

Japan MRL Procedures

Global Minor Use Summit

3-7/December/2007

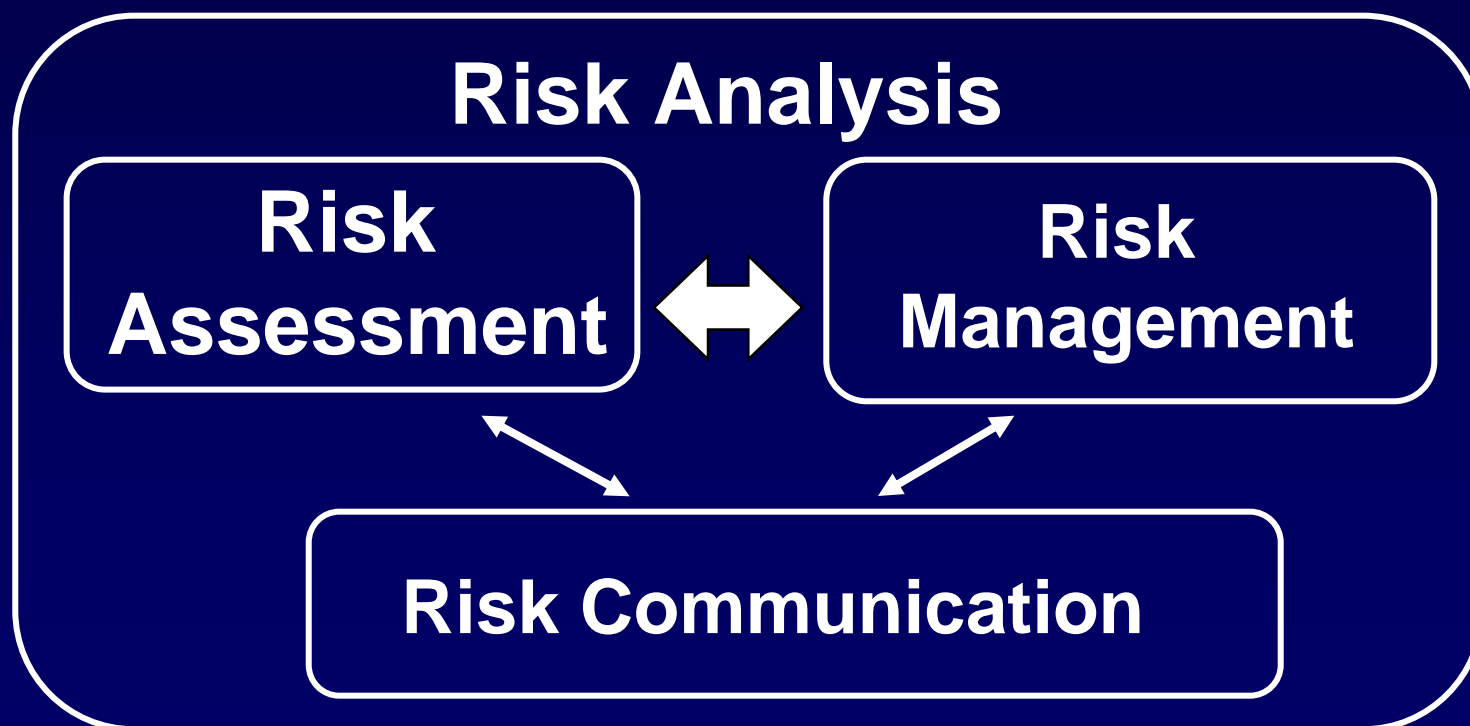
FAO Headquarters, Rome, Italy

Food Safety Approach in Japan

Food Safety Basic Law

Enforced in July 2003

- Principles on Food Safety Administration
- Establishment of Food Safety Commission
- Responsibilities of Government, Food Producers and Consumers
- Application of Risk Analysis in Food Safety Administration



MEASURES FOR “FOOD SAFETY”

RISK ASSESSMENT

Food Safety Commission

- To conduct a risk assessment.
- To recommend that agencies in charge of risk management implement necessary measures for food safety, based on the risk assessment results.
- To monitor the risk management by related agencies.
- To collect and analyze domestic and international information on food safety hazards.
- To comprehensively manage total risk communication including activities of the risk management agencies.

