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PERCEPTION OF THE APPLICABILITY OF THE BRAZILIAN NORMATIVE INSTRUCTION 51 IN THE PRODUCTION OF MILK *IN NATURA* AT NEW STAR/ RO (BRAZIL)

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Abstract:

The present research consists in a descriptive study that verified the applicability of the main ideas of quality management through the fulfillment of standards and legislation relevant to the management of the quality of milk. This research was descriptive bibliographic, culminating with a Case Study with primary data collection. The data used were collected through a questionnaire on during the field survey in a sample of 60 and two producers of milk in the District New Star, situated municipality of Rolim de Moura - RO, in order to check the mode of management of rural properties, especially with respect to the premises, equipment and hygienic-sanitary procedures for the completion of milking and milk production with total quality. It was found that the producers are finding it difficult to adapt to the Normative Instruction 51 (INBR 51), since the majority of respondents are outside the standards of hygiene, i.e. in conditions that are fleeing almost that in totality of normative patterns, thereby compromising the quality of milk and consequently the hygiene and its market value, since the dairy products do not encourage a milk according to the standards of INBR51.

KEYWORDS:

Quality Management, Brazilian Normative Instruction 51, Milk.

1 INTRODUCTION

With the perspective that the proposal of a scientific research is to provide, through studies and analyzes, improvements in the region in which it develops; the scope of this was aimed at addressing the evolution of the concept of quality and its applicability in the production of milk in the District New Starlet, municipality of Rolim de Moura - Rondonia, upon description of current reality experienced by milk producers of the region.

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The quality is a factor of great importance in any business segment, meanwhile in the foodstuff sector it must be handled with particular rigor throughout its production chain, from the acquisition of raw materials to delivery of finished product to the customer, a time that any failure in this productive process can result in negative externalities immeasurable.

Milk production in Brazil has increased steadily from the 1990s, however, this increase was only quantitative, there are views that the quality has not increased in the same proportion. Aiming at the improvement and standardization of the productive process, the Ministry of Agriculture, Livestock and Supply (MAPA) has drafted a law and normative instructions that regulates the productive process of milk.

The objective of this research was to analyze the overall quality in the production of milk in the District of New Star, and specific objectives: to verify compliance with the Brazilian Normative Instruction 051 - INBR51; check the hygienic-sanitary procedures performed by producers and identify the main purchasers of milk in natura. It is worth mentioning that the results will be submitted to the following without character of value judgment or withdrawal, but yes the descriptive aspect of a case study.

2 QUALITY IN PRODUCTION OF MILK

The importance of quality in the manufacture of products or the provision of services, are now standardized, in some cases even internationally, as well as learn a little more about the actors involved in the subject studied, the main techniques and tools developed to assist administrators in jobs that involve the management of quality. Will henceforth be addressed the importance of the applicability of the subject above the milk production, mainly in the hygienic-sanitary care to be met on rural properties.

It is known that the milk is a food extremely rich in vitamins and mineral salts, therefore several subject matter experts recommend your daily consumption, considered essential for the maintenance of a healthy diet.

The milk is, probably, one of the only food that has as objective provide nutrients and immunological protection (through the antibodies) to the newborn, which may explain its high nutritional value. The composition of the milk of animals, combined with the balanced distribution of certain components and the high digestibility, make milk one of the most important components in human nutrition. (RIBEIRO, 2008, p. 1).

According to Pocho (2005), *apud* Freire *et al* (2009 p. 4) "milk consumption per capita in Brazil in 2004 was 125 liters/years" amount that is below the recommended by the Ministry of Health, which would be 146 liters/year by children up to 10 years of age; 256 liters/year by young people from 11 to 19 years and 219 liters/year by adults above 20 years.

According to the survey of Freire *et al* (2009 p. 14) held in the southern region of Minas Gerais, with members of a university community and serves as a reference to indicate a national tendency, i.e., the need to raise the standards of quality in order to the production of food more healthy, safe and competitive in the international market. Thus the quality of the milk is the most important characteristic for the majority of the respondents (49.6%), and in second place was the price, with 20%.

