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Present status of mulberry genetic resources and its utilization in Korea

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- I History and Status**
- II Mulberry Genetic Resources**
- III Mulberry Fruit Production**
- IV Fruit Production Technique**

I. Historical Overview on Sericulture in Korea

Mulberry fruits which have been utilized as a by-product was settled down with new income crops.

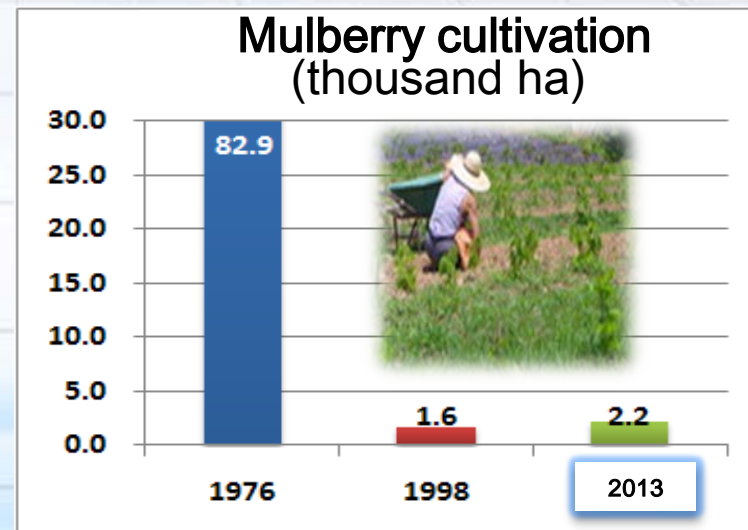
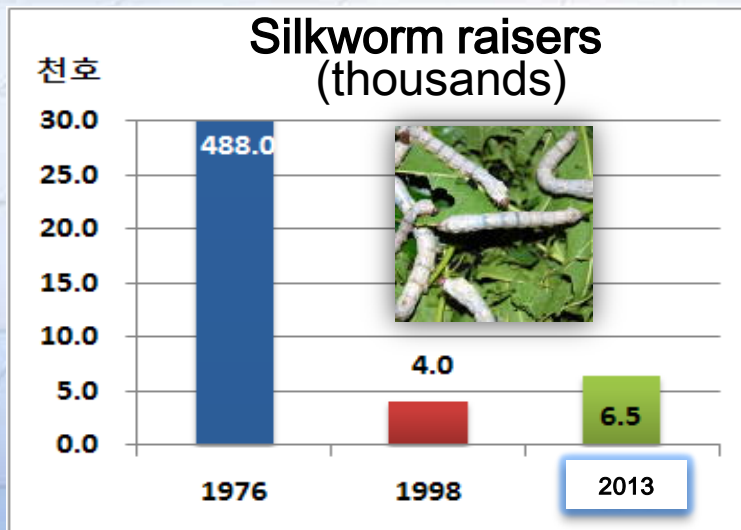
- 1970~80 | Important Agricultural Product in Korea
 - 1975 Raw Silk Export 114 million\$ (52% whole Agric. Export)
- Early 1990's | Increased labor wage and importation
 - Rapidly Decline, Abolition of Division in Min.('94) & Seric. Law ('99)
- Mid 1990's | Silkworm powder's effect Reported
 - a Momentum of transition to Functional Sericulture
- Early 2000's | Utilization of mulberry fruits as fruits
 - settled down with new income crops
- 2009, Nov. | 「Law & Plans for Promotion of Functional Seric.」

Current Status of Sericulture

Overview | Total Production Value : 70 million \$

6,900 Farmers ; 2,300ha Mulberry & 17,000box silkworms

- Silkworm power, *Cordiceps*, etc : 12million\$,
- Mulberry : 28, Wine, Cosmetics from Silk protein, etc : 30



