to be maintained, which means that animal feed shall be safe, not have a direct adverse effect on the environment or animal welfare, be sound, genuine, fit for purpose and of vendible quality, be labeled, packaged and presented in accordance with the applicable legislation and comply with the technical provisions on pollutants and other chemical determinants. Furthermore the feed shall not contain any materials which are prohibited to be placed on the market.

At all stages of production, processing and distribution the traceability of feed has to be guaranteed. Feed manufacturers must be able to identify any person who has provided them with feed, a food-producing animal or any substance intended to be incorporated into feed. Therefore feed which is placed on the European market has to be labeled in order to enable its traceability.

If there is any indication that a feed does not meet the feed safety requirements, the feed has to be withdrawn from the market immediately from the feed business operator. Also the competent authorities and users have to be informed directly.

The labeling and presentation of feed is established by general determinations in the regulation. The type of feed, the name and address of the operator, the batch or lot reference number, the net weight, the list of additives used and the moisture content are obligated to indicate. It also must not mislead the user concerning the intended use or characteristics of the feed. The labeling shall be given in at least one of the official languages of the Member State or region in which the feed is marketed.

Usually feed materials and compound feed shall be placed on the market in sealed packages and containers.

To improve the labeling of feed materials and compound feed a “Community Catalogue” of feed materials is intended. For each material listed, it includes the name, the identification number, a description (including information on the manufacturing process) and a glossary of definitions. Operators in the feed industry are also encouraged to create “Community Codes” of exemplary practice in the context of optional labeling. (Official Journal 229 of 1.9.2009) The German federal ministry and the federal states developed a guideline on national level about the new regulation- All compulsory parts of the regulation and necessary interpretations are summarized to assure a homogeneous management of control in whole Germany.

Chapter 4, Article 11-23 of the Regulation (EC) No 767/2009 affects the labeling, presentation and packaging of animal feed which is explained in detail in the following chapters.

3.2 Labeling Criteria

Labeling means an attribution of any words, particulars, trademarks, brand names, pictorial matter or symbol to a feed by placing this information on any packaging for advertising purposes (Health&Consumer Protection). It has the intention of clarification- all type of product information is covered to inform potential customers. All labeling information has to be transferred to the final consumer and the person who is responsible for labeling has to ensure that (Ages, 2010). The labeling shall be given in at least one of the official languages of the Member State or region in which the feed is placed on the market. The mandatory labeling particulars shall be easily identifiable and shall not be obscured by any other information. It is also not allowed to highlight a labeling feature through color, size or style of lettering- except safety indications.

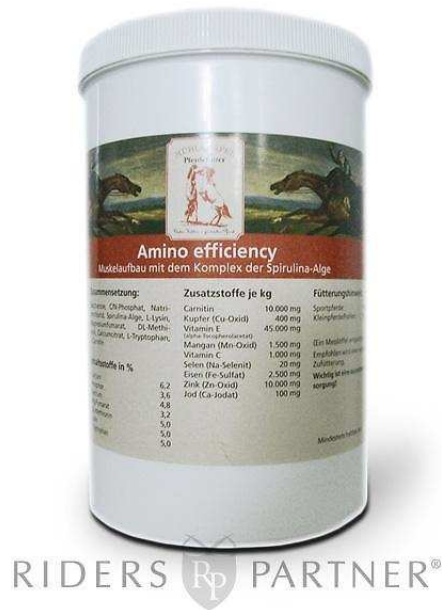


Figure 5: Labeling of feed additive

(Source: <http://www.stroeh.de/img/produkt/large/7735-xxl-10-37-47.jpg>)

- **General mandatory labeling requirements (Chapter 4, Article 15):**

Type of feed has to be mentioned- “feed material”, “complete feed” or “complementary feed” (e.g. mineral feed) as appropriate. For pets “complete feed” or “complementary feed” may be replaced by “compound feed”.

The name or business name and the address of the feed business operator responsible for the labeling has to be mentioned as well as the establishment approval number, the batch or lot reference number, the net quantity, the moisture content and the list of feed additives preceded by the heading “additives” (Regulation (EC) No 767/2009, 2010).

- **Specific mandatory labeling requirements for feed materials (Chapter 4, Article 16):**

In addition to the requirements mentioned in article 15, the name of the feed material has to be labeled. Compulsory declaration is possible and may be replaced by the particulars laid down in the Community Catalogue. When additives are incorporated the species or categories of animals for which the feed material is intended has to be included if the additives have not been authorized for all animal species or has a maximum limit for some species. Furthermore instructions for a proper use have to be delivered where a maximum content of the additives is set and the minimum storage life for

additives other than technological additives is given (Regulation (EC) No 767/2009, 2010).

- **Specific mandatory labeling requirements for compound feed (Chapter 4, Article 17):**

In addition to the requirements mentioned in article 15, the species or the categories of animals for which the compound feed is intended has to be labeled on compound feed. Also an instruction for proper use indicating the purpose for which the feed is intended and the indication of the minimum storage life is required. In cases where the producer is not the responsible person for the labeling, the name or business name of the producer or the approval number/ identifying number of the producer shall be provided. A list of feed materials of which the feed is composed with the heading "composition" has to list the feed materials in descending order by weight calculated on the moisture content in the compound feed. The person responsible for the labeling has to be able to make available the information of quantitative composition data within a range of +/- 15% of the value according to the feed formulation. In the case of any urgency relating to human or animal health or to the environment, the competent authority may provide the purchaser with information that is available (Regulation (EC) No 767/2009, 2010).

- **Additional mandatory labeling requirements for feed intended for particular nutritional purposes (Chapter 4, Article 18):**

In addition to the general mandatory requirements laid down in articles 15, 16 and 17, the labeling of feed intended for particular nutritional purposes shall also include the expression "dietetic" in the case of feed intended for particular nutritional purposes. Additionally an indication that the opinion of a nutrition expert or of a veterinarian should be obtained before using the feed or before extending the period of use has to be displayed (Regulation (EC) No 767/2009, 2010).

- **Additional mandatory labeling requirements for feed intended for pet food (Chapter 4, Article 19):**

A free telephone number or other appropriate means of communication shall be indicated in order to allow the purchaser to obtain information in addition to the mandatory labeling requirements on the feed additives in the pet food and the feed materials contained (Regulation (EC) No 767/2009, 2010).

