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**CAMPDEN & CHORLEYWOOD FOOD INDUSTRY
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**HACCP and GHP Training and Advisory Programme for strengthening
capacity of support institutions and food processing industries
in Trans–Carpathian Region of Ukraine**

UNIDO Project No. US/UKR/029

Contract No. 2002/185

Final Report

Report by

Margit Bleszkán

June 2003

SUMMARY

The project has been partly successful in increasing the awareness of the Beregovo District food industry in the need for food safety systems. The number of representants participating in the project was limited and some of them were refused to take part in the project after the first mission (e.g. Autoport Chop, Uzghorod).

A total of eight food industry experts from Beregovo District and ZIAP have received food safety, good hygienic practice, HACCP and train the trainers training organised by Campden & Chorleywood Food Development Institute Hungary. Personnel receiving the above training courses will be able to provide training for other people working within their own food industry.

There were developed a model HACCP system in each participating companies with the help of Campden & Chorleywood Hungary experts. The results of the studies have investigated a number of good hygienic and good manufacturing improvements in the fabric of the factories, which are intended to reduce the risk of foreign body or microbiological contamination of products.

The need for food safety systems and the work undertaken at one of the selected companies has been published to the food industry and authority representants of Beregovo District, by virtue of a seminar held at Uzghorod on 18. June 2003.

For the development and improving competitiveness of the food processing industry in Trans-Carpathian Region of Ukraine it is necessary to develop technical assistance capabilities in HACCP, GHP/GMP and quality assurance laboratory services. Zakarpatian Institute of Agricultural Production of Ukrainian Academy of Agrarian Sciences (ZIAP) was selected to provide such services in the future.

There were assessed the capacity and capability of ZIAP by the Hungarian expert and was stated that ZIAP does not have a tradition in working with the food processing industry and also the industry is not aware of the market and consumer need of food safety management systems it is vital for the success of the project that a close cooperation should be established between the ZIAP and the local food manufacturing industry. This will improve the creditability of ZIAP as a service provider for the food industry. After this the Hungarian experts tried to make aware both parties to understand that combined efforts will bring more fruits for each of them, than their separated actions.

The UNIDO representants tried to emphasis not only the role of the institute, but the role of the government and the regional authorities too. At the end of the project at the questions and comments part of the seminar we constated that there is an understanding of the overall objective of the project, but they need further funding for dissemination of these awareness.

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INTRODUCTION

The project was organised and funded by the United Nations Industrial Development Organisation (UNIDO) and the Hungarian government. The overall objective of the project was to introduce food safety (HACCP) and GHP principles for strengthening capacity of support institutions and food processing industries in Trans-Carpathian Region of Ukraine.

The food manufacturers of Trans-Carpathian Region of Ukraine need to be aware of the European requirements regarding food safety and GMP/GHP. To achieve this they need training and technical support. The project was formulated in order to assess the capacity and capability of Zakarpathian Institute of Agricultural Production of Ukrainian Academy of Agrarian Sciences (ZIAP), which can provide further help to the food industry of Trans-Carpathian Region of Ukraine.

Primary considerations were that it should promote the ability of ZIAP and should have an element of demonstration to ensure that the benefits of the programme and the means for progress could be perceived and adopted by the food industry as a whole in this region.

Major elements within the programme were to assess the capacity and capability of ZIAP, to train the experts of this institute and other food industry experts and to develop and implement model HACCP systems at some selected companies.

The need for food safety systems and the experiences gained during the development of the model HACCP system in the Zavidivske Ltd. (Rakosino) were presented at an awareness seminar at the end of the project.

The project was agreed in September 2002. The Terms of reference and the bar chart are included (Appendix 1.).

PARTICIPATING INSTITUTES

ZIAP

The Institute was founded in 1946 as a research station of the Ministry of Agriculture. By amalgamation with the former regional parts of international research institutes for wine making and wine growing and of tea and subtropical cultures its activity was extended. To 1989 the Station had accumulated a great deal of experience in some branches of the agricultural science.

In 1989 the station was converted to a research institute of the Ukrainian Academy of Agrarian Sciences with amalgamation with the Mountain Carpathia Research Station, the Ukrainian Research Station of tobacco growing and the research farm "Elite". The units are located at several places, the headquarter is located in Velyka Bakta, about 2-3 km distance from the town Beregovo.

The institute is an academic research organisation e.g. its main activity is government-founded research (through the Academy). Projects are approved and founded by the Ukrainian Academy of Agricultural Sciences. Current activities are mostly focused on agricultural production—food processing is not included, except wine making.

Main research areas (research sections):

- Cultivation and plant growing
- Seed production and genetically work on developing new breeds
- Perennial crops
- Animal breeding includes pig breeding and cattle breeding
- Economics

One of the main activities of the Institute is to produce high quality seeds for commercial purposes for the whole Trans-Carpathian region. Seeding potatoes are also included for commercial purposes. Pedigree stock of pigs are also bred and sold, the breeding activity on pedigree calves is at lower level, but started to increase. Fruit growing is producing rootstocks and apples for sales for juice manufacturing.

The research is funded solely by the Ukrainian Academy of Sciences and the only additional funding is coming from the above-mentioned commercial activities. About 50% of the income is represented by academic research, 50% of sales of agricultural products.

CAMPDEN & CHORLEYWOOD FOOD INDUSTRY DEVELOPMENT INSTITUTE

Campden & Chorleywood Food Industry Development Institute Hungary which has a significant expertise in training and consultancy on GHP, HACCP and ISO 9000 quality management systems. This institute has the full support and technical information of its UK based parent company, Campden & Chorleywood Food Research Association.

The specialists of C & C Hungary carry out HACCP and ISO 9000 related activities since 1992 in Hungary. Until now they have carried out more than 80 HACCP training courses for industrial people and 18 courses for food control authorities. On these training courses more than 1500 people were trained. The specialists of C & C Hungary were trained in UK. The HACCP training course is registered by the Royal Institute of Public Health and Hygiene and this institute registered the tutors of the training course as well. Furthermore at more than 300 companies they conducted consultancy work on HACCP system development, and at 21 food companies on development of ISO 9001/2 systems.

Campden & Chorleywood Hungary has experiences in dissemination of the results of several UNIDO funded projects during the last few years:

- Seminar on Management of Food Safety in Fruit and Vegetable Processing Industry, 1999 (US/UT/RAT/99/066)
- HACCP and ISO 9000 Training and Advisory Programme for Improving the Quality and Marketability of Food Products in Harghita County, Romania, 2001 and 2002 (US/ROM/00/068).

PROGRAM OF WORK UNDERTAKEN

Food industry experts from Beregovo District have received food safety, good hygienic practice, HACCP, and train the trainers training organised by Campden & Chorleywood Food Development Institute Hungary. Personnel receiving the above training will be able to provide further training in the region for people working within their own food industry.

A HACCP system has been developed and implemented at selected companies and the results of the studies have instigated a number of physical improvements in the fabric of the factory, which are intended to reduce the risk of foreign body or microbial contamination of product.

The programme of work undertaken within this project has included the provision of training and consultancy services within the following elements:

1. Training on food safety systems (HACCP), Good Hygienic Practice and Train the trainers for participants from food industry processing companies and ZIAP from Beregovo District.
2. Assessing the capacity and capability of ZIAP and recommendations for improve
3. A study tour in Hungary for participants of food processing industry and ZIAP.
4. Development and implementation of a model HACCP system at selected companies
5. Publicising of the need of food safety systems and the work undertaken by means of seminar in Uzghorod.

TRAINING COURSES UNDERTAKEN

It was an important feature of this project that a number of personnel should receive training in certain food safety system and good hygienic practice. They would be capable of providing training to further individuals within the Trans-Carpathian food industry and, by this means, a multiplication effect of learning would be achieved.

Outline details for these courses are provided below and, in addition, the course timetables and the lists of participants are given in Appendix 2.

A total of 8 delegates from food industry in Beregovo District and ZIAP attended a two days training course at Beregovo. The number of the participant was only the half as was declared earlier by Ukrainian side. No one staff has been arrived from Skilur and from Uzghorod brandy factory. Participation of the three attendees from Autoport–Chop have been very limited (2 hours). On behalf of Ministry of Economics of Ukraine Valentina Andropova was the delegate.

The language of the training course was Hungarian according to the Terms of Reference of the project. This was a problem because the majority of participants do not speak Hungarian.

The delegates received an introduction in the Good Hygienic Practice and HACCP principles. There was presented the relationship between GHP and HACCP taking in account the Codex Alimentarius directives.

The HACCP workshop –after the presentation of HACCP principles- provided practical training on the principles of HACCP. Participation in-group exercise ensured an understanding of the terminology used. The tutors, approved by the Royal Institute of Public Health and Hygiene, provided tips on the practical approaches to HACCP-based systems.

The workshop programme and materials given to delegates were prepared conform to the industry agreed standard for HACCP training at the introductory level.

The handout given to delegates contained the detailed description of HACCP principles and a short guideline about the most important GHP activities.

A study tour was organised during December 2002 for 10 Ukrainian participants when they have taken part at a short presentation of the Campden & Chorleywood institute (facilities, physical and sensory laboratories). The aim of this presentation was to emphasis the way on how they can become a training and advisory centre in Beregovo regarding the food safety and quality and how they can keep regular contacts with the industrial partners.

There was presented the background, the importance of GHP/GMP codes in the industry and their benefits as the prerequisite of HACCP. After then the detailed GHP requirements were presented and participants had seen a video about the Hygiene Standards.

There was organised at the institute a seminar where the chief representants of the Hungarian Consumer Protection Office had a presentation about the importance and the system of consumer protection in Hungary and in EU. The Ukrainian participants were attended this presentation.

The participants of the project received experiences on development of lecturers personality, on improvement of presentation skills, on education in organising and methods and techniques of education and on organisation of further training in the future during the last mission in June 2003 at ZIAP.

DEVELOPMENT AND IMPLEMENTATION OF MODEL HACCP SYSTEMS AT SELECTED COMPANIES

Status and awareness of the local food industry

During the trainings and factory visits the impression was gained that the local food industry is not aware yet of the importance of meeting food hygiene/HACCP requirements for the success or even survival their business. However ZIAP can be play a leading role in it and build up a market for fee paying services with a systematic awareness campaign—contacting companies, organising meetings coupled with likelihood of increasing pressure from export clients can generate a need—as it had happened in many parts of the world—and with a systematic marketing strategy and building up the necessary skills.

Most of the food manufacturers struggle with the limited funds available for vital investments and sometimes for daily operations.

Therefore their willingness to participate even in the current project is limited, where costs of the trainings and consultancy services are funded by the UNIDO. They do not understand yet clearly that they have to invest their own time into the development of their own food safety management system without being reimbursed externally. This was shown by the lower attendance of the training courses and the non-attendance of the awareness seminar. There are basic difficulties in communication also at company level. The culture of managing projects, organising meetings, providing information for partners in advance and giving timely response is not widely accepted – there is a need for significant improvements for the success of the project.

Some companies and people—especially Mrs. Kovach and the staff of the flourmill and the bakery owned by her family were extremely motivated and helpful.

The hygiene level of the factories is very changeable. Some factories (the dairy company) were at high level, others need basic changes and development of hygiene facilities.

According to the information we collected there is not any government scheme yet for supporting the introduction of GHP based HACCP systems.

Since the food manufacturers do not require systematic prevention systems to improve food safety from their suppliers the agriculture is not yet at that phase of development that they realise the need for good agriculture practice and the HACCP systems. However the rise of that need is predictable within a medium term (cca. 3-5 years) based on the requirements and trends of the international market.

Development of model HACCP systems

There were developed a model HACCP system in each selected companies. The works were started during the first mission of the Hungarian experts after the HACCP workshop (November 2002) and were continued during the third (April 2003) and forth (June 2003) mission.

The Hungarian experts tried to explain to the management the role and the importance of the food safety systems in each places. They helped to select the team members and at the first step there were carried out a hygienic audit of the each site. The HACCP plans were prepared in Hungarian and Ukrainian mainly by hand. There were discussed during the last mission all aspects of the implementation of the systems.

The detailed work in each company is presented below. Some examples are included in the appendix 3.

Grain Mill, Kovach Holding:

The Grain Mill is situated on the industrial area of Beregovo, inside the Agricultural Machinery Park Station of the Farm Kovach. The Mill is working in two shifts with 7 staffs (one maintenance manager, a quality control manager, a chief and a vice miller, the others are unskilled workers). The capacity of the small size mill is approximately 600 kg/hours. They are milling both the own grain of Kovach Farm and the grains of other farmers.

The main building is segregated into two different part: a storage area for the incoming grain, a processing area with the small milling machinery and in the same area at the end of the processing room the temporary storage area for the products. The milling technology and machinery is relatively compact, short and can easy to over look.

The building is maintained in a yearly base, the machinery every week. The building and the general facilities dos not meet all of the general recommendations of GMP/GHP for milling. The incoming raw material has all of the quality certificates. The different sort of flours are analysed by a third party laboratory. The finished product is identified and is traceable to the raw material.

There was prepared the HACCP plan of milling activity and an action plan for the most important hygiene actions.

Bakery, Kovach Holding:

This is a middle size bakery situated in Beregovo, which produces approximately for ten years ago. The production is cca. 4–5 tonnes bread/day, and other bakery products. The number of staff is 38. Their market share is increasing step by step.

Their main products are the traditional “House style bread”, a sort of these products is sliced and wrapped. They have two traditional ovens with electrical supply and an other small oven supplied by gas. They have a lot of problems with electricity, which is not stable. Based on these circumstances they prefer the gas supplying. Generally they use flour delivered by Kovach Mill, but they have other suppliers too. The incoming raw materials have the official certificates.

A big part of their GHP problems are coming from the design of the building, which was earlier a school. There is a need to improve the housekeeping practices, the ambient and chilled storage facilities of the raw materials and the pest control. Their transport facilities are in good conditions and are maintained in a good level.

There was he prepared the HACCP plan and was prepared a list of all the documents which have to be implemented in practice.

Csenagyijevo Bread Factory:

The Bread Factory was visited together with Maria Kovach (head of the Kovach Holding) and with his chief technologist for bread manufacturing. The factory is situated in Csenagyijevo, near to Munkachevo. The company developed a very closely business contact with Kovach Holding. The objective of the visit was to see a bread-manufacturing site, which was built originally for a large bakery. The company has more than 91 staffs. At the moment they work only less than half capacity, producing more than 15 different sorts of bakery products. Their main products are the unwrapped and wrapped breads. They have two large ovens to produce the factory style bread, and one small oven for producing traditional "House style breads" and biscuits.

Their silos are totally covered by corrosion, so they use flour in sacks. The incoming raw materials have the official certificates. They are using a lot of the quality control methods, and the results are recorded.

There was prepared an action plan during the first mission regarding the prevention and elimination of food safety hazards (e. g. birds in the plant) and was started to develop the HACCP plan which was finished during the next mission. There were discussed and agreed the record sheet forms and the list of work instructions which are essential to implement the system in practice.

There was carried out a site audit during the last mission and was observed that they started to refurbish the building from outside, but was no observed any other development and progress regarding the food safety issues (the bird's problem is still exist).