II. Genetic Resources of Mulberry

Conservation and Breeding



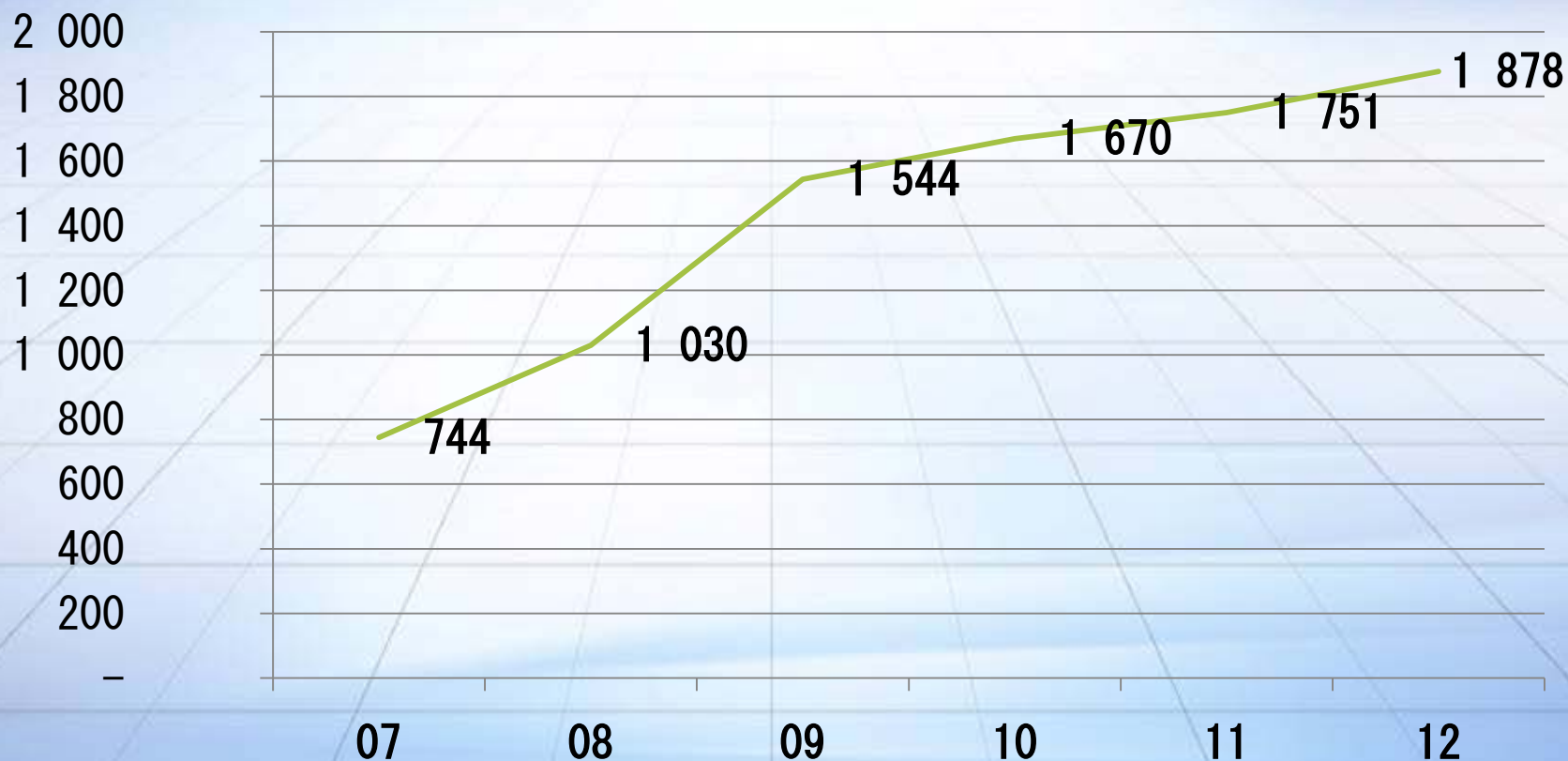
Mulberry breeding for fruit production



