

2. Department of Science and Technology – III

Regional Standards and Testing Laboratory

Address	:	Diosdado Macapagal Gov. Center, Maimpis, City of San Fernando Pampanga 2000
Telephone No.	:	(045) 455-0800, (045) 455-0554
Fax No.	:	(045) 455-0800
E-mail	:	dost3rstl@yahoo.com
Contact Person	:	Diana Cecilia Estrella <i>Technical Manager, Chemistry Laboratory</i>
Field of Testing	:	Chemical Testing Microbiological Testing

Chemical Testing

Products	Specific Tests	Method/Reference
I. Foods		
01.0 Milk and Dairy products		
01.1 Milk powder and cream powder	Ash	Gravimetric, AOAC
01.4 Liquid Milk (evaporated and Cream (UHT/sterilized)	Moisture	Oven, AOAC
01.5 Pasteurized Milk 01.6 Pasteurized Cream 01.7 Yogurt and other fermented milk	Fat	Soxhlet/Solvent Extraction with Acid Hydrolysis, AOAC
01.8 Milk and buttermilk 01.9 Cheese and cheese products (cottage cheese, soft and semi-soft cheese)	Protein	Kjeldahl, AOAC
01.10 Processed cheese spread	Energy Carbohydrates	By computation/ Philippine Food Composition tables by FNRI-DOST, 1997
	pH Total Solids Sodium	AOAC
03.0 Edible ices, including sherbet and sorbet		
03.1 Ice cream and sherbet 03.2 Ice cream with added Ingredients	pH Fat Total Solids	AOAC
04.0 Confectioneries		
04.1 Cocoa powder	Ash	Gravimetric, AOAC

04.2 Chocolate products; chocolate confectioneries 04.3 Sugar confectioneries (hard and soft candy) 04.5 Decorations toppings, (non-fruit) and sweet sauces	Moisture	Oven, AOAC
	Fat	Soxhlet/Solvent Extraction with Acid Hydrolysis, AOAC
	Protein	Kjeldahl, AOAC
	Energy Carbohydrates	By computation/ Philippine Food Composition tables by FNRI-DOST, 1997
05.0 Fruits and vegetables, nuts and seeds		
05.2 Fermented fruits and vegetables 05.3 Fruits and vegetable products in hermetically sealed container 05.4 Dried fruits and vegetables, seaweeds, nuts and seeds 05.6 Nut and seed purees and spreads (e.g., peanut butter) 05.7 Jams, jellies, marmalades and fruit fillings for pastries 05.8 Fruit preparations (pulp, purees, fruit toppings and coconut milk)	Ash	Gravimetric, AOAC
	Moisture	Oven, AOAC
	Fat	Soxhlet/Solvent Extraction with Acid Hydrolysis, AOAC
	Protein	Kjeldahl, AOAC
	Energy Carbohydrates	By computation/ Philippine Food Composition tables by FNRI-DOST, 1997
07.0 Cereals and cereal products		
07.4 Soya flours concentrates and isolates 07.5 Flour, corn meal, corn grits, semolina 07.7 Soy protein 07.8 Tofu 07.9 Pasta products and Noodles	Ash	Gravimetric, AOAC
	Moisture	Oven, AOAC
	Fat	Soxhlet/Solvent Extraction with Acid Hydrolysis, AOAC

<p>07.10 Starch 07.11 Cereal and starched based desserts (e.g rice pudding, tapioca pudding) 07.12 Batters (e.g for breading or batters for fish or poultry)</p>	Protein	Kjeldahl, AOAC
	Energy Carbohydrates	By computation/ Philippine Food Composition tables by FNRI-DOST, 1997
08.0 Bakery Products		
<p>08.3 Breads and rolls 08.4 Crackers, excluding sweet crackers 08.5 Cakes, cookies and pies, Doughnuts 08.6 Other ordinary bakery products (e.g bagels, pita, English muffins) 08.7 Steamed breads and buns</p>	Ash	Gravimetric, AOAC
	Moisture	Oven, AOAC
	Fat	Soxhlet/Solvent Extraction with Acid Hydrolysis, AOAC
	Protein	Kjeldahl, AOAC
	Energy Carbohydrates	By computation/ Philippine Food Composition tables by FNRI-DOST, 1997
11.0 Fish and fish products, including molluscs, crustaceans, and echinoderms		
<p>11.2 Semi-preserved fish and fish products, including molluscs, crustaceans, and echinoderms 11.2.4 Semi-preserved fish and fish products, including molluscs, crustaceans and echinoderms(e.g., fish paste)</p>	Ash	Gravimetric, AOAC
	Moisture	Oven, AOAC
12.0 Salts, spices, soups, sauces, salads and protein products		
<p>12.2 Herbs, spices, seasonings, and condiments (e.g. seasoning for instant</p>	Moisture pH Acidity	AOAC

