



STATE GENERAL LABORATORY

MINISTRY OF HEALTH

1451 NICOSIA

Single integrated multi-annual national control plan in relation to Regulation (EC) No. 882/2004 and Decision 2007/363/EC for the period from 2007 to 2009

1. Introduction

The State General Laboratory (SGL) is the Official Control Laboratory granted under the Food (Control and Sale) Law 1996-2007 for the chemical and microbiological analysis of foodstuffs and water and implements the relevant needed research and surveillance/monitoring and control in these areas, according to relevant programmes - **multi-annual laboratory control plans.** It encompasses twenty (20) specialised laboratories. All the laboratories related to the food safety and official control of foodstuffs (except Lab. 9 see below) including drinking water, are **accredited** since 2002 by the Greek Accreditation Body ESYD in many fields/scopes of food analyses, according to the EN ISO/IEC 17025:2005 standard.

2. National control plans

Appropriate National control plans, **multi-annual**, are prepared in cooperation of MPHS and SGL, for both locally produced and imported foodstuffs (see below) and are preventive as far as possible in nature. They are based on the requirements of the framework and specific EU legislation and on the categorisation of risk, i.e. vulnerability of the foodstuff to spoilage, previous poor results, known safety problems, increased consumption by the consumer, especially high risk or vulnerable population groups (e.g. children), information from RASFF system etc.

3. Strategic objectives of the national control plan

Objective 1 (General):

Constant supply of **safe foodstuffs**, and making sure that the dietary intake of various chemicals (additives, contaminants and residues) allergens, micro-organisms and GMO present in foodstuffs is kept at safe levels.

Objective 2

Constant supply of healthy foodstuffs, keeping consumers properly fed and nourished.

Objective 3

Control of the quality of foodstuffs including labelling, nutritional value, adulteration, authentication and region/country of origin.

Objective 4

Control of chemical safety of foodstuffs, additives, contaminants, residues (veterinary and pesticides) including drinking water.

Objective 5

Control of Microbiological and Biological (GMO, Allergens) safety of foodstuffs, including drinking water.

4. Designation of the competent authorities, national reference laboratories and delegated control bodies

The Competent Authorities in Cyprus for the official Control of foodstuffs, according to the relevant harmonized E.U. legislation Food (Control and Sale) Law are: (a) The Ministry of Health (MH) through its two departments: (i) The Medical and Public Health Services (MPHS) for sampling, inspection and enforcement. (ii)The State General Laboratory (SGL) for official laboratory food control, drafting of National Control Plans in cooperation with the MPHS and relevant evaluation/assessment of results. (b) For the veterinary (raw meat and animal products) and plant controls inspections and sampling, the Competent Authority is the Ministry of Agriculture Natural Resources and Environment (MANRE) by its two departments (i) The Veterinary Services and (ii) The Department of Agriculture.

5. Reporting and communication channels

The link between the MPHS and the central, regional and local services and the SGL is achieved by written circulars, letters, fax, telephone etc.

The link between SGL and the competent Authorities (Ministry of Health and MPHS and MANRE and Veterinary Services), regional (district) and local services are direct by correspondence, meetings, telephones, faxes and e-mails.

The structure of the MPHS of the Ministry of Health is shown in the Organogram 1

The structure of the SGL and its communication to MPHS and Veterinary Services are shown in

the Organogram 2 (Appendix I).

6. Multi-annual laboratory control plans

State General Laboratory of Cyprus, Multi-annual laboratory control plans

1. Delegation of official control tasks to control bodies				
Competent authority responsible	Control bodies or category of control body as appropriate	Official control tasks delegated		
a) Ministry Of Health				

(i) The Medical and Public	(i) The Medical and Public	
Health Services (MPHS)	Health Services (MPHS)	The SGL is the Official Control
		Laboratory granted under the Food
(ii) State General Laboratory	(ii) State General Laboratory	(Control and Sale) Law for the
(SGL)	(SGL)	chemical and microbiological
The current infrastructure	All the laboratories related	analysis of foodstuffs and water and
(see Organogramme 2) of the	to the food safety and	implements the relevant needed
SGL encompasses twenty	official control of foodstuffs	research and
(20) laboratories of which	(except Lab. 9) including	surveillance/monitoring and control
fourteen (14) specialized	drinking water, are	in these areas, according to relevant
food laboratories of the SGL,	accredited since 2002 by	programmes - multi-annual
are providing a wide range of	the Greek Accreditation	laboratory control plans (see
highly sophisticated	Body ESYD in many	below).
analytical services, target	fields/scopes of food	
oriented surveys and research	analyses, according to the	
biological covering	EN ISO/IEC 17025 standard	
chemical, microbiological	(see below Tables for the	
and radiological aspects of	scope/methods of	
food quality and safety,	accreditation).	
including drinking water.		

The laboratories related to the food safety and **official control** of foodstuffs including drinking water are 14:

- Lab. 1: Food Composition & Food Quality Nutritional Value
- Lab. 2: General Water Examination
- Lab. 4: Quality Control of Pharmaceuticals, Cosmetics and Food Supplements
- Lab. 5: Veterinary Drug Residues
- Lab. 6: Environmental Chemistry I (for organic pollution of drinking water)
- Lab. 8: Pesticide Residues
- Lab. 9: Control of Radionuclides
- Lab.12: Articles in contact with food and safety of toys
- Lab.13: Food Additives & Special Analysis of food
- Lab.14: Environmental & other Food Contamination Natural Toxins
- Lab.15: Water, Drug & Environmental Microbiology
- Lab.16: Food Microbiology(Including food Allergens)
- Lab.20: NMR Laboratory
- Lab 21: GMO Laboratory

Describe the arrangements to ensure that the legislative requirements regarding delegation of control tasks to control bodies are met.

Appropriate National control plans, **multi-annual**, are prepared in cooperation of MPHS of Ministry of Health and SGL for foodstuffs (sale) in general. With the Veterinary Services of the **Ministry of Agriculture Natural Resources and Environment** (MANRE) the SGL executes analysis and control for residues in raw meat products. The controls are applied for both locally produced and imported foodstuffs (see below) and are preventive as far as possible in nature. They are based on the requirements of the relevant framework and specific EU legislation and on the categorisation of risk, i.e. vulnerability of the foodstuff to spoilage, previous poor results, known safety problems, increased consumption by the consumer, especially high risk or vulnerable population groups (e.g. children), information from RASFF system etc.

In general the violative samples are as far as possible retained, retrieved and/or destructed and or

notified in RASFF according to the relevant requirements of Regulations (EC) No. 178/2002 and No. 882/2004 by the relevant competent authority of Cyprus, which is the Health Services of the Ministry of Health.