Food Safety Basic Law

RISK MANAGEMENT

MHLW

- Quarantine Stations
- Regional Bureaus of Health and Welfare
- Health Centers, etc.

Risk management for food safety

Food Sanitation Law, etc.

MAFF

- Agricultural Administration Offices
- Food and Agricultural Materials Inspection Center (FAMIC), etc.

Risk management for agricultural, livestock, and fishery production

Agricultural Chemicals Regulation Law, etc.

RISK COMMUNICATION

- Disclosure of information on food safety
- Securing consumers' opportunities to express their opinions

Relationship between the registration of pesticides and the regulations on pesticide residues in foods

The Agricultural Chemicals Regulation Law (ACRL),
The Ministry of Agriculture, Forestry and Fisheries (MAFF)
The Ministry of the Environment (MOE)

The Food Sanitation Law (FSL),
The Ministry of Health, Labor and Welfare (MHLW)

The Food Safety Basic Law (FSBL),
The Cabinet Office

Agricultural Chemicals Regulation Law

Purpose

The ultimate purposes of the law are to make agricultural production stable and to prevent any adverse effect to human health and the environment caused by pesticide use.

This is done through a registration system.

Two ministries are mainly involved:

(1) Ministry of Agriculture, Forestry and Fisheries/ACIS

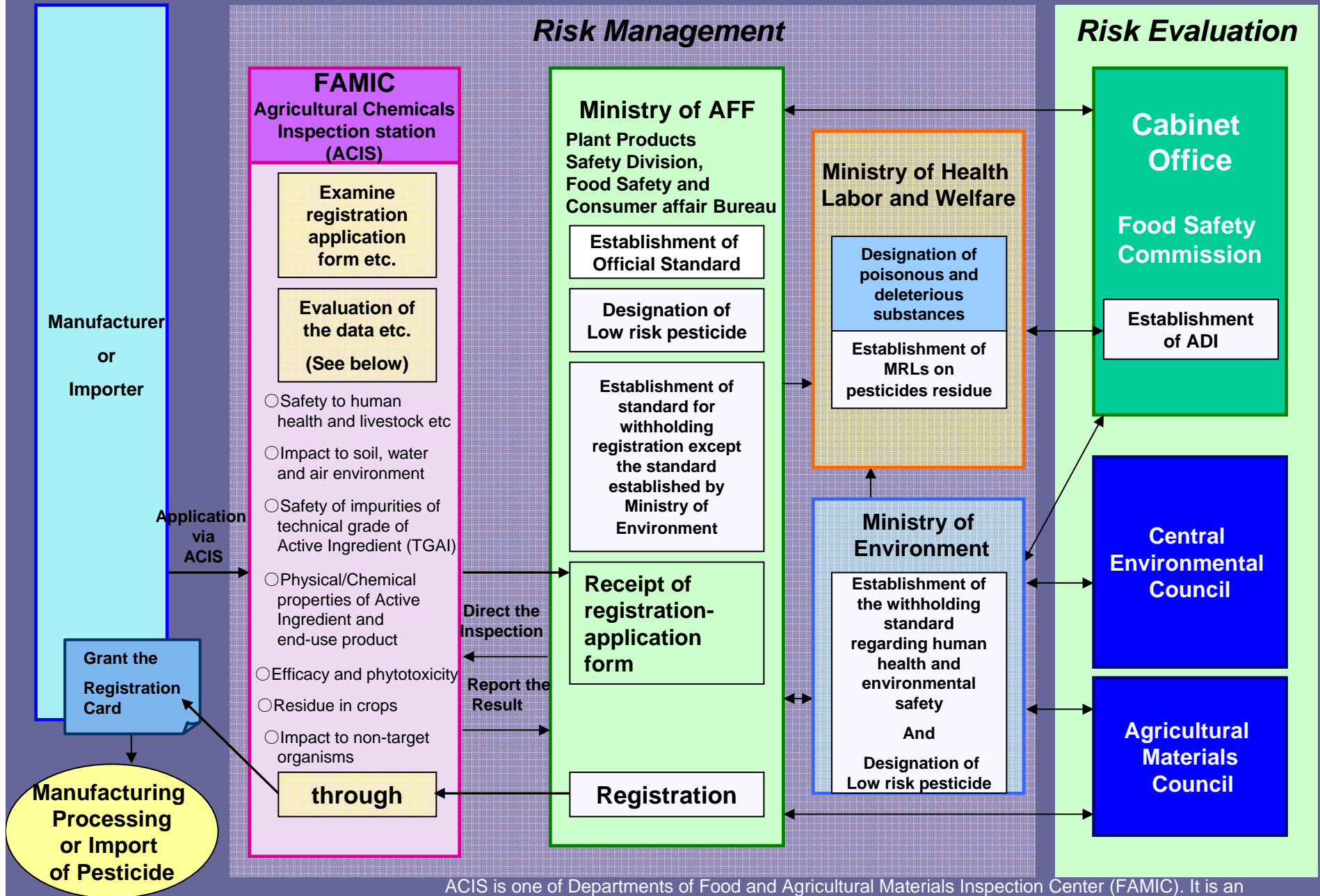
Examination based on criteria (i.e. "the registration Withholding Standards")
false description in application, damage to crops, damage to users, designation misunderstanding efficacy, inferior efficacy, inconformity with official standards, persistency in crops, persistency in soil, water pollution and damage to aquatic animals and plants

