

# Current Status of Fresh Fruit Export in Korea

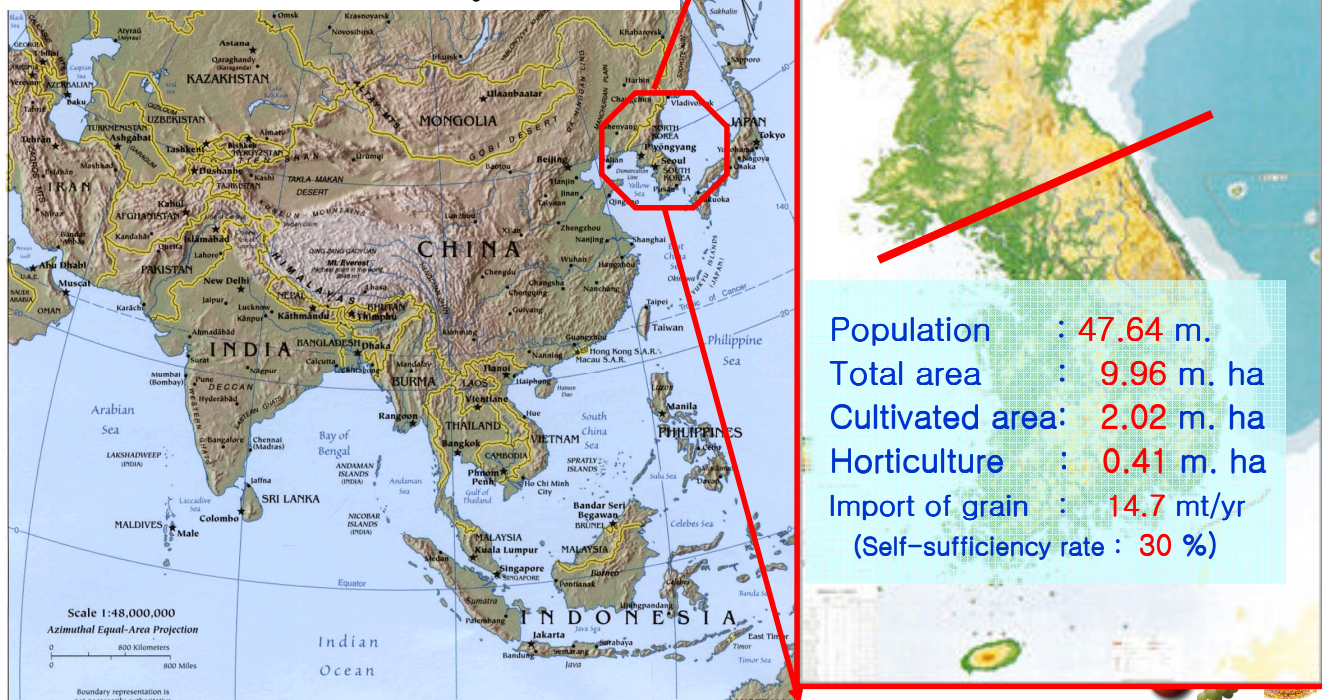
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## Current Status of Fresh Fruit Export in Korea

