



འாதார முனிஸிபல் கூட்டுரை
விதிவிலை நிலை மற்றும் விதிவிலை நிலை

Royal Government of Bhutan
Ministry of Agriculture and Forests
Bhutan Agriculture and Food Regulatory Authority (BAFRA)
National Food Testing Laboratory



Quarterly Progress Report:

January-March 2016

**National Food Testing Laboratory (NFTL), BAFRA,
MoAF, Yusipang**

Background:

This Report provides the instant information on the types of food samples and the total number of samples tested at NFTL, BAFRA, Yusipang on quarterly basis i.e., from **January to March 2016**.

The food and water samples had been received from various BAFRA field offices, food business operators and Government agencies for testing to serve their intended purposes. The samples have been tested through application of internationally adopted/validated methods of analysis such as FAO, WHO, AOAC, APHA, BAM, IS etc.

The quality of our test reports issued are ensured through implementation of ISO/IEC 17025:2005 (General Requirements for the Competence of Testing and Calibration Laboratories) for both microbiological and chemical parameters.

The samples are tested for the following test parameters at NFTL; depending on the types of samples being received:

1. **Microbiology:** Aerobic Plate Count, Yeast & Mould Count, Coliform Count by MPN and E coli by MPN.
2. **Chemistry:** Total Soluble Solids (TSS), Acidity, Moisture, Ash, Acid Insoluble Ash, Fat Content, Acidity of Extracted Fat, Protein, Dry Matter Content, Total Ash, Water Soluble Ash, pH, Acidity, Total Dissolved Solids (TDS), Alkalinity, Total Hardness, Lead (as Pb), Cadmium (as Cd), Zinc (as Zn), Refractive Index, Peroxide Value and Acid Value.



ଶ୍ରୀମତ୍ ରାଜ୍ୟପାଲଙ୍କାନ୍ତର୍ମାଣୀ
ବ୍ୟୁଧାର୍ଥକାଳକାନ୍ତର୍ମାଣୀ
କ୍ଷେତ୍ରପାଲଙ୍କାନ୍ତର୍ମାଣୀ



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I. Samples Tested for Microbiological Parameters:

Sl. No.	Types of food commodities	No. of Samples tested & Report issued			Total
		January	February	March	
1.	Raw/packaged drinking water	13	3	12	28
2.	Processed milk	-	-	2	2
3.	Cheese & butter	-	-	3	3
4.	Vegetable/fruit pickle	3	-	2	5
5.	Fruit jam/jelly	1	-	4	5
6.	Fruit juice/drink/squash	6	-	6	12
7.	Ketchup & sauce	-	-	4	4
8.	Cooked food (ready to eat)	-	5	-	5
9.	Noodles	1	-	2	3
10.	Soup powder	1	-	-	1
11.	Raw meat (beef/pork/chicken)		82	19	101
12.	Tarbu juice	-	1	-	1
Grand Total					170

II. Samples Tested for Chemical Parameters:

Sl. No.	Types of food commodities	No. of Samples tested & Report issued			Total
		January	February	March	
1.	Raw/packaged drinking water	12	1	15	28
2.	Processed Milk	-	-	2	2
3.	Biscuit	-	-	2	2
4.	Vegetable pickle	2	-	2	4
5.	Fruit jam	1	-	4	5
6.	Fruit juice	5	2	6	13
7.	Ketchup & sauce	-	-	4	4
8.	Honey	-	-	2	2



འாதார முனிஸிபல் கூட்டுரை
முனிஸிபல் கூட்டுரை தலைவர்
குடியிருப்பு வசை நிலைமை



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9.	Oil	-	-	5	5
10.	Tea	-	-	2	2
11.	Pasta	1	-	-	1
12.	Soup powder	1	-	-	1
Grand Total:					69

III. Subcontracted samples

National Food Testing Laboratory (NFTL), BAFRA, MoAF Yusipang subcontracts the regulatory samples as per the requirement of ISO17025 if it is beyond the scope of NFTL. We have collected 10 numbers of imported fresh fruits and vegetables samples viz., Cabbage, Cauliflower, Potato, Chili, Beans, Grapes, Tomato, Cucumber, Brinjal and Broccoli from Centenary Farmers Market, Thimphu and referred to our three reference laboratories at Thailand and India. The samples are being tested against pesticides residues of different groups and quantified for regulatory purposes as shown in table below. Such initiative was taken, as high content of pesticide residues in food has health implications in long run.