2.1 Increase of Production X Rules

Second handed out (2004) the dairy segment showed a steep rise in production, "starting from a level of 15 billion liters produced per year in the early 1990s to reach 23 billion liters in 2004". However, the researcher observes that this growth occurred in a disorganized manner, resulting in consequences not desirable: a question that has been worrying about authorities, leaders and researchers is the quality of the milk produced in the country. Milk of low quality cause great economic losses to the industry, represents a risk to public health, prevents the achievement of more profitable markets and undermines the credibility of the chain as a whole.

In an attempt to minimize the problem, the Ministry of Agriculture, Livestock and Supply - MAP, drafted the Normative Instruction no. 51 (IN51), september 18, 2002, published in the Official Journal of the European Union on 20 September 2002, section 1, page 13, whose content deals with the Technical regulations of Production, Identity and Quality of the Milk, the Milk type To type B, type C Milk, Pasteurized Milk and Refrigerated raw Milk and the Technical Regulation of the Collection of Refrigerated raw Milk and its Transport in Bulk (in ,MAP, 2002).

Without doubt the IN51 has brought great progress, among which stand out the rules regarding all the aspects hygienic-sanitary and composition of the milk, as well as the recommendation of the milk cooling even in rural property in order to be transported in bulk trucks isothermals, assuming the transport in gallons, with a maximum capacity of 50 liters and in ambient temperature directly to dairy establishments provided that they are met the deadlines and schedules established by this legislation. The

dates stipulated that the new requirements would apply were July 01, 2005 for regions in the South, Southeast and Central-this and July 01, 2007 to the North and Northeast regions, once that in the view of legislators the individuals of most deprived regions of the country would have difficulties in suit, therefore the need for differentiated terms.

2.2 Classification of Milk

To IN paragraph 51 regulates only the production of cow's milk and the sets as "(...) the product coming from the complete milking and uninterrupted, in conditions of hygiene, healthy, well-fed cows and restful. The milk of other animals should be renamed according to the species of which proceed." (MAP, 2002)

In accordance with the legislation, the pasteurized milk can be classified into three categories (A, B and C) that are differentiated according to the observance of various factors that must be strictly complied with during the production of milk *in natura* on rural properties, which are: sanity of the flock, hygiene in production, adequate facilities and equipment, cooling time, among others. In This way, the production of milk type "A" requires a rigorous quality control process; the milk type "B" requires an intermediate treatment, less stringent than that required for the production of milk type "A" and more rigorous than that laid down for the production of milk type "C"; the milk type "C" requires the minimum acceptable regarding the standard of quality control.

2.2.1 Milk Type A

Defined in accordance with the Technical Regulation of Production, Identity and Quality of Milk Type A, Annex I of the IN51, as follows:

It is understood by Pasteurized Milk type To the milk classified as for fat content in full, standardized, semi-skimmed or skimmed milk, produced, benefited and bottled in establishment called Dairy farm, observed the requirements contained in this Technical Regulation. (IN51 *in*, MAP, 2002).

It is observed that the own Normative Instruction does not define the refrigerated raw milk type A, a time that for the production of pasteurized milk type A is required that the product *in natura* is processed even in rural property, as well as the observance of various requirements with respect to the hygiene before, during and after production.

2.2.1.1 - Requirements for the Production of Milk Type A

The premises must be far away from urban centers and distant from at least 50 meters of public roads, the corral should be covered and paved, so that facilitates cleaning and drainage of waste, not being allowed the deposition of organic manure in dung heaps open. Milking must be mechanical, with piping that leads directly to the milk cooling tank or pasteurization, should still be held in place which has roof lined with impermeable material, except in the case of metallic cover. The site should have a hose with drinking water and with enough pressure to clean the property with ease.

The dairy farm must always remain clean and possess additional installations, attached or near the place of milking, that meet the peculiarities provided for in specific legislation, intended for pasteurization, packaging, cold chamber and laboratory. The person responsible for milking must use white clothes and becomes restricted to this activity, and may not leave the milking parlor, so that activities pre-milking and post-milking are borne by other people.

Of course it is the type of milk that requires the more rigorous process of quality control, some subject matter experts consider the milk type A healthier for human consumption, surpassing even the UHT milk (sterilized milk), however, due to the high level of demands, it is the least produced in Brazil, representing 0.92% of Brazilian consumption of milk in 2004, as can be observed in table 01.

Table 1: Percentage of Brazilian consumption of different types of milk.