(2) Ministry of the Environment

Establishment of the Standard on
persistency in soil, damage to aquatic animals and plants, water pollution
and persistency in crops

↓
MRLs (Food Sanitation Law) are used as this standard.

Pesticide Registration Scheme



ACIS is one of Departments of Food and Agricultural Materials Inspection Center (FAMIC). It is an Incorporated Administrative Agency under MAFF.

Food Sanitation Law

Purpose

This law aims to prevent the occurrence of health hazards arising from eating and drinking by implementing regulations and other necessary measures from the standpoint of public health to ensure food safety, so as to protect the public health.

The law is roughly divided into two parts:

- (1) establishment of standards including specification and standards for food, standards for facilities, standards for management/operation, and standards for labeling;
- (2) inspections and guidance including inspection by national government at import and inspections and guidance by local and municipal governments for domestic food businesses.

Positive List System for Pesticide Residue in Food

Summary of the Positive List System for Agricultural Chemical Residue in Food

- Residues in foods resulting from the use of Veterinary Drugs, Feed Additives and Pesticides

Food in which residue of agricultural chemical exceeds a certain level, “Default Level”, shall not be marketed.

But the case that the MRL for the residue is established and the residue level does not exceed the MRL is exclusive.

- The regulation applies to domestic and import foods.
- The regulation has been enforced since 29 May 2006.

Positive List System for Agricultural Chemical Residues ~1~

Previous Regulation

Pesticides, Feed Additives, and Veterinary Drugs

Chemicals for which MRLs are established

MRLs for 250 pesticides and 33 Veterinary Drugs



Foods containing chemicals above the MRLs are enjoined from domestic distribution.

Chemicals for which MRLs are not established.

