

➤ Cooperation with WTO/SPS, IPPC/CPM, APPPC and bilateral counterparts (cont'd)

- ❑ Hosting international training programs and meetings
 - ASEAN plant quarantine expert training program (2006, 2007, 2008, 2009)
 - IPPC/ISPM workshop in APPPC region (2006, 2007, 2008, 2009 (in Sept.))



The background of the slide features a close-up of a green leaf with several water droplets on its surface. A white, stylized swirl or ribbon-like graphic element curves around the text. The overall color palette is dominated by various shades of green and white.

II . Plant Protection

Status of Major Pests (2008)

➤ Major Rice Pests

- ❑ Blast, Sheath blight, Smaller Brown planthoppers
- ❑ No. of spray times : 2–4 times/year

➤ Monitoring of Pests by RDA

- ❑ for rice pests
 - Monitoring stations : 150
 - Observing stations : 690

Periodic
Working
Group
Meeting
of 14
Experts

- ❑ Early warning system of pest official announcement : via mass media, internet

Extension of IPM Demonstration Projects

➤ Focusing on production of safe agricultural products & conservation of agricultural environment

❑ IPM demonstration projects : Rice and citrus

❑ Biological control demonstration projects : Natural enemies

	No. of farm houses	Area (ha)	No. of spray
Rice	5,027	2,842	3.6 → 2.1
Citrus	21	21	10.5 → 7.5
Natural enemies	892	308.2	Training 1,000 officials for extension service



Pesticides

➤ Pesticide registration and regulation

- ❑ 1,200 kinds of chemicals are listed in Korea
 - More than 98% are low or common toxicity
- ❑ Agro-chemicals toxic to live organisms should be labeled by pictorial-warning-mark and cautionary directions on the container



➤ Application of natural enemies

- ❑ NE project for the horticultural crops pests (MIFAFF)
 - Period : 2005–2013
 - Goal: 50% domestic greenhouse crop area
 - Main target crops : strawberry, tomato, hot pepper
- ❑ 15 species of natural enemies have been commercialized



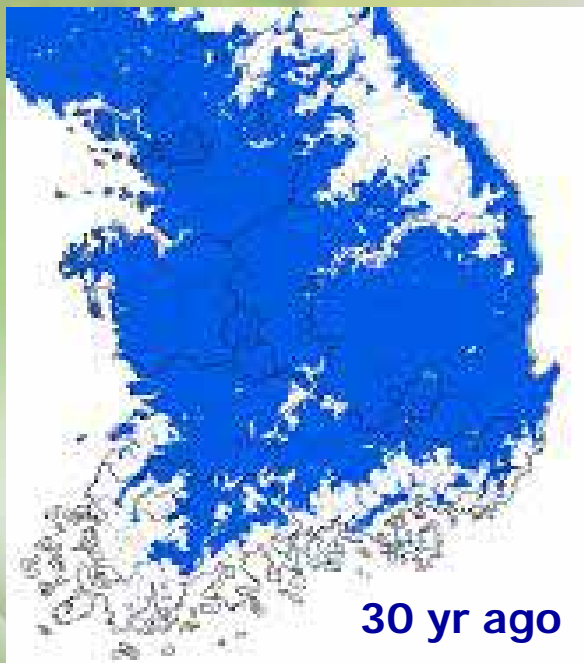
III. Climatic Change

➤ Status

- ❑ During the last 100 years, average temperature of Korean peninsula rose 1.5°C , twice the world temperature rise.
- ❑ Change of suitable cultivation area and crop productivity
- ❑ Increase of disease and insect pests
 - low mortality of overwintering insect pest
 - Rapid spread of highly-infectious pathogen