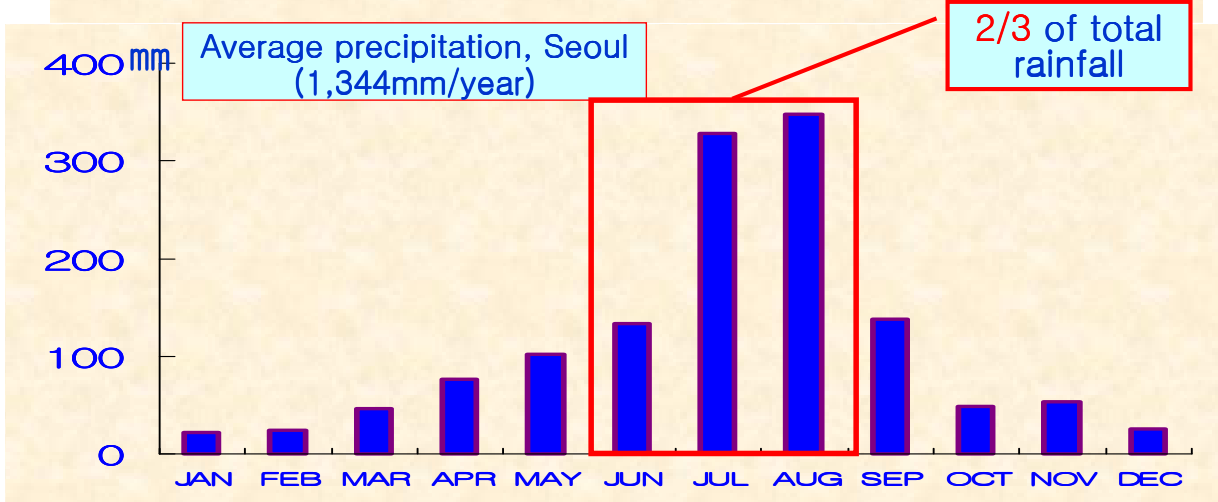
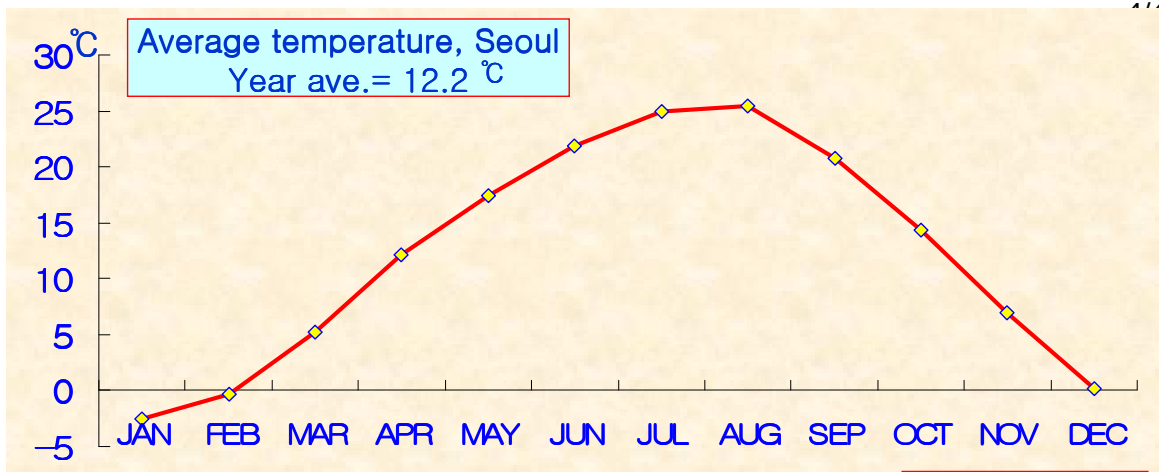
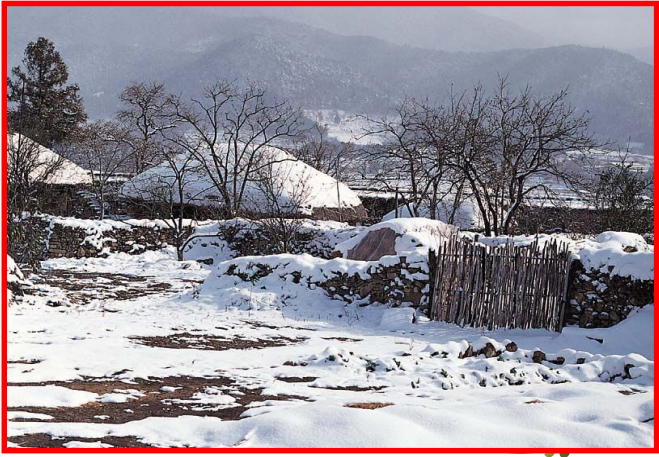
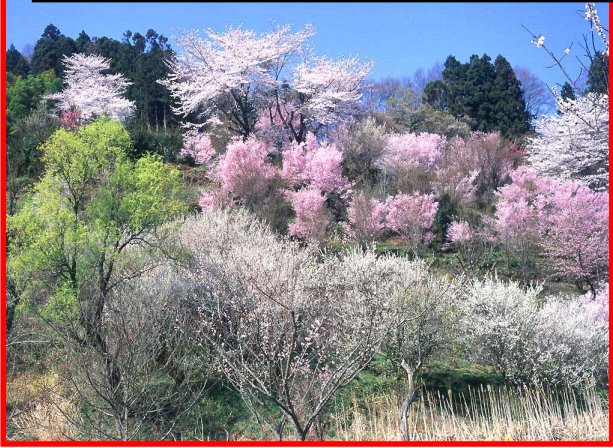
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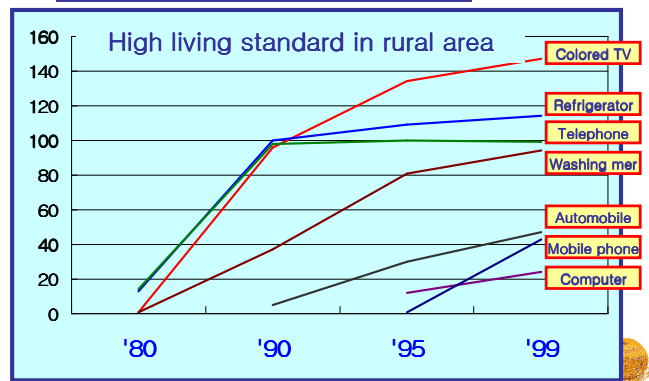
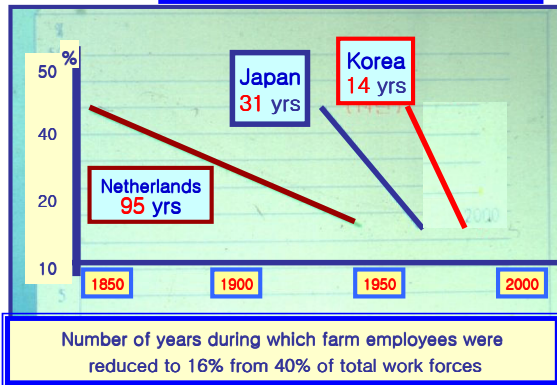
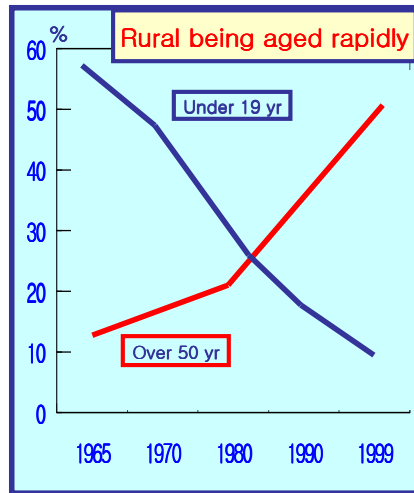
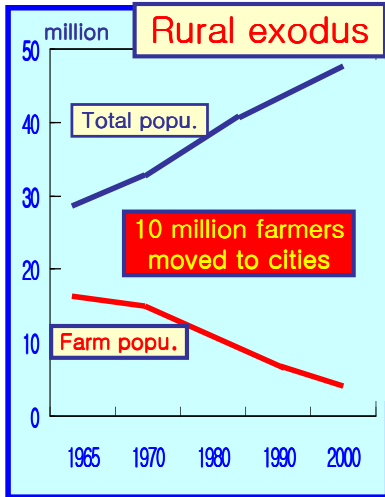