More specifically the **multi-annual** (laboratory) **control plans** (three years) for all the needed controls except in the field of residues, are the following so as to cover all the relevant areas of specific EU food legislation (Regulations, Directives, Decisions, for Maximum Limits, methods of analysis and sampling etc.). For residues control are dealing the Labs.5, 8 & 14 of SGL and their multi-annual control plans will be sent by the Veterinary Services of MANRE. In the following Tables 1-13 the priorities/parameters of controls for the several food group/items, the relevant legislation and the accredited methods are shown:

TABLES OF THE INTEGRATED MULTIANNUAL NATIONAL CONTROL PLAN State General Laboratory

Table 1

LAB No.1

Name: FOOD COMPOSITION, QUALITY AND NUTRITION LAB

YEAR	PARAMETER	FOOD GROUP/ITEM (e.g. vegetables/tomatoes)	METHOD	EC LEGISLATION (only No. of Directive etc)
2007	Acidity	Olive oil, Veget. oils	Titrimetric 2568/91	Reg.2568/91
	Perox. Value	Olive oil, Veget. oils	Titrimetric 2568/91	Reg. 2568/91
	K ₂₃₂	Olive oil	Phasmatophotometric 2568/91	Reg.2568/91
	K ₂₇₀	Olive oil	Phasmatophotometric 2568/91	Reg. 2568/91
	ΔΚ	Olive oil	Phasmatophotometric 2568/91	Reg. 2568/91
	Fatty acids	Olive oil Veget. oils	GLC 2568/91	Reg. 2568/91
	Sterols	Olive oil	GLC* 2568/91	Reg. 2568/91
	Fructose	Honey	AOAC Official Met*	2001/110/EU
	Glucose	Honey	AOAC Official Met*	2001/110/EU
	Sucrose	Honey	AOAC Official Met*	2001/110/EU
	Moisture	Honey	Manual of Food* Quality Control (FAO	2001/110/EU
			1986)	
	Deastase Index	Honey	Apidology 1997 * Harmonised methods	2001/110/EU
			for the European Honey Commision extr.issue, 35-37	

	HMF	Honey	Apidology 1997 *	2001/110/EU
			Harmonised methods	
			for the European Honey	
			Commision	
	IRMS	Honey	AOAC 991.12-2000*	2001/110/EU
			J.of AOAC Inter. Vol.	
			75 Mr 3,1992	
	Histamine	Fish	J.of AOAC *	Reg. 2073/2005
			International Vol. 81,	
			No 5 1998	
	TVB Fish		Dec. 95/149/EC	Dec. 95/149/EC
	Erucic acid	Sauce	GLC Dir. 80/891/EU*	Dir. 80/891/EU
	Nutritional Several for		Several approved	90/496/EEC
	Claims		methods*	2000/13EU
	(proximate,			
	trace elements			
	etc)			
2008	All the parameters	of 2007 will be repeated in	n 2008	
	ECN42	Olive oil	HPLC 2568/91*	Reg. 2568/91
2009	All the parameters	of 2008 will be repeated in	n 2009	
	Stigmastadien	Olive oil	GLC 568/91*	Reg.2568/91
	Waxes	Olive oil	GLC 568/91*	Reg. 2568/91

* Non Accredited method

Table 2

LAB No.2

Name: GENERAL WATER ANALYSIS

YEAR	PARAMETER	FOOD GROUP/ITEM	METHOD	EC
				LEGISLATION
2007	pН	Drinking Water	APHA 4500-H ⁺	Directive
2007		(Distribution networks,		98/83/EE
	Conductivity	bottled water, mobile	APHA2510-B	
		water containers, vending		
	Nitrate	machines)	APHA4500-B	
	Chloride		APHA4500-B	
	Sulfate		АРНА4500-Е *	
	Nitrite		Colorimetric *	
	Ammonium		Molecular *	
			absorption spect/try	
	Fluoride		Ion Selective	
			electrode *	
	Boron		AES-ICP *	
	Lead		AAS-GF *	
	Cadmium		AAS-GF *	
	Chromium		AAS-GF *	
	Nickel		AAS-GF *	
	TOC(for supplies		Combustion	
	>10000m3/day)		/infrared technique*	
		Natural Mineral water		
	Nitrate		APHA4500-B	Directive
				2003/40/EE
	Nitrite		Colorimetric *	
	Chromium		AAS-GF *	

	Arsenic		AAS-HG *			
2008	The first 14 parameters of 2007 will be repeated in 2008					
	CyanideDrinking WaterIonDire					
		(Distribution networks,	Chromatography *	98/83/EE		
		bottled water, mobile				
		water containers, vending				
		machines)				
		Natural Mineral water				
	The first 4 parameters of 2007 will be repeated in 2008					
	Cyanide Ion Directi					
			Chromatography *	2003/40/EE		
	Nickel		AAS-GF			
	Fluoride		Ion Selective			
			Electrode *			
2009	All the parameters	s of 2008 will be repeated in 2	2009			

* : non accredited method

Table 3

LAB No.: 04

Name: QUALITY CONTROL OF PHARMACEUTICALS, COSMETICS AND FOOD SUPPLEMENTS

YEAR	PARAMETER	FOOD GROUP/ITEM (e.g. vegetables/tomatoes)	METHOD	EC LEGISLATION (only No. of
2007	Anabolic steroids* Stimulants* Vitamins*	Food Supplements The lab will continue to implement quality controls based on the national surveillance program. These controls will include analysis for the presence of a group of anabolic steroids and stimulants, the investigation of suspicious samples for the presence of control substances .The completion of the set-up and verification of the method for the analysis of vitamins is expected to be in 2007.	 Qualitative analysis of anabolic steroids and stimulants in food supplements-GC/MS Quantitative analysis of Caffeine in Food Supplements-GC(FID) Developed method for the Determination of Vitamins in food supplements-HPLC 	202/46/EC
2008	Anabolic steroids* Stimulants* Vitamins* Heavy metals*	Addition to the above tests in 2008 the implementation of the vitamins control for compliance with the label declaration is for seen to be carried out.	 Qualitative analysis of anabolic steroids and stimulants in food supplements Quantitative analysis of Caffeine in Food 	202/46/EC

		Parallel to this, the Lab will make efforts for the preparation including the method development and validation for the determination of heavy metals in Food Supplements.	Supplements 3) Developed method for the Determination of Vitamins in food supplements 4) Developed method for the Determination of Heavy metals in food supplements-ICP	
2009	Anabolic steroids* Stimulants* Vitamins* Heavy metals*	The laboratory will in addition to the carried out controls (anabolic steroids, vitamins) also implement the controls for heavy metals.	 Qualitative analysis of anabolic steroids and stimulants in food supplements Quantitative analysis of Caffeine in Food Supplements Developed method for the Determination of Vitamins in food supplements Developed method for the Determination of Heavy metals in food supplements 	202/46/EC

* Non accredited methods

Samples/Year analysed (75-100)