Zakarpatsky Research Institute of Agricultural Production (UAAS)

The head of the department of processing and storage of agricultural raw materials, Natalya P. Grytsenko played an important role in the working program: after taking part in training course she introduced us in the experimental small scale plant for wine making, in brandy factory and wine making factory as well. She translated from Russian to Hungarian.

The small-scale plant produces wine exclusively for experiment, it could work for selling with some investment. The elaboration process, the draining and pressing is continuous, the capacity is 20 t/hour. For fermentation metal enamelled tanks and oak casks are used. The total capacity of fermentation and storage is 560 hl.

The need of supply of new pumps, hoses and semi-automatic filling (bottling) machine was noted. The need of a manometer to the filter machine was noted, which is important to operate properly the monitoring system during filtration.

They started to resolve the problems concerning Good Hygienic and Manufacturing Practice but it is very difficult because of insufficient money supply of winery.

A lot of record form was prepared which they did not yet started to use. The most important form is the record keeping of fermentation on skin of American hybrid red grape variety (Isabella), what can occur the chemical hazard of relatively high level of methanol in dry red wine.

Some procedures were prepared: personal and winery hygiene and elaboration technology was completed, which will be implemented in practice in this year season.

Skilur winemaking company:

The company is situated in Muzsaly and is dealing with wine treatment, bottling and carbonated alcoholic beverage manufacturing. The total production and storage area is 5000 m². The total capacity of wine storage is 10.800 hl.

There are operating 3 filling machine:

- 1 machine with vacuum filling system with 48 inflation valves for still wines. Its capacity is 9000 bottles/hour.
- 1 machine with counter-pressure filling system with 42 inflation valves for carbonated wines and carbonated alcoholic beverages. Its capacity is 12.000 bottles/hour.
- 1 machine with counter-pressure filling system with 60 inflation valves for carbonated wines and carbonated alcoholic beverages Its capacity is 38.000 tins

The applying treatment are the following: clarification, filtration, pasteurisation for semi sweet and sweet wines, hot filling.

There were decided that a lot of development and renovations are needed related to the GHP/GMP:

- the water supply-system should be established,
- personal hygiene facilities (toilettes, hand-washing facilities, changing room) should be established,
- the internal walls of enamelled tank should be renovated, new hoses, pumps should be bought, the wood casks must be renovated, the walls should be repainted.
- the filter machine should be supplied with a manometer in order to operate properly the monitoring system during filtration.

There was prepared the HACCP plan of wine treatment and bottling activity. There was observed the problem of cleaning process between the different types of products, which was discussed.

Uzhgorod brandy making factory:

This factory produces exclusively brandy with high quality with minimally 42 v/v % spirit content. After distillation carried out by "Charente " system for the ageing enamelled tanks containing oak billets or oak casks are used.

Depending on the ageing period 5 types of brandy are distinguished: 3 stars brandy (at least 3 years in tanks, and brandies at least 4, 6, 9, 12 years exclusively in oak casks.

The production of factory was 100.000 hl in 2001.

In order to improve the control of filtration and bottle washing procedure we suggested for chief of laboratory and general deputy manager the following: the impure bottles should not be used for bottling, the soda solution should not be used during washing, for disinfection of bottles a disinfectant should be used, which can dissolve quickly (per acetic acid) and the place of different type of filter in bottling line should be modified, the filter whose permeability is higher should be installed before the plate filter.

The flow diagram of brandy making was prepared and the hazards were identified during the first mission, but they refused to continue the work during the third and fourth mission.

'Zavidivske' canning factory (Rakosi)

The factory was founded at the end of 1970-s to produce different agricultural products of the local Co-operative. After the privatisation it has different owners, the current one purchased the factory two years ago. The main products are the following: different types of gherkins in jar, different mixed pickles and hot red and green peppers in brine. During the wintertime they are preparing apple purée in big tanks.

They have approximately 30 permanent staff, but during the main season they could have more than 150 people.

Two private farmers supply the raw materials.

The purchased gherkins are washed, selected, put in the jar by hand, filled with brine, closed with "TO" cap by hand, pasteurised and stored. The labelling is carried out before the transport.

They are using the GOST (state) standards for all of ingredients and packaging materials. There is a rule that is obligatory to measure the level of heavy metals, radioactivity, the pesticide residues, and NO₃ before the harvesting.

There was selected for model HACCP plan the production of pickles. The HACCP plan was prepared during the first two missions.

There was bought a new closing machine for the TO caps and there were carried out a lot of investments in connection with hygiene matters during the project:

- the doors were adequately proofed;
- new personal hygiene facilities: toilettes, changing rooms, hand-washing and drying facilities were installed
- all bulbs and strip lights are protected by shatterproof plastic diffusers to avoid the glass contamination

There were discussed the most important procedures and work instructions which are necessary to implement and operate the developed HACCP plan in this year season.

The HACCP plan prepared was finalised by computer and the technologist of the company presented the main issues during the awareness seminar in June.

Autoport-Chop dairy factory

The factory is able to process daily 6 thousand litre milk, which is purchased from farmers and Co-operatives. The main products are: pasteurised milk with different fat content, yoghurts with different fruits, bio kephir, sour cream, and cottage cheese. The number of employees is 30.

The factory is well organised, and clean, and there exist written procedures for production and personnel hygiene.

The equipments are constructed from stainless steel with automatically temperature control. There are established the technological parameters which are in place for the operators. The cleaning and disinfections is carried out by CIP system.

The chemical and microbiological parameters of products are controlled by the prescription of GOST in the factory's accredited laboratory by Ukraine government. This company refused to take part in the project after the first mission.

Assessing the capacity and capability of Zakarpatian Institute of Agricultural Production of Ukrainian Academy of Agrarian Sciences

The main statements observed during the assessment of the capacity and capability of ZIAP and the recommendations are listed below.

There is a long standing and detailed experience in agriculture, but there is not any food technology, food safety experience, or qualified or formally trained food technologist. There is not a graduated microbiologist within the staff. Food technology knowledge and practical experience would be essential to sell professional services on GHP/GMP and HACCP to the food manufacturers. The current experience of the staff could be an ideal base for food safety services, but at the current stage and awareness of the Ukrainian economy this service would be too early, the market for this is not mature, there are not any customers yet, who would be ready to pay fees.

However this could be a good opportunity on longer term, but the way to this leads through services for the food manufacturers who are not likely to be able to avoid the use of GHP and HACCP systems in the near future.

The agrochemical laboratory, which is selected as a basis for new fee earning service currently carries out chemical testing mainly for internal research projects. Formerly, when their key equipments were operable the laboratory was accredited against the Ukrainian standard. They were able to sell a limited number test services for clients from the agriculture. The agrochemical laboratory has 4 staff members, the leader of the laboratory, who is the national project leader and she is a chemist. There is an agronomist scientist and two technicians in the laboratory. The 3 additional national experts who were suggested for the UNIDO are coming from other sections dealing with the relevant agricultural research issues (e.g. wine, grain growing, cattle breeding). There are at least 2 (may be more) junior staff members, who could be involved at later steps into the food safety services, if the market makes it necessary. However their qualification is also agricultural.

There is not a systematic experience in preparing offers for the industry, in dealing with industry, in building up and selling professional services.

There is a need for systematic upgrading of project management capabilities. The information described above is based on talking to different staff members and the scientific secretary of the Institute. Because of the illness of the director of ZIAP the international expert surveying the activity of the institute was not able to meet her during this visit.

Training services for fee are not are not provided, only free technical meetings. There is not a systematic knowledge and experience in organising and delivering training services

The headquarter is located in an old building where some parts need a significant refurbishment including the laboratory, some offices and the lavatories, etc. There is a proper larger meeting room, where 40-50 people can sit down. However there is a need for refurbishing a smaller discussion room, where business discussions with potential industry clients can be held.

Within the last two years there were several and major fallouts of the regional electrical system, which damaged all of the 3 computers which were connected to the testing equipments. Since that time there were no money available for their repair.

Communication facilities are very limited. There are only 3 phone lines all, the project manager has an access to line at the secretary of the director only. There is only one fax machine in the office of the director. There is not an E-mail connection.

Because of the serious shortage of funding there are difficulties in covering the additional costs of communication within the UNIDO project. It is questionable whether the funding from the agricultural academy allowed to be used for this purpose, or to cover to the project costs of mails related to the project.

Computers available for the whole staff (3-4 units) are located in a common computer room.

There is not an overhead projector for presentation, trainings. There are not any photocopying facilities at the Institute; the next available public photocopier is located in the town of Beregovo.

During the first mission two of the national experts do not attended neither the trainings nor the awareness seminar, nor the factory visits. The likely reason is the failure of communication. There were communication problems also with the companies involved, which resulted in lower attendance of the training courses and the awareness seminar and also in low level of preparation for a whole day work at some of the factories visited.

The weakness of communication facilities and the limitations of funds available to operate the existing facilities are key problems, which need an urgent solution for the success of the project.

There are not any meal service facilities on site, which may cause difficulties, if several days fee paying training courses will be offered for the industry on site.

There are difficulties in the water supply of the laboratory because of the low water pressure. This failure endangers reliable operation.

Laboratory equipments

The following equipments were seen in the laboratory:

- SELMICHROM gas chromatograph. The equipment was delivered several years ago, with a limited number of accessories. The control computer was damaged in the last year by frequent electrical failures. The supplier is able to provide more sensitive detectors, capillary columns and equipments for sample preparation, which are currently missing. The monitor and the printer are operable. There is only a flame ionisation detector to the unit, which is operable currently. Preliminary offers are available at the Institute.

- Atomic absorption analyser for heavy metals
Selmi C-600. It is operable. Currently specific lamps are available for testing of Co, Be, Fe, Mn, Pb, Ni, Cr only. The sensitivity is lower than necessary because of a lack of inert gas supply system.
- Potentiometric heavy metal analyser HXA-1000
The unit is able to carry out testing of Zn, Pb, Cd, Cu. The unit and also the computer were broken down by regular electric failures. The unit is repairable, preliminary offers are available at the Institute.
There is not a full range of valid Ukrainian standards for heavy metal testing available at the Institute.
- IKS-3NIR 4500 analyser for testing fat, protein, carbohydrate content of milk and animal feed. The unit was broken down by electric failure. Repair and cuvettes are necessary.
- Drying chamber – operable
- 1 microbiological sterilizer – operable
- Scales for 500 mg, 1000 mg – operable
- 1 pH/nitrate meter, old but operable
calibration standards are necessary
- Analytical scales – operable
- 1 SPEKOL II – spectrophotometer – operable
- 1 laboratory centrifuge – operable
- 1 fume cabinet – operable
- 1 millichrom high pressure liquid chromatograph
Replacement parts, extensions are necessary. Old make up (1989) for testing pesticides, heavy metals, antibiotics, preservation agents.

There is a shortage of standard solutions, laboratory chemicals, solvents, etc. necessary for the tests.

PROJECT DEMONSTRATION SEMINARS

Initially was planned to organise two seminars: one at the beginning of the program and one at the end of it. The first seminar was cancelled because of the very limited number of participants.

Regarding the topics of the seminar there was organised a discussion with László Zubánics (chief editor of the regional twice language journal "Beregi Hírlap"), who will write an article to ensure the local publicity of the project.

On 18. June was organised the awareness seminar in Uzghorod. The invitation letter, the list of participant and some of the presentation materials are included on appendix 5.

The seminar was opened by the deputy head of the local administration and by the Director of ZIAP:

Mr. Karl Schebesta held the first presentation from the UNIDO, who spooked about the market access-the international requirements. Mr. Schebesta emphasised the challenges for Ukraine. These challenges were divided on four groups: the challenges of the government, the challenges of the institutes, the challenges of the companies and the challenges of the customer.

Mrs. Margit Bleszkán, Campden & Chorleywood Hungary presented the importance of good hygienic practices and food safety systems for food processing industries. She explained the need for food safety systems, which must to have GHP as a prerequisite. She mentioned the consequences of not following the GHP requirements.

Mrs. Ildikó Daragó, Campden & Chorleywood Hungary presented the detailed requirements of the European customer. She used for this the BRC/EFSIS standard, which is recognised by the majority of the European retailers for branded products.

Mr. Mircea Dauthy, UNIDO had a presentation on the further needs of the industry, which were based on his experience of three weeks spent in the region. At the beginning of his presentation Mr. Dauthy listed the problems of the food industry in the region: the lack of implementation of GHP practices, the outdated technologies used, the lack of raw material, the lack of national support institution actively involved in food safety, the lack of trainings and information on food safety and food technology matters.

The main targets, which have to be done in the near future Mr. Dauthy grouped in three levels: institutional, factory and government level. The UNIDO proposal is to have ZIAP as a food industrial support institution providing all the assistance needed in the frame of the new food quality and safety systems.

Mrs. Julia Olefirenko from the Zavidivske Canning Factory mentioned the situation of the local legal requirements and presented the experiences and difficulties of developing the model HACCP system.

Mr. Schebesta, who tried to summarise the role of the food safety systems in the new approach, held the last presentation of the seminar. Mr. Schebesta emphasised the importance of the risk assessment, risk management and risk communication and the

importance of these systems from “farm to table” and the role of the food control organisations in the new approach.

At the end of the seminar there were some comments and questions from the participants. The head of the regional standard office said that 40 % of the Ukrainian standards comply with the EU standards and that they have taken decision at the regional level regarding the food safety tasks to be resolved. He mentioned that these types of projects are very useful and that they can carry out laboratory accreditation against ISO 17025 standard.

Olga Kolovko has interested about the time necessary to develop a food safety system, which includes all chemical, microbiological and physical hazards. Mr. Dauthy responded that this is a long process, because firstly have to be developed and after than have to be updated continuously.

The Director of ZIAP, Anuska Baljan thanked the contribution of UNIDO and Campden & Chorleywood Institute and the participation on the seminar. Ms. Baljan summarised the benefits of the project and the future tasks of the Institute.

RECOMMENDATIONS

- For the development and improving competitiveness of the food processing industry in Trans-Carpathian Region of Ukraine it is necessary to develop technical assistance capabilities in HACCP, GHP/GMP and quality assurance laboratory services of ZIAP. Since ZIAP does not have a tradition in working with the food processing industry and also the industry is not aware of the market and consumer need of food safety management systems it is vital that a close cooperation should be established between the ZIAP and the local food manufacturing industry. This will improve the creditability of ZIAP as a service provider for the food industry. Both parties have to understand that combined efforts will bring more fruits for each of them, than their separated actions.

To achieve this we have explained to the study tour participants (December 2002) the way on how we became such an Institute at the beginning of '90.

- We realised during the first mission that is no a reliable communication system and facilities at the ZIAP which can help them in marketing the services for the industry and also to organise and deliver trainings. A list of equipments with specifications to be purchased was prepared after the first mission (Appendix 4.). In June 2003 these equipments still were at Vienna, because of custom problems. The lack of the communication facilities makes the work of overall project very difficult.
- There is a need to develop sources of additional income for ZIAP to assure a safe funding base for dissemination of the new skills and the operation of the agrochemical laboratory. The potential fee earning technical services are consultancy on HACCP and GMP, organising training courses, providing testing for monitoring/verification of HACCP systems. The technical facilities and the laboratory equipments necessary for these were listed after the first mission.

