



Briefing Session on
Outsourcing of
Food Tests:
Review and Way Forward

Government Laboratory
October 2013



Review of Outsourcing Contracts in 2013-14



Outsourcing in 2013-14

- ★ 17 contracts issued by end of Oct 2013
 - ★ total about 119,000 tests
 - ★ contract period: 3 months to 1 year
 - ★ exercise ends in March 2014
- ★ 5 main areas of food tests:
 - ★ Food additives
 - ★ Pesticide residues
 - ★ Veterinary drug residues
 - ★ Heavy metals /Toxic element
 - ★ Other contaminants



Salient Points (1)

- ✦ Accredited in corresponding tests
 - ✦ maintaining accreditation status throughout contract period
- ✦ Test parameters in specified matrices
- ✦ Specified reporting limits or better
- ✦ Delivery time of results
 - ✦ 3 – 15 days
- ✦ Testing capacity
 - ✦ 20 – 130 samples per week



Salient Points (2)

- ✦ Test sample collection
 - ✦ within specified time after notice
 - ✦ Government Laboratory (GL) Headquarters at Homantin
- ✦ Retention of remaining test samples
- ✦ Past performance will be taken into account when future quotations are evaluated



Issued Contracts (Food Additives) (1)

★ Sulphur dioxide and other preservatives

- ★ 4 contracts on general food and specific foods
- ★ SO₂, benzoic acid, sorbic acid, parabens with / without salicylic acid
- ★ about 3,500 samples
- ★ reporting limits: 8 mg/kg for SO₂, 30 mg/kg for parabens and 50 mg/kg for others



Issued Contracts (Food Additives) (2)

✦ Nitrate/Nitrite

- ✦ 1 short-term contract on meat and dairy products
- ✦ about 520 samples
- ✦ reporting limits: 5 mg/kg for nitrite (as NaNO_2) and 30 mg/kg for nitrate (as NaNO_3)

✦ Propionic acid

- ✦ 1 short-term contract on flour confectionary
- ✦ about 260 samples
- ✦ reporting limit: 50 mg/kg



Issued Contracts (Pesticides) (1)

- ✦ **Organochlorine (OC) pesticide residues in fruit and vegetables**
 - ✦ 1 contract on 35 OC pesticides
 - ✦ about 710 samples
 - ✦ reporting limits: 0.01 mg/kg each
- ✦ **Organophosphorus (OP) pesticide residues in fruit and vegetables**
 - ✦ 1 contract on 42 OP pesticides
 - ✦ about 710 samples
 - ✦ reporting limits: 0.1 mg/kg each




Issued Contracts (Pesticides) (2)

★ Pyrethroid residues in fruit and vegetables

- ★ 1 contract on 8 pyrethroids
- ★ about 710 samples
- ★ reporting limits: 0.1 mg/kg each

★ N-methyl carbamate residues in fruit and vegetables

- ★ 1 contract on 16 carbamates
- ★ about 710 samples
- ★ reporting limits: 0.1 mg/kg each



Issued Contracts (Veterinary Drug Residues)

★ Chloramphenicol

- ★ 1 contract for meat and aquatic products
- ★ about 415 samples
- ★ reporting limit: 0.3 $\mu\text{g}/\text{kg}$

★ Malachite Green

- ★ 1 contract for aquatic products
- ★ Malachite Green and Leucomalachite Green
- ★ about 345 samples
- ★ reporting limit: Sum of MG and LMG: 2 $\mu\text{g}/\text{kg}$



Issued Contracts (Heavy Metals / Toxic element)

★ 7 Heavy metals / Toxic element

- ★ 1 contract for Sb, As, Cd, Cr, Pb, Hg and Sn in miscellaneous foods
- ★ About 1,740 samples
- ★ reporting limits: 0.02 mg/kg – 10 mg/kg

★ 4 Heavy metals / Toxic element

- ★ 1 contract for As, Pb, Hg, and Sn in general foodstuffs
- ★ About 1,320 samples
- ★ reporting limits: 0.03 mg/kg – 10 mg/kg



Issued Contracts (Other Contaminants)

★ Sudan Dyes

- 1 contract on general food products
- Sudan I, II, III, IV, Sudan Orange G, Sudan Red 7B, Dimethyl Yellow
- about 970 samples
- reporting limits: 20 $\mu\text{g}/\text{kg}$ each