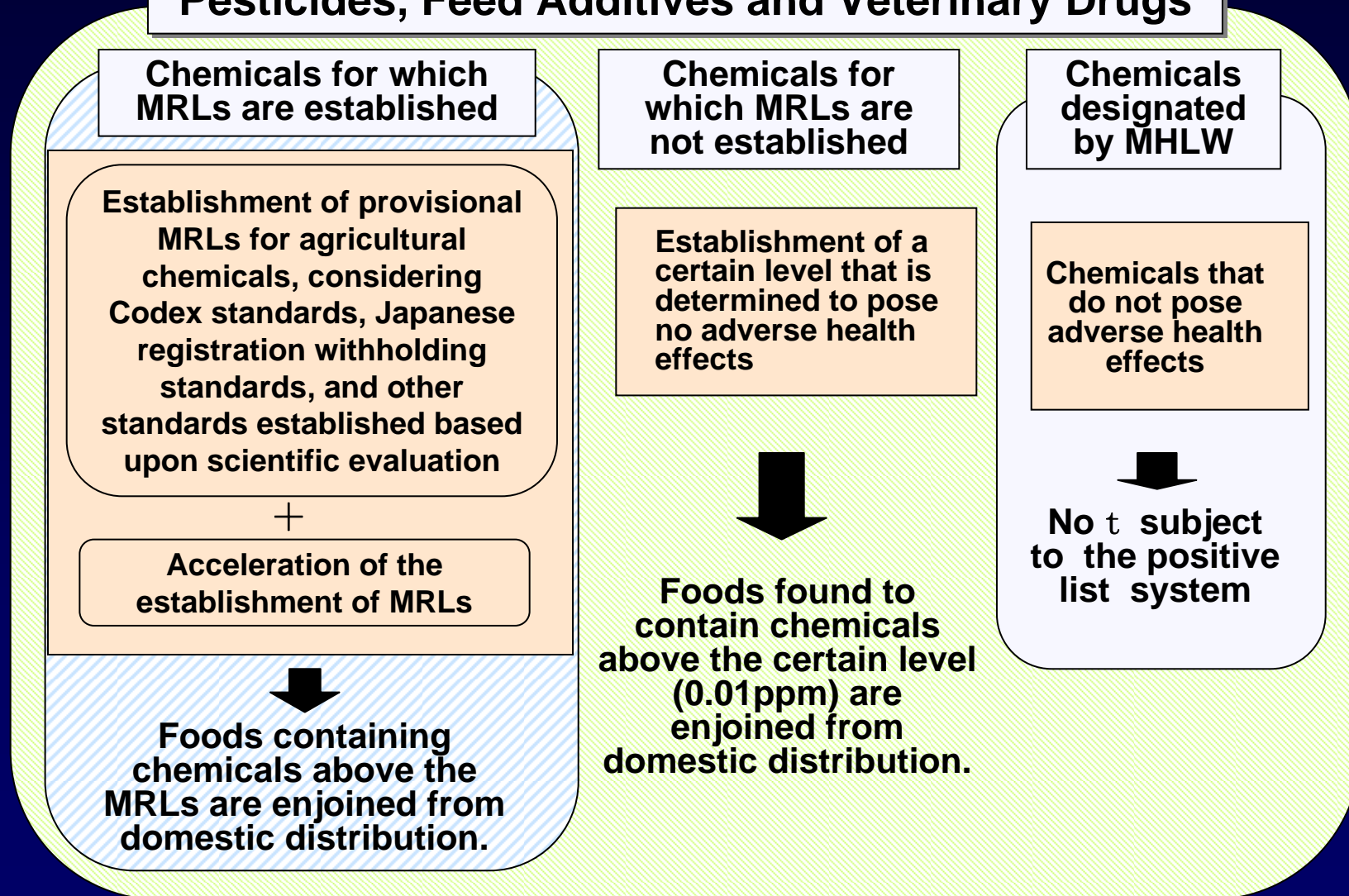


Basically, even foods found to contain chemicals are not enjoined from distribution.

Positive List System for Agricultural Chemical Residues ~2~

[Enforcement of Positive List System since May 2006]

Pesticides, Feed Additives and Veterinary Drugs



Government Notifications on 29 November 2005 related to the Positive List System

- No. 497 Default Level**
0.01ppm is established as the default level.
- No. 498 Substances exempted from the system**
65 substances are listed.
- No. 499 Provisional MRLs (for 758 substances) and other provisions for the system are established.**

Establishment of the Provisional MRLs

- ① Codex standards (International standards)
- ② Registration Withholding Limits and Limit of determination of Veterinary Medicine
- ③ Standards in foreign countries that have been based upon scientific toxicity evaluations required by JMPR (the Joint FAO/WHO Meetings on Pesticide Residues) and JECFA (the Joint FAO/WHO Expert Committee on Food Additives).
(Australia, Canada, New Zealand, USA, and European Union)

Legal Status of provisional MRLs

The provisional MRLs are applied as the legal standards based on Article 11 of the Food Sanitation Law.