Year	UHT	PASTEURIZED			TOTAL
		Type A	Type B	Type C	
1990	4.37 %	0.66 %	8.23 %	86.73 %	100 %
1992	9.32 %	0.98 %	9.78 %	79.91 %	100 %
1994	21.69 %	1.37 %	11.09 %	65.86 %	100 %
1996	37.98 %	0.98 %	9.05 %	51.99 %	100 %
1998	58.39 %	0.83 %	7.41 %	33.36 %	100 %
2000	68.83 %	0.76 %	7.65 %	22.75 %	100 %
2002	74.04 %	0.84 %	7.89 %	17.23 %	100 %
2004	73.47 %	0.92 %	7.68 %	17.94 %	100 %

Source: Embrapa Dairy Cattle (2010), adapted by the authors .

2.2.2 Milk Type B

Defined in accordance with the Technical Regulation of Production, Identity and Quality of Milk Type B, Annex II of the IN51, as follows:

It is understood by Refrigerated raw Milk type B the product defined in this Technical Regulation, integral for fat content, refrigerated in rural property producing milk and it maintained by maximum period of 48h (forty and eight hours), at a temperature equal to or less than 4Â°C (four degrees Celsius), which must be reached within 3h (three hours) after the end of milking, transported to industrial establishment, to be processed, where must submit, at the time of its receipt, temperature equal to or less than 7C (7 degrees Celsius). (IN51 in ,MAP, 2002).

The main difference between the milk type B and type A, consists of the non-obligatory nature of pasteurization in rural property, while still allowing the realization of manual milking, provided that it be held in proper location and meets specifications peculiar, "(...) provided with walls in minimum height of 2m (two meters) (...), be sufficiently broad, present areas of lighting and adequate ventilation, lining, floor concreted over, walls waterproofed (...)" (IN51 in ,MAP, 2002), the other requirements as to care in production and adequacy of facilities from the sheepcote are similar to those provided for the milk type A. As can be seen from table 01, the pasteurized milk type B represented 7.68 % of the consumption of milk Fluid by Brazilians in 2004.

2.2.3 Milk Type C

Defined in accordance with the Technical Regulation of Production, Identity and Quality of Milk Type C, Annex III of the IN51, as follows:

It is understood by raw Milk type C the product defined in this Technical Regulation, not subjected to any type of heat treatment in dairy farm where it was produced and integral for fat content, transported in appropriate container and individual capacity up to 165 l (50 liters) and delivered in industrial property right up to the 10:00 a.m. (10 hours) on the day of their obtaining;

It is understood by Refrigerated raw Milk type C the product defined in items 2.1.1. and 2.1.2. of this Technical Regulation, after being delivered at ambient temperature up to 10:00 h (10 hours) on the day of their obtaining, in Tour of milk Refrigeration or industrial establishment suitable and it be cooled and maintained at a temperature less than or equal to 4Â°C (four degrees Celsius);

The raw Milk type C, after undergoing cooling in Tour of Cooling, in accordance with item 2.1.3., can remain stored in that Office for a maximum period of 24 h (twenty-four hours), being remitted then exhausted from the establishment. (IN51 in ,MAP, 2002).

It is evident that the productive process of milk type C is the least strict with respect to the requirements for quality control, obviously tends to be the least expensive with regard to production costs, but generally its commercial value is lower if compared to the other types of milk.

2.2.4 Refrigerated raw Milk

Defined in accordance with the Technical Regulation of Identification and Quality of Refrigerated raw Milk, Annex IV of the IN51, as follows:

It is understood by Refrigerated raw Milk, the product defined in 2.1.1., cooled and maintained at constant temperatures of table 2 of this Technical Regulation, transported in car-insulated tank of rural

property for a Tour of milk Refrigeration or industrial establishment suitable, to be processed. (IN51 in ,MAP, 2002).

The imposition of conditions that limit the use of gallons and consequently the carriage of non-refrigerated milk establishments improvers represented a huge leap forward for the production of milk in Brazil, such changes have encouraged the cooling in natura product still in rural property or near them, so that they can be transported on trucks isothermals, ensuring greater quality to milk and its derivatives.