# Typical temperate climate with four distinct seasons



Drastic changes happened in Korean rural society



The most serious **problem** faced in Korean agriculture

Rice  
Productivity  
= 5t/ha =  
The highest

X

Rice price,  
5-9 times  
Higher  
The highest

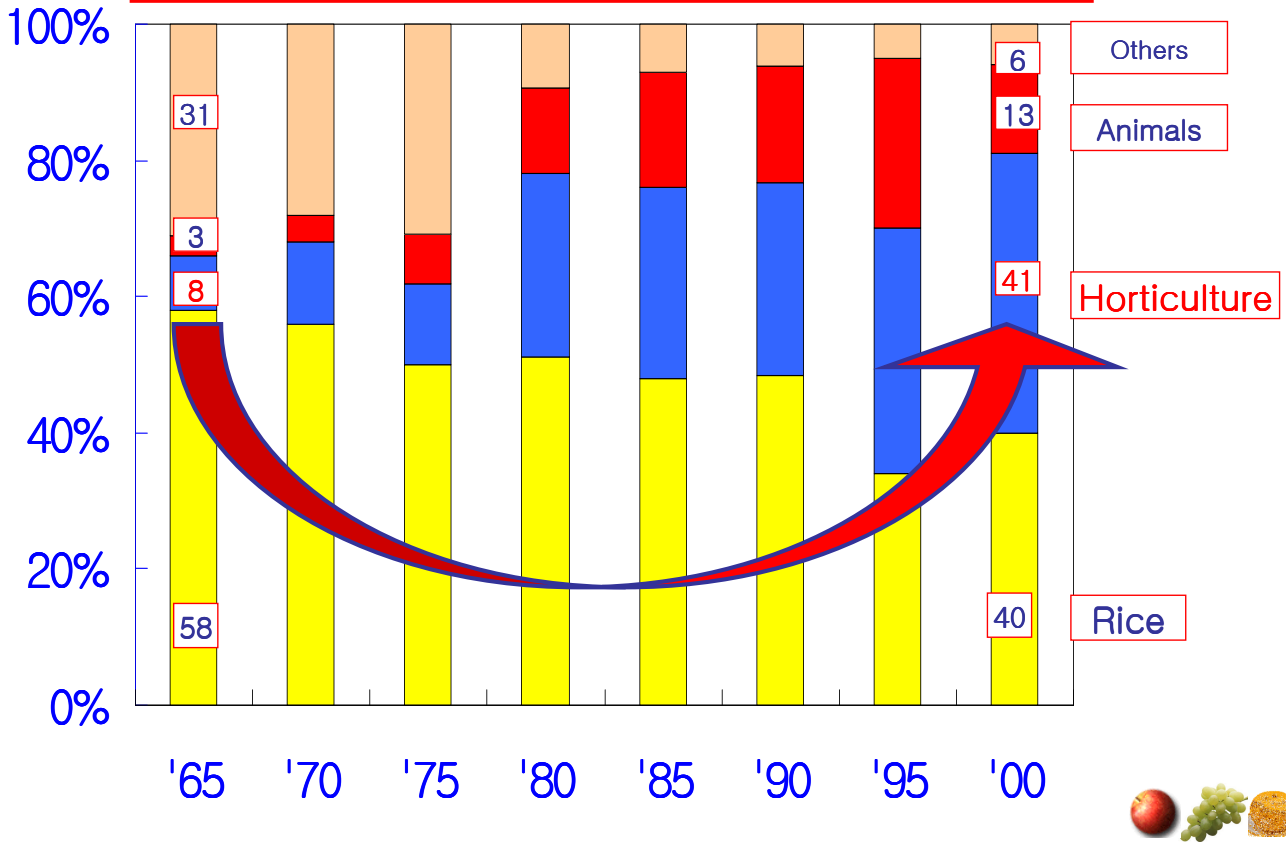
=

Our farmers  
are still  
poor,  
even  
poorer

Because our farm size is **too small**  
(1.39ha/household, 2002)



The horticulture industry has become increasingly important in Korea



Production value of Horticultural Crops in Korea, 2004







**Kimchi:** major usage for vegetables in Korea,  
More than 200 different kinds of Kimchi available,

**No Kimchi, No Korean**



The product value (\$ million) and their market shares of ten major vegetables in Korea  
(These 10 crops formed 80% of the total)

1st

\$1,130 M. (20%)

2nd

\$ 478 M. (9%)

3rd

\$ 477 M. (9%)

4th

\$ 457 M. (8%)

5th

\$ 455 M. (8%)

6th

\$ 438 M. (8%)

7th

\$ 343 M. (6%)

8th

\$ 320 M. (6%)

9th

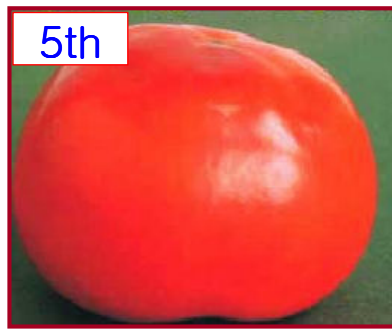
\$ 239 M. (4%)