Establishment of maximum residue limits for pesticides

Toxicity assessment

Evaluation based on various types of animal test

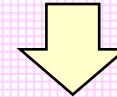


Setting of no observed adverse effect level (NOAEL)



Establishment of Acceptable Daily Intake (ADI)

Residue study results
Codex standards



Consideration of proposed MRL

Exposure assessment

$ADI \times \text{mean weight}$

Theoretical Maximum Daily Intake (TMDI) method
Estimated Daily Intake (EDI) method

Comparison of

acceptable intake

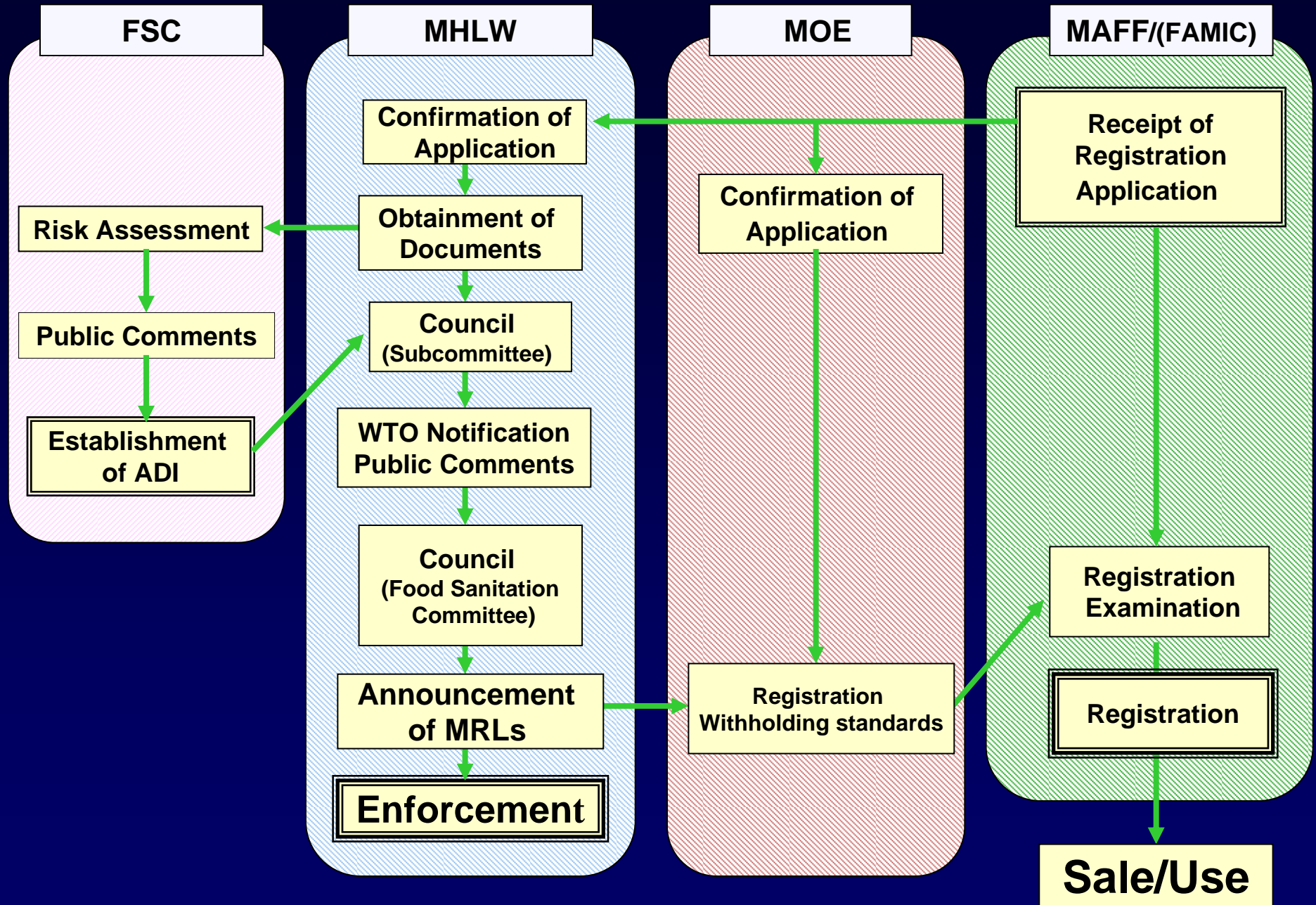
with

estimated exposure

Validation of proposed MRL

Establishment of MRL

Pesticide Registration and Establishment of MRLs



Risk Assessment by FSC

Data to be evaluated

Animal metabolism

Plant metabolism

Fate in soil/water

Photolytic fate in water

Residue in crops/soil

Acute Toxicity

Skin and eye irritation

Skin sensitization

Subchronic toxicity

Chronic toxicity/carcinogenicity

Reproductive/developmental toxicity

Genotoxicity

General pharmacology

Others

The evaluation result is disclosed to the public as the evaluation report.