- **Derogations (Chapter 4, Article 21):**

It is possible to disclaim on certain labeling elements if the purchaser has stated in writing that he does not require this information. Compulsory declarations on additives shall not be required for mixes of whole plant grains, seeds and fruit. In the case of compound feed constituted from no more than three feed materials the species or categories of animals and the instructions for a proper use can be omitted (Regulation (EC) No 767/2009, 2010).

- **Voluntary Labeling (Chapter 4, Article 22):**

Additionally to the mandatory labeling requirements, the labeling of feed materials and compound feed may also include voluntary labeling particulars. Further conditions for voluntary labeling may be provided in the Community Catalogue → Chapter 3.7 (Regulation (EC) No 767/2009, 2010).

The obligatory labeling has to be clearly visible on the packaging of the feed on a label attached there or on the document accompanying the feed. It has to be clearly readable and indelible.

3.3 Packaging

Feed materials and compound feed may be placed on the market only in sealed packages or containers. Packages or containers have to be sealed that when the package or container is opened, the seal is damaged and cannot be reused.

Appointed feed may be also placed on the market in bulk or in unsealed packages or containers:

- feed materials;
- mixtures of grain and whole fruit;
- deliveries between producers of compound feed;
- compound feed delivered by the producer to the user or packaging firms;
- quantities of compound feed not exceeding 50 kilograms in weight which are intended for the final user and are taken directly from a sealed package or container; and
- blocks or licks.

3.4 Claims

“The labeling and the presentation of feed materials and compound feed may draw particular attention to the presence or the absence of a substance in the feed, to a specific nutritional characteristic or process or to a specific function related to any of these [...]” (Regulation (EC) No 767/2009, 2010). The customer can be sure now, that the marketed feed really contains the defined amount of the marketed ingredients. Also a comparison of different products is easier now (Nährwertbezogene Angaben: Erweiterung des Anhangs der Health-Claims-Verordnung, Mühle+ Mischfutter, Vol.9, 2010), by providing this information. Several conditions have to be met, to comply with the new regulation on claims:

- the claim is objective, reviewable by the competent authorities and understandable by the user of the feed; and
- the person which is responsible for the labeling provides at request scientific substantiation of the claim, either by reference to publicly available scientific detection or through documented company research. The scientific substantiation shall be available at the time the feed is placed on the market.
- claims concerning optimization of the nutrition and support or protect the physiological conditions are permitted. The labeling of feed materials and compound feed shall not claim that it will prevent, treat or cure a disease except for coccidiostats and histomonostats as authorized under Regulation (EC) No 1831/2003.
- the labeling of feed materials and compound feed shall not claim that it has a particular nutritional purpose unless its intended use is included in the list of intended uses (Art.10) and if it meets the essential nutritional characteristics set forth in that list (Regulation (EC) No 767/2009, 2010).

The new rules regarding claims have big impacts on the marketing strategy of horse feed manufacturers; expressions like “diet-feed” or “remedy for...” are not allowed anymore in this general way, which means that advertisement with not scientific proved effects or characteristics is prohibited- in fact the expressions have to be proved scientifically and horse feed producing businesses have to invest money in research processes for developing new products. Obvious these business activities are expensive and businesses have to invest a lot of time to stay competitive.

3.5 Community Catalogue of Feed Materials

The Community Catalogue of feed materials is created to help as a guide for labeling feedstuffs and compound feed. The Catalogue shall facilitate the exchange of information on the product properties and list the feed materials in a non-exhaustive manner. Goal is to reach more market transparency on feed materials. The Community Catalogue shall include for each listed feed material at least the following particulars:

- the name;
- the identification number;
- if appropriate a description of the feed material including information on the manufacturing process;
- particulars replacing the compulsory declaration for the purpose; and
- a glossary with the definition of the different processes and technical expressions mentioned.

Use of the Catalogue by the feed business operators shall be voluntary. The placing on the market of a feed material that is not listed in the Catalogue have to be notified to the representatives of the European feed business sectors immediately: Article 24 (6): “the person who, for the first time, places on the market a feed material that is not listed in the Catalogue shall immediately notify its use to the representatives of the European feed business sectors [...]. The representatives of the European feed business sectors shall publish a Register of such notifications on the Internet and update the Register on a regular basis” (Regulation (EC) No 767/2009, 2010).

To support feed business operators in registering their feed materials as required, the European feed business sector has developed a registration tool. This registration tool enables the publication and regular update of a “user-friendly” Register within the mandate of Regulation (EC) No 767/2009 (www.feedmaterialsregister.eu).

3.6 Feed Additives

An indication of animal species, an instruction manual for additives with the maximum content and a minimum durability of the additives has to be showed off. Feed additives have to be listed up with the heading “Additives”. Feed materials and complementary feed shall not contain levels of feed additives that are higher than 100 times the relevant fixed maximum content in complete feed or five times in case of coccidiostats and histomonostats. Exceptional cases are diet-feeds, which have to be used according to the diet-feed guideline.

4 Methodology of Research

To get a clear picture from the Regulation (EC) No. 767/2009 and its dimension, the German feed industry as well as the regulation itself is described by literature review first. Beside the literature review, empiric research is an important issue regarding the analysis of effects and problems of feed manufacturers due to legislation. In the following chapters the methodology of the self-contained analysis is described near the scientific consideration of qualitative empiric research.

4.1 Concept of the Qualitative Research

Qualitative research covers a broad range of approaches which are linked to different beliefs about what there is to know about a topic and how to find out about it.

Very important for qualitative research is also to mention few formulated theory referring to the topic, which has the intention not to impact the research subjects on their information. In comparison to quantitative research no hypothesis has to be examined and the choice of interviewees should be flexible (Lamnek S., 2005).

4.2 Methodical Approach

The qualitative research interview seeks to describe and understand the meanings of central themes in the life world of the subjects (Kvale S., Interviews, 1996) and shall reveal the opinion of feed manufacturers, the background for their actions on the market and an analysis of problems due to legislation in Germany. In this context it is important to understand and compare opinions and perceptions of feed manufacturers in whole Germany. Experiences and opinions about feed legislation and their consequence on the feeding industry is going to be gathered and analyzed through expert interviews. Qualitative research is here the best possibility to get truthful information because of the principle of providing an in-depth and interpreted understanding of a topic by learning about their experiences, perspectives and histories (Ritchie J. and Lewis J., 2003).

