



# Bhutan Agriculture & Food Regulatory Authority (BAFRA)

Ministry of Agriculture & Forests

Towards Ensuring National Biosecurity & Food Safety

BAFRA Quarterly e-Newsletter No:01

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## Foreword

Dear Readers,

*I extend my heartiest Welcome to BAFRA e-Newsletter Portal which is a first of its kind in the country. I am privileged to introduce this First Edition of the BAFRA e-Newsletter. We intend to make it a regular feature to publish the Achievements and Highlights of BAFRA relating to Bhutan's Biosecurity, Biosafety and Food Safety in the Kingdom on quarterly basis. I am particularly impressed by the progress made in the recent years in terms of achieving the desired outputs in our effort to ensuring National Biosecurity and Food Safety. Our colleagues, both at the Head Quarter and in the field are now more committed, diligent and confident in implementing the required measures, with increased level of technical competence and skills built through various trainings and skill development programs.*

*I would sincerely congratulate our BAFRA Field Offices in 20-Dzongkhags, for the notable achievements being made through their relentless efforts, hard work and sacrifices and wish all the best in continuing the sacred Mandates bestowed upon BAFRA by the Royal Government.*



*Namgay Wangchuk  
Director General*

**TRASHI DELEK!**

## The National Food Quality and Safety Commission (NFQSC) Endorsed 12 Mandatory Food Standards

The Bhutan Agriculture and Food Regulatory Authority (BAFRA) organized the 4<sup>th</sup> National Food Quality and Safety Commission (NFQSC) meeting on 26<sup>th</sup> July 2017. His Excellency, Lyonpo Yeshey Dorji, Minister for Agriculture and Forests chaired the Meeting. The main purpose of the Meeting was to discuss and endorse the 12 food standards, in other words called the *Technical Regulations* developed by BAFRA in consultation with relevant stakeholders.

The draft standards were reviewed by the National Codex Committee before they were presented to the Commission for endorsement. The members of the Commission deliberated on each standard and endorsed all the standards for implementation. The 12 food standards include the following;

- Pesticide Residues in Foods
- Veterinary Drug Residues in Foods
- Food Additives
- Mycotoxins in Foods
- Heavy metals in Foods
- Honey
- Milk
- Butter
- Local Cheese
- Table Eggs
- General Fruit Juices and Nectar
- Labeling of Prepackaged Foods.

## First National Biosafety Board Meeting Convened



The Bhutan Agriculture and Food Regulatory Authority (BAFRA) organized the First National Biosafety Board Meeting on 17<sup>th</sup> August 2017 in Thimphu. The Meeting was chaired by His Excellency, Lyonpo Yeshey Dorji, Minister for Agriculture and Forests. The members of the Board include heads of Department of Public Health, Department of Trade, Department of Revenue and Customs, Department of Law and Order, Department of Agriculture, Department of Livestock, Department of Forests and Park Services, National Biodiversity Centre, BAFRA, and a high-level representative each from the National Environment Commission and the Bhutan Chamber of Commerce and Industry. The Biosafety Act of Bhutan 2015 establishes the National Biosafety Board as the highest decision-making body for issues related to biosafety. The main objective in organizing the Board Meeting was to apprise the members on the biosafety activities being carried out by BAFRA and to review the draft Biosafety Rules and Regulations of Bhutan 2017 for endorsement. The Board reviewed the Biosafety Rules and Regulations of Bhutan 2017 and in principle, endorsed it. However, BAFRA was asked to present the Rules to the RNR-GNH Committee for their information.