10th

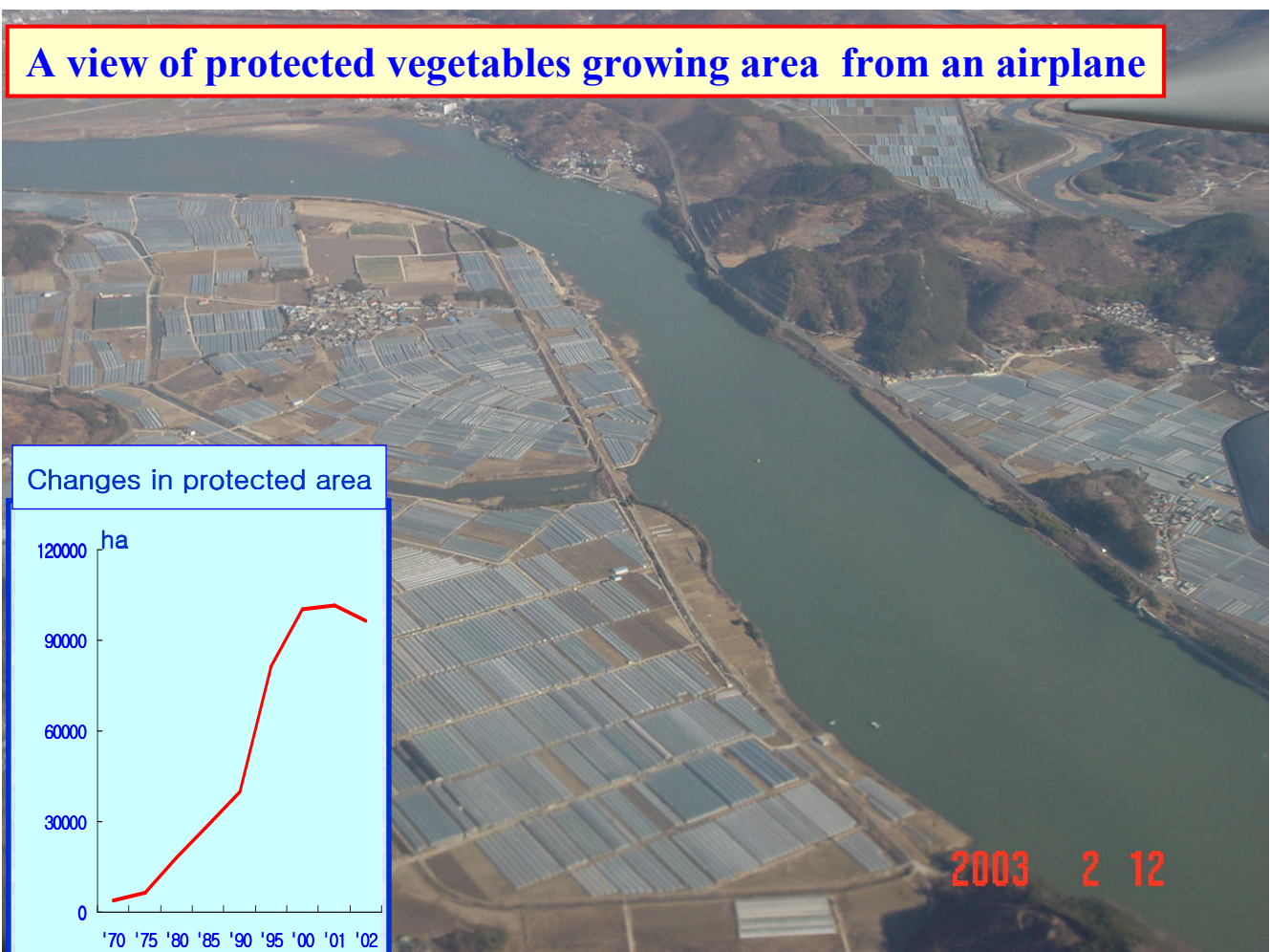
\$237 M. (4%)



## Major fruits in Korea (2004)



## A view of protected vegetables growing area from an airplane





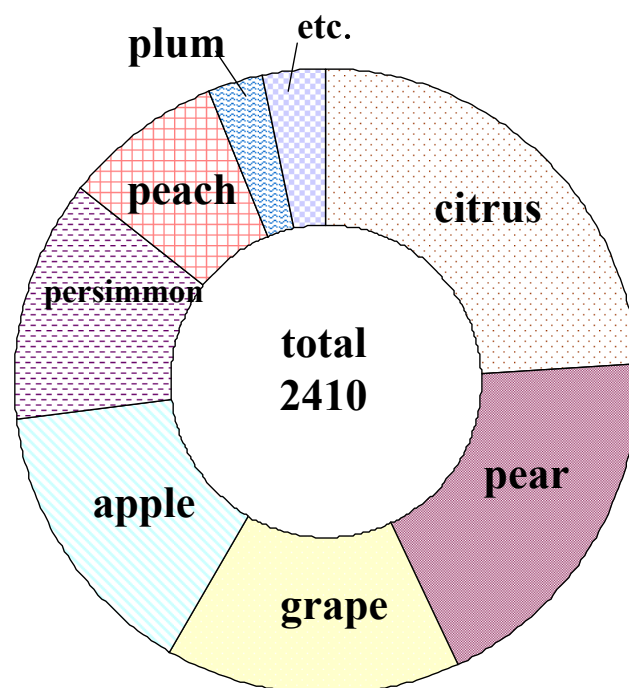
**Super-high tech for pepper production  
(fully automated glasshouse)**



**Table 1. Fruit production in Korea. (10<sup>3</sup> M/T)**

	1998	2000	2002	2004
<b>Citrus</b>	<b>511</b>	<b>563</b>	<b>642</b>	<b>584</b>
<b>Pear</b>	<b>259</b>	<b>324</b>	<b>386</b>	<b>452</b>
<b>Grape</b>	<b>397</b>	<b>475</b>	<b>422</b>	<b>368</b>
<b>Apple</b>	<b>459</b>	<b>488</b>	<b>433</b>	<b>357</b>
<b>Persimmon</b>	<b>260</b>	<b>287</b>	<b>281</b>	<b>299</b>
<b>Peach</b>	<b>151</b>	<b>170</b>	<b>187</b>	<b>200</b>
<b>Plum</b>	<b>39</b>	<b>51</b>	<b>57</b>	<b>72</b>
<b>Etc</b>	<b>73</b>	<b>66</b>	<b>71</b>	<b>78</b>
<b>Total</b>	<b>2,153</b>	<b>2,428</b>	<b>2,500</b>	<b>2,410</b>