ਬੁਧਾ ਸਾਹਮਣੇ ਦੀ ਯਤਨਾਂ

ਵਿਸ਼ੇਸ਼ ਕਲਾ ਅਤੇ ਪ੍ਰਕਾਸ਼ਕ ਮੁਖ ਮੁਖ ਦੀ ਯਤਨਾਂ

ਕ੍ਰਿਤੀਪ੍ਰਕਾਸ਼ਕ ਕਲਾ ਮੁਖ ਮੁਖ ਦੀ ਯਤਨਾਂ

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Sl.#	Test Parameters	Samples, Unit of report=mg/kg								
		Cabbage	Cauliflower	Potato	Chili	Beans	Grapes	Tomato	Cucumber	Brinjal
Carbamate group										
1	Carbaryl									
2	Isoprotroab									
3	Fenobucarb									
4	Promecarb									
5	carbofuran									
6	Methiocarb									
7	Methomyl									
8	Aldicarb									



ରୂପାନ୍ତରମାର୍କିଙ୍କ କମିଶନ୍

ନିଯମାବଳୀ ଓ ଉଲ୍ଲଙ୍ଘନ କାନ୍ଟ୍ରିବ୍ୟୁଟ୍ରିଶନ୍

କ୍ଷେତ୍ରପଦ୍ଧତିକ କମିଶନ୍

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National Food Testing Laboratory

Bhutan Agriculture and Food Regulatory Authority (BAFRA)

		National Food Testing Laboratory									
		National Food Testing Laboratory									
		National Food Testing Laboratory									
9	Oxamyl										
10	Metolcarb										
		Organochlorine Group									
1	BHC										
2	Heptachlor& Hept.Epoxide										
3	Aldrin & Dieldrin										
4	DDT										
5	Chlordane										
6	Endosulfan										
7	Endrin										
		Organophosphate Group									
1	DDVP										





ભૂતાન સરકાર
ભૂતાન સરકાર

નિયમાં કરવાની કાર્યક્રમાં દર્શાવેલું

સ્વાસ્થ્ય વિભાગ
સ્વાસ્થ્ય વિભાગ

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Ministry of Agriculture and Forests
Bhutan Agriculture and Food Regulatory Authority (BAFRA)

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2	Methamidophos																			
3	Mevinphos																			
4	Omethoate																			
5	Diazinon																			
6	Dicrotophos																			
7	Monocrotophos																			
8	Dimethoate																			
9	Pirimiphos-Methyl																			
10	Chlopyrifos	0.01																		
11	Parathion-methyl																			
12	Prothifos																			
13	Methidathion																			
14	Profenofos													0.08						
15	Ethion																			



ଶ୍ରୀଭାଦ୍ରତପାନକାନ୍ତପାତ୍ର
ବସୁମାର୍ଗକାନ୍ତପାତ୍ରମୁଖ୍ୟମନ୍ତ୍ରୀ
ମୁଖ୍ୟମନ୍ତ୍ରୀଙ୍କର କାନ୍ତପାତ୍ରମୁଖ୍ୟମନ୍ତ୍ରୀ

ମୁଖ୍ୟମନ୍ତ୍ରୀଙ୍କର କାନ୍ତପାତ୍ରମୁଖ୍ୟମନ୍ତ୍ରୀ

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			0.02				
16	Triazophos						
17	EPN		0.06				
18	Phosalone					0.03	
19	Azinphos-ethyl						
	Pyrethroid Group						
1	Deltamethrin						
2	Bifenthrin						
3	Permethrin						
4	Lambda-Cyhalothrin		0.01				
5	Cypermethrin		<0.01		<0.01	0.02	
6	Cyfluthrin						
7	Fenvalerate						



ଶ୍ରୀମତ୍ ରାଷ୍ଟ୍ରପତି ଓ ପରିବାର

ବ୍ୟାପକ କାନ୍ତିକାର୍ଯ୍ୟ ବ୍ୟାପକ

କୁଣ୍ଡଳିକା ସାହେବ

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Ministry of Agriculture and Forests
Bhutan Agriculture and Food Regulatory Authority (BAFRA)

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Lab B, Thailand

Sl.#	Test Parameters	Samples, Unit of report=mg/kg								
		Cabbage	Cauliflower	Potato	Chili	Beans	Grapes	Tomato	Cucumber	Brinjal
Organochlorine group										
1	HCB									
2	alpha-BHC									
3	beta-BHC									
4	Lindane (gamma-BHC)									
5	Heptachlor									
6	Heptachlor epoxide									
7	Aldrin									
8	Dieldrin									
9	Dicofol									



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Forest Authority (FAEB)

National Food Testing Laboratory

Bhutan Agriculture and Food Re-

	Organophosphate group
10	p,p'-DDT
11	p,p'-DDD
12	p,p'-DDE
13	o,p'-DDT
14	alpha-Endosulfan
15	beta-Endosulfan
16	Endosulfan sulfate
17	Cis-Chlordane
18	trans-Chlordane
19	Endrin
1	Mevinphos (Phosdrin)
2	Monocrotophos

Organophosphate group

1	Mevinphos (Phosdrin)				
2	Monocrotophos				



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藏文大藏经

କୁର୍ମାତିଥିରେ ଦୂରପରିଚୟ

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Ministry of Agriculture and Forests
Forest Authority (FAFRA)

National Food Testing Laboratory
Bhutan Agriculture and Food Regulatory Authority (BAFRA)



