STUDY ON THE QUALITY CONTROL AND SAFETY OF NON-ANIMAL FOOD PRODUCTS IN IASI COUNTY

STUDIU PRIVIND CONTROLUL CALITĂȚII ŞI SIGURANȚEI PRODUSELOR ALIMENTARE DE ORIGINE NONANIMALĂ ÎN JUDEȚUL IASI

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Abstract: *The current paper deals with the analysis of the capacity of non-animal foodstuff processing units from Iasi County to make safe and quality foods in according with European and national regulations. Methodological, were processed, analysed and synthesized information gathered by the DSVA Iasi inspectors after the controls effectuated, during 2007 – 2010, in over 170 processing units. Even if the rate of the applied sanctions were in a decreasing tendency exists still many cases of processing units with deficiencies in keeping under control of the relevant risks for the consumers. The paper proposes a set of measures for the decisional factors from processing units and also for the supervision authorities.*

Key words*: quality, food safety, control, monitoring*

INTRODUCTION

The European Union monitoring phase from obtaining food and raw materials to final consumer. This strategy aims to protect and regain consume confidence by adopting specific legislative actions that are founded on the precautionary principle. One of the key instruments for practical realization of this strategy by companies that produce, distribute or sell food is HACCP (Hazard Analysis and Critical Control Points).

Starting with 1st of October 2006, in Romania, a governmental decision states that every organization within the food chain should implement a food safety management system, according to the HACCP

(Hazard Analysis and Critical Control Points) principles)(HG nr. 924:2005). The decision transposes the requirements of the European Parliament and of the European Council regulation no. 852/2004/CE (The Hygiene of Foodstuff); certification of these systems is ISO 22000 standard referential.

Designing and implementing the HACCP Study and Planning are some high individual specificity activities, couldn't be identically available and applied to multiple companies, even if these could have the same specialization area and similar production technologies. The efficiency of HACCP Study and Planning implementation imposes the existence and the following of some documents as: The Guide of good production practices; The Guide of good hygiene practices; Written procedures concerning personnel training; Validation of several production processes; Products' notification, traceability and withdrawal etc.

The current paper aimed to analyse the capacity of non-animal food products processing units from Iasi County to make safe and quality foods in according with European and national regulations and also the abilities of the Romanian authorities to apply this norms and to check their compliance.

MATERIAL AND METHOD

Methodological, was processed, analysed and synthesized information gathered after the controls effectuated by the DSVSA Iasi inspectors in period 2007 – 2010, in over 170 production units from non-animal sector. The used and processed data from the present study deals with the analysis of implementation of quality and safety foods management systems, evolutions of the contravention sanctions applied in the mentioned period as a result of failure of legislation demands regarding food safety and analysis of observed deficiencies in non-animal food products processing units.

Data interpretation was completed with an analyse of the causes which were at the base of different fluctuations and deviations; this analyse leads to conclusions and recommendations both for decisional factors from the production units and also for the Authorities for sanitary veterinary control and for food safety.

RESULTS AND DISCUSSIONS

At the beginning of 2007, HACCP system was implemented only in few units from non-animal sector, in the rest being unimplemented or in the way to be implemented. For the units which function in old buildings, the implementation of the new legislative demands involved substantially investments necessary to modify the flows, endowment with installations and equipments, staff training, consulting etc. Some units succeeded to obtain European funds and built new production spaces in according with the legislative demands where the systems for food safety management could be easily implemented or even certified in according with ISO standards. Unfortunately were also operators which have a great desire to answer to the new demand at a very high qualitative level and made huge investments and at the beginning at the financial crisis they couldn't sustained it so they enter in bankruptcy. So, the unfavourable economic situation in the past two years leads to a slow rate of implementation of food safety management systems.

At the beginning of year 2011, from 176 functional units in non-animal sector, the management system for food safety based on HACCP principles was complete implemented in 81 units (around 46% from total); from these, 38% had HACCP systems certificated after ISO 22000: 2005 (31 units). The other economic units which are smaller had the management system for food safety partially implemented or at the stage of documentation (35%), and 19% didn't have any implemented system (tab.1).

In units with certified HACCP system, with trained and responsible staff, in which the monitoring are made daily and corrective and preventive actions, are efficient, after the controls made by DSVSA Iasi inspectors there were no deficiencies.

In the units in which the HACCP system is implemented but not certified by a certain board usually happens that economic operator not to made the right daily recordings, not to respect the staff training programme, the frequency of gathering samples for analyse (self-control) or not to effectuate the necessary calibration at measurements and control apparatus.

