

NFA laboratories are approved by Law (Article 63 letter ç)), as well as Article 6 of Law no. 105 dated 27.10.2016 "On plant protection", where among other things it is determined that "Regional Plant Protection Laboratories under the ministry are approved control laboratories", and perform basic activities.

Technical standards and analysis methods performed by AKU Laboratory Services Sectors are obtained from the ISUV reference laboratory (for microbiological, physico-chemical analysis, animal health, while analysis methods for pests and quarantine parasites are obtained from the Department of Defense of Plants, in Durrës).

Currently the tariffs used refer to Instruction No. 8 dated 8.5.2007 "On secondary income tariffs, applicable by MARD subordinate institutions".

➤ **Structure of Laboratory Services positioned in the Regional Directorates of AKU.**

Laboratory structure	Tiranë	Durrës	Fier	Vlorë	Gjirokastrë	Korçë	Shkodër
Food safety (microbiological and physico-chemical)	x	x	x	x	x	x	x
animal health and welfare		x	x	x	x	x	x
plant protection		x				x	x

- **Chemical-Physical Laboratory**, analyzes are performed in relation to quality indicators of animal and non-animal food products, labeling indicators, as well as some analytical indicators of food safety.
- **Microbiological Laboratory**, analyzes are performed in relation to the safety criteria of food products and those of hygiene processes.
- **Laboratory of Animal Health and Welfare**, tests are performed to diagnose various diseases and parasites in animals.
- **Plant Protection Laboratory**, tests are performed to diagnose pests and parasites in plants and plant products.

➤ As follows is the list of services:

➤ **Microbiological Laboratory**

	Description of test	Sample/test items	Method/Technique	Accredited method	Validation of method
1.	Brucellosis	Fresh Milk	EN/ ISO 7932	No	
	Aerobe total		EN/ ISO 4833	No	
2.	Enterobacteriaceae	Pasteurized milk	EN/ISO 21528	No	
3.	Positive coagulation staphylococci	Powdered milk	EN/ISO 6888	No	
	Enterobacteriaceae		EN/ISO 2158	No	
	Salmonella spp.		EN/ISO 6579	No	
4.	Enterobacteriaceae	Youghurt	EN/ISO 21528	No	
	L. monocytogenes		EN/ISO 11290	No	
5.	Enterobacteriaceae	Milk based frozen products (ice cream)	EN/ISO 21528	No	
	Salmonella spp.		EN/ISO 6579	No	
6.	E.coli	Soft cheese (ricotta) mozzarella	EN/ISO 16649	No	
	Positive coagulation staphylococci		EN/ISO 6888	No	
	Salmonella spp.		EN/ISO 6579	No	
	L. monocytogenes		EN/ISO 11290	No	
7.	Enterobacteriaceae	Milk cream or other milk-based products	EN/ISO 21528	No	
8.	E.coli	Milk cream or butter other fresh milk-based products that have undergone heat treatment below pasteurization temperature	EN/ISO 16649	No	
	Salmonella spp.		EN/ISO 6579	No	
9.	L. monocytogenes	Soft cheese originating from raw milk	EN/ISO 11290	No	
	Positive coagulation staphylococci		EN/ISO 6888	No	
	Salmonella spp.		EN/ISO 6579	No	
10.	E.coli	Cheese originating from heat treated milk after pasteurization temperature	EN/ISO 16649	No	
	Positive coagulation staphylococci		EN/ISO 6888	No	
	Salmonella spp.		EN/ISO 6579	No	
	L. monocytogenes		EN/ISO 11290	No	
11.	Positive coagulation staphylococci	Cheese originating from pasteurized milk (soft or seasoned cheese)	EN/ISO 6888	No	
	L monocytogenes		EN/ISO 11290	No	
12.	Salmonella spp.	Milk based liquid products	EN/ISO 6579	No	
	L. monocytogenes		EN/ISO 11290	No	
	Enterobacterium		EN/ISO 21528	No	
13.	Aerobic Total	Carcasses in the slaughterhouse	EN/ISO 4833	No	
	Salmonella spp.		EN/ISO 6579	No	

	Enterobacteriaceae		EN/ISO 21528	No	
14.	Aerobe Total	Minced meat	EN/ISO 4833	No	
	Salmonella		EN/ISO 6579	No	
	E. coli		EN/ISO 16649	No	
15.	Aerobic Total	Meat mechanically separated	EN/ISO 4833	No	
	Salmonella		EN/ISO 6579	No	
	E. coli		EN/ISO 16649	No	
16.	Salmonella	Prepared meat	EN/ISO 6579	No	
	E. coli		EN/ISO 16649	No	
17.	Salmonella	Egg	EN/ISO 6579	No	
18.	Listeria monocytogenes	Ready to eat foods	EN/ISO 11290	No	
19.	salmonella	Processed meat products	EN/ISO 6579	No	
	Listeria monocytogenes		EN/ISO 11290	No	