noodles) 12.3 Vinegars 12.4 Mustards		
12.6 Sauces and like products 12.6.1 Emulsified sauces and dips (e.g Mayonnaise, salad dressing, onion dip) 12.6.2 Non-emulsified sauces (e.g ketchup, cheese sauce, cream sauce, brown gravy)		
15.0 Sweeteners, including honey		
15.1 Refined and raw sugars 15.2 Brown sugar 15.3 Honey	Moisture Ash	AOAC

Microbiological Testing

Products	Specific Tests	Method/Reference
01.0 Milk and Dairy products		
01.1 Milk powder and cream powder	Aerobic Plate Count	Pour Plate, BAM Online
01.2 Sweetened Condensed Milk	Aerobic Plate Count	Pour Plate Method, BAM Online
	Yeast and Mold Count	Spread Plate Method, BAM Online
	Coliform Count	Chromocult, Rapid Method
01.4 Pasteurized milk	Aerobic Plate Count	Pour Plate Method, BAM Online
	Coliform Count	Chromocult, Rapid Method
01.5 Pasteurized cream	Aerobic Plate Count	Pour Plate Method, BAM Online
	Coliform Count	Chromocult, Rapid Method
01.6 Yogurt and other fermented Milk	Coliform Count	Chromocult, Rapid Method
	<i>S. aureus</i> (coagulase +)	Petrifilm, Rapid Method
01.7 Cheese and Cheese Products e.g Cottage Cheese; Soft and Semi-soft cheese	<i>S. aureus</i> (coagulase +)	Petrifilm, Rapid Method
01.8 Processed Cheese Spread	Aerobic Plate Count	Pour Plate Method, BAM Online
	Coliform Count	Chromocult, Rapid Method
	<i>S. aureus</i> (coagulase +)	Petrifilm, Rapid Method
01.9 All Raw Milk Cheese; Raw Milk Un-ripened cheese with moisture>50%, pH>5.0	<i>S. aureus</i> (coagulase +)	Petrifilm, Rapid Method

02.0 Fats, Oils and Fat Emulsions		
02.1 Butter (whipped, pasteurized)	Aerobic Plate Count	Pour Plate Method, BAM Online
	Yeast and Mold Count	Spread Plate Method, BAM Online
	Coliform Count	Chromocult, Rapid Method
	<i>S. aureus</i> (coagulase +)	Petrifilm, Rapid Method
02.2 Butter made from unpasteurized milk or milk products	Aerobic Plate Count	Pour Plate Method, BAM Online
	Coliform Count	Chromocult, Rapid Method
	<i>S. aureus</i> (coagulase +)	Petrifilm, Rapid Method
02.3 Margarine	Aerobic Plate Count	Pour Plate Method, BAM Online
	Yeast and Mold Count	Spread Plate Method, BAM Online
	<i>S. aureus</i> (coagulase +)	Petrifilm, Rapid Method
03.0 Edible Ices, including Sherbet and Sorbet		
03.1 Ice Cream & Sherbet (plain and flavored)	Aerobic Plate Count	Pour Plate Method, BAM Online
	Coliform Count	Chromocult, Rapid Method
	<i>S. aureus</i>	Petrifilm, Rapid Method
03.2 Ice Cream with added ingredients (nuts, fruits, cocoa)	Aerobic Plate Count	Pour Plate Method, BAM Online
	Coliform Count	Chromocult, Rapid Method