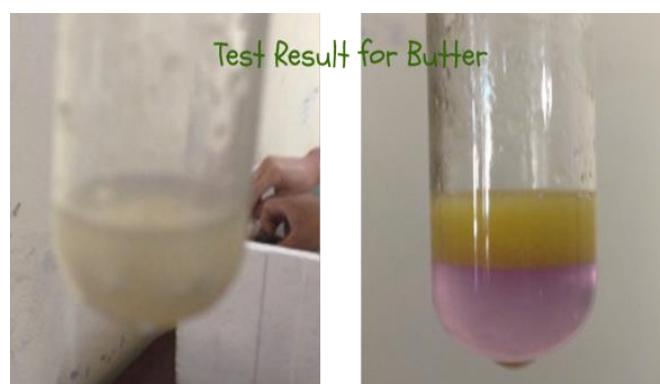
## Pan shops in Phuntsholing gets food safety awareness



A portion of areca nut and a bit of lime wrapped in betel leaf commonly known as "Doma" in a local language is a favorite mouth freshener for many Bhutanese. This is the most common item displayed for sale in almost every small general shop that is commonly known as "Pan" shop. But, how clean are those?

Since, preparation of "Doma" entails washing of leaves, cutting of nuts and wrapping in papers or, packaging in plastic pouches, food safety issues can arise from consumption of "Doma", if it is not done hygienically. Therefore, BAFRA office in Phuntsholing organized and conducted awareness cum training to the "Pan" shop owners on "Good Hygienic Practices" and "Food Safety" concerning "Doma" preparation on 5th October 2017. The objective was to impart an action oriented hands-on training to the "Pan" shop workers on Good Hygienic Practices during the processes involved in the preparation, packaging, and storage of Doma. The participants were made aware on the need to use potable water for washing betel leaf and Areca nut, use of clean non-corrosive utensils for lime storage, type of materials for wrapping Doma, and storage temperature to be maintained. Similar training will be conducted in other Dzongkhags as well.

## "Adulteration of butter with Vanaspati"



Negative for Vanaspati

Positive for Vanaspati

As a part of regular food safety monitoring activity, BAFRA, Thimphu Dzongkhag office conducted a random qualitative testing of butter being sold at Centenary Farmers' Market (CFM) from July to September 2017. Surprisingly, some of the samples tested positive for the presence of Vanaspati. Of the 30 butter samples tested, 4 were found to be positive. 3 of the 4 samples were from Haa and 1 from Bumthang. Adulterated butter were seized, destroyed, and appropriate actions taken on the sellers in accordance with the Food Act of Bhutan 2005. According to the Food Act 2005 and its Rules & Regulations 2017, people involved in selling such adulterated foods shall be fined double the market value of the incriminating commodity.

Vanaspati is generally added to butter to increase its weight and volume as it is cheaper and easily available. Besides, its colour blends well with butter, making it difficult for the buyers to differentiate. Some of the common adulterants used in butter are animal fats, potato pulp, banana, jaggery and soft paraffin.

The BAFRA Thimphu Dzongkhag office said that, the office will continue to monitor other foods sold at CFM for adulteration and take appropriate actions against the defaulters.



## Apple Export Certification Completed

The annual inspection and certification of Bhutanese apples for export to Bangladesh commences from the second week of August. For 2017 apple production season, BAFRA Office at Paro received certification requests from the first week of August. Accordingly, BAFRA carried out the certification as per the quality standards



following the random sampling techniques. Apple samples have been referred for testing of radioactive residues to the Board of Radiation and Isotope Technology, Department of Atomic Energy, Mumbai, India in order to certify as free from radioactive residues. BAFRA Inspectors were engaged from 8.00 am to 9.00 pm during the season for inspection and certification, to facilitate the export of Bhutanese apples to Bangladesh. Every consignment is inspected, sealed with "INSPECTED" mark and issued with Phytosanitary Certificate which must accompany the consignment till its destination. For 2017 season, Paro Dzongkhag had 5

Exporters and 7 local suppliers with depots located in various places in the Dzongkhag. The Dzongkhag exported a total of 483.800 Metric tonnes of apples during the current season. The apple season for Paro normally end in the second week of September 2017.