2.3 Sanitary Conditions For Obtaining the Raw Material

As described earlier, for the production of Pasteurized milk of types A and B is required compliance with various requirements peculiar, however, there are basic care Hygienic-Sanitary, necessary for the production of milk Refrigerated raw, Refrigerated raw Refrigerated raw Type C, Type B and Type A, namely:

... Location and adequacy of sties the purpose; general Conditions of buildings (covered area, floor, walls or equivalent), relating to the prevention of contamination; pest Control; Water supply; Elimination of organic waste; work Routine and general procedures of manipulation; Equipment, bottles and utensils; Protection against contamination of the raw materials; Packaging, cooling, storage and transportation (INBR51 in ,MAP, 2002) highlight our

The legislation referenced above also provides the "Sanitary Conditions Specific for Obtaining the Raw Material ", which are: Wash the teats of cows with tap water; Dry the teats with disposable towel; Discard the first jets of milk in mug of dark background in order to verify a possible mastitis; At the end of milking, the teats must be disinfected with chemicals and the cows should be kept on foot for some time, a time that during the milking the sphincter of theta opens and in these conditions, the animal is vulnerable to the action of pathogenic micro-organisms , if the theta between in counted with a dirty surface; The milk obtained should be strained free and Refrigerated at a temperature of 4C (4 degrees Celsius) in up to three hours after the end of the milking; The transport of milk should be carried out preferably in bulk tank trucks with an insulated, assuming the transport of raw milk non-refrigerated in cans with a maximum capacity of 50 liters, provided that reach the establishment or exhausted from tour of refrigeration up to 10:00 hours.

3 METHODOLOGY

As regards the purpose of the present research is classified predominantly a regional case study, in addition to be exploratory and descriptive, regarding the means to search a first moment can be classified as bibliographic and documentary, where he sought theories, laws and documents pertinent to the topic addressed, in a second moment was carried out the field research with questionnaires applied together with the producers of milk as model adopted by Vergara (1990). The sample obtained 60 and two producers (n= 62) from the model adopted by Spiegel (1993) that classifies as simple random sample without replacement for finite population, non-stratified, and without repetition, with a margin of error of 8% recommended and used by Mendenhall et al (1993) with the use of the questionnaire as an instrument for data collection.

4. THE PRODUCTION OF MILK IN RONDONIA

Rondonia produces approximately 2.2 million liters of milk per day Secretariat of Agriculture and Livestock in the State of Rondonia (SEAGRI-RO). Such numbers puts the State as the largest producer of milk in the north region of Brazil and the 9th-largest milk production in Brazil next to other 12 (twelve) States. According to the Brazilian Institute of Geography and Statistics (IBGE), Brazil has the 6nd. Higher world production of milk (IBGE,2012) as observed data in the following table.

Table 2 - Ranking of Milk production by States, in 2010 /2011.

States	Volume of production (1,000l)		Growth Rate	% Total
	2010	2011		
Minas Gerais	8,388,039	8,767,932	0.045	27.3
Rio Grande do Sul	3,633,834	3,896,650	0.072	11.8
Paraná	3,595,775	3,930,428	0.093	11.7
Goiás	3,193,731	3,365,703	0.054	10.4
Santa Catarina	2,381,130	2,573,337	0.081	7.8
São Paulo	1,605,657	1,593,515	-0.008	5.2
Bahia	1,238,547	1,354,714	0.094	4.0
Pernambuco	877,420	964,769	0.100	2.9
Rondônia	802,969	841,092	0.047	2.6
Mato Grosso	708,481	735,719	0.038	2.3
Pará	563,777	540,287	0.042	1.8
Mato Grosso do Sul	511,270	517,185	0.012	1.7
TOTAL	30,715,460	32,297,667	0,052	100.0

Source: IBGE/Provincial Livestock Survey
Preparation: R. ZOCCAL - Embrapa Dairy Cattle

*2011 Estimate
Updated February/2012

The District New Star is located in a geographical proximity to larger cities such as Cacoal at 37 km, Pimenta Bueno 39 km and Rolim de Moura 25 km away, located in the State of Rondonia. It is basically a small hamlet moved by agriculture and livestock, has two agroindustries, 211 rural producers who occupy 188 properties, cattle herd of 16,433 animals, of which 8,426 are cattle and 8,007 dairy cattle, as data extracted from the final report of the 28th step of vaccination against Foot-and-Mouth Disease, supplied by the Agency of Sanitary Defense Agrosilvopastoral the State of Rondonia - IDARON-unit of New Star. Dairy farming is the major propelling the local trade, a fact noted by an increase in consumption and higher profitability perceived by traders around the day twenty and five of each month, the period in which the dairy companies shifted the payment.