**Fig. 2. Fruit production (10<sup>3</sup>M/T) in 2004.****Table 2. Export value of horticultural crops from Korea. (M US\$)**

	2000	2001	2002	2003	2004
<b>Vegetables</b>	187	190	169	194	230
<b>Fruits</b>	45	56	82	71	86
<b>Flowers</b>	30	32	32	45	49
<b>Total</b>	262	278	283	210	355





**Table 3. Export value of fruits from Korea.****(M US\$)**

	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
<b>Pear</b>	<b>19.6</b>	<b>34.1</b>	<b>30.1</b>	<b>35.2</b>	<b>56.1</b>
<b>Apple</b>	<b>3.0</b>	<b>14.2</b>	<b>7.7</b>	<b>5.2</b>	<b>7.8</b>
<b>Citrus</b>	<b>4.9</b>	<b>5.7</b>	<b>4.3</b>	<b>5.6</b>	<b>3.4</b>
<b>Persimmon</b>	<b>4.4</b>	<b>4.6</b>	<b>2.3</b>	<b>3.6</b>	<b>5.6</b>



## Oriental pears

'Nilitaka':

79% of oriental pear production  
 crisp in texture  
 good to eat as soon as harvested  
 large and round to slightly flatten  
 bronze-russet skin





## Apples

'Fuji':

80% of apple production

late season cultivar

large, high sugar, firm flesh texture

yellow-green with red highlights

excellent for eating fresh

good balance of high sugar and organic acid

very long storage life



## Citrus

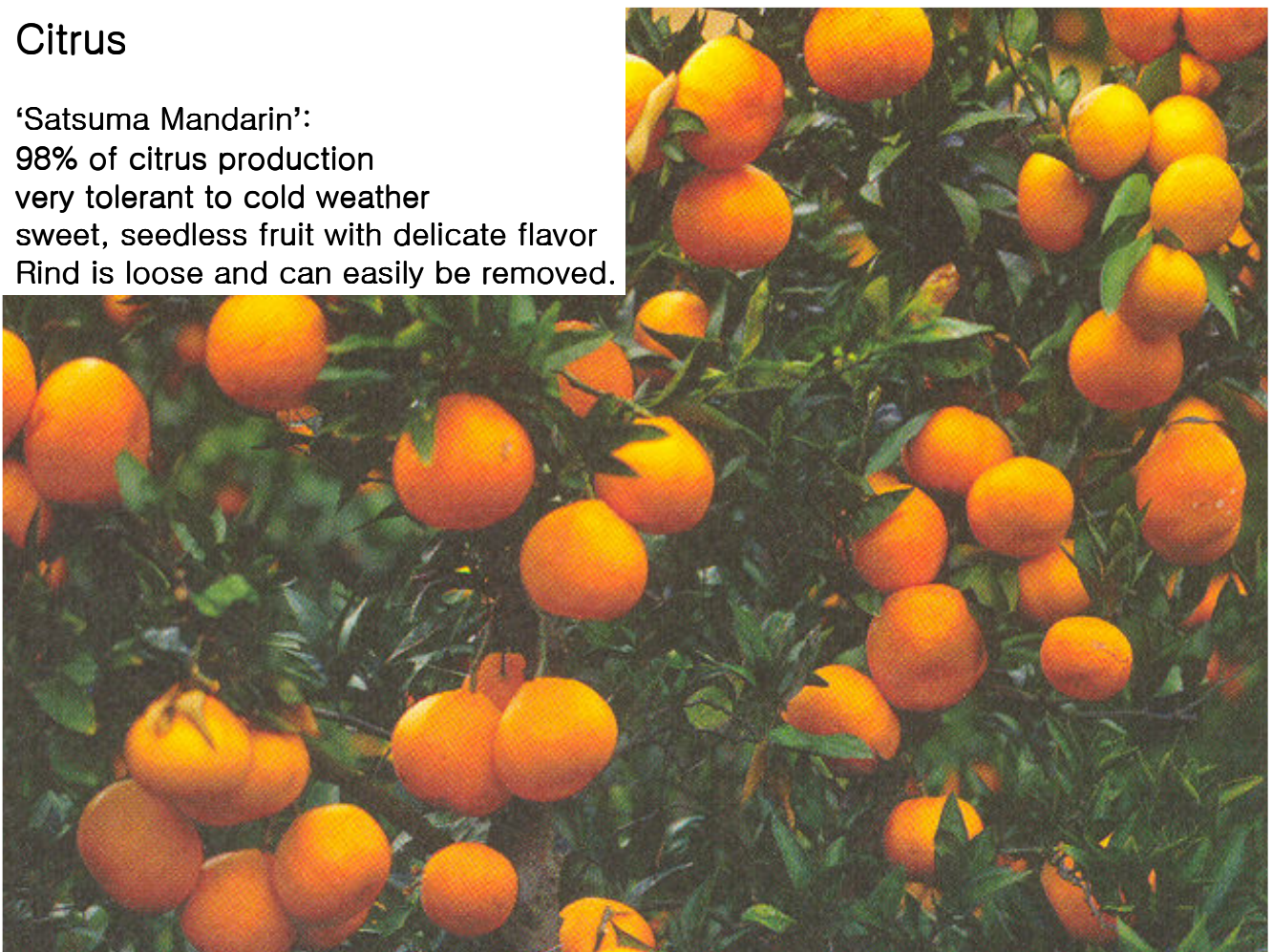
'Satsuma Mandarin':

98% of citrus production

very tolerant to cold weather

sweet, seedless fruit with delicate flavor

Rind is loose and can easily be removed.