Change of suitable cultivation area

- Shift of apple orchards to north



- ❖ Reduction in area: 15% upon 1 rise, 35% on 2 rise, 45% on 3 rise

Shift of northern limit for barley cultivation

Naked barley

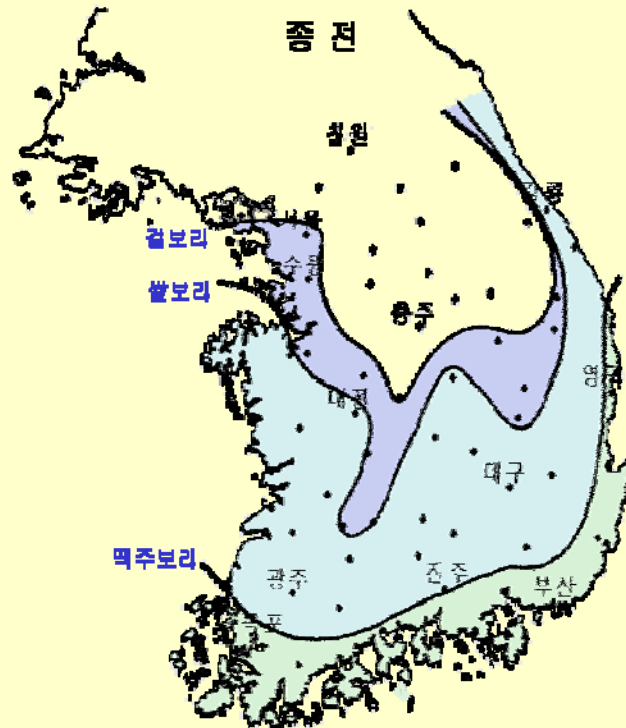
Chungchung



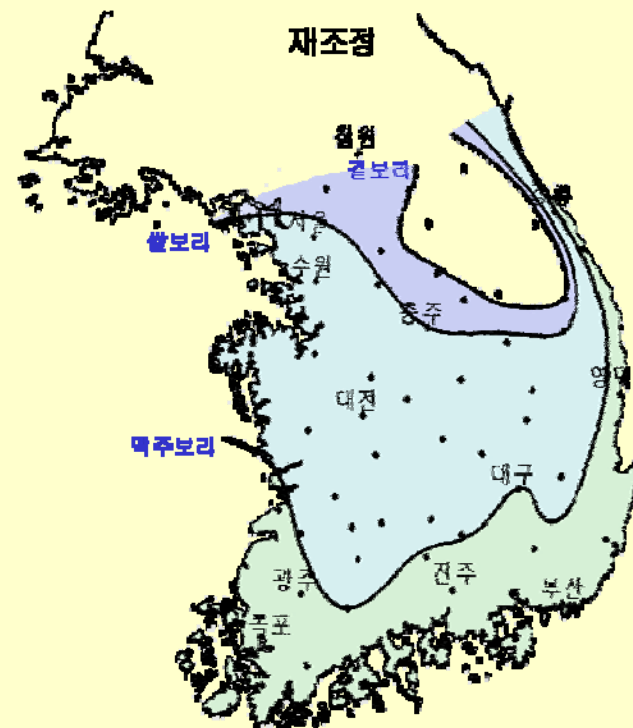
Kyunggi

Change of Barley Farming Area

'61-'90 average



'87-'00 average

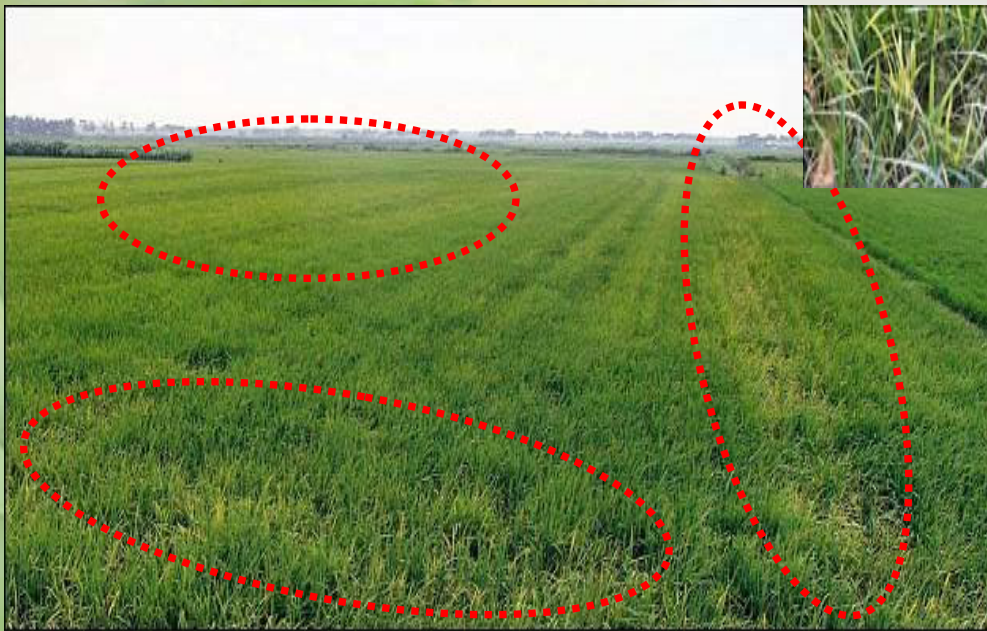