With the survey attempted to verify how the milk producers administer their rural properties with respect to the premises, flock and especially regarding the hygienic-sanitary care for milk production with a high standard of quality. As the standard of reference for the formulation of the questionnaire research, it was used the legal requirements laid down in Normative Instruction 51 (IN51), there is no vista be is the legislation that currently regulates the production, preservation, transport and processing of milk brasileiro. This research points out, in accordance with the sampling that 66 % of the ranchers of milk in the District New Star working for ten years or more in the office, 19 % have between five and nine years of work and 15% have less than five years in the profession, in general are experienced workers, who received and transmit the letter in family, many have emigrated to other States for Rondonia.

The predominant livestock in the region is the extensive, where the livestock feeds exclusively of pastures. Each producer has on average 17 lactating cows, which produce a total of 66.7 liters of milk per day per property, on average 3.9 liters/day per cow, productivity considered sparse when compared with some regions of the country, or with foreign countries. The producers claim that the low performance observed is justified by season of the year in which the survey was conducted, i.e. all data were collected during the dry season, when the pastures are dry and the cows do not feed properly.

Basically four companies of dairy products operate in the region, which are: Miraela, with headquarters in Rolim de Moura, Rondônia, with 52% of the acquisitions is the main company buyer; Italac, with headquarters in the city of Jaru - RO, purchase approximately 31% of the milk produced in New Star; Flower of Rondônia, with headquarters located in the municipality of President Medici - RO, purchase 15% of the milk produced in the region mentioned above; Tradition with nearest unit installed in the municipality of Cacoal - RO owns 2% of acquisitions and 2% of producers sell the milk with other dairy products or working in direct sale to the consumer, whether by sale of milk in natura or by industrialization itself.

It is noteworthy that at the start of the realization of this study (in the year 2010), the company manufacturer of sweetened condensed milk CONDESA, whose registered office is installed in the District New Starlet, was prominent among the main purchasers of milk, however, due to the huge difference in the amount paid by liter of milk, approximately R\$ 0.20 (twenty cents) less than their competitors, the producers have migrated to other companies, mainly the ITALAC who had no significant involvement in

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the region, but took the opportunity to enter the market agro industrial, specifically the production of milk (BATTLE, 2007).

The milking can be performed in two ways: manual, where the producer removes the milk of cows with their own hands or mechanical, where a machine takes suction from the milk of the udder of cows directly to brass or, in cases of more sophisticated equipment, the milk can be channelled directly to tank for cooling. In the studied region it was found that only 13% of producers have mechanical milking and 87% perform the manual milking, which is considered to be more conducive to the contamination of milk.

Only 16% of producers have expansion tank, equipment used for cooling of milk, 84% uses Community tank, where more than one person puts the milk. Some dairy products "lend" the tanks Community to producers, but charge a fee to use, it was observed that cases in which a single producer acquires the expansion tank with a capacity greater than its daily production in order to cool the milk producers of neighbors and passes it to the dairy, charging a percentage to pay the expenses with electrical energy, cleaning materials, office materials and in some cases costs with employee, seeking still earn some profit with the activity, without realizing the externality and loss of quality (LAPA, 2010)

Regarding the time required for cooling the milk 97% of the producers claim that in no more than two hours after milking the milk is deposited on expansion tank and only 3% say that is necessary within three hours for the completion of routine described above. Note-if a concern to provide the immediate cooling of the whole milk, such practice was not common before the expiry of the IN51, but it has become a habit among the ranchers of New Star, possibly due to the influence exerted by dairy and competent public authorities that leveraged this habit. Still, it is pointed that the associations of the ranchers of the region were covered with tanks donated by the State Government.

However, it is still common to agglomeration of several producers on a single tank of cooling, 23% of respondents share the tank with 35 people or more, 34% share the equipment with a quantitative that varies between 15 and 25 people, 34% divide the tank with less than 15 people and only 10% of producers are the exclusive use of their respective tanks. The use of a same tank by various producers is not a recommended practice, because when you put a very large quantity of milk at the same time, the equipment needs for a longer period to cool it, in addition, there is the possibility a person ruin the production of all colleagues when depositing a contaminated milk and/or outside of required standards, requiring the insertion of a cycle of quest for quality (MAGALHÃES,2010).