The winery of the institute can be converted to HACCP demonstration site, where some hygiene equipments can be installed together with a filling/bottling unit. These investments could provide an opportunity for an additional income from selling quality wines prepared following the best practice and implementing HACCP.

- A core team should be established within ZIAP for developing and selling new services. A clear statement of authorisation and responsibilities related to this service is necessary.
- There is a need for training the staff members of ZIAP how to create, market and sell professional services. It was suggested that this training should replace the laboratory accreditation course, which was planned originally. There was carried out this type of training during the study tour in December 2003.
- It would be a great help for the long-term promotion of the application of HACCP and GHP systems in Ukraine, if the Ukrainian government would create some partial funding scheme for the consultancy costs. It will be also a useful help, if they would make short presentations on government's position on food safety. All of these

worked very well in Hungary. We have shared our experiences about this with them during the study tour and during the last mission.

- There is a need to supply food technology text books (Hungarian and Ukrainian) and some training on relationship between food technology and food safety.
- We realised after the awareness seminar that there is a need to organise further seminars and conferences where are emphasised the benefits and the need of the food safety systems and to make clear the role of the industry, authority and government in developing and implementing these systems.

APPENDIX 1

Terms of reference and bar chart



United Nations Industrial Development Organization

Terms of Reference for

Sub-Contract

Within the framework of projects
US/UKR/02/029 and XP/UKR/02/018

Strengthening capacity of support institutions and food
processing industries in Ukraine

Revised: 8/28/2002

I. Background and justification

1. Background

The Trans-Carpathian Region is one of the most promising regions in Ukraine in terms of agricultural production. In the Beregovo District (one of the 15 Trans-Carpathian Region's Districts and one of the four most important districts with respect to agricultural and food processing industries production) there are some 250 companies involved in the food industry (small, medium and large scale). The main sub-sectors are; a) cereal processing, including milling and bakery products / bread manufacturing; b) wine-making - this activity represents 38 % of the total food processing capacity); c) fruits and vegetables processing.

Though the food industry in this region, is of high importance there is no support institution that is specifically active for the food processing industry.

The "Zakarpatsky Institute of Agro-industrial Production" of the Ukrainian Academy of Agrarian Sciences (ZIAP) is a scientific centre for activities related to agro-industrial production. It is one of the biggest institutes in the Trans-Carpathian Region and the only one specialized in areas close to food processing.

The active involvement of ZIAP as counterpart and support institution in project activities would enable this institution to use its actual scientific/technical capacities in terms of technical staff, buildings, laboratory facilities & equipment as well as its farming activities. Moreover it will strengthen its capacity of one of its departments in food processing technologies.

The companies should be made aware of the possible hazards and encouraged to implement appropriate safety measures.

The Government of Ukraine has recognized the importance of food safety and the benefits of food safety and quality systems in the food industry as well as the importance of a highly skilled and well-equipped support organisation. The food industry in the region has to become aware of and comply with the international requirements regarding the safety in food processing and quality management.

The industry and the future support institution is in need of training and technical support in this regard.

Safety and consistency of quality of food products is becoming a matter of ever-increasing importance for the Ukrainian food industry. This is true in the case of exports both to the major western European markets and to the neighbouring countries but in time it can also be expected that the domestic Ukrainian buyers will become equally discerning, as the market becomes increasingly consumer driven.

Paying attention to food safety is critical to safeguard public health. Since large segments of the population can be affected by possible hazards caused by food borne diseases,

governments have to play a particularly important role to ensure a safe supply of a wide variety of food products. Food safety assurance during production, processing and marketing, therefore, is made mandatory by legislation. To meet these requirements food safety assurance systems based on the HACCP (Hazard Analysis Critical Control Points) principles are to be implemented at all levels of the food production chain and in particular within the food factories.

A sub-contractor in cooperation with UNIDO will take part in UNIDO's activities toward development and strengthening of the food industrial sector and the support institution in the Trans-Carpathian Region, Ukraine, through conducting training seminars, study tours as well as working out methodological guidance and providing assistance in upgrading food laboratory facilities in the identified national counterpart institution in accordance with the international standards.

The sub-contractor will provide professional knowledge and experience to the support institution and industrialists and make sure that participants will have enhanced their skills; knowledge and practical experience to be introduced for the efficient management of the food processing sector of the region and that the laboratory equipment has been improved.

The sub-contractor will assure that the experience gained in Trans-Carpathian Region, Ukraine is applicable in other regions of Ukraine.

II. Objectives and results

1. Objectives

The project has the **overall objective** to strengthen the capacity of the identified support institution that is ZIAP, in particular through training of national staff and laboratory facilities upgrading. ZIAP is selected as the main counterpart and support institution of the project and this will enable to create foundations for further development of the food processing industries in the region concerned; At the enterprise level the project will provide integrated assistance to seven selected small and medium-scale food enterprises through the above mentioned support institution. These seven selected pilot enterprises will serve for demonstration and training purposes for other entrepreneurs

The **development objective** of the project is to upgrade the food processing industry in Trans-Carpathian Region of Ukraine and to strengthen the capacity and capabilities of ZIAP in order to be capable to provide support services in upgraded food processing technologies and equipment as well as the introduction of GMP and HACCP in the seven selected food factories.

2. Results:

- a. The capacity and capabilities of ZIAP strengthened and capable of providing support services in upgraded food processing technologies and food safety assurance.
- b. GMP and HACCP introduced in the eight food factories selected.

III. Terms of Reference for the sub-contract

3.1 Contract objectives

The objective of the contract is to provide the services described below in paragraph 3.2.

3.2 Scope of services

The sub-contractor shall provide the following services:

- a) Assess the capacity and capabilities of ZIAP in terms of staff skills, upgraded food processing technologies and food safety assurance (including laboratory equipment) with emphasis on priority sub-sectors.
- b) Prepare and implement a training programme with theoretical and practical exercises to strengthen the capacity and capabilities of ZIAP in terms of improvement of staff's skills related to GMP, GHP, GLP and HACCP as well as training methods.
- c) Identify the needs for the upgrading of the food laboratory of ZIAP.
- d) Prepare technical specifications for equipment and assist in its installation and training of the personnel.
- e) Prepare and implement at least 6 awareness and training seminars in GMP, GHP, GLP and HACCP for staff of ZIAP and the selected food factories
- f) Assist in the preparation of a GMP/HACCP plan and in its implementation (Team formation, manual preparation, implementation and auditing)
- g) Preparation and conduction of a study tour on food safety and food quality control/assurance to Hungary including visits to food processing plants like grain storage and milling, bread and bakery products manufacturing, fruits and vegetable processing, wine making, dairy products manufacturing, including butter and casein etc. as well as formal training and awareness building on principles of food quality control/assurance

3.3 Reporting

The contractor shall submit to the General Services Branch, Division of Administration, UNIDO, Vienna, the reports which are listed below. All reports shall be dispatched in accordance with Annex D, entitled "Instructions to Contractors for the Dispatch of Reports", which are attached to the Contract.

a) Interim Reports

- (i) A first Interim Report, in three (3) copies, in English, regarding the results of the first mission and the surveys (ref. points 3.2(a), (b), (c), (d), (e) and (f) above). The first Interim Report shall be submitted no later than the end of October 2002.

(ii) A second Interim Report, in three (3) copies, in English, regarding the results of the study tour foreseen in point 3.2(g) above. The second Interim Report shall be submitted no later than 15 December 2002.

(iii) A third Interim Report, in three (3) copies, in English, regarding the results of the second mission (ref. points 3.2(c), (d), (e) and (f) above). The third Interim report shall be submitted no later than the end of February 2003.

(b) Final Report

A Final Report, in three (3) copies, in English, regarding the execution of all the objectives foreseen under point 3.2 "Scope of Services" above, shall be submitted no later than the end of July 2003.

3.4 Requirements

The subcontractor should possess:

- a) A high level of technical and academic experience as well as practical experience in implementation of international projects;
- b) Knowledge of the food sector in Trans-Carpathian Region and Ukraine as a whole;
- c) Training of staff with the above-mentioned pre-conditions as well as experience in conducting of international training events.

In order to achieve a complete implementation of all activities to obtain the results specified in this document and to fulfil the project's objective, the sub-contractor should perform all works as required.

The sub-contractor should allocate the following resources:

Human resources:

Qualified technical staff experts - food engineers/food technologists with experience in GMP/GHP/HACCP - for visiting ZIAP and the selected food processing enterprises, developing HACCP systems, conducting training courses in the selected companies/organization and preparing and conducting a study tour: 3 split missions totaling

to 75 work days (Mission 1 preferably in July 2002, study tour Nov. 2002 mission 2 after total supply of laboratory equipment (estimated in January 2003) mission 3 July 2003

Financial resources:

- a) Preparation of visual presentation aids and written technical documents with a summary of all training subjects to be distributed to the participants after the training courses;
- b) Generally, all expenses necessary to achieve the objectives of the projects.
- c) Working language of the Seminar: Hungarian

BAR CHART

UNIDO Project No. US/UKR/02/018 and XP/UKR/02/018

Strengthening capacity of support institutions and food processing industries in Ukraine

Activity/date (month)	Mission 1 (detailed in the proposal) and Study tour in Hungary	Mission 2 (detailed in the proposal)	Mission 3 (detailed in the proposal)
2002 November	_____		
2003 February		_____	
2003 July			_____

APPENDIX 2

Courses Timetables and list of participants

UNIDO project No. US/UKR/029

HACCP workshop

11-12. November 2002

Day 1.

10.00 Introduction

10.15 A Quality systems and HACCP

10.45 Break

11.00 A GMP/GHP, as a prerequisite of HACCP

12.00 Principles of HACCP

13.00 Lunch

14.00 Group exercise:

- Definition of scope
- Identification of food safety hazards
- Identification of control measures

Day 2.

9.00 Critical control points

- The use of the decision tree

10.00 Group exercise:

- Critical limits, monitoring procedures, corrective actions
- Verification procedures

12.00 Lunch

13.00 Practical implementation of HACCP

14.00 Comments

Study tour programme

9-13 December 2002.

9. Dec.

9.00-11.00 Presentation of Campden & Chorleywood Food Development Institute, Hungary (facilities, physical and sensory laboratories, information and legal services) and explanation how C & C Hungary maintains and keeps regular contracts with the industry

11.00-11.15 Break

11.15-12.30 The need and benefits of developing and implements food safety management systems

12.30-13.30 Lunch

13.30-14.00 The legal background, the importance of GHP/GMP codes in the industry and their benefits used as prerequisite of HACCP

14.00-15.00 The detailed requirements of GHP/GMP: design of plant, manufacturing environment; design and maintenance of machinery; cleaning and disinfection;

15.00-15.15 Break

15.15-16.15 The detailed requirements of GHP/GMP (continuation): personal hygiene; transport; storage; distribution; waste handling; water supply; pest control

16.15-17.15 Video: International Hygiene Standard

10. Dec.

8.00-17.00 Visit in a bakery and in a retailer (Tesco or Auchan)

11. Dec.

8.00-17.00 Visit in a winery and a dairy plant

12. Dec.

8.00-17.00 Visit in a canning and milling factory

13. Dec.

8.00-10.00 The detailed requirements of GHP/GMP (continuation): organisation, management responsibility; handling complaints; product recall; crisis management;

10.00-10.15 Break

10.15-11.30 The detailed requirements of GHP/GMP (continuation): specifications; prevention of foreign materials; training; product development,

11.30-12.30 A short presentation of authority about the consumer protection in EU and in Hungary.

12.30-13.30 Lunch

13.30- Group discussions about the tasks and deadlines of developing HACCP plans with the representants of selected companies

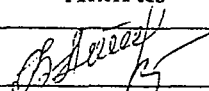

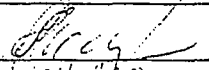
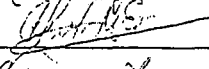
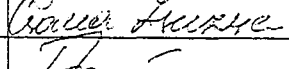
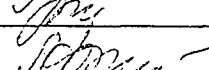
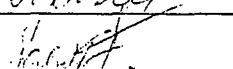
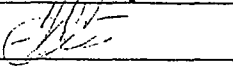
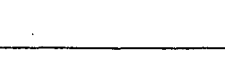
UNIDO Project No. US/UKR/029
 Contract No. 2002/185

Study tour
 Budapest, 9-12 December 2002.

	Név	Munkahely	Aláírás
1.	АНТРОПОВА ВАЛЕНТИНА	Gazdasági minisztérium	
2.	Nagy Ferenc	ZIAP	
3.	Csoma Zsuzsanna	ZIAP	
4.	GRICENKO Nata'lia	ZIAP	
5.	MOVCSÁN MARIANNA	PÉ'KSE'G (KOVÁCS)	
6.	OLEFIRENKO Julia	Z'AVIOLOVSKI konzert.	
7.	Fodor LARISZA	Székelyi Konzert	
8.	KARASZLAY MARIANNA	MALOM (Kovács)	
9.			

UNIDO Project No. US/UKR/029
Contract No. 2002/185

Study tour
Budapest 13. December 2002.

	Név	Munkahely	Aláírás
1.	Antropova Valentina	Gazdasági Minisztérium	
2.	Olefrenko Yulliya	„Zavidovszke” konzervgyár	
3.	Movcsan Marianna	Pékség (Kovács)	
4.	Karaszlay Marianna	Malom (Kovács)	
5.	Csoma Zsuzsanna	ZIAP	
6.	Gricenkó Natália	ZIAP	
7.	Fodor Larisza	„Skilur” borászat	
8.	Nagy Ferenc	ZIAP	
9.	KOVÁCS MARIA	Kovács "valla" kőszőlő	
10.			
11.			
12.			
13.			
14.			
15.			

APPENDIX 3

Example of HACCP studies

**HACCP plan of Bakery Kovach Holding
Beregovo**

A vállalat neve: <i>„Kobor”</i>	HACCP Kézikönyv: <i>HACCP Kézikönyv 1997. évi 3. verzió</i>	Hivatkozási szám: <i>Keg:</i>
Cím: HACCP elemzés (csak minta) <i>Arca</i>		
Kiadás dátuma: <i>11. 17.</i>	Kiadás száma: <i>Nº</i>	Oldal / Oldalból <i>1 /</i>
Jóváhagyta: <i>Értékelés</i> <i>Felügyelő Kobor Orl.</i>		

A termék megnevezése: *Haszba nyersanyag: Szarvasgomba szelet*
Haszba nyersanyag: szárított gomba, kávézacc
 A munkacsoport tagjai: *Haszba nyersanyag: készgomba, kávézacc*

AB	munkakör	munkacsoport vezető	<i>Jepoveer D. B.</i>
CD	munkakör	titkár	<i>Kobor O. M.</i>
CD	munkakör	tagok	<i>Mobrova M. H.</i>
GH	munkakör		

Az elemzést a Magyar Élelmiszerkönyv 1-2-18/1993. előírás-alapján
 Campden Technical Manual 38 (2. kiadás, 1997.) és
 a Codex Alimentarius 1997. évi 3. verziójának figyelembevételével készült a
 xyz döntési fa használatával készült
 (pl. nyersanyag döntési fa, ha eltérés a fent felsoroltakkal)
 (.....a megfelelő részt kell beírni)

Alkalmazási terület: *Arca*

(valamennyi termék, vagy kijelölt
 termékcsoportok, a teljes üzem,
 üzemek, vagy üzembrészek)

Az elemzés az alábbi veszélycsoportokra terjed ki.