Table 4

LAB No. 06

Name: LAB OF ENVIRONMENTAL CHEMISTRY I

YEAR	PARAMETER	FOOD	METHOD	EC LEGISLATION
		GROUP/ITEM		(only No. of
		(e.g.		Directive etc)
		vegetables/tomatoes)		
2007	Benzene	WATER	MEO 06 03 11:	Directive 98/83/EE
			based on	concerning the
			USEPA 502.2	quality of drinking
				water
	Benzo(a)pyrene		MEO 06 03 08:	
			based on	
			USEPA 550	
	1,2 dichloroethane		MEO 06 03 11:	
			based on	
			USEPA 502.2	
	Pesticides		MEO 06 02	
	(OCls, OPS and		02:based on	
	Triazines)		USEPA 508 and	

		ME	EØ 06 02 01	
	Polycyclic aromatic Hydrocarbons	ME bas US	EØ 06 03 08: sed on SEPA 550	
	Tetrachloroethane & trichloroethane	ME bas US	$E\Theta 06 03 11:$ sed on SEPA 502.2	
	Trihalomethanes	ME Bas US	EØ 06 03 04: sed on SEPA 504	
	Vinyl chloride	ME bas US	EØ 06 03 11: sed on SEPA 502.2	
2008	Monitoring as above			
	Additionally Pesticide metabolites and growth regulators such as Nonyl –phenols and Hormones	Liq Chi and chr wit spe (LC HR res	quid romatography d gas romatography th mass ectrometers C/MS) and RGCMS epectively	
	Acrylamide	Liq chr and det	quid romatography d PDA tector	
2009	The monitoring will continue as during 2008			

Table 5

LAB No.8 Name: PESTICIDE RESIDUES/DIOXINS AND DIOXIN LIKE COMPOUNDS

YEAR	PARAMETER	FOOD GROUP/ITEM	METHOD	EC
		(e.g.		LEGISLATION
		vegetables/tomatoes)		(only No. of
				Directive etc)
2007	Pesticides	Products of plant origin	Multi Residue	Directives:
	(organophosphorous,	Apples	method:	76/895/EEC
	Pyrethroids, carbamates,	Head Cabbage	Ethyl acetate	86/362/EEC
	Organochlorines,	Leek	extraction,	90/642/EEC
	Dithiocarbamates and	Lettuce	GPC clean up	96/5/EEC
	others)	Tomatoes	GC-MS/ITD	
		Peaches, Nectarines	GC-FPD	
		Rye or Oats	GC-ECD	
		Strawberries	LC-MS/MS**	
		Baby food		
		Organic produce	Iso octane	
		Potatoes	extraction	
		Grapes	for the	

		Citrus Leafy vegetables Oils Herbs	determination of Dithiocarba- mates as CS_2	
	Pesticides and PCBs	<u>Animal origin products</u> Raw milk Thermal treated milk Fish	Multi Residue method 1: Ethyl acetate extraction, GPC clean up GC-ECD GC-FPD GC-MS/ITD Multi Residue method 2: Soxtec extraction, GPC clean up GC-ECD	<u>Directives:</u> 86/363/EEC 91/321/EEC 96/23/EC
	Dioxins / Furans and Dioxin like PCBs	Fish Meat Milk Milk products Eggs Milk Milk products	GC-MS/ITD Chemical analysis by HRGCMS (Subcontracting) Determination by DR Calux method* (under Licence	<u>Regulation:</u> 466/2001/EC
			agreement)	
2008	Pesticides (organophosphorous, Pyrethroids,carbamates, Organochlorines, Dithiocarbamates and others)	Products of plant origin Beans Carrots Cucumbers Oranges or Mandarins Pears Potatoes Rice Spinach Baby food Organic Produce Grapes Strawberries Leafy vegetables Oils Herbs	Multi Residue method: Ethyl acetate extraction, GPC clean up GC-MS/ITD GC-FPD GC-ECD LC-MS/MS ** <u>Iso octane</u> <u>extraction</u> for the determination of Dithiocarba- mates as CS ₂	<u>Directives:</u> 76/895/EEC 86/362/EEC 90/642/EEC 96/5/EEC
	Pesticides and PCBs	Animal origin products Raw milk Thermal treated milk Baby food Fish	Multi Residue method 1: Ethyl acetate extraction, GPC clean up GC-ECD GC-FPD GC-MS/ITD Multi Residue method 2:	Directives: 86/363/EEC 91/321/EEC 96/23/EC

	Dioxins/Furans and Dioxin like PCBs	Fish Meat Milk Milk products Eggs Milk Milk products	Soxtec extraction, GPC clean up GC-ECD GC-MS/ITD Chemical analysis by HRGCMS (Subcontra- cting) Determination by DR Calux method*	Regulation: 466/2001/EC
			(under Licence)	
2009	Pesticides (organophosphorous, Pyrethroids,carbamates, Organochlorines, Dithiocarbamates and others)	Products of plant origin Aubergines Bananas Cauliflower Grapes Orange juice Peas Peppers sweet Wheat Baby food Organic produce Potatoes Citrus fruit Leafy vegetables Strawberries Oils Herbs	Multi Residue method:Ethyl acetate extraction,GPC clean up GC-MS/ITDGC-FPD GC-ECD LC-MS/MS*Iso octane extraction for the determination of Dithiocarba- mates as CS2	<u>Directives:</u> 76/895/EEC 86/362/EEC 90/642/EEC 96/5/EEC
	Pesticides and PCBs	Animal origin products Raw milk Milk products Baby food Fish	Multi Residue method 1: Ethyl acetate extraction, GPC clean up GC-ECD GC-FPD GC-MS/ITD Multi Residue method 2: Soxtec extraction, GPC clean up GC-ECD GC-MS/ITD	Directives: 86/363/EEC 91/321/EEC 96/23/EC
	Dioxins/Furans and Dioxin like PCBs	Fish Meat Milk Milk products Eggs Milk	Chemical analysis by HRGCMS (Subcontracting) Determination by DR Calux	Regulation: 466/2001/EC

	Milk products	method*	
	Fish	(Under Licence)	