III. Status for mulberry fruit production in Korea

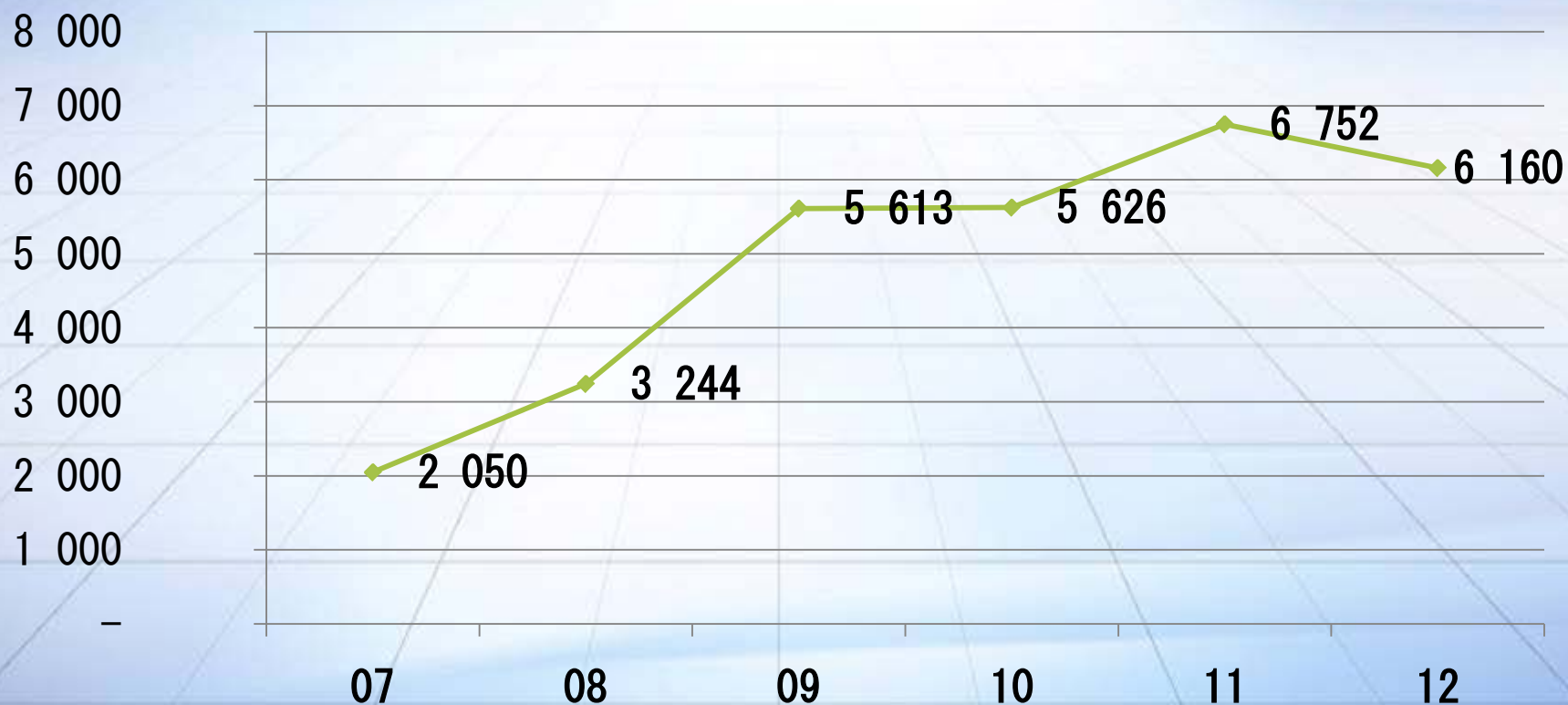
Statistics for fruit production in Korea

Acerage(ha)