< As the winter gets warmer, the cultivation area moves toward the north >

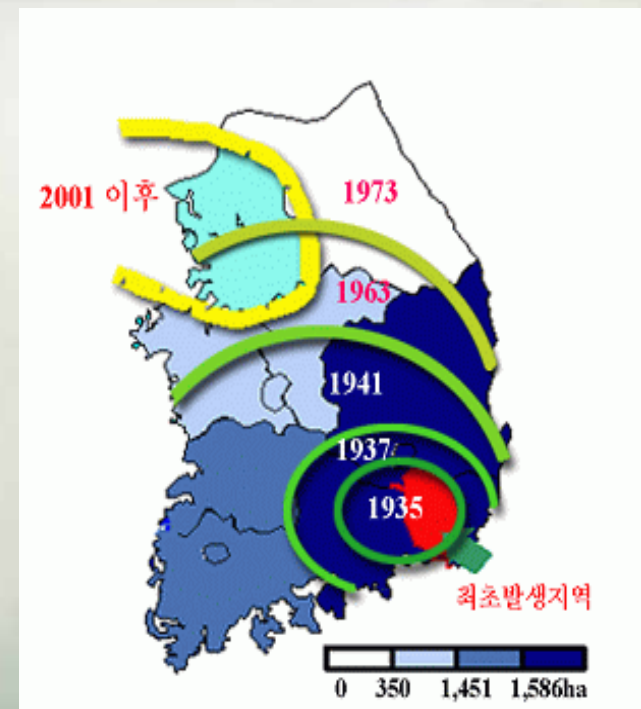
Increase of disease and insect pest

Widespread Rice Stripe Virus

- ('01) 20ha ⇒ ('07) 14,137 ha



< Symptom >



< Spreading to northern area >



Outbreak of Ussuri Brown Katydid

- ('01) initiated in Chungju city ⇒ ('06) whole Chungbuk prov.(20ha)
⇒ ('07) whole Chungnam & Chungbuk prov.(30ha)