* Non accredited method

** Note: LC-MS/MS Determination not yet accredited

Table 6

LAB No. 12

Name: Food Contact Materials and Safety of Toys

YEAR	PARAMETER	FOOD CONTACT	METHOD	EC
		GROUP/ITEM		LEGISLATION
		(e.g. plastics, ceramics,		(only No. of
		etc)		Directive etc)
2007	Identification of	Plastic and multilayer	FT-IR*	882/2004 /EC
	plastics, monomers	materials		1935/2004/EC
	and additives			2002/72/EC
	Overall migration by	Plastic materials and	EN 1186-1:2002*	882/2004 /EC
	article filling	articles and silicone	EN 1186-9:2002	1935/2004/EC
	(non-volatiles)	kitchen ware	(Gravimetric)	2002/72/EC
	Overall migration by	Plastic materials and	EN 1186-1:2002*	882/2004 /EC
	total immersion	articles	EN 1186-3:2002	1935/2004/EC
	(non-volatiles)		(Gravimetric)	2002/72/EC
	Migrated Lead and	Ceramic articles	84/500/EC and	882/2004 /EC
	Cadmium		amendment	1935/2004/EC
			2005/31/EC	84/500/EC and
			(ICP,ICP-MS)	amendment
				2005/31/EC
	Migrated Lead and	Glassware articles	EN 1388-2:1986	882/2004 /EC
	Cadmium		84/500/EC and	1935/2004/EC
			amendment	EN 1388-2:1986
			2005/31/EC,	
			ISO 7886	
			(ICP,ICP-MS)	
	Migrated Bisphenol	Plastic and and	In –house method	882/2004 /EC
	A	multilayers articles and	based on method	1935/2004/EC
		coated cans	ISNN-1018-5593-	2002/72/EC
			EC and MAT1-	
			CT92-0006,	
			PM/Ref 13480	
	DEUA		(HPLC)	
	DEHA	Plastic articles and cling	HPLC,GC-MS*	882/2004 /EC
		films		1935/2004/EC
				2002/72/EC
	Migrated	Elastomer and rubber	93/11/EEC	2004/1/EC
	N-nitrosamines and	teats and soothers	(GC)*	93/11/EEC
	N-nitrosable			
	substances			
	Residual Vinyl	Plastic materials and	80//66/EEC	882/2004 /EC
	chloride monomer	articles	(GC-HS)*	1935/2004/EC
				/8/142/EEC
	Phthalates	Plastic materials and	HPLC, GC-MS*	882/2004 /EC
		articles ,Cling films,		1935/2004/EC
		Children care articles		2002/72/EC

	L			
	Aromatic primary	Nylon materials and	HPLC, GC-MS*	882/2004 /EC
	amines	articles ,kitchen utensils		1935/2004/EC
				2002/72/EC
	Styrene	Plastic take-away articles	HPLC. GC-HS*	882/2004 /EC
	5	5	,	1935/2004/EC
				2002/72/FC
	ITY	Tetra pack for milk fruit	CC*	882/2004 /EC
	ПА	ivines ate		1025/2004/EC
		juices ,etc.		1935/2004/EC
2008	The peremeters of 200	7 will be repeated in 2008		2002/72/EC
2000	The parameters of 200	57 will be repeated in 2008	T 1	000/0004 /EC
	Migrated BADGE	Plastic and multilayers	In –house	882/2004 /EC
	BFDGE and NOGE	articles and coated cans	method based on	1935/2004/EC
			method ISNN-	1895/2005
			1018-5593-EC	
			and MAT1-	
			CT92-0006,	
			PM/Ref 13480	
			(HPLC-	
			Fluor det)*	
	Migratad	Diastia gaskata in lida	I C MS*	882/2004 /EC
	Semicerhanide	Flashe gaskets in hus	LC-IVIS	002/2004/EC
	Semicardazide			1935/2004/EC
	(SEM)			2002/72/EC and
				amendment
				2004/1/EC
	Migrated Vinyl	Plastic materials and	81/432/EEC	882/2004 /EC
	chloride monomer	articles	(GC-HS)*	1935/2004/EC
				78/142/EEC
	Migrated ESBO	Plastic gaskets in lids	GC, GC-MS*	882/2004 /EC
	0	6	,	1935/2004/EC
				2002/72/EC and
				amendment
				2005/79/EC
	Formaldehyde	Melamine articles and	13130-23.2002	882/2004 /EC
	ronnaidenyde	kitchon utonsils and wood	Dhotomotric	1035/2004/EC
		kitchen utensile	mothed CC*	1933/2004/LC 2002/72/EC
			method, GC*	2002/72/EC
	11 X	Letra pack for milk, fruit	GC*	882/2004 /EC
		juices ,etc.		1935/2004/EC
				2002/72/EC
	Organic volatiles	Plastic and silicone	GC-HS*	882/2004 /EC
		articles, kitchen wares		1935/2004/EC
		and utensils		2002/72/EC
2009	The parameters of 200	08 will be repeated in 2009	•	

* Non Accredited methods

Parameters in blue font – Regulations and Directives adopted but not applicated in FCM laboratory yet and most of them notified in RASFF.

LAB No.13

Name: FOOD ADDITIVES AND SPECIAL ANALYSIS OF FOODSTUFF

VFA	PARAMETER	FOOD	METHOD	FC
D		CDOUD/ITEM	METHOD	LC LECISLATIO
N				LEGISLATIO N (only No. of
		(e.g.		N (OIIIY NO. OI Divective etc)
		vegetables/tomatoe		Directive etc)
	1 0 1 1 /	S)	DAGED M	a · ·
	1. Sudan dyes /	Chilli, chilli	RASEF News notification	Commission
	Para Red	products, curcuma	03/92, Dec. 2003	Decision
2007		& palm oil	(HPLC/PDA)*	2005/402/EC
	2. Cow's milk or	Raw milk & cheeses	Regulation 213/2001/EC	Directive
	caseins		(IEF)*	2000/13/EC
		× 1·1		D :
	3. Colours: carmine,	Ice-creams, drinks,	NMKL	Directive
	synthetic colours	sweets etc.	No.157,1997(HPLC/PDA	94/36/EC
	$(e.g. E_{122}, E_{110}, E_{124})$)*	
			NMKL	
			No.130,1989(HPLC/PDA	
)*	
			NMKL No. 114, 1985	
			(TLC)*	
	4. Preservatives:	Salads, sauces, dried	NMKL No. 124,	Directive
	benzoic / sorbic acid.	fruit, meat products.	2.ed.,1997	95/2/EC
	sulphur dioxide.	bakery products etc.	(HPLC/PDA)	
	nitrites / nitrates	cullery produces ever	Journal Analyst Lond	
	propionic acid		1928	
	propronie dela		Vol. 53 (Volumetric)	
			CVS ENV 12014	
			4.1008*	
			4.1996°	
			(HPLC/PDA)	
	5 0 1		GC/FID	D :
	5. Sweeteners:	~ ~	CYS EN: 12857:1999	Directive
	cyclamates,aspartam	Soft drinks, chewing	CYS EN: 12856:1999	94/35/EC
	e, saccharin,	gums	(HPLC/PDA)	
	acesulfame-K			
	6. Coumarin	Cinnamon samples	MEO 13* 09 01	Directive
		and bakery wares	(HPLC/PDA)*	88/388/EC
	1. Sudan dyes /	Chilli, chilli	RASFF News notification	Commission
	Para Red	products, curcuma	03/92, Dec. 2003	Decision
2008		& palm oil	(HPLC/PDA)*	2005/402/EC
	2. Colours: ethyl	Butter, ice-creams,	EC Regulation 1082/96	Directive
	ester of beta-apo-8'-	sweets, drinks, etc.	(UV/VIS)*	94/36/EC
	carotenic acid.		NMKL	
	synthetic colours		No.130.1989(HPLC/PDA	
	$(e \circ E_{122} E_{102} E_{122})$)	
	(/	
	3 Preservatives.	Dried fruit shrimps	Journal Analyst Lond	Directive
	sulphur diovide	wine margarings/	1928 Vol 53	95/2/FC
	benzoie/sorbie soid	spreads	(Volumetric)	Directivo
	benzoic/ solute acid	spicaus	NMKL No 124	2002/80/EC
			11111111111111111111111111111111111111	2003/89/EC
	4.0 (T 1 0 1	2eu.,1997 (HPLC/PDA)	D' d'
	4. Sweetemers:	Low calories fruit	CYS EN: 12856:1999	Directive
	aspartame,	yoghurts and deserts	(HPLC/PDA)	94/35/EC
	saccharin,			

