

# Pesticide Registration for Minor Crops and Crop Grouping Effort in Japan

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# Chronology of Pesticide Regulation and Related Events

- 1 9 4 5 End of WW II
- 1 9 4 8 Pesticide Regulation Act
- 1 9 6 2 “Silent Spring” by R. Carson
- 1 9 7 1 Major Revision of Pesticide Regulation Act
- 1 9 9 2 Environment-Friendly Agriculture  
Popular demand for organic agriculture
- 1 9 9 7 “Our Stolen Future” by T. Colborn et al
- 2002 Extensive Use of Un-registered Pesticides Revealed
- 2003 Partial Revision of Pesticide Regulation Act



Registration  
Number

Trade Name  
of Pesticide

Active  
Ingredient

Pests Application Rate Preharvest Interval

Crops

Total Number of Application

適用害虫と使用方法  
 \*印は収穫物への残留回避のため、その日まで使用できる収穫前日数と、  
 本剤及びその有効成分を含む農薬の総使用回数制限を示す。

作物名	適用害虫名	希釈倍数 (倍)	使用 時期	総使用 回数*
稲	ニカメイチュウ第1世代、 フタオビコヤガ	1,000~1,500	21日*	4回
	ニカメイチュウ第2世代、 イネカラバエ	1,000		
	ツマグロヨコバイ、ウンカ類、 イネハモグリバエ	1,000~2,000		
キャベツ はなやさい	アオムシ、コナガ、アブラムシ類	1,000	30日*	2回
	キスジノミハムシ	1,200		
	キボシマルトビムシ	700		
はくさい	アオムシ、コナガ、アブラムシ類	1,000	14日*	2回
	キスジノミハムシ	1,200		
	キボシマルトビムシ	700		
セルリー ほうれんそう	アブラムシ類	1,000	21日*	
トマト ピーマン	アブラムシ類、テントウムシダマシ ハダニ類		10日*	

# Legal View on Use Pattern of Pesticides

Pre 2003 – **Recommended to follow**

Pesticides registered for major crops could be applied on closely related minor crops

Post 2003 – **Must be followed strictly**

Application of un-registered pesticides on minor crops is illegal, especially for food and feed use

# Penalty for Violation

## Sales of Un-registered Pesticides

Individuals : Imprisonment of up to 3 years

Fine up to \1,000,000

Dealers : Imprisonment of up to 3 years

Fine up to \100,000,000

## Use of Un-registered Pesticides

Imprisonment of up to 3 years

Fine up to \1,000,000

# New Problems ! – only few or no registered pesticides for minor crops

## Definition of Minor Crops

Japan : Annual yield less than 30,000 ton

US : Cultivation area less than 300,000 acre  
( = ca. 120,000 ha)

## Yield per 120,000 ha in Japan

Fruits (e.g. Grapes, Pears, Apples) : ca. 3,000,000 ton

Rice : ca. 600,000 ton

Cabbage : ca. 600,000 ton

# Cost for Label Expansion

## Major Crops

Efficacy validation :  
2 years, 6 field trials  
 $\$250,000 \times 6 = \$1,500,000$

Residue Analysis :  
2 field trials, 2 analysis  
 $\$2,000,000 \times 2 = \$4,000,000$

Registration Fee :  $\$97,500$

**Total  $\$5,600,000$**

## Minor Crops

Efficacy validation :  
1 year, 2 field trials  
 $\$250,000 \times 2 = \$500,000$

Residue Analysis :  
2 field trials, 1 analysis  
 $\$2,000,000 \times 1 = \$2,000,000$

Registration Fee :  $\$97,500$

**Total  $\$2,600,000$**

# Urgent Measures Taken by MAFF

1. Temporal permit to use un-registered pesticides
2. Promotion of pesticide registration for minor crops

- In response to request by Prefectural Governors, use of ca. 9,000 combinations of minor crops / un-registered pesticides approved by Minister of MAFF for two years beginning March, 2003
- Subsidizing the cost for Prefectural Government to conduct field trials for efficacy validation and residue analysis required for label expansion

# Organizations Created to Promote Pesticide Registration for Minor Crops

## Local Cooperative System

Prefectural Governments / Research

Institutes / Extension Centers / Agricultural co-ops

## Regional Cooperative System

Regional offices of MAFF / Inter-prefectural cooperative system / Research Institutes, etc

## Central Cooperative System

MAFF / Agricultural Chemicals Inspection Station /

National Union of Agricultural co-ops / Related

Organizations

# Current Situation of Use Pattern Expansion for Minor Crops

- By December 2003, the Minister of MAFF gave a **tentative use approval of ca. 9,000** combinations of un-registered pesticides.
- By March 2005
  - Newly registered : **292** combinations
  - Tentative use extended : **2963** combinations
    - in which **600** was applied for registration
  - Tentative use cancelled : **5564** combinations

## Minor Crop Grouping in Japan

### Approved

1. Wheat / Barley / Rye
2. Pulses
3. Legume vegetables (immature beans and peas)
4. Brassica leafy vegetables
5. Brassica (stems and immature inflorescences parts eaten)
6. Leaf lettuce
7. Cucurbitaceae for pickles
8. Citrus fruits
9. Small stone fruits
10. Berries
11. Peppers

### Under consideration

1. Cucurbitaceous vegetables
2. Gramineous crops
3. Perilla vegetables
4. Umbellifereous vegetables

# Issues Need to be Addressed on Minor Use Pesticides

1. Minor crops do need pesticides
2. Registration requires a large cost
3. National Government should be involved in cost sharing
4. Need for reexamination on registration system
  - a. Further grouping of minor crops
  - b. Efficacy data requirement on the same pests really necessary?
  - c. Who is responsible for phytotoxicity?
  - d. Flexible data requirement for registration for seeds, flowers, trees, and ornamental plants?