- Élelmiszerbiztonságot befolyásoló - kémiai*
- fizikai*
- mikrobiológiai/biológiai*

Romlást okozó mikroorganizmusok*

Egyéb idogen anyagok*

Mínőséget károsító veszélyek*

(*A nem megfelelő részt ki kell húzni)

Az elemzésben nem foglalkoztunk az alábbi veszélyekkel mivel: *Arca*

Az elemzés a nyersanyag beérkezésétől a fogyasztásig/a termék kiszállításáig terjed.

A dőlt betűvel jelölteknél a megfelelőt kell beírni.

Назва продукту

Хліб житній обдираний, неспіканий
сольовий, нарізаний на нарі-
зальні

Технічні дані
історія виробництва хліба

Виробництво хліба
із пшеничного борошна
сольового і спіканий
хліб із житнього борошна

СИРОВИНА

ВИРОБНИЦТВО ЖИТНЬОГО ХЛІБА:
МУКА ЖИТНЯ ОБДИРНА, ВОДА, СІЛЬ
РІДКІ ДРІЖЖІ, МУКА ПШЕНИЧНА І ПАТУНКУ,
ТМЦН, ПОЛДВКА-ЗАКВАСКА.

ВИРОБНИЦТВО ХЛІБА ІЗ ПШЕНИЧНОГО
БОРОШНА ВИЩОГО ПАТУНКУ
ХЛІБ ПОДОВИЙ І ПАТУНКУ

ВИРОБНИЦТВО ХЛІБА →
ЗА ПОСТІ: 28890-90

ТЕРМІН ЗБЕРІГАННЯ

ХЛІБ ПОДОВИЙ ЖИТНІЙ - 36 год.
ХЛІБ ПШЕНИЧНИЙ - 24 год.

УПАКОВКА

ХЛІБ ПОДОВИЙ ЖИТНІЙ УПАКОВУЄТЬСЯ
В ХАРЦОВУ ПОЛІЕТИЛЕНОВУ ПЛІВКУ -
ХЛІБ ПШЕНИЧНИЙ - НАРІЗКА ТА УПА-
КОВКА В ПОЛІЕТ. ХАРЦОВУ ПЛІВКУ

ЕТИКЕТКА

ПРИ УПАКОВЦІ ЕТИКЕТКА ВІДСУТНЯ,
АЛЕ ~~НА~~ У СУПРОВІДНИХ ДОКУМЕНТАХ
ВКАЗУЄТЬСЯ ДАТА І ЗАС ВИПІСКИ, ВАГА,
ЦІНА, СТАНДАРТИ ЗА ЯКИМ ПРОВОДИ-
ЛАСЬ ВИПІСКА.

ПОСЛОВОТРАДАННЯ	... ПОВІТРЯ ПОВУДЖИВЬСЯ СПЕЦІАЛЬНИМ ЗАКРИТИМ ТРАНСПОРТОМ, ЯКИЙ ВИКОРИСТОВУЄТЬСЯ ВИКЛЮЧНО ДЛЯ ПЕРЕВЕЗЕННЯ ХЛІБА. ХЛІБ УПАКОВУЄТЬСЯ ПОПЕРЕДНЬО В ХЛІБНІ ДЕРЕВ'ЯНІ ЯЩИКИ.
СИСТЕМА ПРИБИРАННЯ	В КІНЦІ КОЖНОЇ ЗМІНИ ВСІ ПОДОБИ МІСЦЯ ПРИБИРАЮТЬСЯ В КІНЦІ ТИЖНЯ ПРОВОДИТЬСЯ САН. ГЕНЕОЦИД РАЗ В РІК ПРОВОДИТЬСЯ БІЛЬШ ГЛИБОКА САНИТАРНА ОЧИСТКА СИСТЕМА ПРИБИРАННЯ ЗГІДНО ІНСТРУКЦІЇ.
ПОЖИВАННЯ	ДЛЯ ВСІХ КАТЕГОРІЙ ЛЮДЕЙ
НЕБЕЗПЕКИ	<p><u>МИКРОБІОЛОГІЧНІ:</u> КАРТОПЛЯНА ХВОРОБА, БАКТЕРІЙ КОЛІ, СТАФИЛОКОККИ, ПЛІСЕНІ І ТОКСИНИ ТА ІН.</p> <p><u>ХІМІЧНІ:</u> ПЕРБИЦИДИ І ПЕСТИЦИДИ, ЗАЛИШКИ ІНТЕКСИЦИДІВ ТА ОТРУТОХІМІКАТІВ. ВАЖКІ МЕТАЛИ, РАДІОЛОГІЯ, МАСТИЛА, ЗАЛИШКИ ЛЮДОСХ ЗАСРІВ, КАНЦЕРОГЕН. РЕО.</p> <p><u>ФІЗИЧНІ</u> СКЛО, ДЕРЕВО, ДЕТАЛІ МАШИН, КАМІНЬ, ГІСОК.</p>
ПРИМІТКА	ВСІ МОЖЛИВІ ВИПАДКИ ПОПЕРЕДЖЕННЯ ЗРОБЛЕНІ ЗГІДНО ПОРЯДКУ ДОБРОЇ ПІТІЄНИ ТА ЗА ДОТРИМАННЯ ПРАВИЛ РІГІМЕНІЗНОГО КОНТРОЛЮ КЕРІВНИКА.

Cím: HACCP mintarendszer kockázat értékelési úrlap

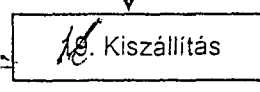
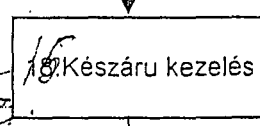
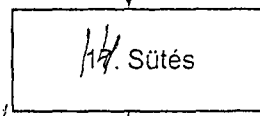
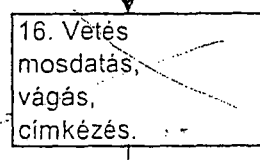
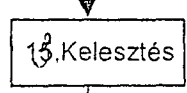
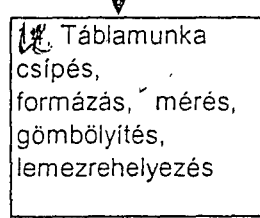
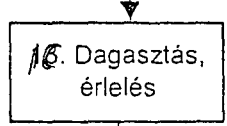
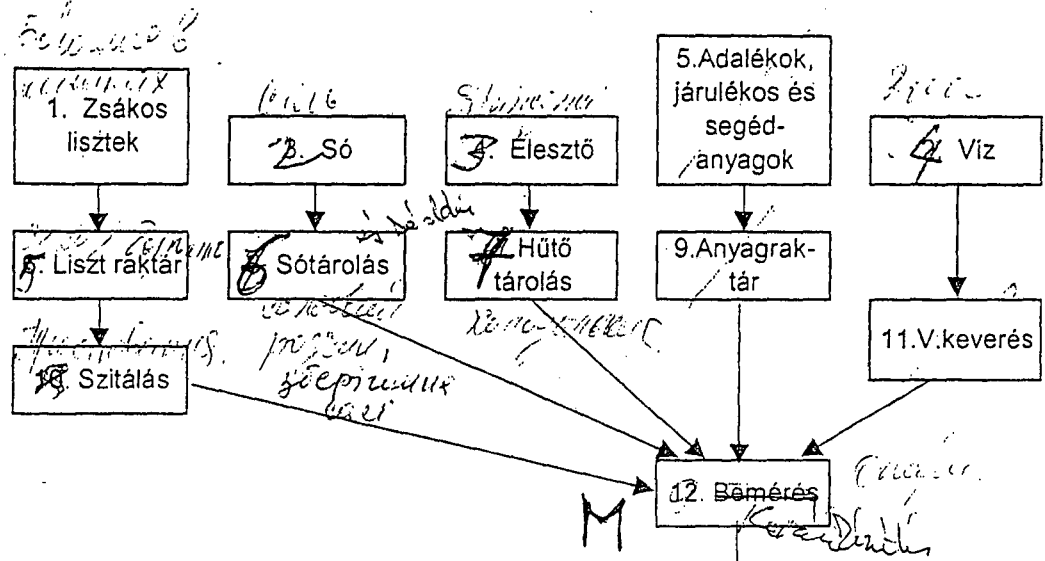
A termék neve: *szarvas vöröshús*

Kiadás dátuma: *2003* 1999. október 29. Kiadás száma: *1/5* 1

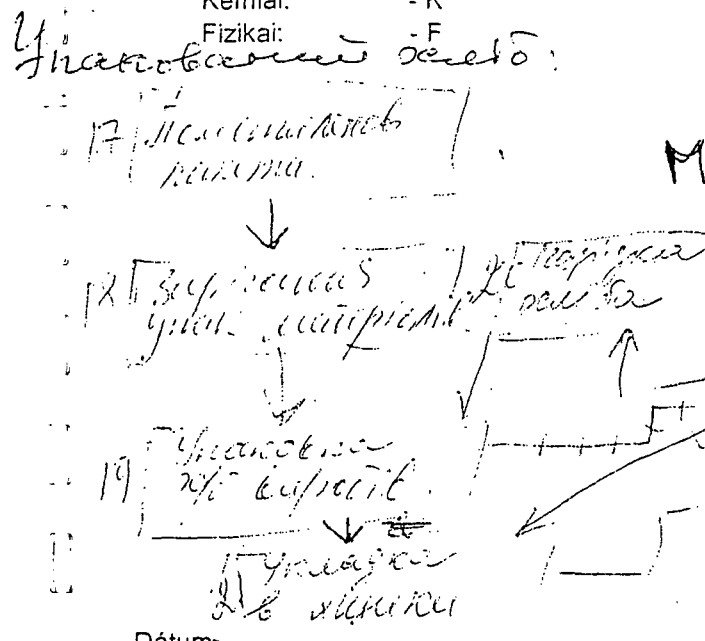
Súlyosság	1 elhanyagolható	2 nagyobb	3 kritikus	4 nagyon súlyos (katasztrófális)
A bekövetkezés valószínűsége	<i>наименее вероятна</i>	<i>более вероятна</i>	<i>вероятна</i>	<i>катастрофична</i>
5 gyakori <i>чаще</i>	5	10	15	20
4 valószínű <i>вероятна</i>	4	6	12	16
3 néha előfordul. <i>иногда</i>	3	6	9	12
2 nem túlságosan valószínű (nem kizárt) <i>не очень вероятно</i>	2	4	6	8
1 valószínűtlen <i>невероятно</i>	1	2	3	4

- 1./ Sorolja be a veszélyeket a megfelelő mezőkbe!
- 2./ A vastag vonal fölött a fehéren hagyott területekre eső veszélyekkel kell foglalkozni.
- 3./ A mezők jobb felső sarkában található számok alapján megállapíthatja a fontossági sorrendet.

FOLYAMATÁBRA Kenyérfélék



A CCP-k jelölése:
 Mikrobiológiai: - M
 Kémiai: - K
 Fizikai: - F



Dátum

KÖRÖS

Vállalat neve: **HACCP ELEMZÉS**
 Termék: **Hiv:**
 Verzió száma: 1
 Jóváhagyta:
 Dátum:
 Oldal / .. oldalból

VESZÉLYEK: ХИМИЧНА БЕБЕДНОСТ

No.	Művelet	Veszély és a veszély oka	Szabályzó módszer	Döntési fa	CCP	Kritikus határérték	Felügyelő eljárás	Helyesbítő tevékenység	Nyilvántartás
1.	БЕЗПЕЧНО В МИШКАХ (ПРЕФИНАЧНЕ ТА ХИМІЧНЕ).	НАЯВНІСТЬ ЗАРАЖЕННЯ ІЗ ПИТАВНОЇ МІСЯЦЬКОЇ ПРОДУКЦІЇ	ГОЛОВНИЙ МЕТОД КОНТРОЛЮ	ТАК	ЦП	БІОПОВІДІА ДОСВОРОСІ КОЖНА ПАРТІЯ ДОРОШНА СУПРОВІДАННЯ	БІЛІТАК КІМІТРЕ - МЕБ ІНО ПІСЛЯ ІНІЦІАЦІЇ - ІНІЦІАЦІЇ - ІНІЦІАЦІЇ	ІНІЦІАЦІЇ - ІНІЦІАЦІЇ - ІНІЦІАЦІЇ	БІОПОВІДІА ДОСВОРОСІ ІНО ПІСЛЯ ІНІЦІАЦІЇ
		НЕЗБІВАННЯ РОЗКІЛІВАННЯ ІНІЦІАЦІЇ ІНІЦІАЦІЇ	ІНІЦІАЦІЇ			ІНІЦІАЦІЇ	ІНІЦІАЦІЇ	ІНІЦІАЦІЇ	ІНІЦІАЦІЇ
		ІНІЦІАЦІЇ	ІНІЦІАЦІЇ			ІНІЦІАЦІЇ	ІНІЦІАЦІЇ	ІНІЦІАЦІЇ	ІНІЦІАЦІЇ
		ІНІЦІАЦІЇ	ІНІЦІАЦІЇ			ІНІЦІАЦІЇ	ІНІЦІАЦІЇ	ІНІЦІАЦІЇ	ІНІЦІАЦІЇ

ХІМІЧНА БЕБЕДНОСТ ІНІЦІАЦІЇ
 ВІДПОВІДІА ІНІЦІАЦІЇ
 ІНІЦІАЦІЇ ІНІЦІАЦІЇ
 ІНІЦІАЦІЇ ІНІЦІАЦІЇ

No.	Művelet	Veszély és a veszély oka	Szabályzó módszer	Döntési fa K1 K2 K3 K4	ССР	Kritikus határérték	Felügyelő eljárás	Helyesbítő tevékenység	Nyilvántartás
1	ОПЕРАЦИЯ	НЕ БЕЗПЕКА ТА ІІ ПРИЧИННИ	МЕТОД РЕГУЛЮВАННЯ	АДРЕВО ПРИБИРАЮТЯ РІШЕНЬ П1 П2 П3 П4	ЦСП	КРИТИЧНІ, ПРАНИЧНІ ХАРАКТЕРИСТИКИ (КРИТИЧНІ МЕЖИ)	МЕТОДИ КОНТРОЛЮ	ПРИЙОМНИ ВИПРАВЛЕННЯ	ДОКУМЕНТАЦІЯ (РЕПІСІ-РАЙСІЯ)
4	Розра	Ліквідація ліній	Спеціальні процедури	ТАК НІ НІ					
5	Складові елементи	Забруднення, втрата властивостей, порушення умов експлуатації	Дотримання умов експлуатації		СНР				
6	Складові елементи	Забруднення, втрата властивостей, порушення умов експлуатації	Дотримання умов експлуатації						
7	Складові елементи	Забруднення, втрата властивостей, порушення умов експлуатації	Дотримання умов експлуатації						
8	Складові елементи	Забруднення, втрата властивостей, порушення умов експлуатації	Дотримання умов експлуатації						

**HACCP plan of Bread factory
Csenagyijevo**

КП "ЧИНАДІЇВКА МІСЦЕВЕКАРІЇ"

НАСТОЇВНИ КАСИГА ТАЦЦІТ

2003.04

A vállalat neve: ПТ "ЧИНАДІІВСЬКА" ХЛІБОПЕКАРНЯ	НАССР Кézikönyv: НАСТОЛЬНАЯ КНИГА ГАЦЦІП	Hivatkozási szám: КОД:
Cím: НАССР elemzés АНАЛІЗ		
Kiadás dátuma: ДАТА	Kiadás száma: №: ПО ПОРЯДКУ	Oldal / Oldalból 1 / 28 стор.
		Jóváhagyta: ДИРЕКТОР ТОВТИН С.Д.