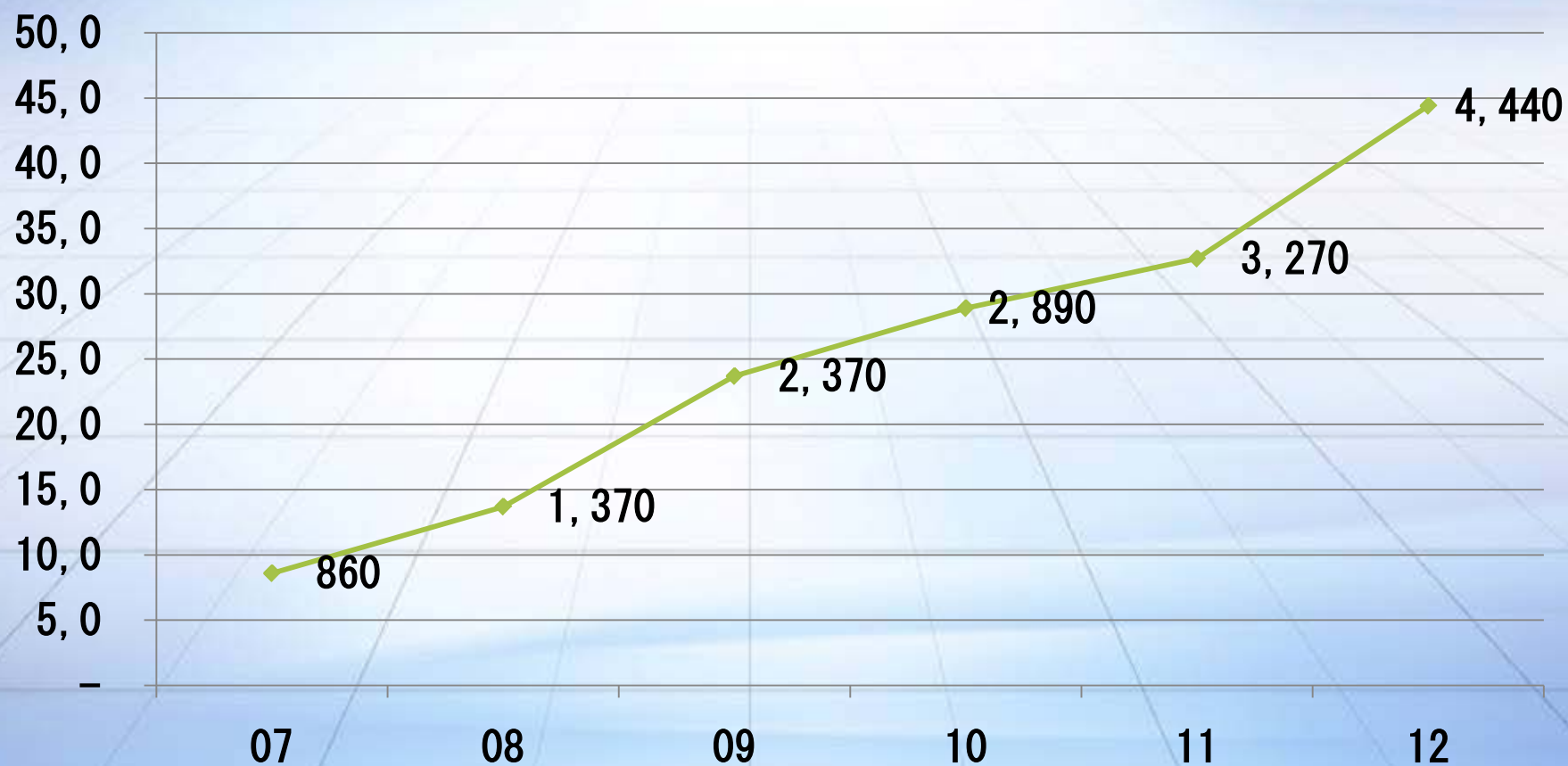
Statistics for fruit production in Korea

Production (M/T)