acesulfame-K			
5. Cow's milk or	Yoghurts an	d Regulation 213/2001/EC	Directive
caseins	cheeses	(IEF)*	2003/13/EC
6. Antioxidants	Fats and Oils	GC/FID*	Directive
e.g. BHA, BHT			95/2/EC

* Non Accredited methods

Table 8

LAB No. 14

Name: ENVIRONMENTAL AND OTHER FOOD CONTAMINATION AND NATURAL TOXINS

YEAR	PARAMETER	FOOD	METHOD	EC LEGISLATION
		GROUP/ITEM		(only No. of
		(e.g.		Directive etc)
		vegetables/tomatoes)		
2007	Aflatoxins B1 B2,	Nuts, dried fruit-	AOAC	Reg. EC
	G1, G2,	Cereals, baby food	991.31(2005)	No.1881/2006
	Aflatoxin M1	Milk	AOAC 2000.08	Reg. EC
			(Final Action	No.1881/2006
			2004)	
	Nitrates	Vegetables, potatoes,	CYS EN 12014-	Reg. EC
		baby food	2:1997	No.1881/2006
	Patulin	Apple juice and puree	CEN-320*	Reg. EC
				No.1881/2006
	Ochratoxin A	Cereals, dried vine	JAOAC 83,	Reg. EC
		fruit	2000*, p. 1377	No.1881/2006
			-	
	PAHs	Smoked meat	JAOAC <u>75</u>	Reg. EC
			1992* P.872	No.1881/2006
			ISO/DIS15753*	
	Heavy Metals (Pb,	Vegetables, meat,	AOAC 9999.10	Reg. EC
	Cd, Hg, Sn)	fish, cereals	(Final Action	No.1881/2006
			2005)	
	Deoxynivanenol	Cereals	HPLC/IAC/UV*	Reg. EC
				No.1881/2006
	Zearalenone	Cereals	HPLC/IAC/UV*	Reg. EC
				No.1881/2006
2008	All the parameters of 2	2007 will be repeated in	2008 in above the f	ollowing:
	Deoxynivanenol	Cereals	HPLC/IAC/UV*	Reg. EC
				No.1881/2006
	Fumonisines	Maize	HPLC/IAC/FL*	Reg. EC
				No.1881/2006
2009	All the parameters of 2	2007 will be repeated in	2009 in above the f	ollowing:
	Deoxynivanenol	Cereals	HPLC/IAC/UV*	Reg. EC
				No.1881/2006
	Fumonisines	Maize	HPLC/IAC/FL*	Reg. EC
				No.1881/2006
	T-2 and HT-2	Cereals	GC-MS*	Reg. EC
	Toxines			No.1881/2006

* Non Accredited methods

Table 9

LAB No.15

Name: WATER, DRUG AND ENVIRONMENTAL MICROBIOLOGY LABORATORY (Bottled water)

YEAR	PARAMETER	FOOD GROUP/ITEM	METHOD	EC LEGISLATION
2007	1) Coliforms / Escherichia coli	Bottled waters incl. mineral waters	ISO 9308-1:2000 / APHA 9223/05	98/83/EC 80/777/EEC
	2) Enterococci		ISO 7899-2:2000	98/83/EC 80/777/EEC
	3) Sulphite-reducing clostridia		ISO 6461-2:1986	98/83/EC 80/777/EEC
	4) Total viable count (22 and 37 °C)		EN ISO 6222:1999	98/83/EC 80/777/EEC
	6) Pseudomonas aeruginosa		EN ISO 12780	98/83/EC 80/777/EEC
2008	1) Coliforms / Escherichia coli	Bottled waters incl. mineral waters	ISO 9308-1:2000/ APHA 9223/05	98/83/EC 80/777/EEC
	2) Enterococci		ISO 7899-2:2000	98/83/EC 80/777/EEC
	3) Sulphite-reducing clostridia		ISO 6461-2:1986	98/83/EC 80/777/EEC
	4) Total viable count (22 and 37 °C)		EN ISO 6222:1999	98/83/EC 80/777/EEC
	6) Pseudomonas aeruginosa		EN ISO 12780	98/83/EC 80/777/EEC

2009	1) Coliforms / Escherichia coli	Bottled waters mineral waters	incl.	ISO 9308-1:2000/ APHA 9223/05	98/83/EC 80/777/EEC
	2) Enterococci			ISO 7899-2:2000	98/83/EC 80/777/EEC
	3) Sulphite-reducing clostridia			ISO 6461-2:1986	98/83/EC 80/777/EEC
	4) Total viable count (22 and 37 °C)			EN ISO 6222:1999	98/83/EC 80/777/EEC
	6) Pseudomonas aeruginosa	Bottled waters mineral waters.	incl.	EN ISO 12780	98/83/EC 80/777/EEC
	7) Parasites, giardia and cryptosporidium*				98/83/EC

* Non accredited method

Table 10

LAB No. 15

Name: WATER, DRUG AND ENVIRONMENTAL MICROBIOLOGY LABORATORY (Drinking water)