## Persimmons

sweet persimmon and astringent persimmon

'Fuyu':

82% of sweet persimmon production

Excellent flavor for eating



22/40

## Postharvest research in Korea

1950's: no postharvest research

1960's: common stores with clay bricks (apple, pear)

MA storage with PVC film (persimmon, vegetables)

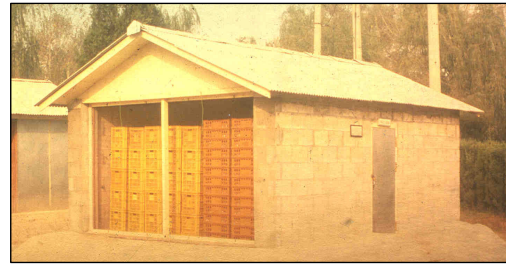
1970's: MA storage

storage for national security

pretreatment technology

some postharvest physiology (respiration)





1980's: low cost storage

standard fruit store

packaging and filler

cold storage

1990's: postharvest technology for globalization

cold-chain system

packaging with functional films

CA storage with nitrogen generator

2000's: well-being era

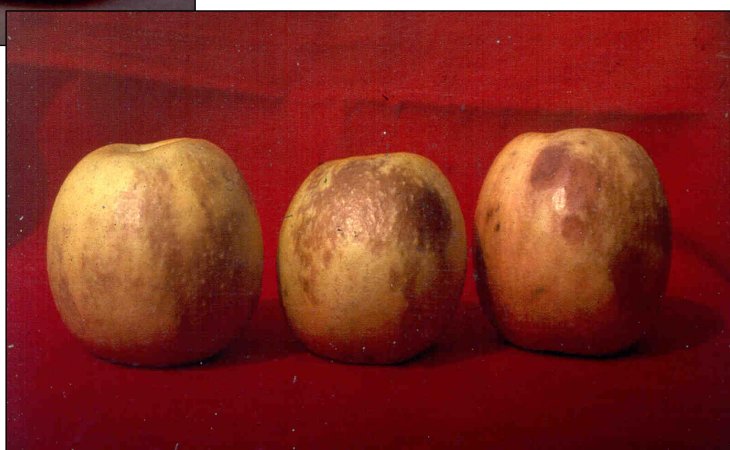
nutritional quality

