



## Codex Community Event

OPEN TO CCNASWP MEMBERS

26 – 28 February 2024

Sofitel Fiji, Nadi, Fiji

## 2<sup>ND</sup> NORTH AMERICA SOUTH WEST PACIFIC CODEX COLLOQUIUM

Supporting the Enhancement of Food Control Systems in the SWP Region

Event Partner Organizations



United States  
Department of  
Agriculture



SW Pacific  
CODEX



*Review of the Requirements of  
Data Input into the GEMS Food  
Program and Opportunities to  
Submit Data to GEMS Food from  
the Region*

Dr. Amine Kassouf, Research Manager - GFoRSS

# INTRODUCTION

□ **Since 1976**, the Global Environment Monitoring System - Food Contamination Monitoring and Assessment Programme, which is commonly known as **GEMS/Food**, has informed:



- governments,
- **the Codex Alimentarius Commission and its scientific advisory bodies**, such as JMPR and JECFA, and
- other relevant institutions, as well as the public,

on **levels and trends of contaminants in food**, their contribution to total human exposure, and significance with regard to public health and trade.



# INTRODUCTION

**The GEMS/ Food Database:** this is a **web-based system** to access and submit data on contaminant levels in foods.

World Health Organization *GEMS/Food*

Home Page Search

GEMS/Food Contaminants > Search

**Notes**

Please note that there is a limitation on the number of rows that can be exported in an excel file. You would not be able to export this limit you should do a new search **before exporting data in csv file** limited for example to certain regions or certain years

Search Reset Hide options

**Search Criteria**

WHO Region(s): All Sampling period from:  (yyyy)

Contaminant(s): All to:  (yyyy)

Food Category(s): All

Food Name: All



# INTRODUCTION

- ❑ The GEMS/ Food **Cluster diets**: as part of its dietary exposure assessment mandate, GEMS/Food has developed model diets which are currently used for predicting dietary intake of various chemicals (**17 cluster diets**).

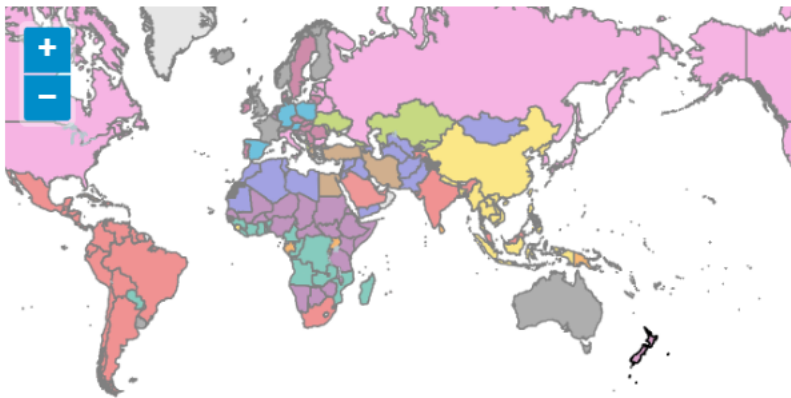


## GEMS/Food Cluster Diets - 2012

A part of the FOSCOLLAB

[Click here to download full data set](#)

### Clusters and Countries



### Select Clusters

G01	Afghanistan, Algeria, Azerbaijan, Iraq, Jordan, Libya, Mauritania, Mongolia, Morocc...
G02	Albania, Bosnia and Herzegovina, Georgia, Kazakhstan, Kyrgyzstan, Montenegro, R...
G03	Angola, Benin, Burundi, Cameroon, Congo, Côte d'Ivoire, Democratic Republic of t...
G04	Antigua and Barbuda, Bahamas, Barbados, Brunei Darussalam, French Polynesia, G...
G05	Argentina, Bolivia Plurinational State of, Brazil, Cape Verde, Chile, Colombia, Cost...
G06	Armenia, Cuba, Egypt, Greece, Iran Islamic Republic of, Lebanon, Turkey
G07	Australia, Bermuda, Finland, France, Iceland, Luxembourg, Norway, Switzerland, U...
G08	Austria, Germany, Poland, Spain
G09	Bangladesh, Cambodia, China, Democratic People's Republic of Korea, Guinea Biss...
G10	Belarus, Bulgaria, Canada, Croatia, Cyprus, Estonia, Italy, Japan, Latvia, Malta, New ...
G11	Belgium, Netherlands
G12	Belize, Dominica
G14	Comoros, Fiji Islands, Kiribati, Papua New Guinea, Solomon Islands, Sri Lanka, Van...
G13	Ethiopia, Erythrea, South Sudan, Botswana, Burkina Faso, Central African Republic, ...
G16	Gabon, Rwanda, Uganda
G17	Samoa, Sao Tome and Principe
G15	Serbia, Czech Republic, Denmark, Hungary, Ireland, Lithuania, Portugal, Romania, ...