The topic of the empiric research is called "Identification of direct effects and possible problems feed manufacturers are faced after the change of legislation". Aim of this approach is to get new insights in the German feed market and its connected

legislation and to create finally a guideline for feed manufacturers of how to handle, label and mix their products by investigating current problems of feed manufacturers and getting information about their visions.

To get this information, qualitative research with semi-structured expert interviews in structured but not standardized form is carried out. The 10 chosen interviewees are experts of German feed manufactures or experts of Dutch feed manufactures with a big market share in Germany. They are involved in the topic of legislation and quality control of horse feed and have insights in the whole German horse feed industry. The feed manufacturers which are interviewed belong to small, middle and big sized German horse feed companies spread over whole Germany to get a balanced picture. A list of companies from which the experts were interviewed with date, time and duration of the interview is available in annex II.

The experts were interviewed personal on the basis of a semi-structured interview at the fair Equitana in Essen from 12th until 27th March 2011 in Germany. The average duration of the interviews was about 20 minutes and the whole interviews were recorded by a digital recorder and important notes were made by the interviewer, to reformulate the interviews afterwards.

The steps of the empiric research can be summarized in:

- Data collection
- Data preparation (saving and structuring of data)
- Data analysis

4.2.1 Semi-structured Expert Interviews

For the available research the method of semi-structured expert interviews is used. This means to plan and create a communication process which is adapted to the context of the interviewee and deliver all the information necessary for the analysis. A semi-structured interview is a non-standardized interview with a prepared list of open questions which are the basis of the conversation. The use of open questions is important because it gives the interviewee the possibility to answer according to its beliefs and the decision about the content of the answer is left to the interviewee, too. Also the correlation between the research question and the interview questions has to be clear (Gläser J. and Laudel G., 2006).

Pursuant to Bär, the following key features of semi-structured expert interviews can be summarized:

- It is a tool of qualitative research in the analysis of interesting groups, which are represented in small size
- The expert interview gives the possibility to get a deeper scientific understanding of problems and develop hypothesis for further research work
- It make high demands on the interviewer and assumes an intensive preparation and interview instruction
- The impact of the interviewer decline with increasing standardization, so as the quality of the results depends on the ability of the interviewer
- The implementation of the interview demands more time than standardized interviews
- The comparison of results and the analysis of data are relatively difficult. Due to the multiplicity of possible answers the demonstration of the results in graphs is almost not possible

(Bär S., 2006)

4.2.2 Data Processing

The procedure of evaluation is structured in following four sub-steps pursuant to Lamnek (cf. Lamnek S., 2005, Chapter 5.2.3, p. 402 et seq.):

1. Transcription

- interview has to be expressed literally
- look after breaks, slips of the tongue and emphases

The stage of transcription conforms to the summarization of the recorded interviews linked to the notes made during the interview. Breaks, interceptions and the like are picked up in the transcript as well.

2. Single Analysis

- highlight important parts
- build up a characteristic of the interview
- clarify specific features of the interview

The individual interviews are summarized and central points are highlighted. After repeatedly reading the results are pictured in a topic matrix on the basis of figure 6, to present the results in a demonstrative way. Specific characteristics are evaluated and commented.

3. Generalized Analysis

- comparison of the interviews
- search for differences and similarities with the help of a topic matrix

By means of the topic matrix typical specifications are retained for every topic. Here it was differentiated if the characteristic came upon the interviewee or not. Annex I shows the results of every single interview.

The topic matrix was evaluated afterwards, in which obvious characteristics in combination with other distinctive features were easy to assess. Accordingly, assumptions were made which are analyzed further in chapter 5.

4. Control Phase

- adjustment with the complete records
- eventual modification of interpretations

To prevent possible misinterpretations, the complete transcription the interviews was consulted consistently during and after the analysis.

4.2.3 Procedural Method

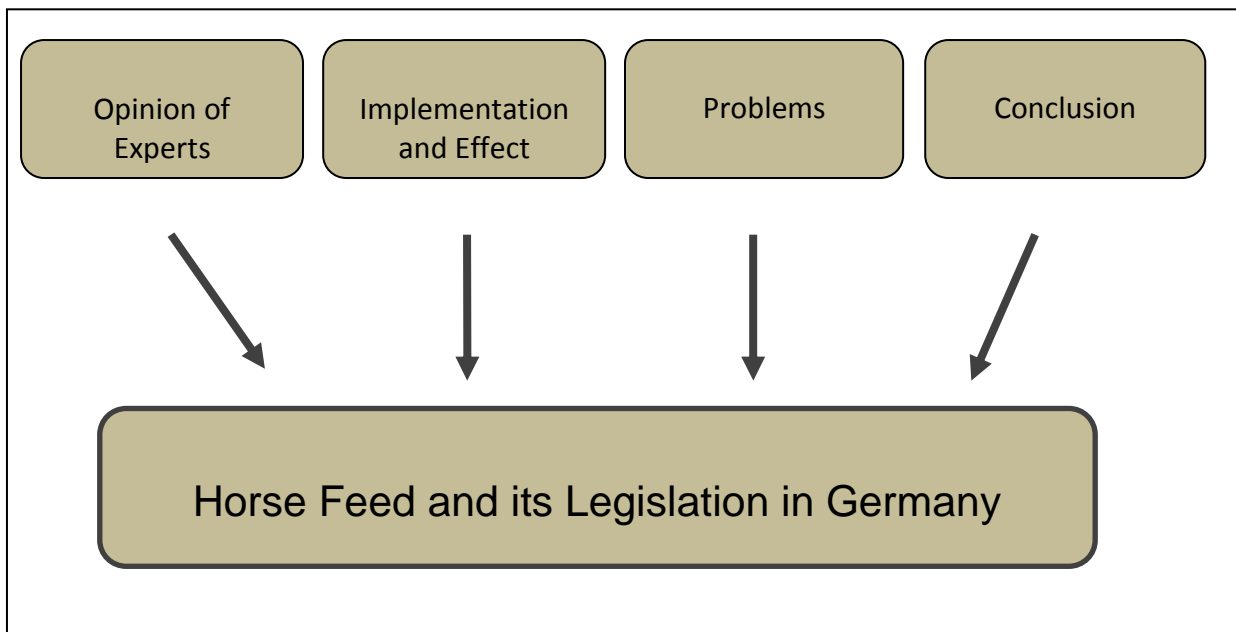


Figure 6: Topic Matrix

To ease the classification of results, four topic groups are appointed:

The first block “**Opinion of Experts**” conduce to introduction and launching the topic. Here the personal opinion of the different interviewees was inquired and also how the

interviewees assess the impact of the new legislation on the whole equine feed industry.