➤ **Chemical-Physical Laboratory**

	Description of test	Sample/test items	Method/Technique Stash/ISO	Accredited method	Validation of method
1	Density	Sampling of raw milk & milk for consumption	1500/1-87	No	No
	Total dry matter		1500/2-87	No	No
	Acidity		1500-3/87	No	No
	Cryoscopic point		With apparatus	No	No
	Fat content		1500/4-87	No	No
2	Moisture content	Sampling of cheese	1501/1-87	No	No
	Acidity		1501/2-87	No	No
	Fat content		1501/3-87	No	No
	Salt content		1501/4-87	No	No
3	Moisture content	Sampling of butter	1503/1-87	No	No
	Acidity		1503/2-87	No	No
	Salt content		1503/3-87	No	No
	Fat content		1503/4-87	No	No
4	Moisture content	Sampling of powdered milk	1518/1-87	No	No
	Acidity		1518/2-87	No	No
	Fat content		1518/3-87	No	No
	Peroxide values		1518/4-87	No	No
5	Acidity	Sampling of yoghurt	1500/3-87	No	No
	Fat content		3996/1-87	No	No
6	Moisture	Sampling of pasta	1171/1-87	No	No
	Volume after boiling		1171/2-87	No	No
7	Moisture	Sampling of bread	1499/1-87	No	No
	Acidity		1499/3-87	No	No
	Porosity		1499/4-87	No	No

	Salt content		1499/5-87	No	No
8	Moisture	Sampling of flours	1508/1-87	No	No
	Ash		1508/2-87	No	No
	Acidity		1508/3-87	No	No
	Gluten content		1508/4-87	No	No
	Protein content		ISO 20483;2013	No	No
	Particle size of grains			No	No
9	Moisture of yeast	Sampling for yeast	2107/1-87	No	No
	Acidity		2107/2-87	No	No
10	Moisture content	Sampling of cereals	1792/1-87	No	No
	Determination of damage from pests		1792/2-87	No	No
11	Moisture	Sampling for salami, ham, minced meat, etc	1521/1-87	No	No
	Fat		1521/2-87	No	No
	Nitrites		AOAC 973.31	No	No
12	Acidity	Sampling for oil	ISO 660;2001	No	No
	Density		1562/2-87	No	No
	Moisture		1562/3-87	No	No
	Saponification number		ISO 3657;2001	No	No
	Iodine		ISO 3961;2001	No	No
	Non-Saponification matter		1562/6-87	No	No
	Peroxide values		ISO 3960;2001	No	No
	Absorbance coefficient		Spectrophotometric method	No	No
	Refractive index		ISO 6320;2001	No	No
13	amount of meat to canned mass%	Sampling of canned fish	1436/1-87	No	No
	salt in%		1436/2-87	No	No
15	Alkalinity in degrees	Sampling dough products (pie, pancakes, waffle, etc.)	1564/3-87	No	No
	Insoluble ash in HCl 10% to%		1564/2-87	No	No

16	Moisture in%	Sampling foods in powder form	1508/1-87	No	No
	insoluble ash in HCl 10% to%		1564/2-87	No	No
	acidity in %		1508/3-87	No	No
17	Moisture in%	Sampling starch	1559/2-87	No	No
	ash in dry matter in%		1559/3-87	No	No
	acidity in ml NaOH 0.1N / 100 gr starch		1559/4-87	No	No
18	amount of meat to canned mass%	Sampling of canned meat	3211/1-87	No	No
	salt in%		3211/2-87	No	No
19	amount of vegetable to canned mass%	Sampling of canned vegetable product	2221/1-87	No	No
	salt		2221/3-87	No	No
	Acidity		2221/2-87	No	No
20	Total dry matter	Sampling of sauce tomato	1652/2-87	No	No
	acidity		1652/4-87	No	No
21	Moisture in%	Sampling of dried fruits	2228/2-87 method with apparatus	No	No
	foreign subjects		2228/4-87	No	No
22	Total dry matter	Sampling of fresh juice	Refractometer ABBE	No	No
	acidity		1612/4-87	No	No
	CO2		with apparatus	No	No
23	ethyl alcohol	Sampling of beer	1551/1-87	No	No
	total acidity		1551/2-87	No	No
	extract		1551/8-87	No	No
	ash		1499/2-87	No	No
	CO2		with apparatus	No	No
24	ethylic alcohol	Sampling of Wine	1446/1-87	No	No
	total acidity		1446/3-87	No	No
	volatile acidity		1446/4-87	No	No
	extract		1446/5-87	No	No

	free SO2		1446/7-87	No	No
	Sulfuric anhydride General		1446/6-87	No	No
25	ethylic alcohol	Sampling of alcoholic drinks	1551/1-87	No	No
	extract		1551/8-87	No	No
	total acidity		1551/2-87	No	No
26	moisture	Sampling of salt	1656/1-87	No	No
	Iodine		titration method WHO	No	No
27	Total dry residue	Sampling of natural water	2639/21-89	No	No
	German grade strength		2639/7-89	No	No
	Calcium		2639/3-89	No	No
	Magnesium		2639/4-89 Rapid test	No	No
	CO2		with apparatus	No	No
	Bicarbonate		2639/22-89	No	No
28	Moisture	Sampling of herbal tea	2288/9-88	No	No
	debris		2288/2-88	No	No
29	moisture	Sampling of coffee and cocoa	1508/1-87	No	No
	ash		1508/2-87	No	No
	fat		With Soxhlet method	No	No
	debris		visual	No	No
30	TVBN	Sampling of fresh fish	Internal method	No	No