YEAR	PARAMETER	FOOD	METHOD	EC LEGISLATION
		GROUP/ITEM		
2007	1) Coliforms /	Drinking water	ISO 9308-1:2000/	98/83/EC
	Escherichia coli	(tap water)	APHA 9223/05	
	2) Enterococci		ISO 7899-2:2000	98/83/EC
	3) Sulphite- reducing clostridia		ISO 6461-2:1986	98/83/EC
	4) Total viable count (22 and 37 °C)		EN ISO 6222:1999	98/83/EC mostly samples from the final product of the drinking water treatment plants
	6) Pseudomonas aeruginosa		EN ISO 12780	Drinking water derived from storage water tanks of schools hospitals, military camps etc.
	7) Legionella		ISO 11731:1998	hot and cold water

				systems in hospitals
2008	1) Coliforms/ Escherichia coli	Drinking water (tap water)	ISO 9308-1:2000/ APHA 9223/05	98/83/EC
	2) Enterococci		ISO 7899-2:2000	98/83/EC
	3) Sulphite- reducing clostridia		ISO 6461-2:1986	98/83/EC
	4) Total viable count (22 and 37 ℃)		EN ISO 6222:1999	98/83/EC mostly samples from the final product of the drinking water treatment plants
	6) Pseudomonas aeruginosa		EN ISO 12780	Drinking water derived from storage water tanks of schools hospitals, military camps etc.
	7) Legionella		ISO 11731:1998	98/83/EC hot and cold water systems in hospitals
2009	1) Coliforms / Escherichia coli	Drinking water (tap water)	ISO 9308-1:2000 / APHA 9223/05	98/83/EC
	2) Enterococci		ISO 7899-2:2000	98/83/EC
	3) Sulphite- reducing clostridia		ISO 6461-2:1986	98/83/EC
	4) Total viable count (22 and 37 °C)		EN ISO 6222:1999	98/83/EC mostly samples from the final product of the drinking water treatment plants
	5) Pseudomonas aeruginosa		EN ISO 12780	Drinking water derived from storage water tanks of schools hospitals, military camps etc.
	6) Legionella		ISO 11731:1998	hot and cold water systems in hospitals
	7) Parasites giardia and cryptosporidium*			98/83/EC

* Non accredited method

Table 11

LAB No.16 Name: FOOD MICROBIOLOGY

YEAR	PARAMETER	FOOD	METHOD	EC LEGISLATION
		GROUP/ITEM		(only No. of
		(e.g.		Directive etc)
		vegetables/tomatoes)		
2007	Escherichia coli	Ready to eat foods	ISO 16649-2:	Food (Sale and
	Coliforms	from school canteens	2001* & ISO	Control) Law 1996-
	Enterobacteriaceae		11866-2:1997	2006 and or
	Staphylococcus	Ready to eat foods	ISO4832.2006	Regulation 882/2004
	aureus	from restaurants and	ISO 21528-	and or
	Bacillus cereus	cafeterias	2:2004	Regulation
	Salmonella spp.	Ready to eat foods	ISO6888-1:1999	2073/05/EC
	Listeria spp.	from Hotels	ISO 7932:2004	
	Listeria		NMKL, 71:1999	
	monocytogenes	Ready to eat foods	ISO 11290-1	
	Total Count Veget and Mould	from cruise ships	ISO 11290-2	
	Count	Confectionery and	150 4855:2005* Spirol HDA	
	Count	bakery products	2004*	
		Cheese and Halloum	EDA Ch 18	
		Cured meats mainly	I'DA CII. 10	
		nam		
		Ready to get foods		
		from private clinics		
		and government		
		hospitals		
		Ready to eat foods		
		from prisons		
		Ready to eat foods		
		from elderly homes		
		Ready to eat foods		
		from army camps		
		Staph enterotoxin		
		Ready to eat foods		
		from soccer stadium		
		canteens		
		Juices pasteurised,		
		fresh and sterile		
		Ice cream and frozen		
		desserts		

All of the above plus Campylobacter spp. Staph enterotoxin	Food poisoning and complaints investigations	ISO 10272* Eliza Transia Plate* ISO 7937*	
Clostridium perfirngens			
Phosphatase test Peroxidase test Antibiotic residues	cream	2:2004 Dairy Regulations, 2004* Delug SP*	
Enterobacteriaceae Enterobacter sakazakii	Infant formulae	ISO 21528- 2:2004 ISO 22964:2006*	
2008 Escherichia coli Coliforms Enterobacteriaceae Staphylococcus aureus Bacillus cereus Salmonella spp. Listeria monocytogenes Total Count Yeast and Mould Count	Ready to eat foods from restaurants and cafeterias Ready to eat foods from Hotels Ready to eat foods from cruise ships Ready to eat foods from college and university canteens Confectionery products made with raw egg Confectionery products with patisserie and fresh cream Dairy Products Traditional Cyprus Diary products: Halloumi, Anari and Flaouna Cheese Ready to eat foods from private clinics and government hospitals Ready to eat foods from prisons Ready to eat foods from prisons Ready to eat foods from nursery and elderly homes Suspicious Foods acc. the Rapid Alert System Traditional Cyprus Cured meats Sprouted seeds Foods for special	ISO 16649-2: 2001* & ISO 11866-2:1997 ISO4832.2006 ISO 21528- 2:2004 ISO6888-1:1999 ISO 7932:2004 NMKL, 71:1999 ISO 11290-1 ISO 11290-2 ISO 4833:2003* Spiral HPA 2004* FDA Ch. 18	Food (Sale and Control) Law 1996- 2006 and or Regulation 882/2004 and or Regulation 2073/05/EC

	Pre-cut packaged		
	salads		
All of the above	Food poisoning and	ISO 10272*	
plus Campylobacter	complaints	Eliza Transia Plate*	
Staph enterotoxin	mvesuganons	I IAU ISO 7027*	
Clostridium		150 /93/*	
perfirngens	Destaurised milk and	150 21528	
Phosphatase test	cream from the point	2:2004	
Peroxidase test	of sale	Dairy	
Antibiotic residues		Regulations,	
		Delvo SP*	
Enterobacteriaceae	Infant formulae	ISO 21528-	
Enterobacter sakazakij		2:2004 ISO 22064:2006*	
<i>зики</i> гикн		150 22904:2000**	

2009	Escherichia coli	Private Catering	ISO 16649-	Food (Sale and
	Coliforms	Companies – Evening	2:2001* &	Control) Law 1996-
	Enterobacteriaceae	and weekend sampling	ISO 11866-	2006 and or
	Staphylococcus	Ready to eat foods	2:1997	Regulation 882/2004
	aureus	from school and	ISO4832:2006	and or
	Bacillus cereus	college canteens	ISO 21528-	Regulation
	Salmonella spp.	Ready to eat foods	2:2004	2073/05/EC
	Listeria spp.	from restaurants and	ISO6888-1:1999	2015/05/20
	Listeria	cafeterias	ISO 7932:2004	
	monocytogenes	Night inspection and	NMKL, 71:1999	
	Total Count	sampling	ISO 11290-1	
	Yeast and Mould	Ready to eat foods	ISO 11290-2	
	Count	tourism Inns	ISU 4855:2005* Spinol LIDA	
			Spirai пРА 2004*	
		Ready to eat foods	2004	
		from cruise ships	FDA Ch. 18	
		(weekly and short		
		daily cruises)		
		Confectionery and		
		bakery products		
		Imported Dairy		
		products		
		Cured meats mainly		
		nam Deadu ta ast fac da		
		from private aligned		
		and government		
		hospitals		
		Ready to eat foods		
		from prisons		
		Ready to eat foods		
		from elderly homes		
		Ready to eat foods		
		from army camps		
		Ready to eat foods		
		from soccer stadium		
		canteens		
		Saturday and Sunday		
		sampling		
		Foods from Street		
		Vendors		
	All of the above	Food poisoning and	ISO 10272*	
	plus Campylobacter	complaints	Eliza Transia	
	spp. Stanh anteretovin	investigations	Flate*	
	Clostridium		190/20/*	
	perfirngens			
	Enterobacteriaceae	Infant formulae	ISO 21528-	
	Salmonella spp.	and other baby foods	2:2004	
	Enterobacter	-	ISO 22964:2006*	
	sakazakii			
	Enterobacteriaceae	Pasteurised milk and	ISO 21528-	
	rnosphatase test	cream from the point	2:2004	