< Peach-chewing brown katydid >



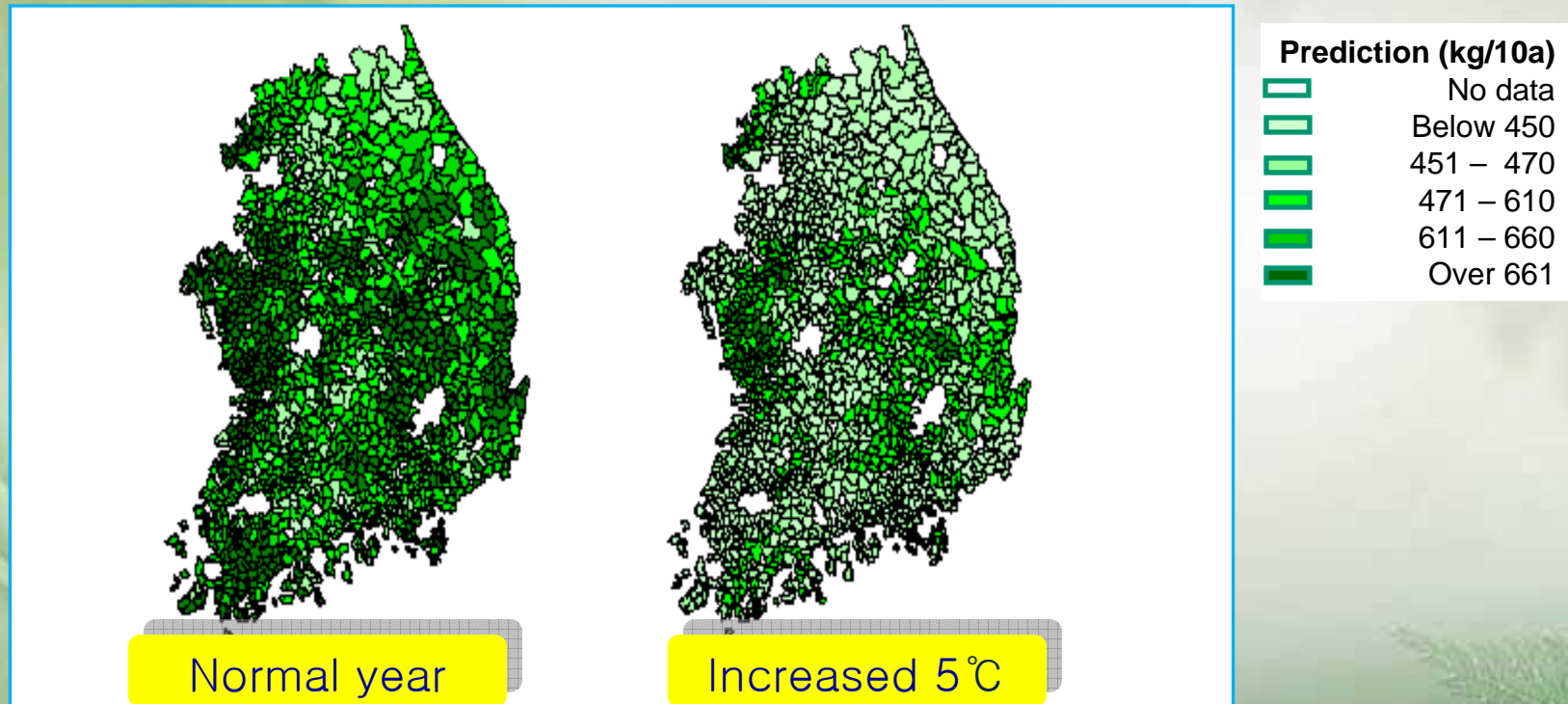
< Damaged apple and peach >

Change of Crop Productivity

Reduced growth duration & early flowering

- 2~5 temperature increase leads to reduction of growth duration by 9~36 days, 15% yields loss.

Prediction of Rice Production



< 5 temperature increase causes significant drop in rice yields >



Measures on Climatic Change

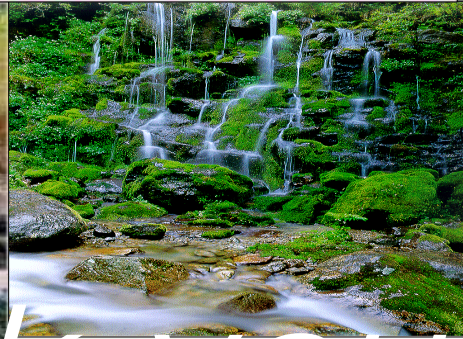
- ☐ Establish strategic planning team for C.C under the MIFAFF RDA
- ☐ Develop comprehensive CO₂ gas reduction measures including bio-energy or renewable energy
- ☐ Develop new technologies to C.C
 - new variety adaptive to high temperature
- ☐ Research on adaptation of subtropical crops
- ☐ Strengthen monitoring activity for pests & maintain early response system
- ☐ Information sharing on C.C and C.disaster to the public

IV. Conclusion

- Increase of **safe and high quality** agricultural products
 - wide application of environment-friendly agriculture
- Compliance of **international standard-harmonized and transparent** plant quarantine system
- Augmented activity and cooperation with **international organization** such as WTO, IPPC and APPPC
- Strengthening of **promotion on C.C** to the public & development of comprehensive **CO₂ gas deduction measures**

Four Seasons in Korea

Spring



Summer



Autumn



Winter

Thank you