ରୋଯାଲ ଗୋବର୍ନ୍ମନ୍ ଅନ୍ତର୍ଜାତିକ ସମ୍ମାନିତ ଦେଶ

ଭୁବନାଥ ପାଇଁ ଏକ ପରିପୂର୍ଣ୍ଣ ବିକାଶ ଦେଶ



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17	Dichlorvos								
18	Acephate								
19	Omethoate								
20	Phorate								
21	Disulfoton								
22	Phosphamidon								
23	Chloroyrifos-methyl								
24	Fenitrothion								
25	Parathion-ethyl								
26	Chlorfenvinphos								
27	Methidathion								
28	Profenos						0.04	0.03	
29	Ethion								



ରୋଜାମନ୍ଦିର

ବ୍ୟୁଧମନ୍ତ୍ରମଂଡଳ କେନ୍ଦ୍ରୀୟ ମୁଖ୍ୟମନ୍ତ୍ରୀଙ୍କାରୀଙ୍କ

କୁଣ୍ଡପାଦମନ୍ତ୍ରମଂଡଳ କେନ୍ଦ୍ରୀୟ ମୁଖ୍ୟମନ୍ତ୍ରୀଙ୍କାରୀଙ୍କ

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Ministry of Agriculture and Forests

Ministry of Agriculture and Food Regulatory Authority (BAFRA)

National Food Testing Laboratory

30	EPN							
31	Phosalone							
32	Azinphos-ethyl							

Pyrethroid group

1	Permethrin							
2	cypermethrin				<0.01			
3	Deltamethrin							
4	Lambda-Cyhalothrin							
5	Cyfluthrin							
6	Fenvalerate							

Carbamate group

1	Aldicarb sulfone							
2	Oxamyl							
3	Methomyl							





ରୋଜାନାମାଲା
ବସ୍ତୁମୂଳକ ବିଷ୍ଵାସପାତ୍ରତା

ବସ୍ତୁମୂଳକ ବିଷ୍ଵାସପାତ୍ରତା

ବସ୍ତୁମୂଳକ ବିଷ୍ଵାସପାତ୍ରତା

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4	3-	Hydroxycarbofuran							
5		Aldicarb							
6		Propoxur							
7		Carbofuran							<0.01
8		carbaryl							
9		Methiocarb							
10		Promecarb							





ଭୁବନେଶ୍ୱର ପାତ୍ର

ବସୁଗଣକ ମହାନ୍ଦୟମାନଙ୍କ ପାତ୍ର

କୃପାପଦକ ଚକ୍ର ପାତ୍ର

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Ministry of Agriculture and Forests
Bhutan Agriculture and Food Regulatory Authority (BAFRA)

National Food Testing Laboratory



SL#	Test Parameters	Lab A, India								
		Cabbage	Cauliflower	Potato	Chili	Beans	Grapes	Tomato	Cucumber	Brinjal
1	Carbaryl									
2	Carbofuran									
3	Methomyl									
4	Imidacloprid									
5	Thiodicarb									
6	Thiophos									
7	Carbosulfan									
8	Thiamethoxam									
9	Acetamiprid									



संक्षिप्त वाचन

ପ୍ରକାଶକ ପରିଷଦ

ଶ୍ରୀମଦ୍ଭଗବତ

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Ministry of Agriculture and Forests
Inventory Authority /BAFIAV

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10	Spinosad Spinosad Spinosad expressed Spinosad)	(sum of A and D as Spinosad)
11	Flubendiamide	
12	Indoxacarb	
13	Emamectin benzoate	
14	Cartap Hydrochloride	
15	HCH-A	
16	HCH-B	
17	Lindane	
18	HCH-D	



શાસ્ત્રીય પત્રપત્રિ

蒙古文書

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Ministry of Agriculture and Forests
National Agricultural Research and Training Institute (NARTI)

Bhutan Agriculture and Food Regulatory Authority (BAFFRA)

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19	Endosulfan-T (sum of Endosulfan-alpha and Endosulfan-beta expressed as Endosulfan)							
20	Dicofol			0.02				
21	DDT-T							
22	Chlorpyrifos			0.02	0.02			
23	Dichlorovos							
24	Dimethoate			0.02				
25	Ethion							
26	Malathion							
27	Malathion (sum of maloxon reported as malathion)							
28	Parathion-ME							



শাসকদণ্ড দণ্ডনালয়

বাস্তুপদ্ধতি কর্তৃপক্ষ এবং পর্যবেক্ষণ বৈধানিক বৈঠক

স্বাস্থ্য পরিকল্পনা কমিশন এবং পর্যবেক্ষণ

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Bhutan Agriculture and Food Regulatory Authority (BAFRA)

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29	Phoratesulphoxide								
30	Quinolfos	0.03							
31	Profenofos	0.07							
32	4-bromo-2-Chlorophenol	0.02			0.02	0.02			
33	Chlorpyrifos-ME								
34	Cypermethrin-alpha				0.04				
35	Bifenthrin								
36	Deltamethrin	0.01	0.05						
37	Fenpropathrin								0.03
38	Fenvalerate								
39	Cyhalothrin-L						0.05		