Table 1

Stage of implementation of HACCP system in the units with activity in non-animal food products sector

No	Activity category of the unit	Total number of the units at 01.01.2011	Number of the units			
			System HACCP unimplemented	System HACCP documentation	System HACCP implemented	System HACCP certificated
1	Bread and fresh bakery products processing	116	29	41	46	11
2	Biscuits, pastry and cookery processing	6	-	1	5	3
3	Pasta processing	1	-	-	1	1
4	Mill processing	13	2	5	6	2
5	Sugar products processing	2	-	-	2	2
6	Fruit and vegetables processing and preservation	1	-	-	1	-
7	Wine processing	9	-	5	4	4
8	Mineral water bottling	1	-	-	1	1
9	Non-alcoholic beverages processing	3	-	1	2	2
10	Distilled alcoholic beverages processing	1	-	1	-	-
11	Sour soup processing	6	3	3	-	-
12	Coffee processing	2	-	1	1	-
13	Tea processing	1	-	-	1	-
14	Spices processing	2	-	1	1	1
15	Flavours, essences, topping, pastry ingredients processing	3	-	1	2	1
16	Yeast processing	1	-	-	1	1
17	Frozen foodstuff processing	1	-	-	1	1
18	Dried/dehydrated products processing	2	-	-	2	-
19	Packaging and/or bottling of non-animal products	5	-	1	4	1
	TOTAL	176	34	61	81	31

EC 852/2004 regulation regarding the hygiene of foodstuff products, (taken also in our legislation by HG 924/2005) permit a certain flexibility in application of HACCP principles to be implemented in any situation including at the level of small enterprises. Nevertheless, there are also numerous cases in which the units are not able to assure even the necessary minimum, respectively the implementation of the preliminary programmes regarding the hygiene of the spaces, pest control, staff hygiene, control of technologic flow etc.; in these situations, control authorities applied sanctions or even close the production units (tab. 2).

Table 2

Situation of the applied sanctions in period 2007 – 2010 in non-animal food products processing units from Iaşi County

No	Activity category of the unit	Total number of the units at 01.01.2011	Sanction (number of units)		
			Warning	Pecuniary penalty	Suspense / ban of activity
1	Bread and fresh bakery products processing	116	49	50	9 / 8
2	Biscuits, pastry and cookery processing	6	-	-	-
3	Pasta processing	1	1	-	-
4	Mill processing	13	2	3	0 / 1
5	Sugar products processing	2	-	-	1 / 0
6	Fruit and vegetables processing and preservation	1	1	-	-
7	Wine processing	9	2	-	0 / 2
8	Mineral water bottling	1	-	-	-
9	Non-alcoholic beverages processing	3	1	1	2 / 1
10	Distilled alcoholic beverages processing	1	-	-	-
11	Sour soup processing	6	4	-	-
12	Coffee processing	2	1	-	-
13	Tea processing	1	-	-	-
14	Spices processing	2	1	3	1 / 1
15	Flavours, essences, topping, pastry ingredients processing	3	-	-	-
16	Yeast processing	1	-	-	-
17	Frozen foodstuff processing	1	-	-	-
18	Dried/dehydrated products processing	2	-	-	-
19	Packaging and/or bottling of non-animal products	5	3	1	-

	TOTAL	176	65	58	13 /13

Analysis of the data presented in table 2 revealed the fact that the most numerous sanctions were applied for bread and fresh bakery bread processing units (which have the greatest rate from the total of analysed units, respectively 66%), as follows: 49 warnings (75% from total), 50 pecuniary penalties (86% from total), 9 ordinances for temporary suspense of activity and 8 ordinances for banning the activity (62%).

Regarding the evolution of the sanctions in the analysed period we mention that around 40% from the pecuniary penalties, 46% from temporary suspense and 77% from banning of activity were applied in 2007, just after Romania accession to the EU. In the following years the number of pecuniary penalties decreased, so in 2010, their rate face to the studied period was of around 12% for penalties and 15% for temporary suspense, weren't applied banning of activity. Instead was enlightened an increase of warnings number (51%) fact which show that also existed deficiencies but with a low severity (fig. 1).