In the second block, “**Implementation and Effect**”, the implementation in the business of the several feed manufacturers is experienced as well as the effects on their companies with a regard to financial, operational and employment aspects.

Based on the second block, the third block with the topic “**Problems with the new legislation**” is examined more closely and the experiences and problem based opinions of feed manufacturers related to the legislation are evaluated.

The last block, “**Conclusion**” will summarize the findings again and the several personal opinions of the interviewees are gathered. Also a view into future with wishes regarding legislation around horse feed and additional visions of how the future of horse feed should look like in Germany will be included, which gives the experts the possibility of mentioning additional statements.

The experts were interviewed on the basis of the interview guideline in annex III. The emphasis of the analysis lies on generating hypothesis.

5 Results

In the previous chapters the German horse feed industry is described and information about the current legislation concerning horse feed in Germany is provided, as well as the theoretical procedure of the qualitative research. In the following part it is now essential, to analyze the circumstances and problems of feed manufacturers on the basis of the theoretical background.

In chapter 5.1 the expert interviews are described on the basis of central statements which were elaborated by using the topic matrix of Annex I.

5.1 Description of Results

Because of the fact that the possibility of evaluation from qualitative interviews is as multifaceted as the types of interviews itself (Lamnek 2005, S. 402), the results were evaluated on the basis of the four topic groups. Here distinctive features and central similarities resulted which are defined in the following assumptions:

1. All interviewees have the opinion that clients aren't informed better than before the legislation changed.
2. No one of the interviewees think that the goal of ensure safety standards of horse feed and customer protection is reached.
3. No one of the interviewed experts is really committed by the change of legislation.
4. Some of the interviewees belief in the idea of making the equine feed industry more transparent.
5. The majority of companies made use of cooperations with governing bodies concerning the implementation of the new legislation.
6. All of the interviewed persons mentioned that higher amount of work was a consequence of the change in legislation.
7. The change in marketing strategy of the business after change of legislation was a frequent mentioned point with the opinion that marketing in the horse feed business is getting more difficult.
8. All interviewed experts agree on the new legislation is more trouble than it's worth in terms of customer service, money and effort.

9. Confusion of customers, financial investments, the complex text of law as well as the difference in control between the federal states are the most mentioned problems connected to the change in legislation.
10. All of the evaluated horse feed businesses issue the statement that the investment of the money doesn't add more value to the products.
11. Open labeling, less officialism and constant legislation are key points for an easier way of existence on the market.
12. The fact that most of the clients are not interested that much in the labeling of their horse feed is mentioned prevalent, although it was not asked.
13. Labeling should be as easy as possible to make it comprehensible for customers, is the opinion of all interviewees.

These assumptions are going to be explained further in the following and reviewed with the help of the transcribed interviews.

5.2 Analysis of Results

5.2.1 Opinion of Experts (Assumption 1-4)

A grading of the topic matrix in the category "Opinion of Experts" shows that the attitude from the interviewed experts is not very positive regarding the new EU-legislation; In the question where the experts had to assess the legislation on a chart from 1 (very expedient) to 5 (not expedient at all), the average given number was 3, which means that the interviewed experts are not committed by the whole legislation. Three of the interviewees gave even a mark worse than a 3 (cf. interview 6, 7, 9) and the negative trend is not able to be overlooked in this question. One of the interviewees remarked that the legislation 767/2009 is "an enormous step back in the equine feed industry and the consumer is not protected at all in this way" (cf. interview 7), which approves the fact that no one of the interviewees think that the goal of ensure safety standards in horse feed and customer protection is reached with this new legislation.

Despite of this negative attitude towards the current legislation, it appears important to the experts to make the equine feed industry more transparent (cf. interview 2, 4, 9, 10). "The idea of making the whole equine feed industry more transparent for customers is good and the approach is right, but the implementation leads to confusion" (cf. interview 4). Throughout all interviews, the view of experts that clients are not informed better than before the change of legislation, became apparent. "The

average customer doesn't even recognize the change, and if he recognizes, it appears deterrent and confusing" (cf. interview 5).

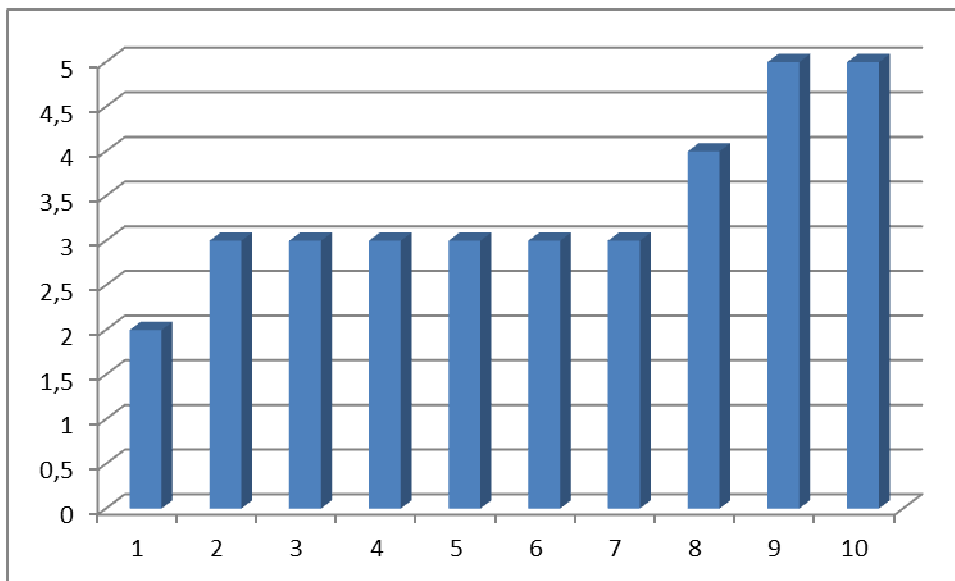


Figure 7: Ranking- opinion of experts regarding the sense of the new legislation from 1 (very expedient) to 5 (not expedient at all)

5.2.2 Implementation and Effect (Assumption 5-7)

Legislation EG No. 767/2009 came into force at 1st September 2010- equine feed businesses had to change things regarding labeling, claims and marketing. For some companies in the equine feed business the information that legislation will change came late and the companies had serious difficulties to implement the compulsory changes in time. "The information that legislation will change came really late and overran us" (cf. interview 9) is the statement of a small company which is mainly bargaining in the herbal and natural feed additive sector.