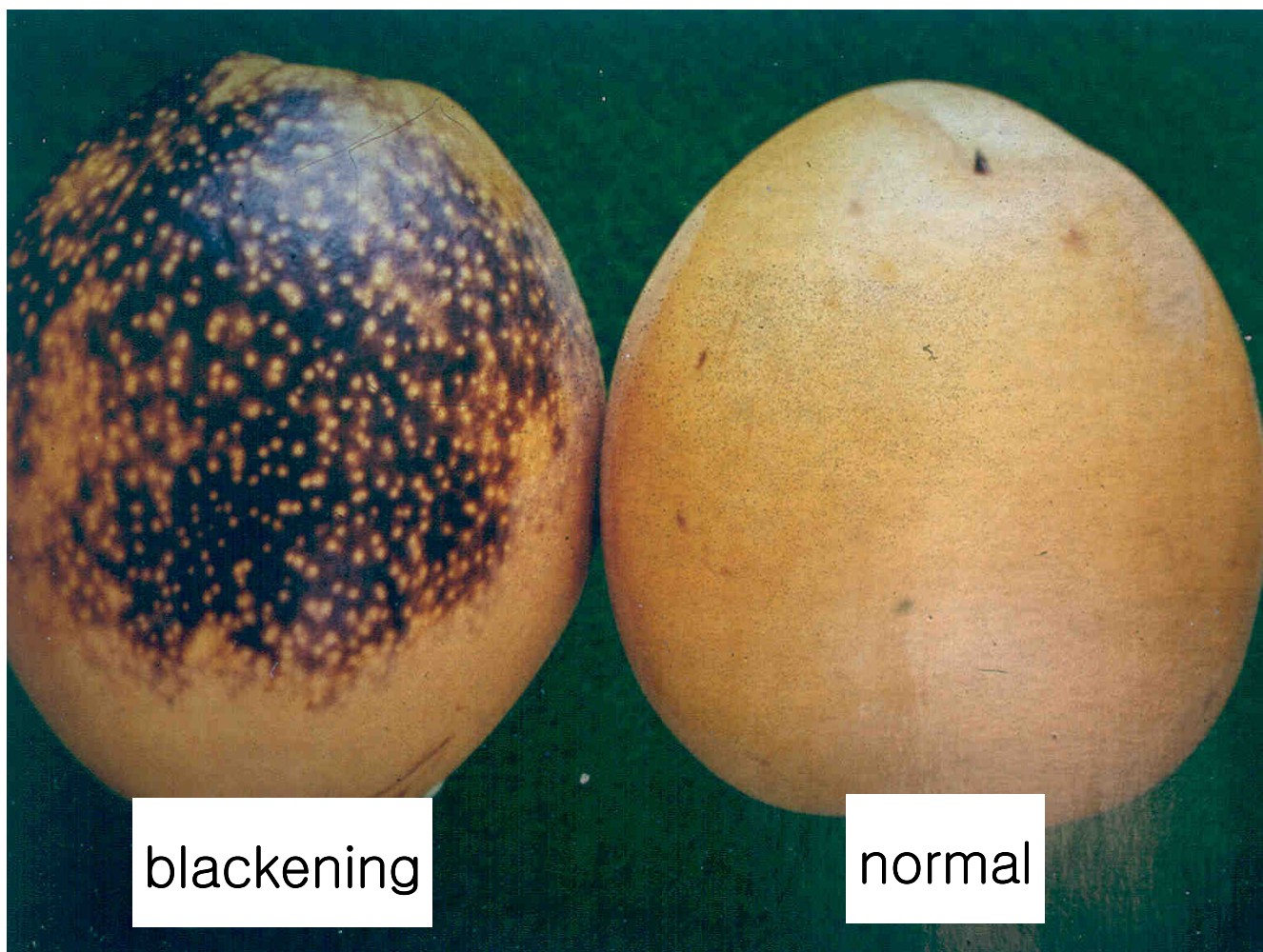
phytonutrients

convenient food





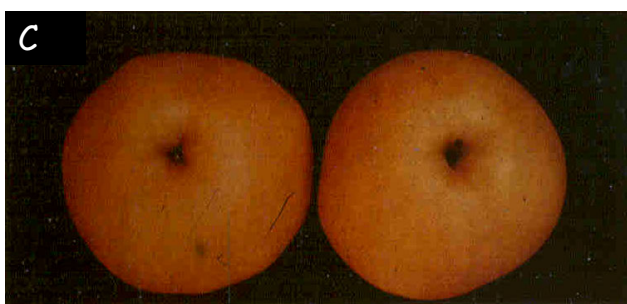
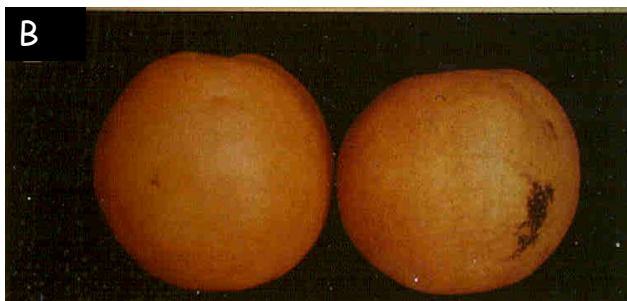
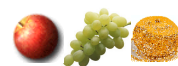
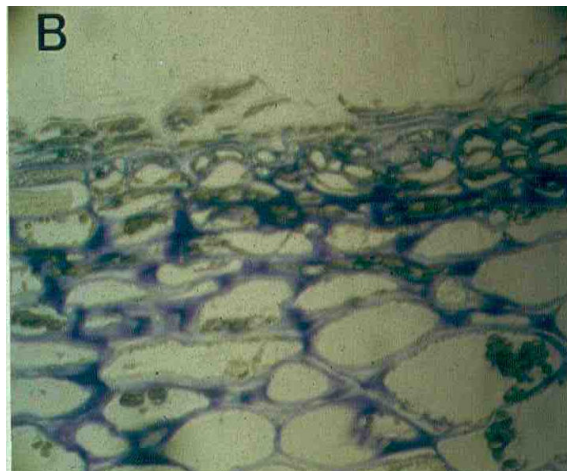
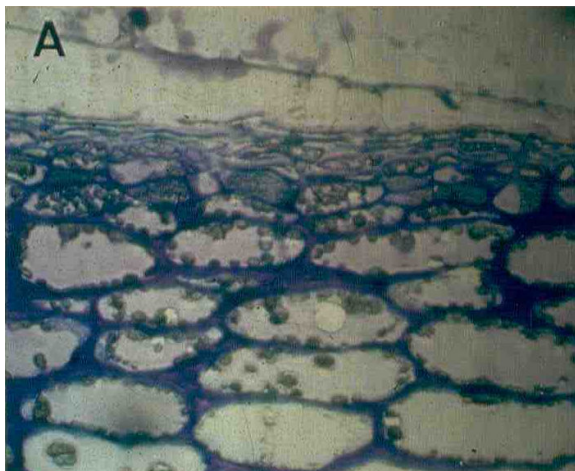




blackening

normal





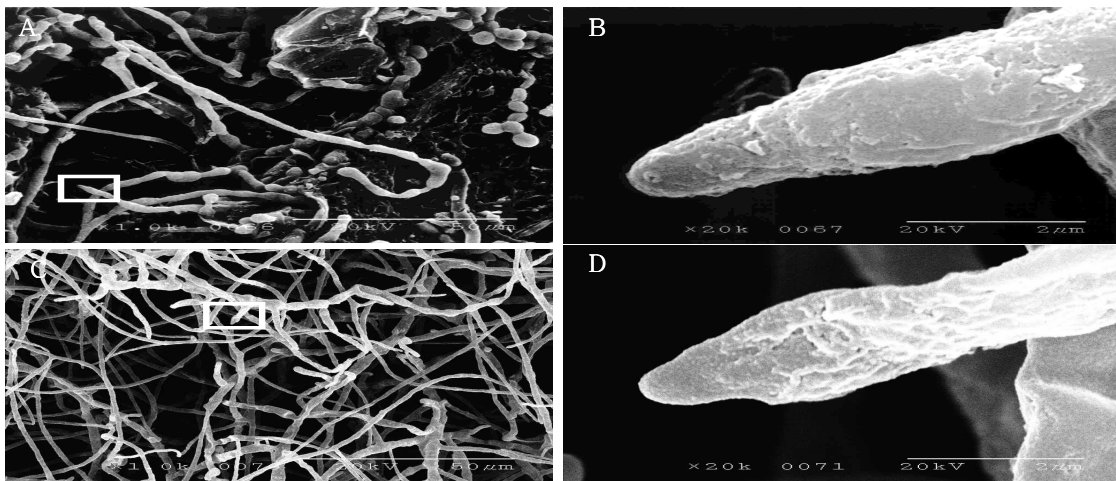


Fig. 35. Scanning electron micrographs of the conidial shapes and acervulus of *Gloeodes pomigena* isolated from black stain Niiitaka pear fruit skin. A, Colony separated from black stain pear fruit skin( $\times 1k$ ); B, Colony separated from black stain pear fruit skin( $\times 20k$ ); C, Cultured colony separated from black stain pear fruit skin( $\times 1k$ ); D, Cultured colony separated from black stain pear fruit skin( $\times 20k$ ).