The vast majority of producers, in the period investigated (2010) work in precarious conditions and in physical structures outside the minimum standards stipulated in specific legislation. The sheepfold, for example, must have a minimum coverage and floor to reduce the risk of a possible contamination of milk, or even preserve the sanity of the flock, as seen in figure 1, only 24% of producers have facilities that offer minimum conditions of wholesomeness for completion of milking, 76 percent of respondents do not have adequate facilities to IN51. The absence of coverage, for example, can generate numerous problems, such as the possibility of worker contracting a disease by exposure to bad weather (rain, serene, mist, etc.), contamination of milk with the rain water , among others.

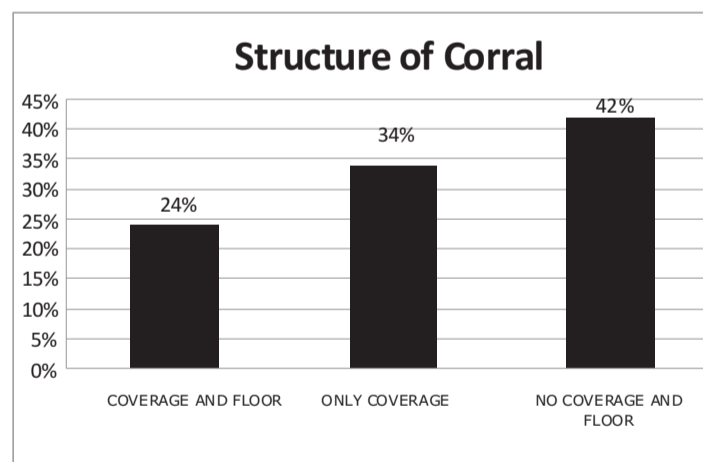


Fig. 1 : Physical Structure of sties of producers interviewed in New Star, In Rolim de Moura, RO – in Brazil, 2010.

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The great problem of lack of adequate facilities is the impracticality of implementing sanitary procedures that the activity you need. As the Figure no. 2A it was observed that only 10% of producers wash daily the sheepfold, cleaning procedure considered ideal, 11% carry out cleaning only by scraping, using for this purpose a hoe or similar equipment, 76% of the producers do not carry out the cleaning of the barn used for milking cows. When asked about the availability of drinking water, 63% say that they do not have piped water in the stable, a fact that helps to explain the non-implementation of some procedures sanitary napkins (Figure 2B).

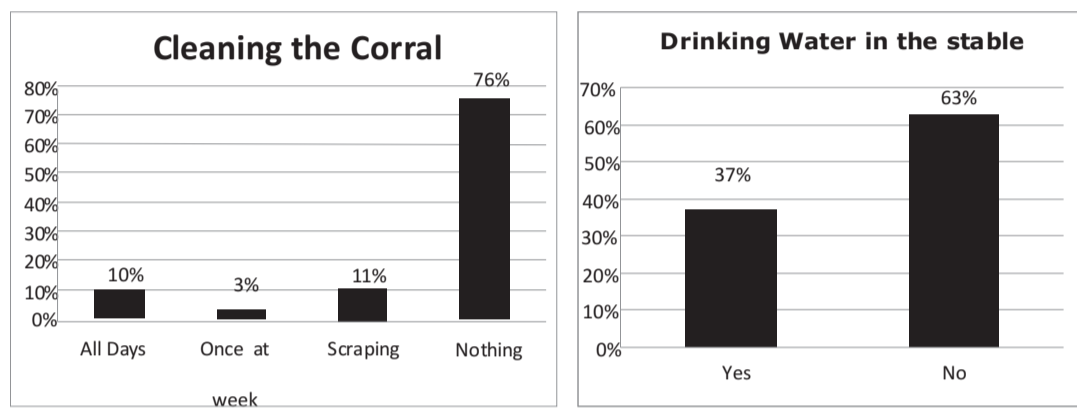


Fig. 2A: Procedures for cleaning the curral second interviewed at New Star, in the Town of Rolim de Moura – RO, in Brazil, 2010. **Fig. 2B: Existence of piped water, second interviewed at New Star, in the municipality of Rolim de Moura – RO, in Brazil, 2010.**

When questioned about the hygienic-sanitary care that should be observed before, during and after milking, 2% of producers claim that only wash the teats of cows, 10% say that only wash and dry the teats; 11% wash, secam and discard the first jets of milk; 5% of producers carry out all the procedures laid down in IN51, namely: washing of the udder, drying with disposable hand towels, discard the first jets of milk in mug of dark background and avoid that cows lie after milking; 73% of the producers claim that no procedure is performed.