## No evidence of presence of GMO corn and soya bean in the Country

BAFRA conducted the first preliminary GMO pilot survey as part of the regular monitoring and surveillance to regulate introduction of GMOs into Bhutan, either in the form of grains or live plant materials of corn and soya beans. The main objective of the pilot survey was to find out whether GM corn and soya beans (two most commonly cultivated crops by many countries in the world) have been introduced into the country. The survey was conducted in 20 Dzongkhags and 6 official Entry Points from May to June 2017. Grain samples were collected from retail and wholesale establishments including feed processing plants. The live plant samples (leaves) were also collected from high-risk farms and nurseries.

A total of 780 samples were tested in 20 Dzongkhags in which 484 were corn samples and 296 are soya bean samples. Samples were tested initially using CP4 EPSPS (RR) LFS kits in the Dzongkhags. All the samples tested negative. Samples were further referred to the Biotechnology Laboratory of the National Food Testing Laboratory (NFTL) at Yusipang, Thimphu for confirmation using advanced PCR techniques. Biotechnology Laboratory at NFTL also came out with negative results. The result of this pilot survey suggested absence of GMO corn or GMO soya bean in these study areas in the country. The Biosafety Act of Bhutan 2015, which is being implemented by BAFRA prohibits the import and transit of any genetically modified organism or genetically modified biological material capable of reproducing. BAFRA also plans to conduct similar survey targeting Bt-Brinjal.

## Food Safety Awareness in Trongsa

BAFRA Office in Trongsa had conducted a series of mass awareness programs on "Food Safety" to the educational institutions, Hydropower Project and far flung Gewogs with support from Royal Bhutan Police,



Bhutan Development Bank Limited and Royal Insurance Corporation Limited, from July to August 2017. The awareness program covered more than 50,000 participants including students, corporate employees, farmers and the general public. The awareness was mainly targeted to the general consumers, focusing on their roles and responsibilities in ensuring food safety. In addition, the participants were made aware on the RNR related legislation viz; Livestock Rules and Regulations 2017, Food Rules & Regulations 2017, and Plant Quarantine Rules & Regulation 2003. Participants commented that, prior to their participation in such awareness programs, their

perception on the roles and responsibilities of BAFRA were limited to inspection of meat shops, hotels, restaurants and groceries for date-expired items. However, after attending such awareness programs, they were made aware of BAFRA's other important mandates such as food safety, biosecurity and biosafety. The participants were requested to further share the knowledge gained during the awareness programs, to their family members and neighbours.

## Livestock farmers of Paro Dzongkhag - Plagued by Foot and Mouth Disease (FMD)

Livestock Farmers of Paro Dzongkhag have now realized the importance of annual vaccination of their animals against Foot and Mouth Disease. The Dzongkhag has reported one of the major outbreaks of Foot and Mouth Diseases affecting cattle in 202 households in nine Gewogs. The outbreak was initially reported on 2nd June 2017 and lasted for almost two full months, affecting a total of 764 cattle, 33 deaths and approximately, 5858 liters of milk banned daily from sale by the dairy farmers. The outbreak was of massive scale which tested the efficiency and capacity of animal health and BAFRA officials involved in the disease containment. Bhutan has never experienced FMD outbreak of such magnitude till date. This was mainly attributed to low FMD vaccination coverage, which was further exacerbated by movement of migratory herd from FMD high risk to low risk areas. Besides, the outbreak occurred, when the farming activities in the Dzongkhag was at its peak, leading to lot of movements of high risk goods, including live animals. BAFRA was heavily involved in the implementation of animal quarantine and movement control, monitoring and inspection of banned livestock products, disposal of dead animal carcasses, decontamination and disinfection of infected premises, including implementation of good farm biosecurity practices. Besides, public education and awareness were also jointly carried out with other relevant agencies. The FMD outbreak was successfully contained on 4 August 2017, through concerted efforts from all relevant stakeholders.





## Food Poisoning Outbreak in Thimphu - One Health Approach

The incidence of food poisoning in a family residing at Kuenselphodrang area was first reported to the Royal Center for Disease Control (RCDC) by a Medical Officer on 26th July 2017 following admission of 17 people to the Emergency unit in Jigme Dorji Wangchuck Referral Hospital. The affected people were admitted with clinical history of diarrhoea, vomiting, nausea, abdominal pain, fever and headache after consuming birthday cake at home. Based on the preliminary assessment indicating suspected food poisoning by RCDC, the team informed the BAFRA on 27 July 2017.