The implementation of the new legislation affected the equine feed companies in different ways- All of the interviewed persons mentioned that higher amount of work was a consequence of the change in legislation, and one company even had to employ an additional worker. Financial investments for new packaging, new flyers and catalogues and new printers are further effects of the legislation change. 5 of the 10 interviewed businesses had to invest more than 10.000 €- whether the invested money does not add more value to the products in the opinion of all interviewed experts. "The investment of money for printing, catalogue and work time is totally thrown down the drain- no client thanks me for the new labeling and says he is better informed now" (cf.

interview 7). The questions regarding packaging and labeling of clients are even more after the change of legislation in many equine feed businesses, because client “gets information he does not need and is more irritated than enlightened” (cf. interview 9).

A big issue concerning the implementation is also the marketing strategy of the different horse feed companies. “If you keep in mind, how it was possible to advertise in the past, and if you have a look on what is not allowed anymore today, it becomes apparent that legislation constrains the possibilities of marketing very much. [...] That makes everything more difficult” (cf. interview 1). Near the packaging of the horse feed, also the texts in catalogues, on flyers and in the internet have to be changed and adapted to the new compulsory rules. “Because we have to mention all the things which are listed on the original packaging of the feed, advertising texts are much longer now- that really goes beyond the scope of our catalogues, which are getting bigger and bigger. That is not customer-friendly at all!” (cf. Interview 3).

The benefits of the new marketing strategy, which prior advert to claims (cf. chapter 3.4), are only mentioned by one interviewed expert. In his opinion it also is a lot of work and more difficult than before to create a marketing strategy, but “it is good that clients are not informed wrong anymore” (cf. interview 10).

The majority of companies made use of cooperations with governing bodies concerning the implementation of the new legislation- Conspicuous is here that the companies which did not made use of cooperations also do not have an own production but are only bargainer of horse feed. “Deutscher Verband Tiernahrung e.V.” or “Raiffaisen GmbH”, which is an agricultural bargaining and service business supporting their cooperative distribution partners, are mentioned cooperation partners of the interviewed businesses as well as direct contact to agricultural administrations of the different federal states. “Here are different committees which engage in the new legislation and give the information to equine feed companies [...] which makes the implementation of new legislation easier for us” (cf. interview 8).

5.2.3 Problems with the new Legislation (Assumption 8-10)

During the analysis of the chapter “Problems with the new Legislation” it became obvious that a negative attitude of the experts towards the legislation EG No. 767/2009 prevails. All experts mention more problems than advantages concerning the implementation of the new legislation in Europe and it becomes apparent that for the interviewed representatives of the German horse feed business operators the new legislation is more trouble than it's worth. One of the interviewed experts summarized

the content which was overall noticeable during the interviews: Through the change in legislation “products need more work, are therefore more expensive, but the product itself didn’t change. The average client does not have an additional benefit from it.” (cf. interview 9).

It is clearly noticeable, that is not so long since the legislation changed and the interviewees are involved in this actual topic. Near the information that the labeling change in catalogues, internet and in brochures of many feed manufacturers is not for a long time yet as it should be (cf. interview 10), emotional statements like “[...] you have to get used to this bullshit and do it.” (cf. interview 7) show that this current topic causes quite an excitement in the German horse feed industry.

When the question about problems, especially regarding the implementation of the new legislation within the company, was asked, the most often mentioned thing was the confusion of customers. Associated to that problem are numerous phone calls from customers which need an explanation about their horse feed: After the change of legislation, “people don’t get along in their own products. We have a lot of questions via telephone and it is clearly perceivable that customers are uncertain because they are not able to read or understand the product information on the packaging.” (cf. interview 7).

Furthermore, financial investments were an answer on the question of problems regarding the implementation of the new legislation. 5 out of 10 interviewed businesses had to invest more than 10.000 € (just product costs, no work costs involved) to realize the new compulsory prescriptions. Near the paraphrasing of feed compositions (cf. interview 8), which needs obviously a lot of time, one company even had to invest more than 100.000- 120.000 € for new printers- the old ones were not able to print packages with so much labeling on it (cf. interview 8).

Problems directly connected to the legislation were also listed from some interviewees. “Most of the work was to read in the complex text of law [...]. Texts of law are written cruel and complicated.” (cf. Interview 2). Furthermore „the texts of law are not very user-friendly and many questions are open-ended.” (cf. interview 7, 9). Without being asked directly, the difference in control between the federal states was mentioned conspicuous often. This makes the whole equine feed market in Germany even more complicated than it already is (cf. interview 4, 5, 6).

The majority of the interviewed experts indicated that the "E"-labeling does lead to confusion of customers and that this would be the first point they would change within the legislation. “If the client does look at the labeling of horse feed, terms like all the

“E’s” does not say anything to them. [...] I would cancel these “E’s” to make it easier for customers.” (cf. interview 8).

An interesting point of view is also the healthiness of the horse. Two experts revealed that the horse should take the center of stage and that the new legislation is responsible for the worse nutrition of horses, especially regarding herbs and natural active components (cf. interview 4, 9).

5.2.4 Conclusion (Assumption 11-13)

„Customer friendliness is the most important thing respective packaging and labeling of horse feed”, this statement was made by all experts during the interview. It was clearly noticeable that the companies would give additional information about the content of their feed to clients which ask for, but the labeling on horse feed packaging should be held on a level which is comprehensible for the normal customer.

Beside the fact that most of the clients are not interested that much in the labeling of their horse feed, but give more attention to the color and the layout of the feed (cf. interview 1, 4, 5, 7, 8, 9), the fact that the new legislation makes it much more difficult to market horse feed is prevalent in the interviews (cf. interview 1, 3, 9, 10).