НАЗВА ПРОДУКЦІЇ: ВИРОБНИЦТВО ХЛІБА ІЗ ПШЕНИЧНОГО БОРОШНА
 A termék megnevezése: В УПАКОВЦІ І БЕЗ УПАКОВКИ, ТА ВИРОБНИЦТВО ХЛІБА
 ІЗ ЖИТНОГО БОРОШНА.

A munkacsoport tagjai: munkacsoport vezető
 СКЛАД ПРАЦІВНИКІВ: МОВЧАН МАРІАНА - ЦЦП
КАПЦІ ГАННА - ТЕХНОЛОГ
ТОВТИН СЕРГІЙ - ДИРЕКТОР

← Az elemzés a ~~ВИРОБНИЦТВО ХЛІББЕЗУЛОЧНИХ ВИРІВІВ~~ módszer alapján készült, ←
 ← ~~Діаграма роботи (дерево НССР) розроблено згідно з інструкцією "Сампленг"~~
 (a döntési fa alkalmazásával)

Аналіз зроблено згідно з інструкцією з технічної документації "Книжка пробошнівка (?)".
 Technical manual 38."

МІСЦЕ ЗНАХОДЖЕННЯ: ЧИНАДІЄВО ХЛІБОПЕКАРНЯ
 Alkalmazási terület: УЛ ВОЛОШИНА, 80. МУКАЧІВСЬКИЙ РАЙОН.

Везелыцсопортот:
 АНАЛІЗ ВІД ПРИЙМАННЯ БОРОШНА - ДО ВИПІЧКИ ХЛІБА
 Az elemzés-tól-ig terjed.

Немає вмісту: НЕ БЕЗПЕКА ГРУПП: МІКРОБІОЛОГІЯ - М, ХІМІЯ - Х, МЕХАНІЧНІ ДРМІШКВИ - МБ.

ДАТА
 Dátum

ПОДПИСЬ:
 Teamvezető aláírás

FOLYAMATÁBRA

Kenyérfélék

Hivatkozás:

Vállalat neve

Чинадгійська
Хлібопекарня

Білий хліб
(житий та із пшеничного борошна)

Борошно в мішках

1. Zsákos lisztek

Ciőb

2. Só

Дріжджі

3. Élesztő

5. Adalékok, járulékos és segédanyagok

Вода

4. Viz

Склад → борошно

5. Liszt raktár

Сольовий р-н.

6. Sótárolás

Холодильники

7. Hűtő tárolás

9. Anyagraktár

11. V. keverés

Технізовання

8. Szitálás

9. Semérés

Заквка М

10. Dagasztás, érlelés

Тігшигування

11. Форми для великани

12. Táblamunka csipés, formázás, mérés, gömbölyítés, lemezrehelyezés

Вибірання сировини, формування

13. Kelesztés

Бродіння

14. Vetés mosdatás, vágás, címkézés.

Заквка на парання форми

14. Sütés

Випічка

15. Készáru kezelés

Вибірка готової продукції

16. Kiszállítás

Вивозка

Розписка ССР:

A CCP-k jelölése:

Микробиológiai: - M

Кémiai: - X

Fizikai: - P

17. Підприємство пакує

18. Вибірання та перевірка матеріалів

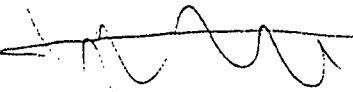
19. Підприємство процесу випічки хліба

Укладання в пакети

20. Реєстр

Dátum
Дата

..... aláírás
підпис

НАЗВА ПРОДУКЦІЇ:	ВИРОБНИЦТВО ХЛІБА ІЗ ПШЕНИЧНОГО ТА ЖИТНОГО БОРОШНА В УПАКОВЦІ, БЕЗ УПАКОВКИ.
ТЕХНОЛОГІЧНА ІНСТРУКЦІЯ ВИРОБНИЦТВА ХЛІБА	ВИРОБНИЦТВО ХЛІБА ІЗ ПШЕНИЧНОГО БОРОШНА: ОПАРНИЙ МЕТОД. ХЛІБ ІЗ ЖИТНОГО БОРОШНА УПАКОВУЄТЬСЯ. ХЛІБ "КОЛЬЧИНСЬКИЙ"
СИРОВІННА	ВИРОБНИЦТВО ЖИТНОГО ХЛІБА: МУКА ЖИТНЯ ОБДІРНА, ВОДА, СІЛЬ, ДРІЖДЖІ, МУКА ПШЕНИЧНА ПЕРШОГО ГАТУНКУ, ТМІНІ, ГОЛОВКА - ЗАКВАСКА,
	ВИРОБНИЦТВО ХЛІБА ІЗ ПШЕНИЧНОГО БОРОШНА ВИЩОГО ГАТУНКУ ХЛІБ "СІЛЕЦЬКИЙ" ПОДОВИЙ І ГАТУНКУ
ВИРОБНИЦТВО ХЛІБА ЗА ГОСТ 28890-90.	→
ТЕРМІН ЗБЕРІГАННЯ	ХЛІБ "КОЛЬЧИНСЬКИЙ" - 36 ГОДИН. ХЛІБ "СІЛЕЦЬКИЙ" - 24 ГОДИНИ.
УПАКОВКА	ХЛІБ "КОЛЬЧИНСЬКИЙ" УПАКОВУЄТЬСЯ В ХАРЧОВУ ПОЛІЕТИЛЕНОВУ ПЛІВКУ - ХЛІБ "СІЛЕЦЬКИЙ" БЕЗ УПАКОВКИ.
ЕТИКЕТКА	ПРИ УПАКОВЦІ ЕТИКЕТКА ВІДСУТНЯ, НАЄ У СУПРОВІДНИХ ДОКУМЕНТАХ ВКАЗУЄТЬСЯ ДАТА І ЧАС ВИПІЧКИ, ВАГА, ЦІНА, СТАНДАРТ ЗА ЯКИМ ПРОВОДИЛАСЬ ВИПІЧКА.

Várható név: П А З Д А 1, 1, 1 Д П Р И М Е Т С Т В А I I : А Б В Г Д Е Ж З И Й К Л М Н О П Q R S T U V X Y Z
 Termék: ПРОДУКЦИЯ
 VESZÉLYEKHEB ÉZ P E K A T zuzulu
 Veszélyes anyagok: АА I A
 Jövőlappya: ЗАТБЕРАДВ
 Dátum: АА I A
 1. oldal / ... oldalból 2 oldal / ... oldal

No.	Művelet	Veszély és a veszély oka	Szabályzó módszer	Döntési fa K1 K2 K3 K4	CCP	Kritikus határérték	Felügyelő eljárás	Helyesbítő tevékenység	Nyilvántartás
№ 1	ОПЕРАЦИЯ	НЕБЕЗПЕКА ТА ІІ ПРИЧИНИ	МЕТОД РЕГУЛЮВАННЯ	ДЕРЕВО ПРИЧИНА	ЦЦП	КРИТИЧНИ ГРАНИЧНИ ХАРАКТЕРИСТИКИ (КРИТИЧНИ МЕЖИ)	МЕТОДИ КОНТРОЛЮ	ПРИЙОМ ВИПРАВЛЕННЯ	ДОКУМЕНТАЦІЯ (РЕПІС-РАХУН)
6.	Сальдовий розрах.	Немає певної небезпечності	Розрахунок						
7.	Контроль мік.	Немає певної небезпечності	Контроль						
8.	Тривалість	Немає певної небезпечності	Тривалість	ТАК	ЦЦП	Своєрешення за принципом "всіх або нічого" - всім. Концепція процесу.	Своєрешення за принципом "всіх або нічого" - всім. Концепція процесу.	Заміна своєчасно замінити світ-обладання, конусу зупинити.	
9-10	Завдання (операція) записати зміна.	Можливе застосування до записування	Максимально техніч.		СНР			Заміна своєчасно замінити світ-обладання, конусу зупинити.	Результативні дані маніпуляції шилою розробки
9-14	Завдання записати зміна.	Можливе застосування до записування	Максимально техніч.		СНР			Заміна своєчасно замінити світ-обладання, конусу зупинити.	Результативні дані маніпуляції шилою розробки

ЕКРАНИХ МЕРИЖЕ

Vállalat neve: **НАЗВА ПІДПРИЄМСТВА**
 Termék: **ПРОДУКЦІЯ**
 Veszélyek: **НЕБЕЗПЕКА**
 Verzió száma: **1**
 Jövőhaty: **ЗАТВЕРДЖЕНО**
 Dátum: **2007**
 1. oldal / ... oldalból

No.	Művellet	Veszély és a veszély oka	Szabályzó módszer	Döntési fa K1 K2 K3 K4	ССР	Kritikus határérték	Felügyelő eljárás	Helyesbítő tevékenység	Nyilvántartás
11	ОПЕРАЦІЯ	НЕБЕЗПЕКА ТА її ПРИЧИНИ	МЕТОД РЕГУЛЮВАННЯ	ДЕРЕВО ПРИЙНЯТТЯ РІШЕНЬ	ЦЦЛ	КРИТИЧНИ. ФРАНЧНИ ХАРАКТЕРИСТИКИ (КРИТИЧНІ МЕЖІ)	МЕТОДИ КОНТРОЛЮ	ПРИЙОМ ВИПРАВЛЕННЯ	ДОКУМЕНТАЦІЯ (РЕЦІПІ ПАЦІЯ)
12	Процес	Небезпека процесу	Доктрина		Д-НД				
13	Процес	Небезпека процесу	Доктрина						

14. **Процес**
 Небезпека процесу
 Додаткова інформація

APPENDIX 4.

List of proposed purchase, repair of equipment

Proposed purchases, repair of equipments and operational budgets.

1. Communication facilities (high priority and urgency)

These facilities should be directly allocated to the project manager and provide her a priority use—that she could be contactable and she will be able to carry out her job (organising, controlling progress, reporting, receiving and sending information) without any delay.

- 1 PC for word processing, E-mailing
256 Mb-RAM, minimum 1GHz (optimal at least 1.7 GHz) processor, 40 GB hard disk drive, CD ROM, internet connection, hardware element, 15" Monitor + 1 UPS (uninterrupted electric power supply) unit
- 1 laser printer
- 1 phone/fax machine with ordinary paper
- 1 desk top photocopier, black/white, 4 pages/minutes, A4 copy size
- 1 portable phone for the project manager
- 1 portable overhead projector for presentations and trainings
- 1 portable screen, 1 video player, 1 television for trainings,

Budget for prepayment for the use of a cable phone line + installation costs and for the use of the portable phone for the lengths of the project + 30 months period until the fee paying services are build up to that size they generate enough funds.

Budget for coloured papers to be used for the photocopier for preparing marketing leaflets, and white papers and folders for training material.

Amount: necessary for 36 months

Budget for overhead foils.

Budget for refurbishing a proper small office for meeting industry clients.

2. Laboratory facilities

2.1 Water supply:

- 1 pressure pump for increasing water pressure

Budget to prepare an own well for securing the water supply for the laboratory (estimated cost 200-300 USD)

2.2 Pesticide residue analysis

Repair and upgrading of the existing gas chromatograph (SELMICHROM-1) for analysis of:

- Organochlorine pesticides (priority)
- Organophosphorus pesticides (priority)
- Pyrethroid pesticides (2nd phase)
- Ditiocarbamates (2nd phase)

- Phtalimides (2nd phase)
(The supplier is able to offer specific units for this equipment)

Priority items should be purchased in the 1st phase, additional purchases should be identified later, after comparison with the current Ukrainian and Russian legislation for specific crops grown mainly in the Trans-Carpathian area, and consideration of availability of staff resources after carrying out the priority tests.

- ECD (electron capture) or MS (mass spectrometer) detector for organochlorine pesticides
- 1 thermoionisation detector for organophosphorus pesticides
- at least 2 capillary columns for the two priority groups (methylsilicate filling)
- solvents
- spare parts for 3 years use
- 1 control computer at least 16 Mb RAM, ICA adapter
- no need a new monitor
- 1 UPS (uninterrupted electric power supply) unit
- laboratory extraction unit and chromatographic cleaning columns for sample preparation.

2.3 Testing of heavy metal residues

Repair and upgrading of the existing HXA-1000 heavy metal analyser for testing

- Pb*, Cd*, Hg, As (priority)
- Cu*, Zn*, Ni, Sn (as required by the Ukrainian national legislation) (priority)
*the current set up is able to test it after repair.
- 1 process control computer with monitor and printer
- UPS (uninterrupted electric power supply) unit for the computer
- repair of the instrument
Service company: 270080 Ukraine
S Odessa 10, ul. Tsernomorskie
Doroga 86 Physico-Chemicseszky Institute
Tel: 66-00-29
- purchase national standards related to heavy metal testing
- reference standard solutions for 3 years
- spare parts for 3 years

Optional:

Upgrading the existing Selmi C-600 atomic absorption equipment

If the HXA-1000 analyser can't be extended to all necessary tests, the upgrading of this unit should be considered.

- Inert gas supply unit
- Purchase of lamps for As, Hg as necessary
- Gas barrels
- Ni, Cr spare lamps

2.4 Testing of animal feed

Repair of the existing IKS-3 NIR 4500 Pacific Scientific Inc, NIR System analyse

- Cuvettes for liquid and paste type samples
- Replacement of the broken down control computer (proposed set up as at the communication equipments)
- UPS (uninterrupted electric power supply) unit for the computer
- Repair of the equipment
- Spare parts for 3 years.

2.5 Other equipments for monitoring HACCP systems

2.5.1 Digital, portable thermometer 1 piece

Temperature range: -50°C - +280°C

Sensitivity: $\pm 0,5$ °C

2 probes: - general purpose, heavy duty
- surface probe

Waterproof

Supplied with official calibration certificate

2.5.2 Digital watch 1 piece

Supplied with official calibration certificate

Waterproof

2.5.4 Ph meter unit probes for pH and nitrate testing

Supplied with official test calibration solutions

2.5.4 Rapid nitrate test paper

5 dose (120 measurements/dose)

2.6 Laboratory chemicals

A budget for a purchase of 3 years

2.7 Calibration

A budget for official calibration with certificates of the operable laboratory equipments

2.8 Others

The purchase of rapid microbiological/hygiene test kits should be considered in the second phase.

Rapid hygiene test kits based on ATP testing—simple swabs

2.9 Milichrom high pressure liquid chromatograph

More information is necessary about its appropriateness. Its extension can be considered, when the first phase of the purchases were completed and capabilities are evaluated (second phase).