	<i>S. aureus</i>	Petrifilm, Rapid Method
03.3 Flavored Ice	Aerobic Plate Count	Pour Plate Method, BAM Online
	Yeast and Mold Count	Pour Plate Method, BAM Online
04.0 Confectioners		
04.1 Cocoa Powder	Aerobic Plate Count	Pour Plate Method, BAM Online
	Mold Count	Spread Plate Method, BAM Online
04.2 Chocolate Products	Aerobic Plate Count	Pour Plate Method, BAM Online
	Mold Count	Spread Plate Method, BAM Online
04.3 Chocolate Confectionaries (chocolate bars, blocks, bonbons)	Aerobic Plate Count	Pour Plate Method, BAM Online
	Mold Count	Spread Plate Method, BAM Online
04.4 Sugar Confectionaries (Hard and soft candies, toffees, caramel, fondants, creams, nougats and pastes)	Aerobic Plate Count	Pour Plate Method, BAM Online
	Mold Count	Spread Plate Method, BAM Online
05.0 Fruits and Vegetables, Nuts and Seeds		
05.2 Fermented Vegetables Ready to Eat (e.g. Kimchi)	Yeast and Mold Count	Spread Plate Method, BAM Online
	<i>S. aureus</i> (coagulase +)	Petrifilm, Rapid Method
05.7 Sun Dried Fruits	Yeast and Molds Count	Spread Plate Method, BAM Online

06.0 Egg and Egg Products		
06.1 Pasteurized Egg Products	Aerobic Plate Count	Pour Plate Method, BAM Online
	Yeast and Mold Count	Spread Plate Method, BAM Online
	Coliform Count	Chromocult, Rapid Method
07.0 Cereals and Cereal Products		
07.1 Breakfast cereals	Aerobic Plate Count	Pour Plate Method, BAM Online
	Yeast Count Mold Count	Spread Plate Method, BAM Online
	Coliform Count	Chromocult, Rapid Method
07.2 Cereals/Cereal Grains	Aerobic Plate Count	Pour Plate Method, BAM Online
	Yeast Count Mold Count	Spread Plate Method, BAM Online
	Coliform Count	Chromocult, Rapid Method
07.4 Soya Flours, Concentrates and Isolates	Mold Count	Spread Plate Method, BAM Online
07.5 Flour, Corn meal, Corn grits, Semolina	Yeast and Yeast-like fungi Count Molds Count	Spread Plate Method, BAM Online
07.7 Soy Protein	Aerobic Plate Count	Pour Plate Method, BAM Online
	Yeast and Mold Count	Spread Plate Method, BAM Online
	Coliform Count	Chromocult, Rapid Method

07.8 Tofu	<i>S.aureus</i> (coagulase +)	Petrifilm™, Rapid Method
07.9 Pasta Products and Noodles Uncooked (wet and dry)	Aerobic Plate Count	Pour Plate Method, BAM Online
	Yeast and Mold Count	Spread Plate Method, BAM Online
	Coliform Count	Chromocult, Rapid Method
	<i>S. aureus</i> (coagulase +)	Petrifilm, Rapid Method
07.10 Starch	Aerobic Plate Count	Pour Plate MethodBAM Online
	Yeast and Molds Count	Spread Plate Method BAM Online
08.0 Bakery Products		
08.1 Frozen Bakery products (ready to eat) with low-acid or high a _w fillings or toppings	<i>S. aureus</i> (coagulase +)	Petrifilm™, Rapid Method
08.2 Frozen Bakery Products (to be cooked) with low - acid or high a _w fillings or toppings (e.g. Meat pies, pizzas)	<i>S. aureus</i> (coagulase +)	Petrifilm™, Rapid Method
08.3 Frozen and Refrigerated Doughs (Chemically leavened)	Aerobic Plate Count	Pour Plate Method, BAM Online
	Yeast and Yeast-like fungi Count Mold Count	Spread Plate Method, BAM Online
	Coliform Count	Chromocult, Rapid Method
	<i>S. aureus</i> (coagulase +)	Petrifilm, Rapid Method
	Aerobic Plate Count	Pour Plate Method, BAM Online