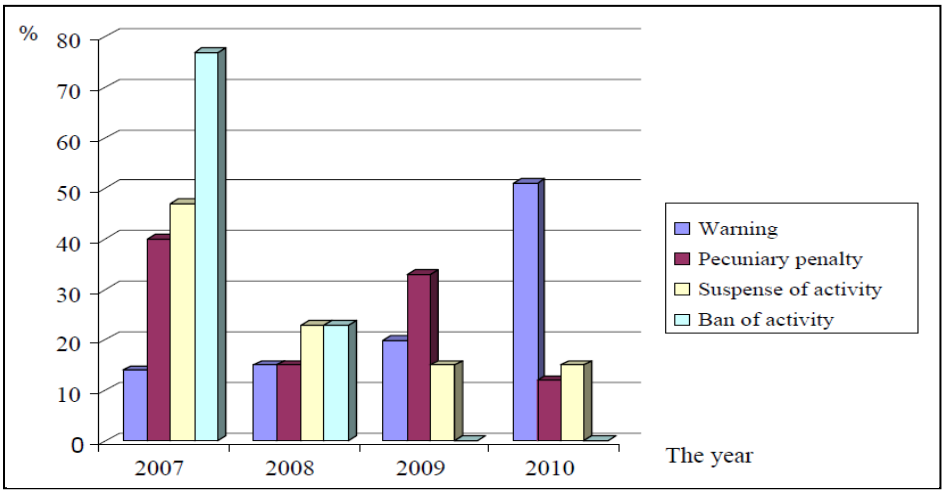


Figure 1 Evolution of the applied sanctions in period 2007 – 2010 in non-animal food products processing units from Iaşi County

As regarding the rate of the observed and sanctioned deficiencies in the analysed period, on the first place was failure of the norms regarding

maintenance of food products processing areas, storage and capitalization and also of the equipments, devices and apparatus used for that, with a rate of 48%, followed by the ones regarding the failure of foodstuff storage conditions (20%) and the ones regarding failure of sanitary-veterinary norms and safety food regulations (18%).

Existence of these differences reveals failure of the general demands for hygiene, requirements which are status in CE 852/2004 Regulation.

CONCLUSIONS

The presences of penalties and also of the deficiencies at the level of activity in non-animal foodstuff processing units show the fact that the battle for safe and quality food continues both for economic operators and also for the supervision authorities.

In this way the decisional factors form the production units must have in mind how to solve the problems such as: permanent training and education of staff, modernization of the existed spaces or building new ones, in according with the European demands; endowment with modern equipments, installations and apparatus which will assure both the increase of the productivity and also of safety and quality of the product; managers hiring or training (for all levels) able to understood and to apply the new demands regarding food quality and safety; realization of a self-control as rigorous as possible which could permit to take rapid and efficient decisions in the case of appearing some nonconformities; collaboration with competent authorities in dealing with some crisis situations (e.g. retry of some bad products from the market).

Authorities for sanitary veterinary control and for food safety, even if adapted quite easy to the new European demands, have still some problems to be solved such as: realization of official controls with a coverage of all the areas of the county; respecting the controls frequency function of placing the units on risks degrees and their antecedents; continue training of inspectors to increase their competences; effectuation of internal audits to evaluate the efficiency of official controls; collaboration with the other control authorities from county to avoid superposition of the competences.

In the investigated period, at the level of DSVSA Iasi were resolved over 100 alerts (entered through System Rapid for Alert for Fodder and

Food - SRAFF) which notified as dangers diverse contaminations of non-animal foodstuff products provided form country and abroad. Must be mentioned that any alert did not have as subject a foodstuff product made in Iasi County. This fact is another reason to offer us confidence that in general non-animal foodstuff products made in Iasi County present a high degree of food safety.

As regarding the application of the legislation, as an important factor in assuring food safety and quality, this one must be adapted to the conditions (social, economic, geographic) from our country, capitalizing in this way the flexibility of European legislation.

REFERENCES

1. **LUNING P.A., MARCELIS W.J., JONGEN W.M.F., 2008,** Managementul calitatii alimentelor – o abordare tehno-manageriala. Ed. Casa Cartii de Stiinta, Cluj-Napoca.
2. **POP CECILIA,** 2008, Managementul calitatii de la concept la implementare. Ed. Tipo Moldova, Iasi.
3. **POP CECILIA, POP I.M., BOISTEANU P.,** 2006, The management of food safety according to the HACCP principles. European Society for New Methods in Agricultural Research, Proceedings: XXXVI Annual Meeting, Iasi, Romania, p. 17.
4. **POP CECILIA, STEF D., POP I.M.,** 2009, Managementul calitatii alimentelor. Ed. Edict Production, Iasi.
5. **STĂNCIUC NICOLETA, ROTARU GABRIELA,** 2008, Managementul siguranței alimentelor, Ed. Academica, Bucuresti.
6. *** Rapoarte de activitate ale DSVSA Iaşi pentru anii 2007-2010
7. *** HG nr. 924:2005 privind aprobarea Regulilor generale pentru igiena produselor alimentare**.**
8. *** ISO 22000:2005 - Food safety management systems. Requirements for any organization in the food chain. European Commitee for Standardization.
9. *** REG. CE 852/2005 privind igiena produselor alimentare.
10. *** http://www.fao.org// docrep/005/y1579e/y1579e03.htm – Hazard Analysis and Critical Control Point (HACCP) system and guidelines for its application.