Extension parts necessary:

- 1 high pressure LCP pump
- 1 control computer
- 1 upgraded evaluation software
- 1 columnne Nucleosil C 18
- 1 detector

3 Technology Equipments

1 semi-automatic wine bottling/filling unit for at least 4 head model (minimum 1000 bottle/day capacity), a second hand machinery may be acceptable.

4. Technical books

Technical books on:

- Food hygiene
- Food technology
- HACCP, GHP
- In Hungarian and in Russian/Ukrainian

APPENDIX 5

**Programme, list of participants and some presentation materials
of awareness seminar**

**The Zakarpatian Institute of Agro-industrial Production of the
Ukrainian Academy of Agricultural Sciences (ZIAP)
and
The United Nations Industrial Development Organization (UNIDO)**

have the pleasure to invite you to a

**Seminar
on**

***Food safety and quality, a precondition for national
and international marketability of food***

Venue: ***Uzhgorod Hotel***
Date: ***18 June 2003***
Time: ***09:00 to 16:00***

This Seminar is a joint activity of:

*Campden & Chorleywood Food Industry Development Institute
UNIDO, the United Nations Industrial Development Organization
ZIAP, the Zakarpatian Institute of Agro-industrial Production of the Ukrainian
Academy of Agricultural Sciences
Zavidivske Canning Factory*

The Seminar is an activity of the ongoing project:

ASSISTANCE TO THE FOOD INDUSTRY IN UKRAINE
Funded by UNIDO and the Government of Hungary

Programme:

09:00	Welcome and Introduction	Ms. A. Balian, ZIAP
09:15	Market access – The international requirements	Mr. K. Schebesta, UNIDO
10:00	The importance of GHP and food safety – Systems for food processing industries	Mrs. M. Bleszkán, Campden & Chorleywood, Hungary
10:45	Coffee break	
11:00	The food safety and quality requirements of European retailers	Mrs. Ildikó Daragó Campden & Chorleywood, Hungary
11:45	Question and answer session	
12:15	Lunch break (buffet)	
13:30	The further needs of the industry – Findings of the project	Mr. M. Dauthy, UNIDO
14:15	The documentation of HACCP at factory level – Factory experiences gathered during the course of the project	Zavidivske Canning Co.
14:45	The role of the food safety system in the new approach	Mr. K. Schebesta, UNIDO
15:15	Question and answer session	

**List of invitees on
Seminar at Uzghorod**

18. June 2003.

Nr.	Name	Company/Institute
1.	Natalya Korchakova	European Commision
2.	Valentina Antropova	Ministry of Economics, Kiev
3.	Olena Zirnzak	Ministry of Agriculture
4.	Syergej Volodyn	Academy of Ukrainian Agriculture
5.	Stepan Revák	Deputy Head of Regional Administration
6.	Igor Yurik	Head of Regional Agricultural Department
7.	Anus Baljan	Director of ZIAP
8.	Vira Fedák	Regional Health Office
9.	Zsuzsanna Csoma	ZIAP
10.	Lidia Posztojenko	ZIAP
11.	Natalia Gricenko	ZIAP, head of laboratory
12.	Maria Kovach	Owner of Kovach Holding
13.	Leszja Kicsenko	Technologist at Kovach Holding
14.	Oreszt Turkevics	NIDAN, Director
15.	Volodimir Margities	KOTNAR (canning factory), Director
16.	Stepan Nagy	Regional Food manufacturing Deptm.
17.	Ilja Hohol	Regional Food manufacturing Deptm.
18.	Bogdan Melnyik	Head of the Regional Health Office
19.	Yoszip Kárdos	Head of the Regional Standardisation Office
20.	Nadyja Burák	Regional governmental inspection
21.	Olekszj Karabinyos	Regional Consumer Protection
22.	Okszana Szuharova	University of Uzghorod, profesor
23.	Volodimir Niszem	Zakarpatszadvinprom, Director General
24.	Galina Iljuscenko	Zakarpatszadvinprom, expert
25.	Vitalij Szemály	Uzsgorodmoloko, Director General
26.	Anatolij Pokárcsuk	Uzsgorodhlib, Director
27.	Marina Sztánkovszká	KOTNAR, technologist
29.	Chacsatur Petroszyán	APF Leanka, Director
30.	Michajlo Dumnich	VLAD, Director
31.	Andrij Pálfi	Szoja-Progresz, Director
32.	Nina Olijnik	Heliosz, Director
33.	Valerij Birtán	Krisztaly-Luksz, Director
34.	Ivan Maga	Toxicology laboratory, Uzghorod
35.	Marjana Movcsán	Csinagyijevo,. Owner
36.	Iván Popovics	Zavidivszkij, Director
37.	Yulia Olefirenko	Zavidivszkij, technologist
38.	Yurij Lukács	Zakarpatszkij (canning facory), Director
39.	Yoszip Pilipáninee	Konszervnij Závod, Director
40.	Vaszily Kuzyma	APTP Boboviscse, Director
41.	Valantina papazova	Konditersza, Director

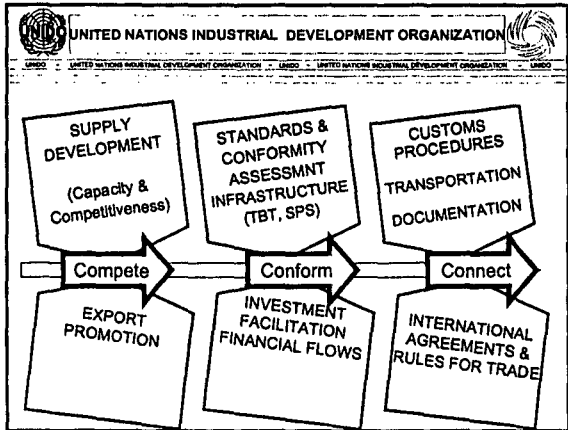
42.	Michajlo Popovics	VKP, Munkacsevo, Director
43.	Vaszilj Mányák	TOV Progresz, Director
44.	Ivan Lukecsa	Mukacsivszkij Pivzavod, Director
45.	Árpád Spisz	Autoport-Chop, deputy director
46.	Judita Petei	Grin-Rej, Director
47.	Vaszilj Dovhánics	Vinogradivszkij, Director
48.	Ivan Zavidnyák	Prodtovári, Director
49.	Larissza Prokop	Grono-2, Director
50.	Michajlo Szegedi	Prodtovári
51.	Andrij Krizecszkij	Szolyvai mineral water, director
52.	Yevhen Udvarhelyi	MPP Alex, Director
53.	Olga Holovko	
54.	Nadija Fenönce	Szojvai college
55.	Inna Kemenyás	Szojvai college
56.	Iván Jakubök	Toxicology laboratory
57.	Viktor Jáankovöcs	Toxicology laboratory

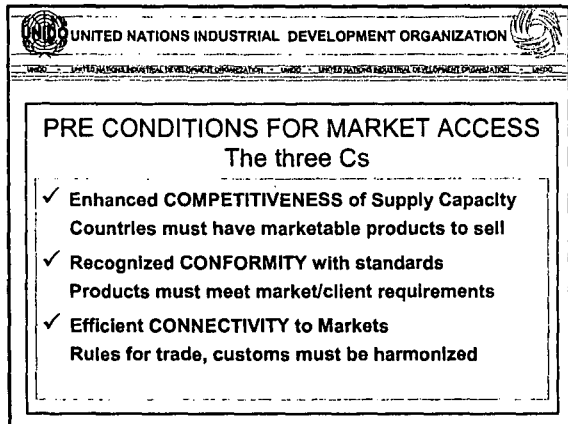
Meghívottak listája
Ungvár, 2003 június 18

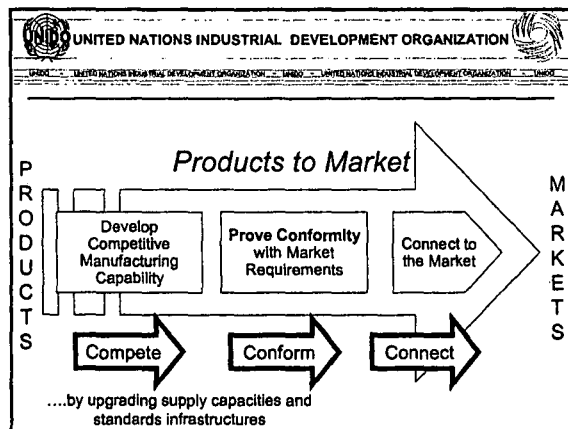
1.	Helene Cynaye	Head Delegation of the European Union
2.	Natalya Korchakova	Project manager European Union Delegation of the European Commission
3.	Valentina Antropova	Gazdasági és az Európai integráció kérdéseivel foglalkozó minisztérium
4.	Olena Zirnzak	Ukrajna Agrárpolitikai minisztériumának EU integráció és kereskedelmi politikájával foglalkozó főosztály vezetőjének első helyettese
5.	Syergej Volodyin	A „Viaduk” elnöke (Ukrán Agrártudományi Akadémia)
6.	Karl Schebesta	
7.	Mireca Doti	
8.	Margit Bleszkán	
9.	Ildikó Daragó	
10.	Stepán Revák	A Megyei Állami adminisztráció vezetőjének első helyettese
11.	Igor Yurik	A Megyei agrárpari főosztály vezetője
12.	Anus Balján	Kárpátaljai Mezőgazdasági agrárpari mezőgazdálkodási igazgatója
13.	Vira Fedák	Megyei egészségügyi főosztály főmunkatársa
14.	Zsuzsanna Choma	ZIAP tudományos főmunkatársa
15.	Lidia Posztojenkó	Főagronómus, tudományos főmunkatársa, ZIAP
16.	Natalia Gricenkó	Szőlészeti laboratórium vezetője, tudományos főmunkatársa, ZIAP
17.	Mária Kovács	„Kovács” holding tulajdonosa
18.	Leszja Kicsenkó	A „Kovács” malom technológusa
19.	Oreszt Turkevics	„Nidán +” vállalat igazgatója
20.	Volodimir Margitics	„Kotnár” konzervgyár igazgatója
21.	Stepán Nagy	Megyei feldolgozó- és élelmiszeripar főosztályának vezetője
22.	Ilja Hohol	Megyei élelmiszeripari osztály vezetője
23.	Bogdán Melnyik	Megyei Kórház főorvosa (Szanitárnoepidemiológiai szolgálat)
24.	Yoszip Kárdos	Megyei szabványhivatal, metrológia és szertifikációs központ vezetője
25.	Nadyija Burák	Megyei állami kenyér „inspekció”
26.	Olekszij Karabinyos	Megyei fogyasztóvédelmi szervezet vezetője
27.	Okszana Szuhareva	Ungvári Nemzeti Egyetem analitikai kémia tanszékének tanára

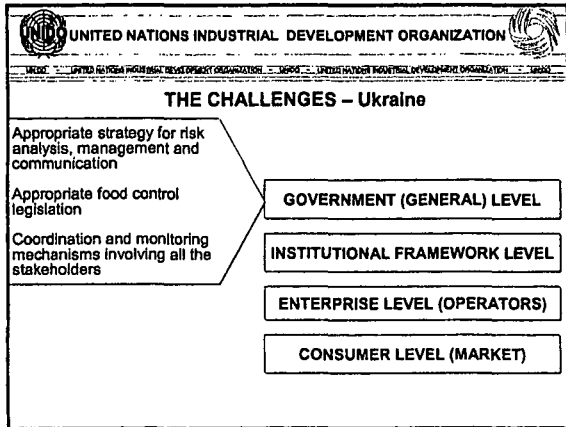
29.	Volodimir Hiszem	„Zakarpatszadvinprom” főigazgatója
30.	Galina Hjuscsenkó	„Zakarpatszadvinprom” főszakértője
31.	Vitalij Szemály	RT „Uzsgorodmoloko”, ügyvezető igazgató
32.	Anatolij Pokárusuk	RT „Uzsgorodhlib”
33.	Marina Sztánkovszká	„Kotnár” konzervgyár főtechnológusa
34.	Chacsatur Petroszján	API „Leanka” igazgatója
35.	Michajlo Dumnich	Közös vállalat TOV „Vlád”, igazgató
		Közös vállalat „Szoia-Progress”, igazgató

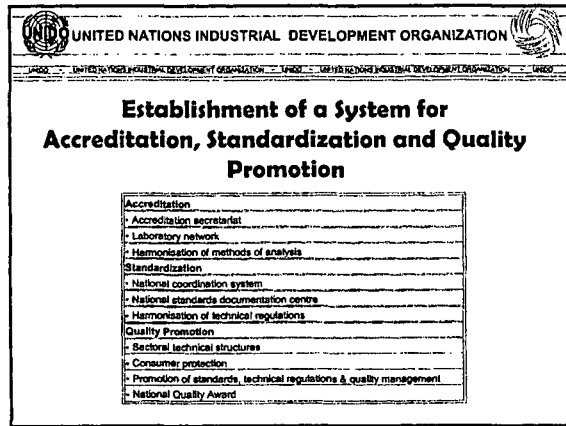
37.	Nina Olijnik	RT „Krisztaly-Luksz” igazgatója
38.	Valerij Birtán	TOV „Krisztaly-Luksz” igazgatója
39.	Ivan Maga	Ungvári határmenti állami toxikológiai ellenőrző laboratórium
40.	Márjáná Moxesán	„Csinagyijevo” pékség technológusa
41.	Iván Popovics	„Zavidijszkij” konzervgyárnak igazgatója
42.	Yulia Olefirenko	„Zavidijszkij” konzervgyár technológusa
43.	Yurij Lukács	Konzervgyár Zákárpátszkij OSZSZ, igazgató
44.	Yoszip Pilipánec	RT „Konzervnij závod” igazgatója
45.	Vaszily Kuzyma	APIP „Bobovisese” igazgatója
46.	Valentina Pápázová	RT „Konditerzská fabriká A V. K” igazgatója
47.	Michajlo Popovics	VKP „Mukácsivszkij miszkkooptorh” igazgatója
48.	Vászil Mányák	TOV „Piachofabrika” „Progresz” igazgatója
49.	Iván Lukecsá	RT „Mukácsivszkij pivzávod” igazgatója
50.	Árpád Spisz	ZAT „Avtoport-Chop” Vezérigazgató helyettese
51.	Judita Petei	SP TzOV „Grin-Rej” igazgatója
52.	Vaszil Dohánics	RT „Vinográdivszkij kombinát chliboproduktiv” igazgatója
53.	Iván Zavidnyák	„Prodtovári” gyár igazgatója
54.	Jarizsa Proknp	DP „Grono-2” igazgatója
55.	Michajlo Szegedi	„Prodtovári” gyár igazgatója
56.	Andrij Krizevszkij	RT „Szolyvai ásványviz”, igazgató
57.	Jevhen Udvarhelyi	MPP „Alex” igazgatója
58.	Vaszil Cirik	
59.	Olga Holovko	Csajkovi kolodze
60.	Nádija Fenőnc	Szojvai kolodzs
61.	Inna Kemenyás	Szojvai kolodzs
62.	Iván Jáklubök	Ungvári határmenti állami toxikológiai ellenőrző laboratórium
63.	Viktor Jánkovöcs	Ungvári határmenti állami toxikológiai ellenőrző laboratórium