★ Melamine

- 1 contract on general food
- about 1,100 samples
- reporting limit: 1 mg/kg



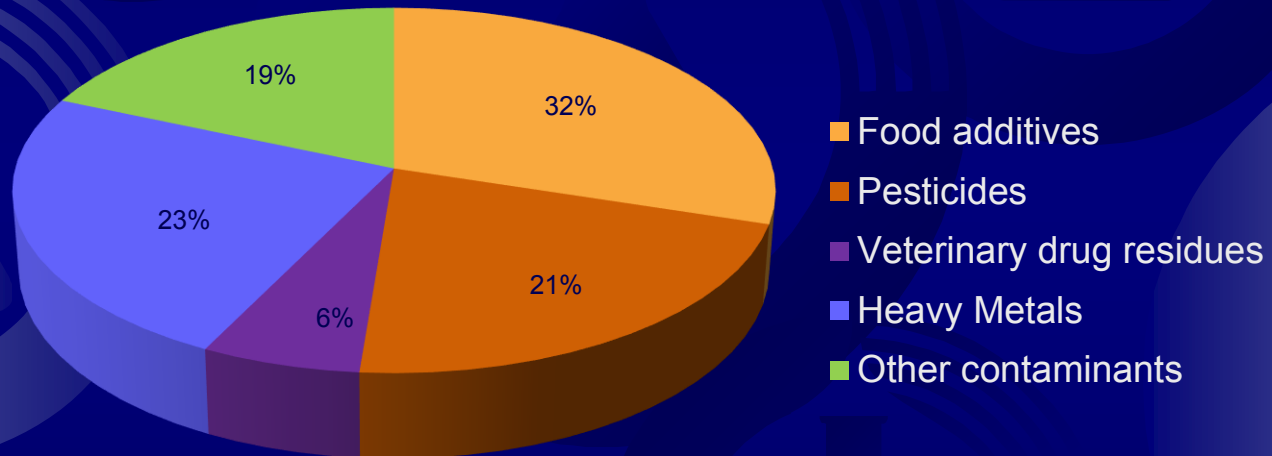
Issued Contracts (Other Contaminants)

✦ Boric acid

- ✦ 1 short term contract on general food
- ✦ about 410 samples
- ✦ reporting limit: 50 mg/kg



Sample Distribution

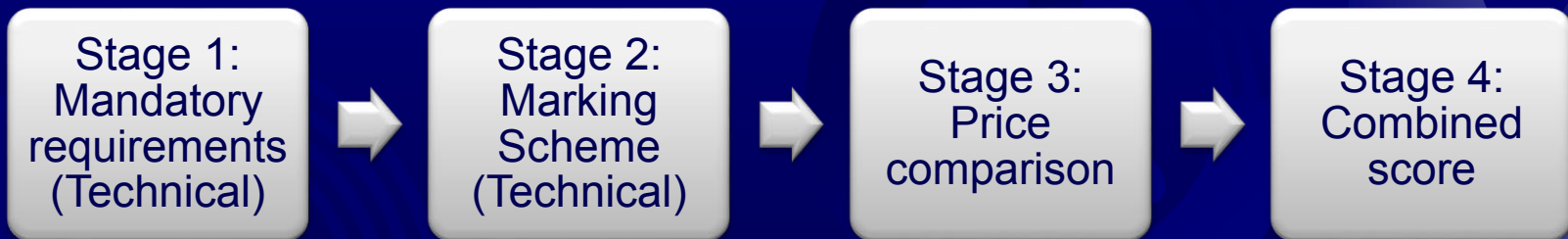




Invitation to Quotation

★ Two-envelope system

- ★ Introduced for contracts commencing in Oct 2011
- ★ Technical proposal
- ★ Price proposal
- ★ 40% Technical weighting / 60% Price weighting
- ★ Past performance in previous contracts with GL
- ★ Evaluation process:





Way Forward:
Outsourcing Contracts
in 2014-15



Outsourcing Contracts in 2014-15 (1)

- ✦ Around 120,000 tests
- ✦ Some contracts will start in April 2014
 - ✦ invitation for quotation will start in February 2014
- ✦ Contract period varies
 - ✦ one year
 - ✦ half year
 - ✦ short-term contracts about 3 - 4 months