Less officialism and constant legislation, which would it make much easier to be a feed manufacturer in Germany, is another point which is mentioned repeatedly in the interviews as an answer to the question what the experts wish for the future. “Less officialism would be great [...] as small business has are already a lot of things to deal with, and the officialism makes everything even more difficult” (cf. interview 2). Furthermore, “constant, homogeneous legislation would make it easier for both, feed business operators and customers” (cf. interview 3).

Without being asked directly, open labeling is mentioned as an option for the equine feed industry with benefits for manufacturers and customers: “The aim of the administration in Brussels should be to simplify the whole labeling. In my opinion the open labeling is the easiest way to achieve that.” (cf. interview 6).

Other suggestions for a successful, safe and less complicated future of the equine feed industry were

- To establish another system of quality safety where feed manufacturers are obligated to participate- until now this is just available for feed manufacturers in the category of pig and cow feed (cf. interview 4, 9, 10).
- A legislation on EU-level regarding doping for horse feed is necessary; including an official list what is allowed and what is not (cf. interview 10).

It is clearly perceived that the experts which were interviewed are in contact with the legislation EG No. 767/2009 regularly and that the implementation is still not finished yet. The thoughts about what could be changed on European level are realistic and show that it would be important for the interviewees that something changes in the equine feed industry. Customer friendliness and quality safety is on top of the principles of the interviewed experts and is an evidence of responsible acting in the German feed industry.

6 Discussion and Conclusion

6.1 Discussion

The implementation and the effect of legislation EG No. 767/2009 polarizes and the interviewed experts have different opinions about the purpose of the new legislation. The average given number was 3 in the question where the experts had to assess the legislation on a chart from 1 (very expedient) to 5 (not expedient at all), which means that the interviewed experts are not committed by the whole legislation. While some of them mentioned that it does not make sense at all (cf. Interview 7,9), the claims were mentioned as a positive content of legislation EG No. 767/2009 (cf. Interview 10) and in fact the new regulation about claims instructs feed manufacturers to formulate objective, reviewable and understandable claims. Furthermore, the person which is responsible for labeling has to provide a scientific substantiation available at the time the feed is placed on the market. Claims concerning optimization of the nutrition and support or protect the physiological conditions are permitted (Regulation (EC) No 767/2009, 2010). Pursuant to Mühle+Mischfutter, Vol.9, 2010, p.284, a comparison of different products is easier now for customers. Of course the new rules regarding claims have big impacts on the marketing strategy of horse feed manufacturers; expressions like “diet-feed” or “remedy for...” are not allowed anymore in this general way without being proved scientifically, and a wise option to protect customers from incorrect promises- but also a high effort for the several feed manufacturers to implement this change into their marketing strategy (cf. Interview 10).

The fact that questions regarding packaging and labeling of clients are even more after the change of legislation in many equine feed businesses, because client “gets information he does not need and is more irritated than enlightened”, leads to the assumption that the intention of the Regulation (EC) No 767/2009 to assure greater transparency for clients failed. Also if it became apparent that „Customer friendliness is the most important thing respective packaging and labeling of horse feed” in the opinion of the interviewed experts, the target is not reached by implementing the new legislation. Companies would give additional information about the content of their feed to clients which ask for it, but the labeling on horse feed packaging should be held on a level which is comprehensible for the normal customer. Furthermore, financial investment is the most mentioned answer on the question of problems regarding the implementation of the new legislation, which emphasizes the overall opinion of the

interviewed representatives of the German horse feed business operators that the new legislation is more trouble than it's worth. One company even had to invest 100.000-120.000 € for new printers- the old ones were not able to print packages with so much labeling on it (cf. interview 8). It has to be considered critical, if the purchasing of new printers would have been an investment in the near future anyway, because of the out of date technique. The question, how this company can handle an investment at this amount in such a narrow market is still open, assumedly the strong cooperation with "Agravis Raiffeisen AG" was a support.

An interesting point of view is also the healthiness of the horse- just two of the ten interviewed experts revealed that the horse should take the center of stage (cf. interview 4, 9), which points the business orientated thinking up.

The different position of the experts within their companies led to differences in their statements within the interviews and causes various opinions. Not every interviewed expert was always employed in the sector of horse feed and some of the interviewees were even not able to answer the simple question of how the change in legislation affect their own business, although if the interview appointment was made in advance. This leads to the assumption that the level of knowledge and education from the interviewed experts varies a lot. The interviewees which were not able to give deep insights in the business activities regarding the implementation and the effect of the new legislations graded the change in legislation always with a 3 in question 1 (cf. Interview 1,3), which encourages the consideration that these interviewees are not that much involved in the discussed topic as others are and try to stay neutral.

The negative trend in the opinions of experts leads to the assumption that no one dealt with this topic extensive before. It often seemed like a surprise for the businesses that there was a change in legislation (cf. interview 9), which encourages the assumption of missing knowledge regarding the topic in advance. Anyway, suggestions for a successful, safe and less complicated future of the equine feed industry were made by establishing another system of quality safety and a legislation on EU-level regarding doping for horse feed.

It is clearly perceived that the experts which were interviewed are in contact with the legislation EG No. 767/2009 regularly and that the implementation is still not finished yet. The thoughts about what could be changed on European level are realistic and show that it would be important for the interviewees that something changes in the equine feed industry. Customer friendliness and quality safety is on top of the principles

of the interviewed experts and is an evidence of responsible acting in the German feed industry.

Actually, the new legislation is valid for all animal feed manufacturers, not only for the equine industry. It seems to be not a problem at all to implement the new regulations for other feed manufacturers- does the horse feed industry lacks of professionalism? Or seems it just that clear because no existing research is available about the implementation of Regulation (EC) No 767/2009 in the productive livestock sector? The fact that there are a lot of career changers in the horse feed industry could be a reason for that. It has become clear through working on this thesis that many experts have a lot of knowledge regarding the horse and its nutritional needs, but the economic and legal aspects are secondarily. Therefore the implementation of a new legislation is a challenging business process. Also the difference between horse keepers and livestock keepers have to be examined; is it possible that livestock keepers do have more knowledge about their animals and their demands regarding feed labeling is higher than that from horse keepers, which are mainly leisure riders?