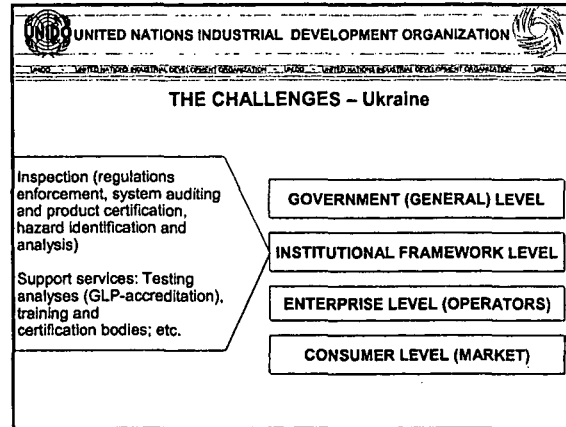


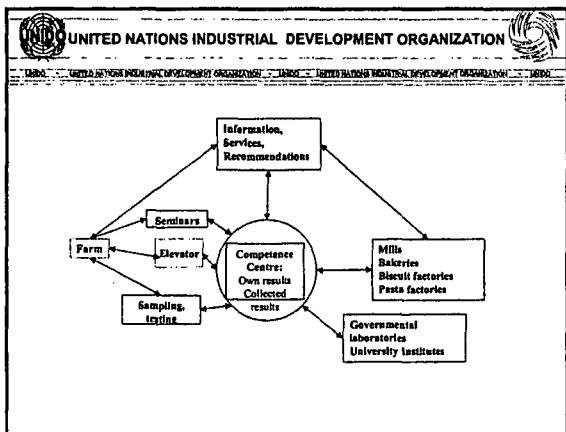


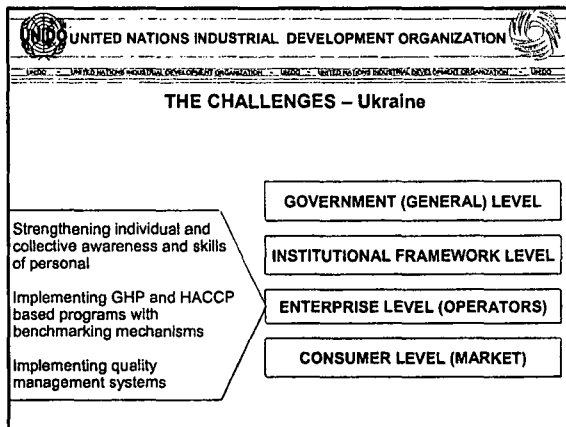


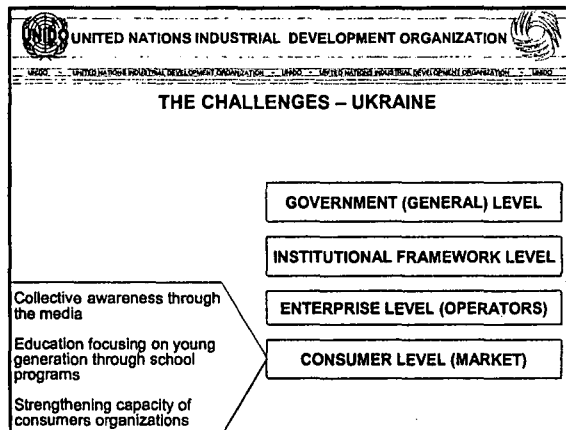












The importance of GHP and food safety systems for food processing industries

Food safety and quality, a precondition for national and international marketability of food

Margit Bleszkán
Campden & Chorleywood Hungary
18. 06. 2003.

Content

- Who require food safety?
- Legal background (EU)
- The tasks of the industry
- The tasks of the authorities
- Benefits and downsides
- The consequences of not following

Safe food

„Food which not cause injuries to consumer, if it is prepared and/or consumed in accordance with intended use”

Codex Alimentarius

Factors affecting food safety (1)

- Tourism (infectious diseases, rapid dissemination)
- Food-processing scale
- New technologies (e. g. sous-vide), certain treatments (e.g. vacuum-packaging)
- Minimally processed foodstuffs (consumer need)

Factors affecting food safety (2)

- Emergency pathogens – psychotropic bacteria
- High-risk groups (immuno-depressed consumers):
 - Senior citizens
 - Certain diseases (AIDS)
 - Environmental effects

Factors affecting food safety (3)

- Food systems (production, process, distribution, preparation, consumption)
 - low-income rural systems
 - low-income urban systems
 - high-income urban systems
- Food chain technology
 - Non-industrialized societies: home prepared food, buying on local markets
 - Industrialisation and urbanisation: long and complicated food chains, mass production, massive outbreaks, home refrigerators

Factors affecting food safety (4)

- Ecological factors (development, level of income)
- Socio-cultural factors
 - culture-specific food practices
 - eating habits: convenient meals
 - storage and buying habits
- Nutritional aspects
- Epidemiology

Problems to be considered

- BSE
- Mycotoxins (aflatoxin, patulin, etc.)
- Pesticide residues
- GMO's
- Hormone treated meat – use of growth promoters
- Antibiotic resistance
- Psychotropic bacteria
- Dioxin residues (chemical contamination)

Need for food safety management systems

Food safety is required by:

- Customers
- Consumers
- Law

Best acknowledged method: HACCP based on GMP/GHP

„...access to nutritionally adequate and safe food is a right of each individual”

FAO/WHO International Conference on Nutrition, Rome, 1992

Food safety must be given higher priority by:

- Governments
- Industry
- Consumer themselves

Globalisation – international trade of foodstuffs

- **Role:** provide safe and nutrition diets for world’s population
- **Benefit:** introduces wider variety of foods in to the diet, bigger and better choice
- **Risk:** food-borne diseases, contamination avoid

Harmonise regulations by using international standards

Food safety legislation principles in the EU (1)

- Based on sound scientific analysis and evidence
- Risk assessment/priorities
- Preventative approach
- Requirements and enforcement practices proportionate to real health risks

Food safety legislation principles in the EU (2)

- Flexibility to incorporate scientific and technological change
- Concerted: food operators, authorities, consumer protection
- Comprehensive along the food chain

EU 93/43 directive on food hygiene

- Concentrates on objectives and principles
- Technical details are not described
- Article 5. – Development and use of voluntary guides on good hygienic practice should be encouraged

Codex Alimentarius (ALINORM 97/13A)

HACCP Guidelines:

- Before HACCP GMP/GHP should be established
- HACCP systems should be based on GMP/GHP

Codex Alimentarius

Trends risk-based approach (HACCP)
process control (final product inspection still needed)
horizontal approach (general standards)

- General Principles of Food Hygiene
- HACCP
- Microbiological criteria

European Commission Communications (1)

- **Green Paper- Principles of – Food Law**
- **Consumer Health and Food Safety**
reinforcement of the protection of consumer health, restore consumer confidence
responsibility for legislation should be separate from that for scientific advice
responsibility for legislation should be separate from that for inspection

European Commission Communications (2)

principles and procedures for risk assessment, risk management and risk communication

established independent scientific advice as a prerequisite for risk management decisions

scientific advice on consumer health – a proactive approach

transparency and widely-available information throughout decision-making and inspection

Food Safety from Farm to Table
A national food-safety initiative (USA, 1997)

Immediate actions to improve food safety

A new early-warning system for food-borne disease surveillance

Instant outbreak containment and response co-ordination

Risk Assessment

Research (develop new methods, resistance of pathogens, technologies)

Improving inspections and compliance (seafood HACCP, juices, egg, imported food)

Education (public awareness, professionals, high-risk groups)

A new interagency strategy to prevent food-borne disease

United Kingdom: „due diligence”

„all reasonable precautions”

careful selection and supervision of suppliers

regular audits

full traceability

commitment of the management

awareness of requirements

quality assurance systems

GMP/GHP, HACCP

guidelines for customers

packaging, labelling

European Food Safety Inspection Service (EFSA)
to harmonise requirements (36 points)

Safe Food for all (1)

Council Directive 93/43/EEC on the hygiene of foodstuffs

Article 1

General rules of hygiene for foodstuff

Article 2

Definitions: food hygiene
food business
wholesome food

„Hygiene means all measures necessary to ensure the safety and wholesomeness of foodstuffs”

all stages after primary production

Safe Food for all (2)

Council Directive 93/43/EEC on the hygiene of foodstuffs

Article 3

HACCP

5 steps

- analysing the potential food hazards
- identifying the points ... where hazards occur
- deciding ... „critical points“
- control and monitoring procedures at CPs

Food Safety

- Food Safety can be achieved by applying GHP requirements
- Food safety can be proved by applying HACCP which has as a prerequisite the GHP

GHP

„All practices regarding the conditions and measures necessary to ensure the safety and suitability of food at all stages of the food chain:

primary production, preparation, processing, packing, storage, transport, distribution, retail, consumer“

EU 93/43

The role of GHP

- Protection of food from contamination, including micro-organisms, other toxic materials and foreign bodies
- Prevent the growth of micro-organisms which can cause illness of consumer or diseases of food
- Elimination of pathogen bacteria from food

Level of Food Safety

- The minimum is controlled by legislation
- Not a free agreement between customer and supplier
- Great variation of
 - food products
 - compositions
 - factory environment
 - processing technologies
- Technical competence
 - sound and scientifically valid data
 - understanding of food technologyis necessary

General requirement

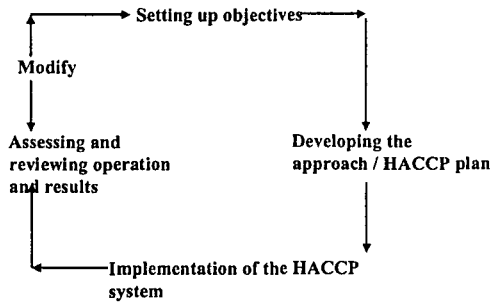
Food Safety and Quality Management
Systems in the Food Industry
should be based on the
Comprehensive
Up – to – Date
Practical
knowledge of the
Principles and Results of
Food Science and Technology
and of Food Safety Aspects

Setting up clear objectives

- **Management Commitment**
 - food safety is a key value
 - decisions are based on considerations of food safety
 - understanding the basics of processing / preservation technology
 - participation in the technical review
 - resources

Expressed in the food safety policy and every day behaviour

Concept of efficient food safety management systems



Role of food industry (1)

- Provide safe and wholesome food
- Primary responsibility for food safety
- Ensure consumer understanding (clear and easily understandable information)
- Maintain confidence
- Implementation of quality assurance and management systems

Role of food industry (2)

- Adoption codes of hygienic practices
- Voluntary measures
- Expand preventive safety measures
- Training and education for food-handlers
- Caution when applying new technologies

Role of government (1)

- Provide up-to-date legislative background based on scientific evidence
- Properly enforced legislation
- Effective and efficient co-ordination
- Proactive approach
- Precautionary measures

Role of government (2)

- Risk communication
- National food safety policies
- Public education
- Promotion of voluntary measures
- Epidemiological surveillance of food-borne diseases

Insurance of food safety in the food chain (1)

Industry trade

- Good agricultural/manufacturing/hygiene practice
- Quality assurance and control during processing
- Technologies, processes
- Trained, committed management and personnel
- Labelling, information for consumers

Insurance of food safety in the food chain (2)

Consumers

- Informed, educated consumers
- High requirements
- Good kitchen practices
- Food hygiene knowledge
- Consumers associations

Insurance of food safety in the food chain (3)

Government, official agencies

- Food legislation
- Advice, guidelines for industry and trade
- Education of consumers
- Collect information research
- Control

Benefits of HACCP (1)

- Significant contribution to „due diligence”
- Complies with external trends
- Reduces loss of management/technical knowledge
- Identifies unnecessary quality costs
- Identifies improvement potential and priorities

Benefits of HACCP (2)

- Trains team members, basis for training new management
- Breaks down inter-departmental barriers
- Pro-active problem solving
- Faster introduction of technical change
- Reduces risks due to organisational change
- Focussed, effective audit
- Flexible application

Downsides of HACCP

- Resource for the study (good quality resource)
- Resource hungry for corrective actions
- Team training time required

Consequences of not following the GHP requirements (1)

- Food diseases, which can lead to death too
- Customer or consumer complaints caused by food contamination
- Contamination and infection caused by pests
- Plant or unit closing ordered by authorities

Consequences of not following the GHP requirements (2)

- Penalty and legal procedures' costs
- People who suffer from injuries or illness can ask compensation
- Sales decrease, losing market
- Disinfections costs, equipment reconditioning costs

Consequences of not following the GHP requirements (3)

- Reaction of media, which can demolish the company image and has the consequences of profit decreasing
- Disadvantages for employees when they lose their jobs

Technical requirements for processed foods

The technical requirements of the major purchasers of processed foods in Europe

Ildikó Daragó

*Food safety and quality, a precondition for national and international marketability of food
Seminar in Ukraine
18.06.2003*

Camden and
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Magyarország

Technical requirements for processed foods

The supply and retailing of processed food materials is becoming increasingly global and the commercial purchase of foods is becoming ever more concentrated.

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Technical requirements for processed foods

In consequence food manufacturers need to concentrate on their strengths

- Availability of raw materials
- Available and affordable technology of processing
- Cheapness of labour
- Logistics of supply / Trade barriers
- Ability to provide customer satisfaction.

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Technical requirements for processed foods

Legal and GMP requirements.

- Guidelines for the Safe Production of different type of processed Foods.(available in UK, Hungary)
- Safe Packing of Food and Drink in Glass, Guidelines for Good Manufacturing Practice. Campden and Chorleywood Magyarország 1998

Campden and Chorleywood Magyarország

Technical requirements for processed foods

Purchaser requirements

- Assured Product Safety
- Consistent Quality Every time
- Demonstrable Compliance with Recognised GMPs and legal obligations
- Product Innovation to provide commercial advantage

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Technical requirements for industries

Traditional Technical Considerations

- Validated Thermal/cooling processes
- Appropriate equipment with suitably calibrated instrumentation
- Defined operating procedures
- Seam Control (e.g. in canning industry)
- Cooling water control (e.g. in canning industry)
- Post process sanitation

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Technical requirements for processed foods

Traditional Industrial Quality Control

- Raw material analysis
- On-line checks, control of materials filled, double seams and thermal/cooling process
- End product testing
- Incubation testing and product release

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Technical requirements for processed foods

It is recognised that end product testing does not provide the degree of assurance necessary with regard to safety and quality issues for purchasers of processed goods. It is too late and statistically uncertain.

Instead reliance is made on factory inspection schemes

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Technical requirements for processed foods

Evaluation schemes must be designed to look at the underlying systems within a company to provide assurance that products will be, legal, safe for the consumer, and of specified quality, every day of manufacture.

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Technical requirements for processed foods

In the UK and increasingly in Europe the BRC (British Retail Consortium) Standard is being used by the commercial purchasers of processed foods as the Standard by which their suppliers are evaluated.

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Technical requirements for processed foods

Apart from the traditional areas of inspection, current evaluation schemes such as EFSIS/BRC are attempting to look far deeper into the organisation and operations of the processed food manufacturer.

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Technical requirements for processed foods

Inspection companies such as EFSIS are approved by UKAS to undertake evaluations of manufacturers against the BRC Standard under the requirements of the EN45004 Standard.