Peroxidase test	of sale	Dairy	
Antibiotic residues		Regulations,	
		2004*	
		Delvo SP*	

* Non accredited methods

Table 12

LAB No. 20

Name: SNIF-NMR

YEAR	PARAMETER	FOOD GROUP/ITEM	METHOD	EC
		(e.g. vegetables/tomatoes)		LEGISLATION
				(only No. of
				Directive etc)
2007	• (D/H) _I , (D/H) _{II} , R	WINES	20 01 01	2729/2000,
	in ethanol	(20 SAMPLES)	SNIF-NMR	2120/2004
			(2676/90),	
	• ${}^{13}C/{}^{12}C$ in ethanol			
			20 03 01*	
	• ${}^{18}\text{O}/{}^{16}\text{Oin ethanol}$		IR-MS	
			(2676/90)	
2008	• (D/H) _I , (D/H) _{II} , R	WINES	20 01 01	2729/2000
	in ethanol	(20 SAMPLES)	SNIF-NMR	2120/2004
			(2676/90),	
	• ${}^{13}C/{}^{12}C$ in ethanol			
			20 03 01*	
	• ¹⁸ O/ ¹⁶ Oin ethanol		IR-MS	
			(2676/90)	
2009	• $(D/H)_{I}, (D/H)_{II}, R$	WINES	20 01 01	2729/2000
	in ethanol	(20 SAMPLES)	SNIF-NMR	2120/2004
			(2676/90),	
	• ${}^{13}C/{}^{12}C$ in ethanol			
			20 03 01*	
	• ${}^{18}\text{O}/{}^{16}\text{Oin ethanol}$		IR-MS	
			(2676/90)	

* Non accredited methods

Table 13

LAB No. 21 Name: GMO

YEAK PARAMETER FOOD GROUP/ITEM METHOD EC
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		(e.g. vegetables/tomatoes)		LEGISLATION (only No. of Directive etc)
2007	- Roundup Ready Soya	Soya Milk Baby Infant Formulae	Screening method 35S/NOS Real Time PCR	1829/2003 EC
	- 35S promoter/ NOS Terminator	Soya Sauce Bakery Products Cured meats	Detection of Roundup Ready Soya* Real Time PCR	
	- Bt-176 Maize - Bt-11 Maize - 35S promoter/ NOS Terminator	Maize Flours Maize Starches Canned Corn	Screening method 35S/NOS Real Time PCR Detection of Bt- 176 Maize* Real Time PCR	
	- LL Rice 62 - LL Rice 601 - 35S Bar - 35S Promoter/ NOS Terminator	Rice milk Rice	Detection of Bt- 11 Maize* Real Time PCR Screening method 35S/NOS Real Time PCR	
	Quantification 35S Promoter	Positive found samples containing Maize	Quantification 35S* Promoter –Real Time PCR	
2008	 Roundup Ready Soya 35S promoter/ NOS Terminator 	Soya Flour Soya Kebab Processed Food containing Soya Soya GM free labels	Screening method 35S/NOS Real Time PCR Detection of Roundup Ready Soya* Real Time PCR	1829/2003 EC
	 Bt-176 Maize Bt-11 Maize MON 863 Maize 35S promoter/ NOS Terminator 	Canned Corn Frozen Corn Pop Corn Corn Flakes	Screening method 35S/NOS Real Time PCR Detection of Bt- 176 Maize* Real Time PCR	

			Detection of Bt	
			11 Maine*	
			11 Maize*	
			Real Time PCR	
			Detection of MON 863 Maize* Real Time PCR	
	- LL Rice 62 - LL Rice 601 - 35S Bar - 35S Promoter/ NOS Terminator Quantification	Rice Milk Rice Rice biscuits/cakes Positive found samples	Screening method 35S/NOS Real Time PCR Quantification	
	Promoter	containing Walze	Promoter –Real	
2009	Roundup Ready Soya	Tofu Raw materials at point of	Screening method 35S/NOS Real Time PCR	1829/2003 EC
	- 35S promoter/ NOS Terminator	Products containing lecithin	Detection of Roundup Ready Soya* Real Time PCR	
	- Bt-176 Maize	Soya Snacks	Screening	
	- Bt-11 Maize - MON 863 Maize	Canned Corn Frozen Corn	method 35S/NOS Real Time PCR	
	- NK 603 Maize - 35S promoter/	Maize snacks	Detection of Bt- 176 Maize*	
	NOS Terminator	Processed foods containing maize ingredients	Real Time PCR	
		Raw materials at point of entry	Detection of Bt- 11 Maize* Real Time PCR	
			Detection of MON 863 Maize* Real Time PCR	
	LL Rice 62		Detection of NK 603 Maize* Real Time PCR	
	- LL Rice 601 - 35S Bar - 35S Promoter/		Screening method 35S/NOS Real Time PCR	

NOS Terminator			
Quantification 35S Promoter	Positive found samples containing Maize	Quantification 35S* Promoter –Real Time PCR	

* Non accredited methods

2. National reference la	boratories: ¹	
National reference laboratories	Competent authority responsible	Designated analytical activities
The following Labs of SGL are designated to EC as National Reference Laboratories (NRLs).		
Lab. 5: Veterinary Drug Residues Lab. 8: Pesticide Residues Lab.14: Environmental & other Food Contamination Natural Toxins	Ministry of Agriculture Natural Resources and Environment (MANRE)	Lab. 5, 8 & 14 of SGL are the NRL for Residues all groups (according to the Commission Decision 2006/130/EC).
Lab. 8: Pesticide Residues	Ministry of Health (MH)	Pesticides in cereals, pesticides in food of animal origin, pesticides single residues methods and pesticides in fruit and vegetables. Also Dioxins and PCBs.
Lab.12: Food contact materials and toys control	Ministry of Health (MH)	Materials and articles in contact with food
Lab.14: Environmental & other Food Contamination Natural Toxins	Ministry of Health (MH)	Heavy metals, mycotoxins, PAHs.
Lab.15: Food Microbiology (Including food Allergens)	Ministry of Health (MH)	E. coli, Campylobacter, Listeria monocytogenes, Staphylococcus, Parasites, Antimicrobial resistance, Animal proteins
Lab 21: GMO	Ministry of Health	GMO in foodstuffs

¹⁶ National reference laboratories are not prescribed by Plant Health Law

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Laboratory	(MH)	

According to the Commission Decision 2006/130/EC the SGL (Labs 5, 8 & 14) are designated as NRL for all groups of residues.