It has to be examined critical that the interview guideline was developed at the beginning of March, after one month of literature review. But during the interviews it became clear, that question No. 9 „How would you describe the development of the German horse feed market in the past?“, was not a good one to ask and that it is not relevant to get the necessary information. Another deficit was the level of knowledge of the experts; although appointments with the interviewees were made in advance, some of them were not really involved in the topic and were not able to give meaningful information. Thus, two interviews were taken out before the evaluation and interpretation started. Also the fact that the experts came from different positions within their companies, can be seen as a problem. The different aspects they handle with the legislation led to various answers to the same question. This can be also seen as an advantage, because of the diversity of aspects.

6.2 Conclusion

The number of feed manufacturers declines steadily in Germany. While the number of feed manufacturers for compound feed in Germany amounted to 346 in the economic year 2007/2008, the number declined to 330 in 2008/2009 (Struktur der Mischfutterhersteller 2010, BMELV). The declining amount of feed manufacturers leads

to a decreasing amount of compound feed produced per company despite lower overall production of compound feed (BMELV, 2011). The request for horse compound feed had even a decline of -7.6% from 2008 to 2009, which reflects the overall trend of a steadily decline in the production of compound feed for horses in Germany in the last three economic years (BMELV, 2011). This is a serious problem for horse feed manufacturers because their distribution is not assured anymore.

The change in legislation came into force through implementing Regulation (EC) No 767/2009. The direct effect and problems of German feed manufacturers by implementing this new legislation were identified through expert interviews. It became apparent that all interviewees think that clients aren't informed better than before the legislation changed and that the goal of ensure safety standards of horse feed and customer protection is not reached. No one of the interviewed experts is really committed by the change of legislation and the interviewees agreed about the fact that the new legislation is more trouble than it's worth in terms of customer service, money and effort. The higher amount of work in connection with the opinion that marketing in the horse feed business is getting more difficult after change in legislation completes the overall negative attitude towards Regulation (EC) No 767/2009 of the interviewed experts. Although if some of the interviewees belief in the idea of making the equine feed industry more transparent, the manner of implementing this new legislation is not reaching the goal of making products more transparent for customers and even leads to confusion- labeling should be as easy as possible to make it comprehensible for customers and additional information should be available on request. The mentioned problems connected to the change of legislation are primarily the confusion of customers, financial investments, the complex text of law as well as the difference in control between the federal states and key points for an easier way of existence on the market would be open labeling, less officialism and constant legislation in the feeding industry. In the opinion of the interviewed experts there is a lot of need for action in this sector, whilst the belief of informing customers good and ensure high quality products is shared by the experts.

For the European government does that mean, that their objective of informing customers better and making the horse feed market more transparent through implementing Regulation (EC) No 767/2009 is not reached. The opinions of the interviewed experts approve the fact that more basic work is necessary to make labeling of horse feed comprehensible for non-professionals, which compose the main customer group of horse feed.

7 Guideline for horse feed manufacturers

After the change of legislation the horse feed market is even more complicated than before pursuant to the evaluated expert interviews. To make things clear and to simplify the access to the market for new feed manufacturers, this guideline is elaborated.

1. General

Goals of the Regulation (EC) No 767/2009 are in the first instance to ensure feed safety and health protection. Better information for customers and one homogeneous law in Europe are further goals. The field of application ranges from placing on the market and use of feed up to feed for productive livestock and pets. The regulation is valid from 1st September 2010.

2. Responsibility

On enquiry all information about the composition or the asserted characteristics of the feed is provided by the responsible person for labeling to the appropriate administrations. Responsible for the labeling is the person who places a feed on the market for the first time or merchandises a feed with his name. Consecutively feed manufacturers are responsible for the labeling and all labeled information has to be transmitted to the final customer.

3. Claims (Art. 11)

Feed materials and compound feeds may not have any indications respective prevention and therapy of diseases. The information provided on feed packages has to be objective, reviewable from the administration and comprehensible for customers. Feed manufacturers have to be able to submit scientific background information about their feed and administration is responsible for the examination. Claims are allowed for feeds with a special nutritional purpose, for instance diet-feed.

4. Design and Packaging (Art. 14, 23)

Labeling has to be available in the official language of the EU member state and it is not allowed to highlight labeling features through color, size or style of lettering with an exception of safety remarks.

Compound feed may only be marketed in locked packages or containers with one way closure.

Exceptions:

- Compound feed with whole grains or fruits
- Deliveries between producers of compound feed, producer and end-consumer or producer and packaging company.
- Compound feed <50 kg for the end consumer directly can be extracted from a closed container
- Blocks and licks

5. Content of Labelling (Art. 15)

- Type of feed has to be appointed: “feed material”, “feed initial product”, “exclusive feed” or “feed additive”
- Name/ company and address of the feed manufacturer which is responsible for the labeling
- Approval number referred to (EC) 183/2005 or (EC) 1774/2002
- ID-number, new: also compulsory for feed materials
- Inscription of a phone number exempt from charges
- Heading “Additives”
- Net weight or volume
- Moisture content
- Feed additives

6. Compound feed (Art. 17)

- Animal species
- Instruction for use
- If the producer is not responsible for the labeling
- Minimum durability
- Composition
- Feed materials in downward order by weight
- Publication of % on enquiry
- Content

7. Feed Additives (Art. 8)

Feed materials and complementary feed shall not contain levels of feed additives that are higher than 100 times the relevant fixed maximum content in

complete feed or five times in case of coccidiostats and histomonostats. Exceptional cases are diet-feeds, which have to be used according to the diet-feed guideline. When feed additives are content of feed materials, the animal species have to be mentioned if there are any constraints in feed additive allowance. An instruction for use for appropriate usage of feed additives with maximum content as well as the minimum durability of the feed additives has to be provided.

Amino acids, vitamins and trace elements have to be indicated with their total amounts, if they are listed in the category “analytical components”.

8. Exceptions

It is possible to disclaim on certain labeling elements if client approves this before business process in a written document.

Information about content is not necessary for mixtures from whole seeds and fruits.

Compound feed with at most three feed materials do not need the statement of animal species and instruction for use.