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Technical requirements for processed foods

The BRC Standard is arranged in 6 sections all of which contain numerous paragraphs of requirements.

- HACCP System
- Quality Management System
- Factory Environment Standards
- Product Control
- Process Control
- Personnel

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Technical requirements for processed foods

HACCP

- Are the CCPs correctly identified
- Are there procedures that fully define the control and monitoring operations used in practice
- Is there documentary reference to the procedures and report forms used in control and monitoring operations

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Technical requirements for processed foods

• HACCP continued

- Is there a quality plan that includes all measures identified in the HACCP plan
- Are there training records for persons authorised to carry out tasks identified as critical within the HACCP plan (Seamer operators, retort operators etc)
- Is there apparent visible evidence of implementation of the HACCP system within the factory

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Technical requirements for processed foods

Quality System

- Management Structure
- Quality Policy
- Quality Manual
- Document Control
- Scheduled Management Review
- Internal Audit System

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Magistrates

Technical requirements for processed foods

Quality System continued

- Customer Satisfaction
- Complaint Handling
- Traceability System
- Recall System
- Environmental Policy

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Technical requirements for processed foods

Management organisation

Defined responsibilities and authorities

- for product safety issues including thermal process management
- For quality measurement
- for legal compliance
- for product release
- for cleaning, sanitation and pest control

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Technical requirements for processed foods

Traceability System /Recall Procedure

- Is there a traceability system that is adequate to service a recall procedure should this be required.
- How often is the recall procedure tested
- Who has designated responsibility for crisis management.

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Technical requirements for processed foods

Factory Environmental Standards

- Suitability of location
- Layout and product flow
- Factory design, construction and maintenance
- Equipment deployed
- Effectiveness of cleaning and sanitation

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Technical requirements for processed foods

Product Control

- Safe introduction of new products
- Suitability and control of product packaging
- Control of foreign body hazards
- Control of non-conforming products

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Charleywood
Magyarország

Technical requirements for processed foods

Process Control

- Temperature / Time control
- Process validation
- Instrument calibration
- Specific handling requirements

Complete and
Charleywood
Hagerstown

Technical requirements for processed foods

Personnel

- Personal Hygiene regulations
- Medical Screening
- Protective Clothing
- Training

Complete and
Charleywood
Hagerstown

Technical requirements for processed foods

Product Innovation

New product innovation offers both the food manufacturer and the retailer the opportunity for competitive marketing advantage

The greater the degree of technical innovation, the greater the risk of failure but the greater the reward for success.

Complete and
Charleywood
Hagerstown

Technical requirements for processed foods

Drivers for Product Innovation

- Perceived consumer demand
- Packaging developments
- Processing / Equipment developments
- Raw material availability

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Cherlywood
Magyarország

Technical requirements for processed foods

Consumer demand

- Convenience of preparation
- Packaing size
- Novelty
- Healthy eating, functional foods
- Repeat of restaurant experience in the home

Camden and
Cherlywood
Magyarország

Technical requirements for processed foods

Packaging Developments in canning industry

- Self Heating Cans
- Shaped cans
- Easy open ends
- Peelable ends
- Growth in popularity of retort pouches
- Sterilisable plastic containers
- Tetra retortable carton

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Magyarország

Technical requirements for processed foods

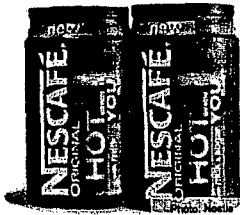
Processing Developments

- Availability of flexible processing systems able to handle a multiplicity of containers
- Widespread availability of microprocessor control

Compton and
Charleywood
Magyarország

Nescafe, Hot When You Want (R)

Self heating can




Compton and
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Magyarország

Novel (attractive) packaging formats



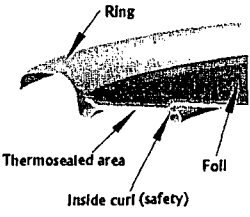
Compton and
Charleywood
Magyarország

Impress: Easy Peel (R)



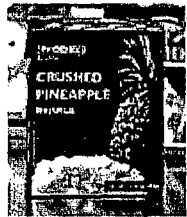
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Easy Peel (R)



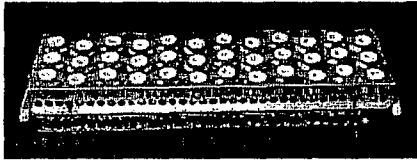
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**Tetra Recart (R):
A retortable block pack**



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Stork: Vario Cassette



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Magrenzag



The role of the food safety system in the new approach



Reasons for concern is growing 1

- Foodborne diseases remain one of the most widespread public health problems in the contemporary world, and an important cause of reduced economic productivity, despite progress in food science and technologies
- The increasing incidence of many foodborne diseases, e.g. salmonellosis and campylobacteriosis, in many regions of the world.
- Increased knowledge and awareness of the serious and chronic health effects of foodborne pathogens.
- An increase in the number of vulnerable people, such as the elderly, and individuals with other underlying health problems.

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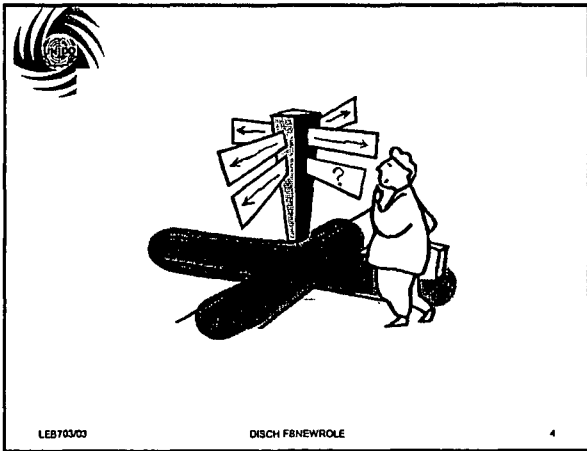
Reasons for concern is growing 2


- Increased awareness of the economic consequences of foodborne diseases.
- Industrialization and increased mass production, leading to
 - a) increased risks of food contamination; and
 - b) the considerably larger numbers of people affected in foodborne disease outbreaks as a result.
- Urbanization, leading to a more complex food chain,
- New food technologies and processing methods
- Changing lifestyles
- Increased worldwide tourism and international trade in foodstuffs
- Increased contamination of the environment.
- Increased consumer awareness of food safety.

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3





A General Framework
of a modern Food
Safety System
includes:



1. Definition of Food

- Any substance that is intended to be, or is „reasonable expected“ to be ingested by humans (Codex Alimentarius)

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2. The 'Farm to Table' approach

- to ensure the effective functioning of the internal market and in this regard provide a high level of protection of human health, safety and consumer interests.
- Food law will be based on an integrated approach from the farm to the final consumer, including measures applicable on the farm.
- In addition, where directly or indirectly relevant to food safety, requirements applicable to feed businesses are established.

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Scientific basis for food law and the principles of risk analysis

- establishes the principles of risk analysis in relation to food law and
- establishes the structures and mechanisms in relation to the scientific and technical evaluation which should be, in the main, undertaken by a Food Authority.
- Depending on the nature of the measure, food law, and in particular, measures relating to food safety, shall be underpinned by strong science.

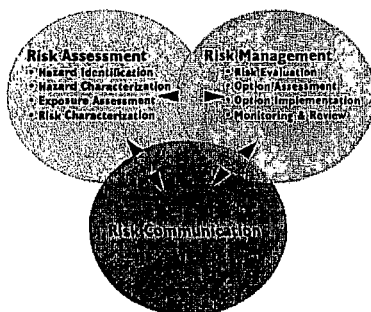
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STRUCTURE OF RISK ANALYSIS



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Risk Assessment

- A modern food law requires the scientific assessment of risk to be undertaken in an independent objective and transparent manner based on the best available science.
- The identification of emerging risks to health and the role of the Food Authority in a food safety crisis.
- It establishes a rapid alert system for foods *and feeds*, which will integrate and improve the system.
- It aligns procedures and responsibilities where a serious risk to health has been identified in the Lebanese food supply whether the product originates within Lebanon or an other country.

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Risk management

- is the process of weighing policy alternatives in the light of the results of a
- risk assessment and, if required,
- selecting the appropriate actions necessary to
 - o prevent,
 - o reduce or
 - o eliminate the risk to ensure the high level of health protection determined as appropriate in the country.

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Risk communication

- It is an interactive process
 - o of exchange of information and
 - o opinions on risk between
 - risk assessors,
 - risk managers and
 - other interested parties.
- It is required particularly during the risk assessment process between
 - o risk assessors and
 - o risk managers,

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food law on the state of the art

- ◆ lays the foundation for all elements of risk analysis in relation to matters with a direct and indirect affect on food safety.
- ◆ must provide a high level of health protection;
- ◆ uses the Precautionary Principle
- ◆ establishes the rights of consumers to safe food
- ◆ ensures a high level of human health protection
- ◆ establishes traceability of food, ingredients and food-producing animals
- ◆ fixes that primary responsibility for safe food rests with businesses;

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Obligation for the Industry

To be able to do this at least the principles of

- GHP
- GMP
- HACCP

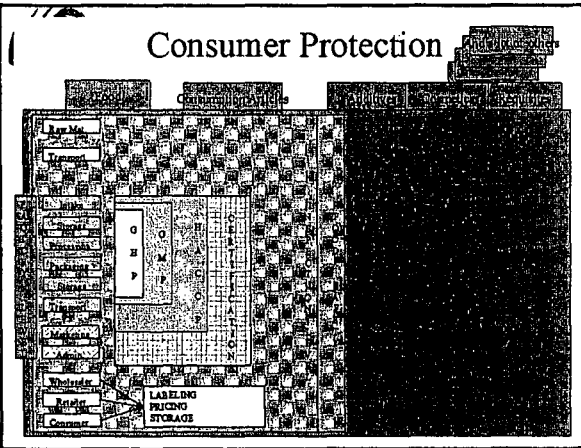
must be implemented in food producing factories.

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Consumer Protection





Industry considerations

- The need to take ownership of the HACCP system
- The need to have a clear understanding of the principles of the HACCP System
- The need for commitment on the part of both, management and staff towards the implementation and maintenance of the HACCP system
- The need to allocate the resources necessary for HACCP implementation
- The need to provide sufficient resources for training
- The need to share experiences with other sectors to ensure that adequate provision is made for food safety

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Benefits

- Each country being able to ensure that sufficient attention is given to the safety of the food supply for its population
- Common understanding as regards HACCP design and application
- Confidence in the safety of food products, thus promoting confidence in food trade and stability of food businesses
- Focusing of food sector and regulatory resources and activities on HACCP-based interventions

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Priorities

- Priority for regulatory attention should be directed at high-risk food or high-risk food processes based on epidemiological data, when available.
- The economic importance of the food process should also be considered but
- Care must be exercised to ensure that the domestic and export markets are not differentiated.

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food law on the state of the art

- ◆ ensures that only safe food is placed on the market;
- ◆ recognises Ukraine's international obligations particularly in relation to trade;
- ◆ establishes a framework for the greater involvement of stakeholders at all stages in the development of food law and establishes the mechanisms necessary to increase consumer confidence in food law;
- ◆ and is based on a vision:

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Vision Statement

- ◆ Consumers can be confident that food is safe.
- ◆ Public health is protected through a seamless food safety system that uses preventive strategies and integrates research, surveillance, inspection, enforcement, and education.
- ◆ The approach is science- and risk-based and cooperative with public and private partners.
- ◆ The system is vigilant to new and emergent threats and consider the needs of vulnerable populations.
- ◆ Food is safe because everyone understands and fulfils his responsibilities.

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Transparency of legislation and effective public consultation are essential to build this greater confidence.

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In order to fill a new food control framework with live, there must be adequate and effective controls organised by a competent authority.



The role of the food control organisation in the new approach



Inspectors oversight

The regulatory environment envisioned, in which industry would operate under a process control system (HACCP) and inspection personnel would ensure that HACCP is working by

- overseeing the effectiveness of that process
- control system in producing safe product and
- by enforcing performance standards
- and other requirements,

calls for a significant shift in Inspectors oversight.



The Shift

This shift would focus regulatory activities

- on process control and other systems
- and the enforcement of government safety requirements

rather than on prescriptive measures for controlling industry production practices.

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The Shift ₂

Inspection roles and responsibilities would shift from

- ◆ DETECTING facility and production problems to
- ◆ VALIDATING and
- ◆ VERIFYING that plants are producing safe products that meet the national and international established requirements.

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Reflecting new Requirements

- ◆ Agency activities and individual inspectors' tasks would need to reflect these proposed new requirements, and would need to be timed to conform to the phase-in schedule for the new requirements.
- ◆ Inspection roles are envisioned to consist of three primary activities validation verification, and enforcement.

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Validation

- Inspection validation activities would include assessments of whether plants comply with the specific elements of the regulation and that HACCP systems encompass all seven HACCP principles.

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Verification

Inspection verification activities would include an evaluation of records to verify that the establishment is complying with its written HACCP plan along with

- in-plant visual observations,
- microbial testing,
- and other inspectional tasks to ensure

that HACCP is being properly implemented and performance standards are being met.

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Enforcement

Formal enforcement actions, including

- retention of products
- or suspension of operations,

would be instituted when inspection Personnel identify and document occurrences of

- direct product contamination,
- unsanitary conditions where the product may have become adulterated or contaminated or where it may have been rendered injurious to health,
- or failure of the HACCP plan.

Lines of supervision and decision making would be shortened and clarified

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Link to framework

Inspection activities would be accomplished within the framework of existing support and newly created national and international systems.

„The wheel is already invented“

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Training required

The movement to a HACCP work environment would represent the most significant change to the regulatory process in the history of the inspection program. This would require that the field work force be trained to understand and perform new work tasks and to adapt to the changing regulatory focus.

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Joint education

It is a must, that inspectors and plant employees are given a common understanding and approach to HACCP. Both sides have to be committed to sharing their trainings, in order to ensure that the scientific and technical principles which undergird HACCP are viewed consistently.

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Other Changes Beyond the Transition to HACCP

Along the farm-table continuum there are several opportunities to foster or establish standards so industry can reduce the possibilities for product adulteration and subsequent food borne illness.

- ◆ Producer associations could promote the development of quality assurance programs that focus on risk reduction strategies

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Other Changes Beyond the Transition to HACCP

- ◆ For transportation and storage, industry associations could promote, and individual transportation and storage firms could adopt, special systems for handling products
- ◆ Development of Good Manufacturing Practices (GMPs) for this sector to address problems such as sanitation and temperature control and periodic reviews to determine conformance with such GMPs are also envisioned.
- ◆ These reviews would provide the basis for determining rates of industry compliance.

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Other Changes Beyond the Transition to HACCP

In the area of food handle and consumer education, it is to seek ways to expand collaboration with all interested parties in

- government,
- industry
- and other private organizations

to foster the effective delivery of safe handling messages to consumers in a manner that would improve safe food handling practices.

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Other Changes Beyond the Transition to HACCP

Further research by government, industry, and the scientific community is also necessary to acquire the scientific information about

- pathogen colonization,
- its characterization, prevalence, and incidence in food
- etc.

which is necessary for designing effective intervention programs.

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Thank you for your attention

Please put your questions