The above stated Labs 8, 14 & 15 of SGL are designated as NRL by letters of the Director of SGL on behalf of Director General of Ministry of Health to European Commission dated 5/9/2006 (Mrs Patricia Brunko and Mr Eric Poudelet).

The Lab 12 & 21 were nominated as NRL to the relevant CRL.

All the above stated **National Reference Laboratories** of SGL have been designated as NRL according to the requirements of Regulation No.882/2004 (Article 33). Within these requirements and having in mind that Cyprus is a small country and these laboratories act also as Official control laboratories (see below) the Cyprus NRLs fulfil and execute the following responsibilities:

- Collaboration with the relevant CRLs in their area of competence.
- Dissemination of information that the CRL supplies to the Competent Authorities.
- Provide scientific and technical assistance to the Competent Authorities for the implementation of coordinated control programmes/multiannual control plans.
- For the moment in Cyprus there are no other nominated official control laboratories other than the SGL's laboratories, so the organisation of comparative tests can not be fulfilled.
- SGL is accredited according to ISO 17025:2005

As the SGL is accredited according to ISO 17025:2005, applies all the needed quality controls, audits, internal and external (participation in appropriate proficiency testing, collaborative trials, including that organised by the CRLs) during the execution of the national control plan as applicable.

Organisation and management of official controls by competent authorities

3. Laboratory facilities

The resources at national level which are devoted to food safety controls for the 14 Laboratories of SGL (see Organogramme) dealing with food safety, are for the year 2006 the following:

• Financial: CY£4.361.454 as provided by the Ordinary and Development Budget

The basic budget of SGL for food safety is funded by the Government of Cyprus as they are governmental departments. A smaller percentage is funded (for SGL) from EU.

- Personnel:
 - 1 Director

5 Senior Chemists (head of five sections)

19 Chemists (10 of them head of the 10 chemical food control and water labs and 9 are deputies).

6 Microbiologists (2 of them are head of the 2 microbiological food and water Labs and 2 are deputies).

15 chemists/analysts

5 microbiologists/biologists/analysts

5 technicians

Infrastructure and equipment:

The 14 laboratories of SGL which are related to the food safety and quality are hosted in an area of about 1400 m^2 in the old building and 1200m^2 in the new building.

The SGL has an Information Technology Unit (IT), a library, secretariat, accountant and stores (for the chemicals, reagents, standards and consumables).

The basic equipment of the 14 laboratories (dealing with food safety and quality) of SGL are:

16 High Pressure Liquid Chromatographs (HPLC) with several detectors (FL, PDA, Conductivity, UV, RI, EC etc

15 Gas Chromatographs (GC) with several detectors (FID, ECD, FPD, NPD, TCD etc.)

3 Gas Chromatograph-Mass Spectrometers (GC-MS)

1 Liquid Chromatography-Mass Spectrometer (LC-MS)

1 Liquid Chromatography-Dual Mass Spectrometer (LC-MS-MS)

3 Atomic Absorption Spectrophotometers (AAS) with Flame Ionisation, Heated Graphite Furnace, Cold Vapour units

1 Inductively Coupled Plasma (ICP)

1 Inductively Coupled Plasma-Mass Spectrometer (ICP-MS)

1 Gas Chromatograph-Isotope Ratio Mass Spectrometer (GC-IRMS)

- 1 SNIF-NMR
- 9 Spectrophotometers UV/VIS
- 7 Keldjal apparatus
- 2 ELISA
- 2 Fluorometers
- 1 Flame Photometer
- 1 TLC Scanner
- 1 Electrophoresis units
- 1 TOC unit and 1 TOX unit
- 1 Scintillation Counter
- 1 Real time PCR
- 1 Spiral Plater

Centrifuges, Laminar Flow, Incubators, Microscopes, Balances, Fridges, Freezers, pH meters, Fiber extraction unit, PCs, etc.

4. Laboratories [other than national reference laboratories]:

Describe procedures for:

• designation of laboratories

The above stated Laboratories (Lab.1, 2, 4, 5, 6, 8, 9, 12-15, 17, 20 and 21) of SGL are the designated as **Official Control Laboratories** according to the Food (Control and Sale) Laws of 1996-2005.

• ensuring that requirements which apply to official laboratories are met

All the above Official Control Laboratories of SGL (except Lab.9) are **accredited** (11 of them since 2002) by the Greek Accreditation Body ESYD in many fields/scopes of food and water analyses, according to the EN ISO/IEC 17025 standard (see Tables 1-13 for the scope/methods of accreditation).

Control systems [*by sector, including horizontal arrangements where applicable*] For each of the following sectors describe:

- the control methods and techniques used and where and when applied For most of the applied methods and techniques the above Official Control Laboratories of SGL are accredited and these are shown / marked by asterisk (*) in the Tables 1-13 previously mentioned.
- control priorities, resource allocation and how they relate to risk categorisation The control priorities according to the prioritisation of the risk are shown in the Tables 1-13 for the several specific fields of food control.
- verification of planned arrangements including reporting arrangements

The verification of the planned arrangements for the multiyear control is shown graphically for some cases of official control, in the figures 1-5. These figures show the effectiveness of the applied control, because the percentage of the violative samples during the years is declining. More specifically for e.g. for aflatoxins, the preventive nature of the applied plan results to almost zero contaminated samples found in the Cyprus market.

- arrangements for the application of **horizontal** legislation across different sectors/subsectors
- in the drafting of multi-annual control plans the above legislation is taken into account (see Tables 1-13)
- how **specific control plans** or programmes required by community legislation are integrated into the control systems for the relevant sectors or sub-sectors as appropriate The integration of specific control plans for the relevant sectors of community legislation is

shown in Tables 1-13 where all these requirements for several sectors are taken into account.

5. Identification of training needs of SGL

As the 14 laboratories of SGL are accredited all the training needs are identified and

programmed in the beginning of each year for the next year and are recorded and documented in the relevant documents of the quality system of SGL.

More specifically, the training programmes of the personnel of SGL includes local training or visits to relevant laboratories in E.U. countries competent to perform the analysis and tests for the official control of foodstuffs i.e.: training in recent developments in the method of analysis or tests in relation to chemical and microbiological food safety (quality, adulteration, food additives, contaminants, pesticides & veterinary residues, radioactivity and microbiological parameters). The training includes also study visits at respective relevant authorities, agencies or research institutes of EU countries, so as to follow up the advances in the field and to put the needed priorities in the food control surveillance/monitoring and needed applied research.