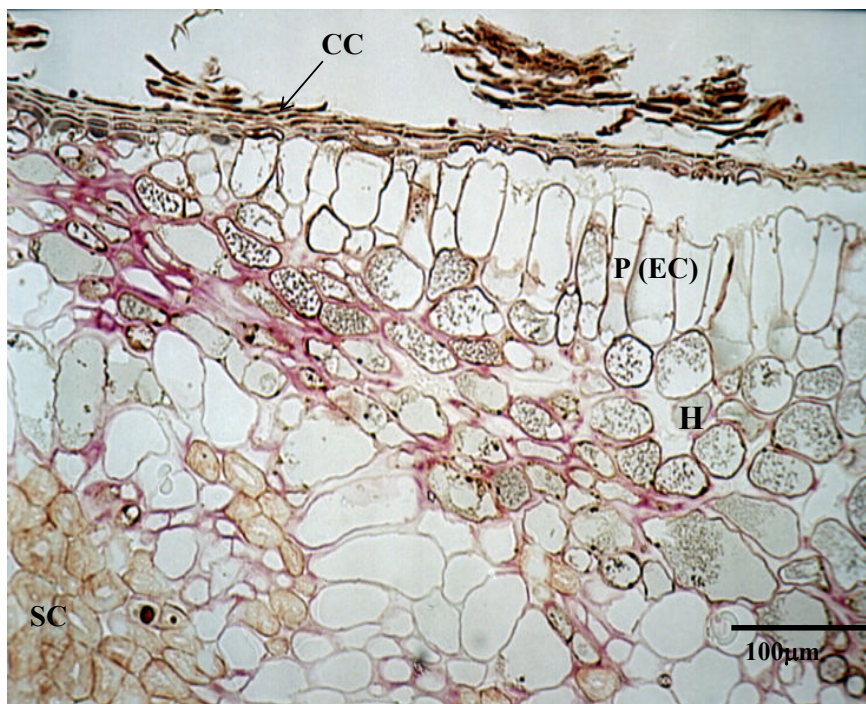
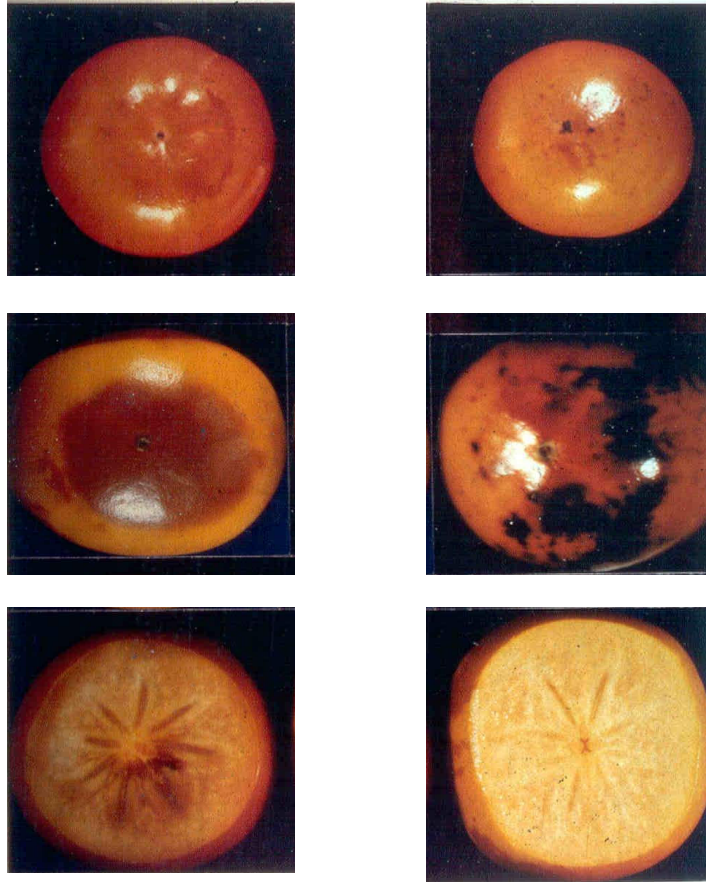


Fig. 20. Anatomical structure of skin tissue on Niitaka pear fruit showing initiating and terminating portion of the peeling-off disorder. CC, cork cell; H, hypodermis; P(EC), phellogen (elongated cell).





## Agricultural & Fishery Marketing Corporation (AFMC)

in charge of exports and imports of agricultural products in Korea

main duty:

- collection of agricultural and fishery trade information
- promotion of sales, and public relations development in overseas markets
- participate in major international exhibitions
- operate Korean food exhibitions and overseas exhibitions
- install export public relations in partner trading countries

operate financial assistance programs:

- wholesale market construction loans
- advanced payment loans
- shipping promotion loans

Overseas offices:

- Japan (Tokyo, Osaka), Netherlands (Rotterdam), U.S.A. (New York, LA)
- Russia (Moscow), Singapore, and China (Beijing, Shanghai)





## Recommendations:

**Labor-saving technologies** should be developed for improving price competitiveness.

**Restructuring of fruit production and marketing systems** are needed to reduce production cost.

It is essential to develop the **modernized systems for postharvest operations**.

Improving the **brand values** of Korean fruits into the overseas' markets is also important.

Systematic **export promotion** programs should be implemented.

Development of **new varieties** is needed through new biotechnology technique.



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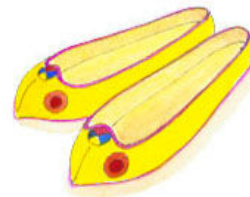
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*Welcome to Korea*

A view of Korea from satellite



**See you in SEOUL,**  
**Thanks**