Estimation of Daily Intake

Example of Theoretical Maximum Daily Intake (TMDI) estimation

Name :AAAA

ug/man/day

Food	Proposed MRL (mg/kg)	Entire nation		Infant (1 to 6 years old)		Pregnant women		Elderly (65 years old or over)	
		ff	Intake	ff	Intake	ff	Intake	ff	Intake
Corn	0.05	2.5	0.13	4.3	0.22	2.7	0.14	0.8	0.04
Beans, dry	0.5	1.4	0.70	0.5	0.25	0.1	0.05	2.7	1.35
Cabbage	2	22.8	45.60	9.8	19.60	22.9	45.80	19.9	39.80
Tomato	0.5	24.3	12.15	16.9	8.45	24.5	12.25	18.9	9.45
Egg plant	0.5	4.0	2.00	0.9	0.45	3.3	1.65	5.7	2.85
Lettuce	2	6.1	12.20	2.5	5.00	6.4	12.80	1.2	2.40
***	***	**	***	**	***	**	***	**	***
Cherry	1	0.1	0.10	0.1	0.10	0.1	0.10	0.1	0.10
Strawberry	0.5	0.3	0.15	0.4	0.20	0.1	0.05	0.3	0.15
Grape	3	5.8	17.40	4.4	13.20	1.6	4.80	3.8	11.40
Total			336.8		171.8		287.8		377.0
ADI%			2.3		4.0		1.9		2.6

ff: Food factor

Average body weight: 53.3kg(entire nation), 15.8kg(infant), 55.6kg(pregnancy), 54.2kg(elderly)

Application of Import Tolerance

A Guideline for “Import Tolerance”

A Guideline on application for establishment and revision of the Japanese MRL for the residues of agricultural chemicals used outside Japan

**Notification No. 0205001, 5th February 2004
from Director-General, Department of Food
Safety, MHLW**

Further information;

<http://www.mhlw.go.jp/english/topics/foodsafety/dl/importguideline.pdf>

Application of Import MRL

“Any person may apply to the Minister of Health, Labour and Welfare for establishment or revision of MRLs for an agricultural chemical in the case that the chemical is approved in a country for foods exported to Japan.”

“If applicant is abroad, an appropriate contact person in Japan should be identified to handle the application.”

Other Requirements

Submission of the following documents are recommended.

- Information on registration of the substances in other countries
- Proposal of MRL to be established
- Analytical method for the residue in food
- Processing data if available
- Revocation or other changes of registration of the chemical

Data Requirements for the Application

“A set of toxicity data and residue data given in the “Data Requirements for Supporting Registration of Pesticides” - Director-General, Agricultural Production Bureau, MAFF, Notification No.12-Nousan-8147, 24 November 2000 - (excluding effects of aquatic animals and plants, effects on beneficial creatures other than aquatic animals and plants, and study data on water contamination)”

“The study results and related documents given in the guideline can be replaced by other documents sufficient to conduct evaluation for establishment and revision of MRLs.”