# REGISTRATION AND LOGIN

- ❑ **Data providers** should first register and create a WHO login (e-mail address) and password.
- ❑ The institution owning the data should provide the GEMS/Food administrator with contact details to have it listed as a collaborating institution.
- ❑ Once logged in to the database, the user will have access to the **Excel templates** for contributing data, that allow data providers to enter the national food classification and to map it with the WHO and/or the FoodEx2 classifications.



# FOOD MAPPING

- ❑ The **national classification** should be mapped with either the WHO or the FoodEx2 classification (The **local food identifier** consists of the name given to the food in the national database ).
  
- ❑ The GEMS/Food code is based on a hierarchical classification with **2 levels**:
  - The first level (**WHO Food Group**) corresponds to 23 broad categories usually reported in food consumption surveys plus one category for feed.
  - The second level (**WHO Food Identifier**) corresponds to the detailed food descriptors used in the Codex Alimentarius Committees and to foods, processed or not, and analyzed as purchased or as consumed.
  
- ❑ The FoodEx2 code developed by EFSA and recommended for dietary exposure assessment is already mapped with the WHO code.



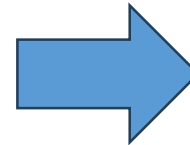
# FOOD MAPPING

Food Category(s): **All**

Food Name:

Check all  Uncheck all

- Alcoholic beverages
- Animal feed
- Cereals and cereal-based products**
- Composite food (including frozen products)
- Drinking water (water without any additives except carbon dioxide; includes water ice for consumption)
- Eggs and egg products



If no information on the detailed food category (e.g., "fruit") select a WHO Food Identifier similar to the WHO Food Group (e.g., Fruit and fruit product NES).

Food Category(s): **Cereals and cereal-based products**

Food Name:

**All**

Filter:   Check all  Uncheck all

Buckwheat, Camellia, quinoa)

- Bread & other cooked cereal products
- Buckwheat
- CEREAL GRAINS
- Cereals and cereal-based products NES**
- Job's tears
- Maize

If the precise food name is not listed, the more generic sub-group listed in CAPITALS should be chosen.



# STATE OF THE FOOD ANALYZED

**Basis for the Analytical Results:** Fat content, Dry weight, As is (raw, fresh) or As consumed.

**Portion analyzed:** edible only, or total food i.e., edible + inedible portion of food.

**State of food analyzed:** cooked food, raw food or if the information is unknown.





# ANALYTICAL QUALITY ASSURANCE

Field	Description	Content
Sampling Date	Date/Year of sampling	The date when the sample was collected (YYYY)
Sample representativeness/reliability	Sampling design	Random sampling, Targeted sampling or unknown.
Analytical Quality Assurance	To indicate the level of laboratory proficiency	<ul style="list-style-type: none"><li>• Internal quality assurance and reference standards only.</li><li>• Successful participation in relevant proficiency tests during the sampling and analysis period.</li><li>• Official accreditation for the relevant methods during the sampling and analysis period.</li><li>• Unknown quality insurance of the lab.</li></ul>



# ANALYTICAL QUALITY ASSURANCE

Field	Description	Content
Measurement units for Contaminant Levels	Homogenized units	mg/kg (milligram per kilogram or parts per million), $\mu\text{g}/\text{kg}$ (microgram per kilogram or parts per billion), ng/kg ...
Limit of detection (LOD)	LOD is the minimum concentration of a contaminant that can be qualitatively measured in the specific food	Number
Limit of quantification (LOQ)	LOQ is the minimum concentration of a contaminant that can be quantitatively measured in the specific food with an acceptable level of accuracy and precision.	Number
Individual vs aggregated data	The reported result is based on pooled sample?	The number of individual samples in the pool?



# GEMS / FOOD



## GEMS/Food

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**Search**

GEMS/Food Contaminants > Search

### Search Criteria

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Food Name:

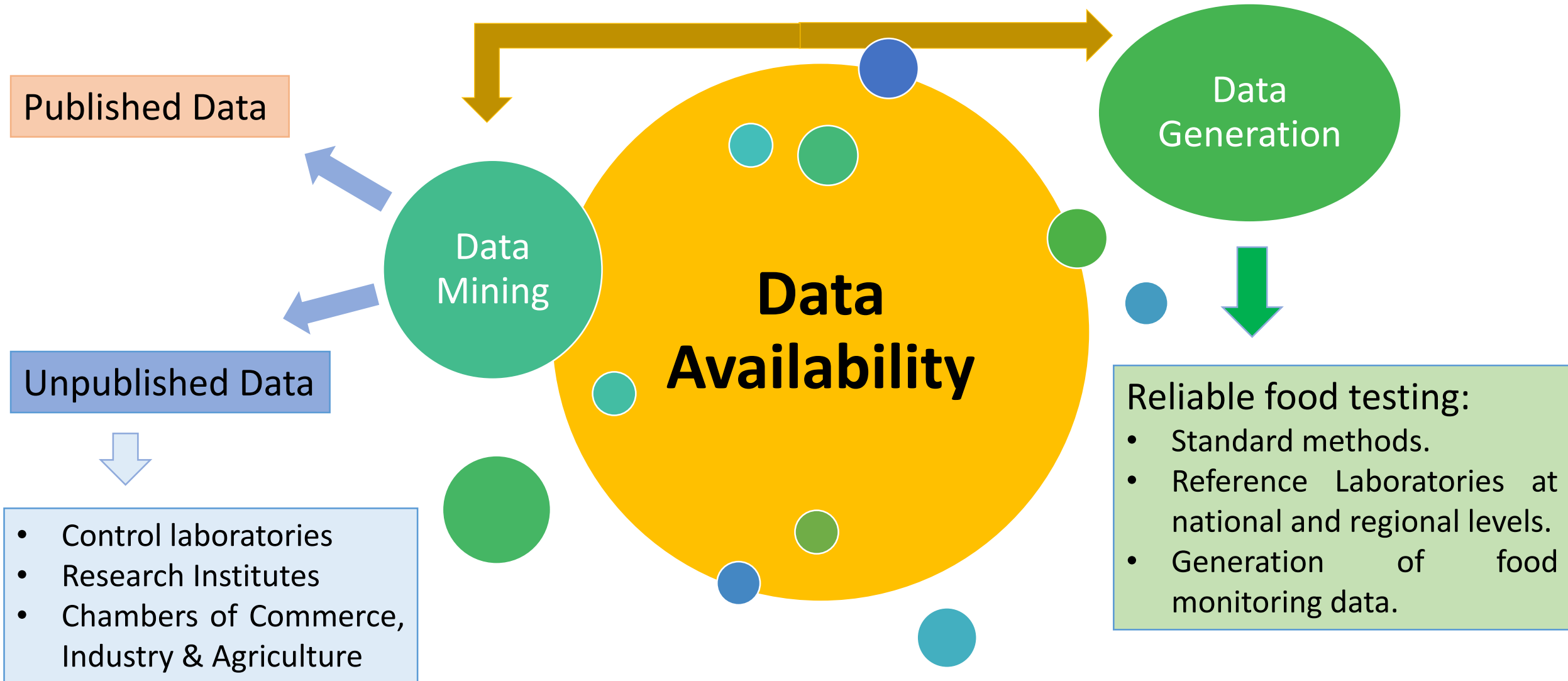
### Search Results

[Export to file \(csv\)](#) | [Print](#) | [Get link to this search](#) | [Email this search](#)

Record Type	Region	Contaminant	Food Group	WHO Food Identifier	WHO Food Code	State of food analysed	Result	Units	LOD	LOQ	Year Sample	Sample representativeness (or reliability)	Lab identification	Food origin	Analytical quality assurance	Results based on
Individual	PAHO	Abamectin	Fruit and fruit products	Avocado	FI 0326	Raw	ND	mg/kg	0.01	0.011	2015	Random sampling	8	Imported	Officially accredited	As is
Individual	PAHO	Abamectin	Fruit and fruit products	Avocado	FI 0326	Raw	ND	mg/kg	0.01	0.011	2015	Random sampling	8	Imported	Officially accredited	As is
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# ARAB FOOD OCCURRENCE DATABASE





# ARAB FOOD OCCURRENCE DATABASE

Data is imported to an **online portal**, accessible at data entry level (Admin) or data consultation (User).

Search Criteria
Country
Contaminant
Food Category
Food Name
Date
.....



**Arab Food Occurrence Database**

The investment in data availability to support food regulatory measures is one of the key elements of the mandate of the Global Food Regulatory Science Society (GFRSS). The availability and accuracy of occurrence data is crucial to support the development of sound and substantiated food regulatory decisions; data being the backbone of the risk analysis process. Similarly, the ability to contribute to the development and / or adaptation of international food standards requires the reliance on a robust set of occurrence data that reflect the local, national or regional environment and to support exposure assessment. Accessibility to occurrence data is yet a major challenge faced by the Arab region. Therefore, a priority area of investment in the field of food regulatory science was set for the region to ensure the availability of such data. This online portal was developed in this context, to allow the collection of occurrence data through a systematic scanning and data mining of published articles, and from data providers in the region (competent authorities, control laboratories, research institutes, academic institutions, etc.). It is expected that this database constitutes the repository of food occurrence data for the Arab region, enabling its possible contribution to the GEMS Food database and other international calls for data in support of international food standard setting.

Users and data providers are kindly requested to register through the [registration link](#). For any support or technical issue, please do not hesitate to contact us at [database@arabcodex.org](mailto:database@arabcodex.org).

 **World Health Organization**

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GEMS/Food Contaminants