9. Example

„Exclusive horse feed“

Composition

~~Basic materials:~~

Alfalfa, barley, corn, wheat bran

Feed Additives:

Vitamins:

E 672 Vitamin A: 15.000 IE/kg

E 671 Vitamin D3: 600 IE/kg

Vitamin E: 170 mg/kg

Trace Elements:

E4 Copper: 200 mg/kg

Zinc: 320 mg/kg

Iodine: 0,8 mg/kg

Flavors:

Apple flavor: 0,6 mg/kg

~~With EC-additives and flavors~~

~~With preservatives, antioxidants, colorants~~

Ingredients (in %):

Crude Protein: 10,0 %

Crude Fibre: 9,0 %

~~Crude Fat~~ **Fat Content:** 4,8 %

Instruction for use:

As exclusive horse feed we advise to feed approx. 200-300 g per 100 kg bodyweight and day. This total quantity should be divided into multiple rations.

Annex I Topic Matrix Complete										
	Number of Interview									
	1	2	3	4	5	6	7	8	9	10
Block 1: Opinion of Experts										
The new legislation does make sense	x							x		
The expert is committed to the change of legislation										
The new legislation has a big influence on the whole equine feed industry						x	x		x	
Clients aren't informed better than before change of legislation	x		x	x	x	x	x	x	x	x
The goal of ensure safety standards and high quality of horse feed is reached										
The idea of making the equine feed industry more transparent is good		x		x					x	x
Block 2: Implementation and Effect										
Origin of the interviewed feed manufacturer	D	D	D	D	D	D	D	D	NL	NL
Own production of horse feed	x	x		x	x	x	x	x		x
The analysed business had a cooperation with governing body for implementation	x			x	x	x	x	x		x
The change regarding labelling wasn't a big thing to change	x	x	x	x	x					
Higher amount of work was a consequence of the change in legislation	x	x	x	x	x	x	x	x	x	x
The traceability makes the market safer for clients		x								
The marketing strategy of the business had to change after change of legislation	x	x	x	x			x		x	x
The investment of the money doesn't add more value to the products	x	x	x	x	x	x	x	x	x	x
Questions of clients are more after change of legislation than before							x	x	x	
The new legislation is more trouble than it's worth	x	x	x	x	x	x	x	x	x	x
Block 3: Problems with new legislation										
Big problems did occur while implementation of new legislation				x		x			x	x
The complex text of law led to problems		x				x	x		x	
The business had to invest more than 10.000 €				x			x	x	x	x
The business had to get new employees									x	
Questions of construction regarding the legislation led to problems				x			x		x	
The difference in control between the federal states is a problem				x	x	x				
"E"-labelling does lead to confusion of customers	x		x	x	x		x	x		x
The interest of the horse isn't considered at all				x					x	
Block 4: Conclusion										
Most of the clients are not interested that much in the labelling of their horse feed	x			x	x		x	x	x	
Labelling should be as easy as possible to make it comprehensible for customers	x	x	x	x	x	x	x	x	x	x
New legislation makes it much more difficult regarding marketing aspects of horse feed	x		x						x	x
Less officialism& constant legislation would it make much more easy to be a feed manufacturer		x	x		x		x			
Open labelling would be the best solution for the industry				x		x	x			
It is a benefit that effects of products can be marketed if they are scientific proved				x					x	x
A legislation on EU-level regarding doping& other quality-safety systems for horse feed are necessary										x

"x" means that the interviewee supports the statement

Annex II

List of companies from which the experts were interviewed with date, time and duration of the interview:

- Nösenberger, 18.03.2011, 14.00, 17 min
- PerNaturam, 19.03.2011, 13.30, 20 min
- Derby, 18.03.2011, 11.30, 13 min
- Deutscher Verband Tiernahrung e.V., 17.03.2011, 16.00, 12 min
- Agrobs, 17.03.2011, 17.00, 14 min
- Masterhorse, 18.03.2011, 10.00, 10 min
- Hoeveler, 19.03.2011, 10.30, 15 min
- Pavo, 20.03.2011, 12.00, 20 min
- Nature's Best, 18.03.2011, 11.00, 15 min
- Mühldorfer, 18.03.2011, 12.30, 8 min

Annex III

Guideline of expert interview

Direkter Einfluss und mögliche Probleme der Unternehmer in der Pferdefutterbranche aufgrund des neuen Gesetzes EG Nr. 767/2009

Im Rahmen meines Studiums „Equine, Leisure and Sports“ an der University of Applied Sciences Van Hall Larenstein schreibe ich momentan meine Bachelorarbeit über die deutsche Futtermittelindustrie und die damit verbundene Gesetzeslage. Um zu erörtern welchen direkten Einfluss das Gesetz EG Nr. 767/2009 auf die Unternehmer in der Pferdefutterbranche hat und auch mögliche Probleme zu identifizieren, werden 10 qualitative Experteninterviews geführt.

1. Ist das neue Gesetz EG Nr. 767/2009 Ihrer Meinung nach sinnvoll? Bitte bewerten Sie auf einer Skala von 1 (sehr sinnvoll)-2-3-4-5 (überhaupt nicht sinnvoll).

1-2-3-4-5
2. Welchen Einfluss hat das neue Gesetz auf die Futtermittelindustrie im Allgemeinen?
3. Welcher Teil der Gesetzesänderung hatte einen direkten Einfluss auf Ihr Unternehmen und wie?
4. Wie wurde ihr Unternehmen durch die Gesetzesänderung beeinflusst?
 - Zeitlicher Aufwand der Veränderung
 - Extra Personal notwendig?
 - Kosten? (Arbeitsstunden, Research, Druckkosten...)
5. Gab es für Ihr Unternehmen Probleme mit dem neuen Gesetz, wenn ja welche?
6. Was müssen Futtermittelhändler und Hersteller ändern um weiterhin konkurrenzfähig zu bleiben?
7. Welche Folgen hat das neue Gesetz für den Kunden?
8. Wenn Sie entscheiden dürften- welche Punkte würden Sie aus dem Gesetz streichen, welche zufügen?
9. Wie würden Sie die Entwicklungen des Deutschen Futtermarktes der letzten Jahre beschreiben?
10. Was für eine Rolle spielt die Kooperation von Futtermittelhändlern/ -Herstellern und der EU bzw. Deutschen Dachorganisationen wie DVT?
11. Was würden Sie sich für die Zukunft wünschen?

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