08.4 Frozen and Refrigerated Doughs	Yeast and Yeast-like fungi Count Mold Count	Petrifilm™, Rapid Method
	Coliform Count	Petrifilm™, Rapid Method
08.5 Baked Goods	Aerobic Plate Count	Pour Plate Method, BAM Online
	Yeast and Molds Count	Spread Plate Method, BAM Online
	Coliform Count	Chromocult, Rapid Method
	S.aureus (coagulase +)	Petrifilm, Rapid Method
09.0 Ready to Eat Savouries		
09.1 Snack Foods	Aerobic Plate Count	Pour Plate Method, BAM Online
	Yeast and Yeast-like fungi Count Mold Count	Spread Plate Method, BAM Online
	Coliform Count	Chromocult, Rapid Method
11.0 Fish and Fish Products		
11.1 Fresh and Frozen Fish and Cold-Smoked	Aerobic Plate Count	Pour Plate Method, BAM Online
	S. aureus (coagulase +)	Petrifilm, Rapid Method
11.2 Pre-Cooked Breaded Fish	Aerobic Plate Count	Pour Plate Method, BAM Online
	S. aureus (coagulase +)	Petrifilm, Rapid Method
11.3 Frozen Raw Crustaceans	Aerobic Plate Count	Pour Plate Method, BAM Online
	S. aureus (coagulase +)	Petrifilm, Rapid Method
11.4 Frozen Cooked Crustaceans	Aerobic Plate Count	Pour Plate Method, BAM Online

	<i>S. aureus</i> (coagulase +)	Petrifilm, Rapid Method
11.5 Cooked, Chilled and Frozen Crabmeat	Aerobic Plate Count	Pour Plate Method, BAM Online
11.6 Fresh and Frozen Bivalve Molluscs	Aerobic Plate Count	Pour Plate Method, BAM Online
12.0 Spices, Soups, Sauces, Salads and Protein Products		
12.1 Dry Mixes for Soup and Sauces	Aerobic Plate Count	Pour Plate, BAM Online
	Yeast and Mold Count	Spread Plate Method BAM Online
	Coliform Count	Chromocult, Rapid Method
12.3 Spices	Aerobic Plate Count	Pour Plate Method, BAM Online
	Molds Count	Spread Plate Method BAM Online
12.4 Spices (ready to eat)	Aerobic Plate Count	Pour Plate Method, BAM Online
	Mold Count	Spread Plate Method, BAM Online
	Coliform Count	Chromocult, Rapid Method
	<i>S.aureus</i> (coagulase +)	Petrifilm, Rapid Method
12.5 Salad Dressing (e.g. Mayonnaise, Thousand Island, Ranch, French)	Aerobic Plate Count	Pour Plate Method, BAM Online
	Yeast and Mold Count	Spread Plate Method, BAM Online
13.0 Beverages		
13.1 Non-alcoholic beverages (e.g. Ready to drink softdrinks, iced tea, energy drinks)	Aerobic Plate Count	Pour Plate Method, BAM Online
	Yeast and Mold Count	Spread Plate Method BAM Online

	Coliform Count	Chromocult, Rapid Method
13.2 Frozen Juice Concentrate	Aerobic Plate Count	Pour Plate Method, BAM Online
	Yeast and Mold Count	Spread Plate Method BAM Online
13.3 Powdered Beverages (e.g. Iced tea, powdered juice/mixes)	Aerobic Plate Count	Pour Plate Method, BAM Online
	Coliform Count	Chromocult, Rapid Method
14.0 Food for Infants and Young Children		
14.1 Powdered Infant Formula with or without added Lactic acid producing cultures (intended for 0 to 6 months)	Aerobic Plate Count	Pour Plate Method, BAM Online
14.2 Follow-up Formula/ Milk Supplement (Intended for infants 6 months on and for young children 12-36 months of age)	Aerobic Plate Count	Pour Plate Method, BAM Online
14.5 Dried and Instant products requiring reconstitution	Aerobic Plate Count	Pour Plate Method, BAM Online
14.6 Dried products requiring reconstitution and boiling before consumption	Aerobic Plate Count	Pour Plate Method, BAM Online
14.7 Cereal based foods for infants	Aerobic Plate Count	Pour Plate Method, BAM Online
	Coliform Count	Chromocult, Rapid Method
IV. Water		
1.0 Bottled Water	Heterotrophic Plate Count Coliform <i>E.coli</i>	Pour Plate Method, SMEWW SMEWW