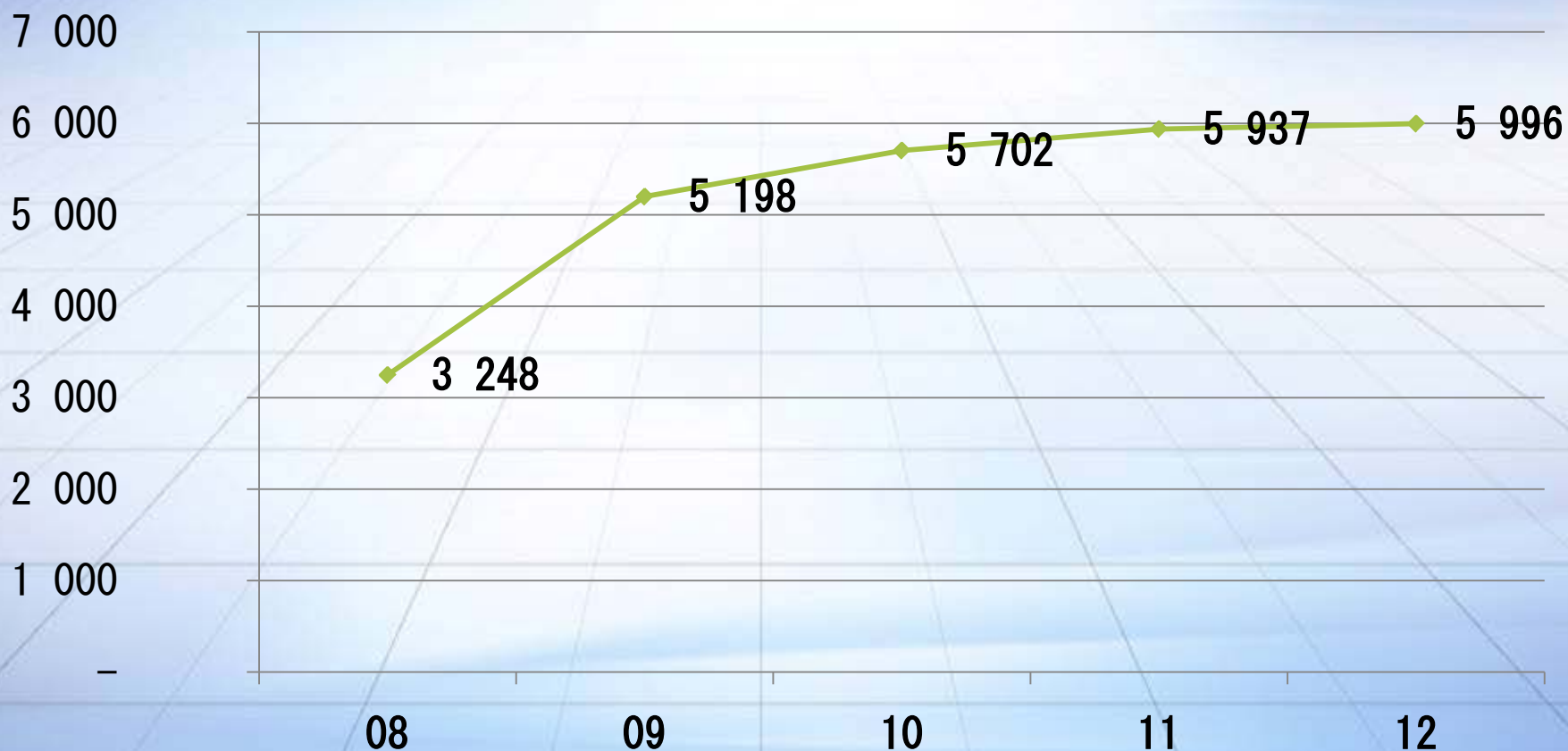
Statistics for fruit production in Korea

The amount of production (thousand US \$)



Statistics for fruit production in Korea

No. of farmers



Price of mulberry fruits/kg(2012)

Direct selling price to the consumer: 7 US \$

Price as processing raw materials: 4.5 US \$

Where to sell mulberry fruits (2012)

Direct selling to the consumer: More than 80%

Selling to producer or others : Less than 20%

Comparison of Incomes with other Crops(per 10a)

Crop	Gross Income (US \$)	Earning rate(%)	Net income (US \$)
Rice	854	57.4	490
Pear	4,317	60.6	2,615
Onion	1,725	57.6	994
Cabbage GH	1,377	37.0	509
Dried Silkworm	3,840	37.0	1,421
Fresh Mulberry	5,000	54.4	2,720



Transition of Sericulture in Korea

~1980's

Textile Sericulture

Focused on Cocoon, Silk



1990's

Functional Sericulture

**Health food
Alternative medicine**



2000's ~

Fruit production Sericulture

**Juice, Jam,
Wine, Alcoholic drinks
Theme Town, Tourism**



Processed products of mulberry fruits(I)



Processed products of mulberry fruits(II)



Processed products of mulberry fruits(III)



IV. Development of technique for fruit production in Korea

Cultivars for the production of mulberry fruits



Tree types for the production of mulberry fruits



Cultivation in the green house for fruit production



Cultivars for the production of mulberry fruits





Infection of spores



Scattering of spores



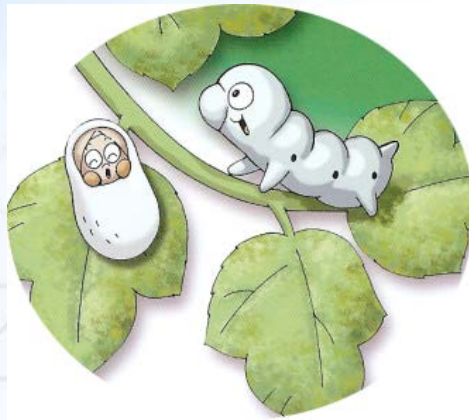
Apothecia formation from overwintered sclerotia



Lifecycle of sclerotium disease



THANK YOU



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