A One Health approach comprising team from RCDC and BAFRA conducted detailed investigation to determine the cause and determinants of an outbreak for enforcing control and preventive measures. As per the findings, there was a strong epidemiological link of consumption of cakes from a Bakery and the illness related to the food poisoning incident. In addition, the laboratory results of the patients' stool, vomit samples and the left-over cake samples collected from the two affected families tested positive to *Salmonella* spp., thus confirming it as the causative agent for the food poisoning, and the source as cakes purchased from one of the Bakeries in Thimphu.

Similarly, 7 cases from another family residing near Druk PNB office were admitted with the same clinical history consistent with food poisoning at the Emergency unit of JDVNRH. This family also bought birthday cake from the same Bakery on the same date for their daughter's birthday. To avoid similar outbreak in near future, BAFRA has outlined list of corrective measures for the implicated Bakery based on the inspection report. The food poisoning outbreak investigation was carried out for the first time in the country through One Health approach.

## Seventeen Stray horses quarantined for suspected Rabies



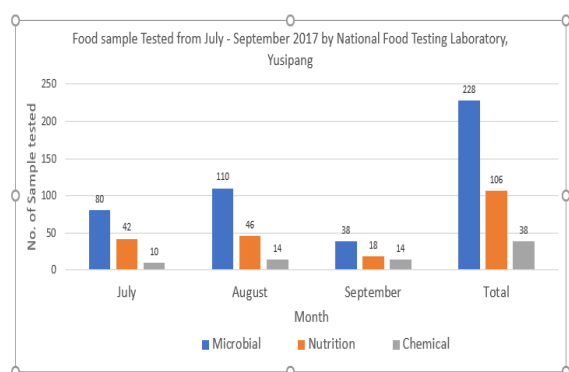
On 9th September 2017 morning, the residents of Forests Colony in Phuentsholing town spotted two stray horses with abnormal behavior, prompting the need to report to Phuntsholing Thromde Authority and to the office of City Veterinary Hospital (CVH), Phuntsholing. On the same day, both the horses died and the CVH officials collected brain samples from the dead horses, which when, tested with Rapid Rabies Antigen test kit, confirmed Rabies.

The samples were then referred to National Centre for Animal Health (NCAH) at Serbithang, Thimphu for confirmation of Rabies which tested positive.

In order to prevent the spread of the disease to humans and other animals, 17 suspected stray horses within same vicinity were quarantined at the Animal Quarantine Station, Phuentsholing, quarantined for 15 days to observe for the signs of Rabies which showed no clinical signs of the disease. Hence, the horses were handed back to the Thromde Authority in Phuntsholing for their needful.

## Food Testing Facilities at National Food Testing Laboratory, Yusipang

National Food Testing Laboratory (NFTL), BAFRA, MoAF, Yusipang was established to cater food testing services in the country to provide safe food in the interest of public health in the year 2005. It has testing facilities for Food Microbiology, Residues, Contaminants, Nutrition and Genetically Modified Organism



(GMO). The NFTL is accredited for ISO/IEC: 17025 (General Requirements and Competence of Testing and Calibration of Laboratories) for certain test parameters since November 2012 by National Accreditation Board for Testing and Calibration of Laboratories (NABL), India. The periodic evaluation is carried out for the compliance with ISO/IEC: 17025:2005 requirements. The scope of accreditation includes both chemical and microbiological quality and safety parameters covering various food and agricultural product categories including drinking water. Between July to September 2017, NFTL has analyzed 372 samples for Microbiological, Chemical, and

Nutritional parameter. In three months period (July, August, September 2017), majority of the samples analyzed were for Microbiological parameters (61.3%). Under microbiological parameters, the test conducted were for aerobic plate count, Yeast and mould count, Coliform count, E. coli, Salmonella, Bacillus cereus, and Staphylococcus aureus. Packaged drinking water, cakes, and bakery products topped the type of samples for microbiological test. In addition, other samples such as fruits, ready to eat food, milk, eggs, meat, etc. were also analyzed. For nutritional parameters, the samples analyzed were honey, tea, pickles, oils, and milk. Few samples were analyzed for chemical parameters (residual and contaminants). The samples were collected and referred from all 20 - BAFRA field offices across the country.