Outsourcing Contracts in 2014-15 (2)

★ Two-envelope system for invitation to quotation

- ★ 40% technical weighting / 60% price weighting
- ★ Past performance in previous contracts with GL



Outsourcing: Test Areas

- ✦ Food additives
- ✦ Pesticide residues
- ✦ Veterinary drug residues
- ✦ Heavy metals / toxic element
- ✦ Other contaminants



General Requirements

- ★ Accredited in the corresponding tests
 - ✿ maintaining the accreditation status throughout the contract period
- ★ Test sample collection
 - ✿ [within specified time after notice]
 - ✿ at specified locations
- ★ Report results within specified period
- ★ Retention / return of remaining test samples



Contracts on Additives (1)

- ★ SO_2 and other preservatives in general foodstuffs (2 contracts)
 - ★ SO_2 ; benzoic, sorbic and salicylic acids; and parabens
 - ★ reporting limit: 8 mg/kg for SO_2 , 30 mg/kg for each of the parabens and 50 mg/kg for each of the others
- ★ SO_2 in general foodstuffs
 - ★ reporting limit: 8 mg/kg for SO_2



Contracts on Additives (2)

- ★ Short-term contracts on preservatives
 - ✱ in specific foods such as beverages, preserved fruits and vegetables
 - ✱ SO₂; benzoic and sorbic acids; parabens



Contracts on Additives (3)

- ✦ Propionic acid in flour confectionary
 - ✦ reporting limit: 50 mg/kg
- ✦ Nitrate / nitrite in meat and dairy products
 - ✦ reporting limit: 30 mg/kg as NaNO_3 and 5 mg/kg as NaNO_2



Contracts on Pesticide Residues (1)

- ✦ Pesticide Residues in Food Regulation (Cap 132CM) will come into operation on 1 Aug 2014
- ✦ Changes in contracts
- ✦ Matrices: unprocessed fruit and vegetables



Contracts on Pesticide Residues (2)

✦ Shorter contract duration expected, for example:

- ✦ [Jan-Mar 2014]
- ✦ Apr-Jul 2014
- ✦ Aug-Dec 2014
- ✦ Jan-Mar 2015

✦ Current lists of test parameters: refer to

- ✦ <http://www.govtlab.gov.hk/english/development.htm>



Contracts on Pesticide Residues (3)

✦ Potential new test parameters:

- ✦ Pesticide Residues in Food Regulation (L.N. 73 of 2012)
 - can be downloaded thru link under Centre for Food Safety website (8 parts)
- ✦ Survey on pesticide residue testing in June 2013
 - Multi-residue test methods
 - May target on pesticides amenable to LCMSMS
- ✦ Cover residues definition (unless stated otherwise in service specifications)
- ✦ Reporting limit: according to MRL
- ✦ Depend on testing capability of service providers at time of launch



Contracts on Veterinary Drug Residues

- ✦ Chloramphenicol in meat and aquatic products
 - ✦ reporting limit: 0.3 $\mu\text{g}/\text{kg}$
- ✦ Malachite green in aquatic products
 - ✦ reporting limit: 2 $\mu\text{g}/\text{kg}$ for sum of malachite green (MG) and leucomalachite green (LMG)



Contracts on Contaminants (1)

★ Heavy metals / Toxic element in general foodstuffs (2 contracts)

Analyte	Reporting Limits
Antimony (Sb)	0.2 ppm
Arsenic (As)	0.1 ppm as As_2O_3
Cadmium (Cd)	0.02 ppm
Chromium (Cr)	0.2 ppm
Lead (Pb)	0.1 ppm
Mercury (Hg)	0.03 ppm
Tin (Sn)	10 ppm



Contracts on Contaminants (2)

★ Sudan dyes in general foodstuffs

- ★ Sudan I, II, III, IV, Sudan Orange G, Sudan Red 7B and Dimethyl Yellow
- ★ reporting limit : 20 $\mu\text{g}/\text{kg}$ each

★ Melamine in general foodstuffs

- ★ reporting limit: 1 mg/kg

★ Boric acid in general foodstuffs

- ★ reporting limit: 50 mg/kg



Proficiency test (PT) programmes

★ PT programmes

- ★ Boric acid in food
- ★ Propionic acid in flour confectionary



Thank You