# SUPPORTING INFORMATION for

## An Exposure – Risk Assessment for Potentially Toxic Elements in Rice and Bulgur

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**Crystal Ball Report** 

#### **Assumptions of Rice Simulation**

## Assumption: Body Weight (kg)

| Lognormal distribution with para | meters: |
|----------------------------------|---------|
| Mean                             | 66,04   |
| Standard Dev.                    | 12,80   |

Selected range is from 0,00 to +Infinity Mean value in simulation was 66,23

## Daily Intake = Intake × Portion Assumption: Intake (portions/d)

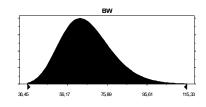
| Extreme Value distribution | with parameters: |
|----------------------------|------------------|
| Mode                       | 0,4327           |
| Scale                      | 0,2592           |

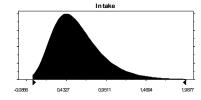
Selected range is from 0,0000 to +Infinity Mean value in simulation was 0,5830

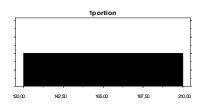
## Assumption: Portion (g)

| Uniform distribution with parameters: |        |
|---------------------------------------|--------|
| Minimum                               | 120,00 |
| Maximum                               | 210,00 |

Mean value in simulation was 164,94







## CONTAMINANT CONCENTRATIONS (µg/g)

#### Assumption: Cd

| Gamma | distribution w | vith p | arameters: |
|-------|----------------|--------|------------|
| Gamma |                | nui p  | urumeters. |

| Location | . 0,0010   |
|----------|------------|
| Scale    | 0,8364     |
| Shape    | 0,27661502 |

Selected range is from 0,0010 to +Infinity Mean value in simulation was 0,2338

#### Assumption: Co

| Gamma distribution with par | ameters:    |
|-----------------------------|-------------|
| Location                    | 0,1073      |
| Scale                       | 0,0181      |
| Shape                       | 2,360937296 |

Selected range is from 0,1073 to +Infinity Mean value in simulation was 0,1500

#### Assumption: Cu

Gamma distribution with parameters:

| Location | 0,0000      |
|----------|-------------|
| Scale    | 0,1462      |
| Shape    | 11,71598337 |

Selected range is from 0,0000 to +Infinity Mean value in simulation was 1,7116

## Assumption: Mn

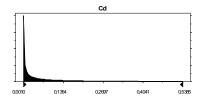
| Logistic distribution with parameters: |       |
|--|-------|
| Mean                                   | 6,863 |
| Scale                                  | 0,732 |

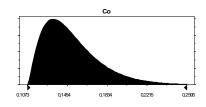
Selected range is from 0,000 to +Infinity Mean value in simulation was 6,859

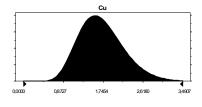
#### Assumption: Pb

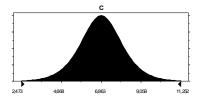
| Beta distribution with parameters: |       |
|------------------------------------|-------|
| Alpha                              | 0,64  |
| Beta                               | 4,46  |
| Scale                              | 0,270 |

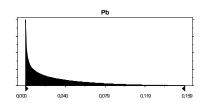
Selected range is from 0,000 to +Infinity Mean value in simulation was 0,034











#### Assumption: Sr

| Extreme Value distribution w  | vith parameters: |      |       | Sr     |        |
|-------------------------------|------------------|------|-------|--------|--------|
| Mode                          | 0,083            | -    |       |        |        |
| Scale                         | 0,029            |      |       |        |        |
| Selected range is from 0,000  | to +Infinity     |      |       |        |        |
| Mean value in simulation was  | -                | 0025 | 0.083 | 0.141  | 0.199  |
|                               | 3 0,100          |      |       |        |        |
| Assumption: Zn                |                  |      |       |        |        |
| Normal distribution with para | ameters:         | ,    |       | Zn     |        |
| Mean                          | 12,009           |      |       |        |        |
| Standard Dev.                 | 1,791            |      |       |        |        |
|                               |                  | -    |       |        |        |
| Selected range is from 0,000  | to +Infinity     |      |       | · •    |        |
| Mean value in simulation was  | s 12,038         | 6637 | 9,323 | 12,009 | 14,695 |
|                               |                  |      |       |        |        |

## **Assumptions of Bulgur Simulation**

#### Assumption: BW

| Lognormal distribution with para | ameters: |
|----------------------------------|----------|
| Mean                             | 66,04    |
| Standard Dev.                    | 12,80    |

Selected range is from 0,00 to +Infinity Mean value in simulation was 65,98

## Daily Intake = Intake × Portion Assumption: Intake (portions/d)

| Extreme Value distribution | with parameters: |
|----------------------------|------------------|
| Mode                       | 0,2339           |
| Scale                      | 0,1609           |

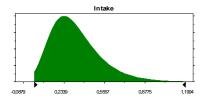
Selected range is from 0,0000 to +Infinity Mean value in simulation was 0,3302

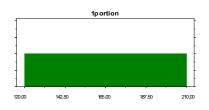
#### Assumption: Portion (g)

| Uniform distribution with parameters: |        |
|---------------------------------------|--------|
| Minimum                               | 120,00 |
| Maximum                               | 210,00 |

Mean value in simulation was 165,16







## CONTAMINANT CONCENTRATIONS (µg/g)

#### Assumption: Cd

| Extreme Value distribution with | h parameters: |
|---------------------------------|---------------|
| Mode                            | 0,0048        |
| Scale                           | 0,0049        |

Selected range is from 0,0000 to +Infinity Mean value in simulation was 0,0083

## Assumption: Co

| Logistic distribution with parameters: |        |
|--|--------|
| Mean                                   | 0,0154 |
| Scale                                  | 0,0066 |

Selected range is from 0,0000 to +Infinity Mean value in simulation was 0,0178

## Assumption: Cu

| Logistic distribution with parameters: |       |
|--|-------|
| Mean                                   | 3,704 |
| Scale                                  | 0.338 |

Selected range is from 0,000 to +Infinity Mean value in simulation was 3,691

#### Assumption: Mn

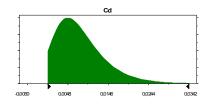
| Extreme Value distribution with | n parameters: |
|---------------------------------|---------------|
| Mode                            | 12,05         |
| Scale                           | 3,29          |

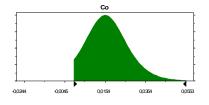
Selected range is from 0,00 to +Infinity Mean value in simulation was 13,94

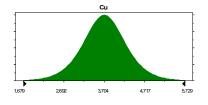
## Assumption: Pb

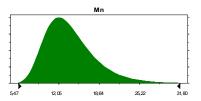
| Lognormal distribution with para | ameters: |
|----------------------------------|----------|
| Mean                             | 0,028    |
| Standard Dev.                    | 0,080    |

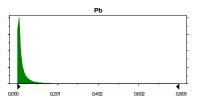
Selected range is from 0,000 to +Infinity Mean value in simulation was 0,029











## Assumption: Sr

| Lognormal distribution with para                                | ameters: |
|---|----------|
| Mean  | 2,147    |
| Standard Dev.   | 1,525    |
| Selected range is from 0,000 to Mean value in simulation was 2, |          |
| Assumption: Zn  |          |
| Lognormal distribution with para                                | ameters: |

| Mean          | 14,684 |
|---------------|--------|
| Standard Dev. | 4,832  |

Selected range is from 0,000 to +Infinity Mean value in simulation was 14,617

End of Assumptions