## Fifteen Lead Auditor Trained on Food Safety Management System

September 11-15, 2017, Thimphu: The FSSC/ISO 22000 Auditor/Lead Auditor training was conducted for BAFRA food safety officials to assess the adequacy of the design, implementation and improvement of a food business organization's Food Safety Management System against ISO 22000:2005 in accordance with ISO 19011:2002 (Guidelines for Auditing Management Systems). The training was organized by BAFRA, Ministry of Agriculture and Forests, with funding support from the GoI-PTA on 'Strengthening Biosecurity System of Bhutan'. Fifteen food safety Officials from BAFRA attended the five-day training conducted by DNV GL, an internationally accredited certification body. The training was thoroughly assessed through continuous assessment by the trainer and a written examination at the end of training program. The successful completion of the training enables the food safety Officials to serve as effective trainee Auditors for ISO 22000 (FSMS) certification of food establishments in the country.



## Product Certification Scheme under process

The Food Act of Bhutan 2005 and the revised Food Rules and Regulations of Bhutan, 20017 governs the Bhutan Product Certification Scheme, which empowers BAFRA to grant licenses to producers for using the Standard Mark on their product. The fundamental objective of Product Certification is to address the needs of the consumers, users and all interested parties by increasing the confidence regarding fulfillment of specified requirements and to allow suppliers to demonstrate to the market that their products have been certified by an impartial third-party body. Product Certification can facilitate trade, market access, fair competition, and consumer acceptance of products at a National, Regional, and International level.

BAFRA has initiated product certification services to assist the industries and commerce in Bhutan for trade facilitation and product safety. BAFRA has applied to National Accreditation Board for Certification Bodies (NABCB), India for international accreditation against ISO/IEC 17065:2012 (Conformity assessment - Requirements for bodies certifying products, processes and services). At present, BAFRA is conducting product certification for Packaged Drinking Water for two food establishments viz; Bhutan Agro Industries Limited, Thimphu and Bhutan Milk and Agro Pvt. Ltd, Phuentsholing. For these two food establishments, BAFRA had conducted the application review, preliminary inspection, factory audit, sample testing and evaluation process. BAFRA has also processed two additional applications for witness assessment by NABCB, viz; M/s Veen Waters Bhutan Pvt. Ltd, Samtse (Scope: Packaged Natural Mineral Water) and M/s Zimdra Foods Pvt. Ltd, Phuentsholing (Scope: Manufacture of Fruit Juices).

## Rangshin Sonam Detshen of Gasa adds another feather to its Cap!

Carrots of Rangshin Sonam Detshen, the Organic Farmers group of Khatoed Gewog, Gasa Dzongkhag has been certified as Organic by BAFRA, Ministry of Agriculture and Forests on 11th August 2017. Carrot is the third crop to be certified by BAFRA as organic, besides potatoes and garlic. Organic crops are being certified by BAFRA as per the Bhutan Organic Certification System (BOCS 2013) guidelines. The Organic Certification Committee (OCC) instituted at BAFRA, HQ evaluated the inspection reports and laboratory test results of the samples. The test reports of the soil and carrot samples tested at Central Laboratory in Thailand and the Export Inspection Agency Laboratory, Kolkata, India, respectively were found to meet the requirements as prescribed in the BOCS guideline. The Certificate issued to Rangshin Sonam Detshen, Gasa is valid for a period of one year, from the date of issue.