➤ **Laboratory of Animal Health and Welfare**

	Description of test	Sample/test items	Method/Technique	Accredited method	Validation of method
1.	Determination of colibacillosis		10-DB-009	No	
2.	Isolation and identification of Salmonella spp.	Environment, poultry carcasses and feces.	10-DB-012	No	
3.	Rapid sedimentation method of for determination of fasciolosis.	Animal organs and feces	10-DP-005	No	
4.	Rossa Bengal rapid test for determination of Brucellosis	Animal blood	10-DS-002	No	
5.	Ring test for determination of Brucellosis in milk	Animal milk	10-DS-004	No	
6.	Anthrax Diagnosis	Animal blood and organs	10-DB-008	No	
7.	Enterotoxemic disease diagnosis	Animal organs	10-DB-014	No	
8.	Determination of pathogens in Mastitis infections	Animal milk	10-DB-016	No	
9.	Determination of bovine anaplasmosis	Animal blood	10-DP-001	No	
10.	Determination of bovine babesiosis	Animal blood	10-DP-002	No	
11.	Determination of bee nosemosis	Bees	10-DP-009	No	
12.	Determination of Coccidiosis, Histaminases and Trichomoniasis in poultry	Poultry organs	10-DP-011	No	
13.	Determination of scabies in animals	Animal skin	10-DP-008	No	
14.	Determination of Nematodes with Bergman method	Animal feces	10-DP-006	No	
15.	Determination of bee varroosis	Bee	10-DP-010	No	

➤ **Plant Protection Laboratory**

	Description of test	Sample/test items	Method/Technique	Accredited method	Validation of method
1.	Disease determination of fruit trees	Roots and fruits a.White Rot of Roots b.Brown Rot c.Apple Scab Disease d.Pear Scab Disease	Morphological identification(microscopy) Pure culture media(microbiology)	No	
2.	Determination of Ervinia amylovora, fireblight	Fruits, leaves and brunches of pome fruits	EPPO protocol, Morphological identification(microscopy)	No	
3.	Determination of olive diseases and pests	Wood tissue , leaves, brunches , fruits a. Verticillium Dahlie Verticillium wilt b.Pseudomonas savastanoi)Oleander knot c Cycloconium oleaginum .d.Bactrocera oleae Olive fruit fly e.Saissetia oleae Olive scale f.Prays oleae, Olive kernel borer	a.Pure culture media(microbiology) Morphological identification(microscopy) b.Microscopy c. Mycroscoy d. Morphological identification(microscopy) e. Morphological identification(microscopy) f. Morphological identification(microscopy)	No	
4.	Determination of Fruit trees diseases (peach and grape)	Leaves and fruits a.Taphrina Deformans Peach Leaf Curl Grape : Leaves, bunch b.Plasmopara viticola Grapevine downy mildew c.Uncinula necator Grapevine powdery mildew d.Lobesia botrana European Grapevine moth	Morphological identification(microscopy)	No	

5.	Determination of potato diseases and pests	Potato seeds, a. <i>Clavibacter michiganense</i> Sp sepedonicus Potato ring rot b. <i>Rastonia solanacearum</i> Bacterial wilt of potato c. <i>Synchytrium endobioticum</i> Potato wart disease d. <i>Phytophthora Infestans</i> Phytophthora blight e. <i>Phthorimea operculella</i> Potato tuber moth	a,b,c Pure culture media(microbiology) Morphological identification(microscopy) EPPO d. Morphological identification(microscopy) e.keybook	No	
6.	Determination of cereal diseases	Leaves a. <i>Puccinia graminis</i> Stem rust of cereals b. <i>Puccinia triticina</i> Wheat brown rust c. <i>Tilletia levis</i> smooth-spored wheat bunt d. <i>Ustilago tritici</i> loose wheat smut	a. Morphological identification(microscopy)	No	
7.	Determination of insects in stored products	Seeds <i>Sitotroga cerealella</i> grain moth	Morphological identification(microscopy) , keybook	No	
8.	Determination of insects in stored products	b. <i>Plodia interpunctella</i> indianmeal moth	Morphological identification(microscopy) , keybook	No	
9.	Determination of insects in stored products	<i>Acanthoscelides obtectus</i> - Bean bruchid	Morphological identification(microscopy) , keybook	No	
10.	Determination of insects in stored products	<i>Ephesia kuehniella</i> Mediterranean flour moth	Morphological identification(microscopy) , keybook	No	

11.	Determination of insects in stored products	Calandra Oryzae Rice weevil	Morphological identification(microscopy) , keybook	No	
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