Information on data requirements;
<http://www.acis.famic.go.jp/eng/shinsei/index.htm>

GLP Compliance

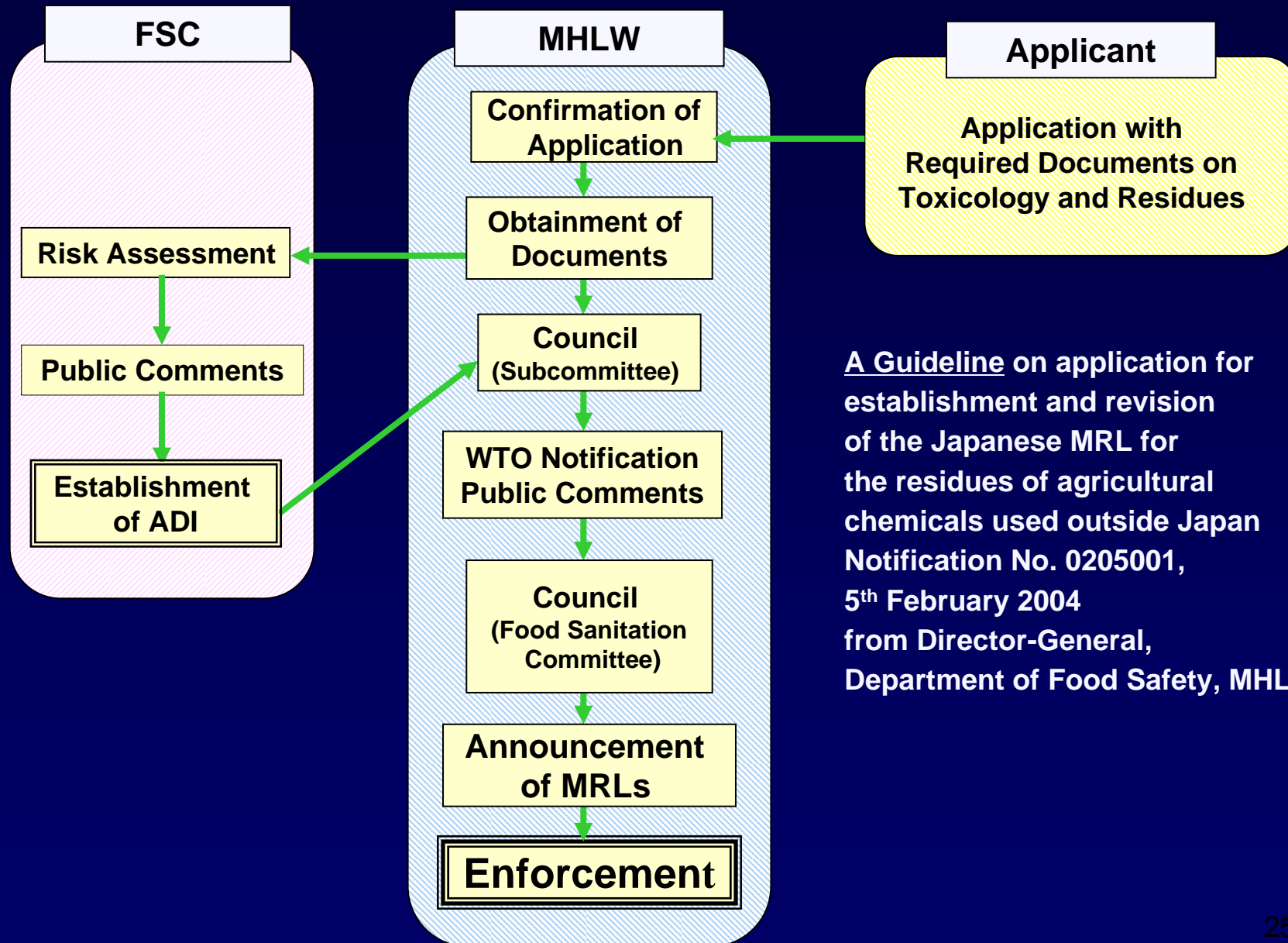
“In principle, studies should comply with the GLP requirements.”

Language

“The executive summary should be written in Japanese.

Other accompanying documents such as study reports may be written in English.”

Establishment of Import MRL/Tolerance



A Guideline on application for establishment and revision of the Japanese MRL for the residues of agricultural chemicals used outside Japan
Notification No. 0205001,
5th February 2004
from Director-General,
Department of Food Safety, MHLW

MHLW FOOD SAFETY INFORMATION

<JAPANESE version>

<http://www.mhlw.go.jp/topics/bukyoku/iyaku/syoku-anken/index.html>

<ENGLISH version>

<http://www.mhlw.go.jp/english/topics/foodsafety/index.html>