It is known that washing your hands is a habit that everyone must have even those who do not work directly with the manipulation of food products, an example more recent and widely publicized is the H1N1, more commonly known as swine flu, a virus of easy transmission and in accordance with the Ministry of Health (2010) one of the main preventive care is the correct hand hygiene.

In The same way occurs during milking, there are views that many infections in teats can be contagious, the simple fact of the worker wash their hands after each cow's milk could reduce many problems, is the quality of the milk or the health of the herd, but 68% of the producers do not wash their hands during milking, even when they are dirty, as observed in figure 3.

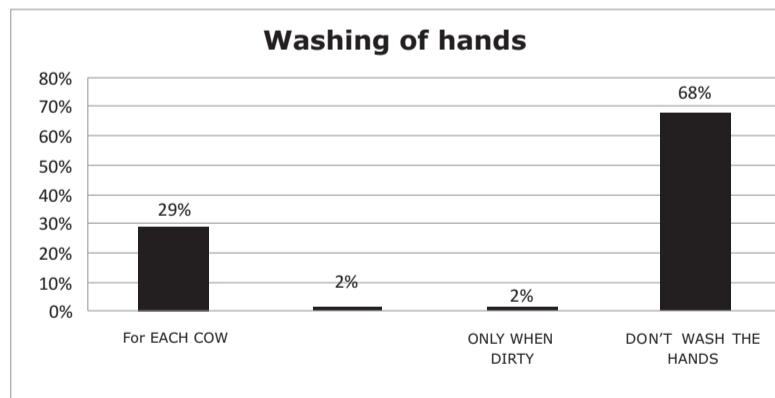


Figure 3 - Implementation of hand Hygiene second interviewed at New Star, in the municipality of Rolim de Moura – RO in Brazil, 2010.

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According to this study, 44% of the producers claim that the main reason for noncompliance IN51 is the fact that the procedures are impractical because they require too much time and raise the cost of production. Obviously a cattle herd that presents an average productivity less than four liters of milk per cow is not easy to be administered, the time and money needed for milking a cow that produces 3 liters of milk a day and a cow that produces 10 liters to day present differences irrelevant, there are views that the milking in itself is not time-consuming and costly, but the productive process, i.e. , the operations before, during and after milking.

Among the respondents, 18% believe that the procedure is unnecessary, a zeal that only exacerbated onera production and brings no benefit some, which is why they are against any change in procedures, 29% say that do not comply with the legislation because there is no financial incentive, once that the only reward that dairy products are usually pay is intended to owners of mechanical milking; 6% argue that does not comply with the legislation because it does not have knowledge of their existence and duration, as shown in figure 4.

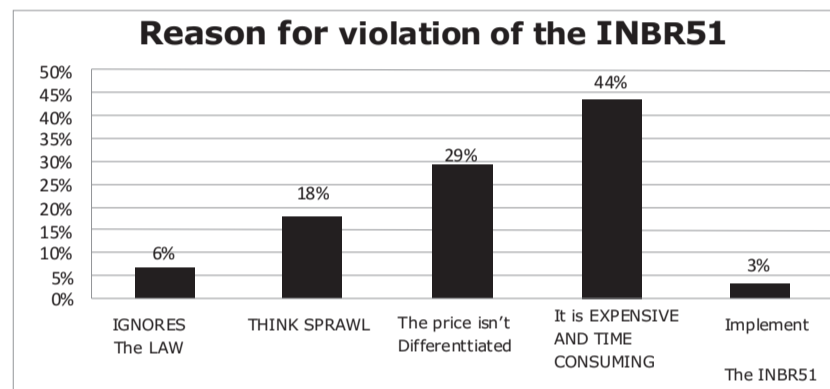


Figure 4 - Violation of the IN51, second interviewed at New Star, in Rolim de Moura in 2010.