## Thirty- Five Food Officials Updated on Food Safety Licensing Process

Thirty-five BAFRA Food Inspectors from various field offices and Head Office attended a 5-day orientation workshop on Environmental Food Safety Risk Assessment for Licensing of Food Business in Thimphu from



5th to 9th September 2017, Thimphu. The workshop was organized with the budgetary support from Bhutan Trust Fund for Environmental Conservation (BTSEC) for "Strengthening National Biosecurity and Food Safety". The main objective of the workshop was to familiarize the field inspectors on food safety licensing processes.

The food safety measures such as inspection of food establishment site to identify and prevent possible food safety hazards etc. will help in addressing environmental contaminants of public health concerns. Although, BAFRA has developed the GHP/GMP criteria for licensing of food business, the food inspectors need to be further trained so as to effectively address the issue while implementing of food business licensing processes.

[Read more.](#)

## Consultation Workshop on Food Import Control System

About thirty-five BAFRA food safety officials from 20-Dzongkhags attended the 2-day Consultative workshop on "Food Import Control System" (Criteria for Good Importing Practices and Food Import Licensing and Inspection Processes) organized by BAFRA, Ministry of Agriculture, from 19 - 20 September 2017, in Thimphu.

The objective of the workshop was to review and familiarize the officials on the two documents - "Criteria for Good Importing Practices" and "Food Import Licensing and Inspection Processes". These documents will improve the food safety and logical development of food industries in the country by defining minimum requirements for the commercial importation of food into the country. The participants extensively discussed the Criteria for Good Importing Practices (GIPs) and Food Import Licensing and Inspection Processes in concurrence with the field practicalities and current situations relating to food import and business operations in the country. The requirements of additional Standard Operating Procedures and Guidelines for implementation of Food Import Control System were also identified and discussed. The Recommendations of the workshop will be taken up for consideration in the next round of high level consultative meetings with the relevant Government Agencies and Private, Food Business Operators/establishments for thorough consultation before submitting to the National Food Quality and Safety Commission (NFQSC) for endorsement.



## Notification:

1. BAFRA has issued a Notification to Food Business Operators in the country regarding proper storage of bakery products in the country on 15 September 2017. The Notification was issued as precautionary measure to protect the bakery products from unnecessary food spoilage and potential poisoning outbreaks. [Read more](#)
2. BAFRA has also issued a Notification on the seizure and destruction of sausages, after the BAFRA, Livestock Inspectors encountered 354 packets of sausages (*with expired shelf life date at the B-Coop Shop*) on July 13, 2017. The products were processed by the Livestock Products Value Addition Centre, Serbithang under Department of Livestock, Ministry of Agriculture and Forests, which have been seized and destroyed by BAFRA Thimphu Inspectors This Notification is being issued to inform and reaffirm the general public that BAFRA enforces all food safety measures strictly without partiality towards any Food Business Operators, irrespective of their ownership (*Government agencies, Non-Governmental agencies or Private Entrepreneurs*) without any fear or favour. [Read More](#)

## Tentative Upcoming Programs/Events for next Three Months (Up to 31 December 2017)

Date	Programs/Events	Place
7 November 2017	Consultation Workshop on High Level Food Import Control System	Thimphu
8 November 2017	National Validation Workshop to validate Findings of National SPS-TBT Diagnostic study by ADB	Thimphu
17 November 2017	Stakeholder Workshop on Food Import Control System for Private Business	Phuntsholing
14 December 2017	Stakeholder Workshop on Food Import Control & Advocacy on Food Labeling	Thimphu
11-15 December 2017	Mandarin Inspection & Certification	Gelephu, Phuntsholing, Samtse, Samdrup Jongkhar
21-24 December 2017	Workshop on Meat Safety	Phuntsholing
25-29 December 2017	Workshop on Food Safety Licensing Process	Phuntsholing



## References

1. For information on Meat, Poultry and Egg Product Inspection Directory and mobile apps, Visit: <https://www.fsis.usda.gov/wps/portal/fsis/topics/inspection/mpi-directory>.
2. For information on disease outbreak globally Visit: <http://www.promedmail.org/>
3. For any Information on food standards, Visit: <http://www.fao.org/fao-who-codexalimentarius/en/>

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