There is a barrier of producers to accept any change in procedures, such barrier comes from their own culture and history of life, i.e. the vast majority of producers spent a whole life doing a procedure that in the view of them was the more correct and suddenly emerges a legislation saying that are misconceptions, note that this legislation only is not enough, you need for mechanisms allowing for its proper implementation. To analyze the figure 5, it becomes easy to understand why the little adherence to the IN51, once that 68% of the producers claim that they never received any instruction or lecture on the subject and only 11% were educated there is one year or less, which demonstrates a paradox, because it is more easily plead ignorance of which fulfill the IN51 the agencies of research and the government of not transmitting technology and information (MINISTRY OF HEALTH, 2010).

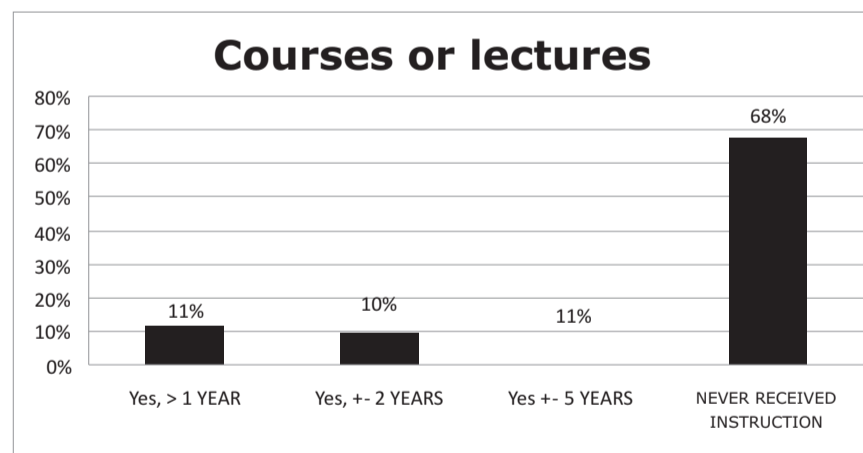


Figure 5 - Violation of the IN51, second interviewed at New Star, in Rolim de Moura in 2010.

Second Paladini (2004) any company concerned with the quality of the products and/or service, shall draw up programs of training and development. However, the same did not occur, at least at the time of the survey (2010) with the milk producers in New Star, where it was found that they are the producers themselves who pass the knowledge from father to son, without any monitoring of a specialized professional on the subject, which could be subsidized by dairy products buyers, by the government or even by association of producers, the disastrous outcome of this "transmission of knowledge" is the empirical observation of the lack of hygiene of food producers with the health of its production, resulting from non-compliance with the IN51, without counting of other laboratory studies that deal with the composition of the raw material of the milk.

5 CONCLUSIONS

Given the major changes that have occurred with the advent of globalization, the need has arisen to invest in quality, is in the manufacture of products or the provision of services. Today the companies do not measure efforts to provide training and development programs to its employees in order to empower them to develop work with effectiveness and efficiency. Considering this trend, there is a discrepancy with the observed reality throughout the research, where the main collaborators of productive chain of milk producers, has little attention of entrepreneurs and public entity.

The producers need a proper infrastructure to milk production with quality, once the technology used in general is rudimentary, as the survey data, the majority of farmers do not offer conditions salubrious for the activity. The ranchers do not feel safe in making investments through the instability of the price of milk, as well as its low remuneration, others do not because they simply believe that they do not compensate for, once the value paid by liter of milk within the standards set forth by IN51 is the same paid to milk in unhealthy conditions.

It was observed that the need for a study of awareness of Total Quality, which could be developed from a greater synergy between the companies of dairy products, banks, public entity and the associations of producers, in order to give lectures in the ranchers, promote a rural advice adequate, as well as enabling better access to lines of credit that most fit the reality of each producer.

The nios buyers should worry more with the product that they are provided, i.e. , move on to better monitor and pay different values to producers who shall ensure the quality of the milk. The interest subsidy on the mechanical milking is valid, but it is known that if this equipment is not sanitized properly can compromise the quality of the milk.

There is a high turnover of producers in relation to the main purchasing companies, for example, when a company pays a value lower than the amount paid by another, the producers often swap of a dairy product and pass to provide its production to another company that reaches a difference less than five cents of real.

It is noted that the lack of an organizational culture in the hygienic-sanitary care, once that are recent requirements and lack of mechanisms that allow for the accession of the producers. Hardly a regulatory procedures have acceptance of all those involved, especially when this generates additional expenditure and investment. It is up to the dairy, governments and other responsible, make explicit the benefits that can be obtained to producers.

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