C-34 Characteristics of *Cucumber mosaic virus* infecting pine wood cone flower (*Rudbeckia bicolor*) in Korea. Mi-Kyeong Kim[1], Jin-Woo Park[1], Su-Heon Lee[1], Sug-Ju Ko[2], Yoichi Takanami[3], Hong-Soo Choi[1], and Byeong-Jin Cha[4]
[1]National Institute of Agricultural Science and Technology(NIAST), Suwon 441-707, Korea; [2]National Alpine Agricultural Experiment Station, Pyongchang 232-950, Korea; [3]Faculty of Agriculture, Graduate School of Kyushu University, Hakozaki, Fukuoka 812-8581, Japan; [4]Department of Agricultural Biology, Kangwon National University, Chuncheon 200-701, Korea.

A virus causing yellow mosaic, sometimes fern leaves, and malformation symptoms on Rudbeckia bicolor was prevalent around Pyeongchang, Korea. The causal virus was identified as *Cucumber mosaic virus*(CMV-RB) and characterized based on biological, serological and molecular analysis. CMV-RB caused mosaic on *Nicotiana benthamiana*, *Nicotiana tabacum, Capsicum annuum*, and *Lycopersicon esculentum*, whereas no symptoms on 3 pumpkin varieties. CMV-RB reacted strongly with anti-CMV. Electron microscopy revealed isometric particles of 28 - 30nm in length from the purified virus. In order to ascertain their taxonomic identity, The CMV-RB RNA genome has now been cloned and sequenced.

C-35 First report of *Tomato bushy stunt virus* infecting tomato in Korea. Mi-Kyeong Kim, Seon-Gi Jeong, Su-Heon Lee, Jin-Woo Park, Sug-Ju Ko, Hong-Soo Choi and Byeong-jin Cha. [1]National Institute of Agricultural Science and Technology(NIAST), Suwon 441-707, Korea; [2]National Alpine Agricultural Experiment Station, Pyongchang 232-950, Korea; [3]Faculty of Agriculture, Graduate School of Kyushu University, Hakozaki, Fukuoka 812-8581, Japan; [4]Department of Agricultural Biology, Kangwon National University, Chuncheon 200-701, Korea.

A new virus-like disease of tomato was observed around Sacheon, Gyeongsangnam-do, Korea. A survey conducted (2004) in the area found disease incidence to range from 5 to 30%. Symptoms of the disease were chlorotic spots, malformation and necrosis on leaves, and chlorotic blotching, rings, and necrosis on fruits. Host range analysis failed to differentiate 4 field isolates collected from tomatoes showing different symptoms. Necrotic spots were observed in *Nicotiana tabacum* Xanthi-nc., *Vicia fava*, and *Gomphrena globosa*. Chlorotic spot and mosaic symptoms were produced on *Datura stramonium, Capsicum annuum, Lycopersicon esculentum*. Ultrathin sections revealed

Multivesicular bodies (MVBs), small patches of electron-dense amorphous material. Virus particles are occasionally found in symptomatic leaf cells of *Capsicum annuum*, *Datura stramonium*. A band of about 700 bp was produced by RT-PCR assays with TBSV specific primers. The viral RNA genome has now been cloned and sequenced. Therefore, biological, serological, cytopathological and molecular properties clearly demonstrated that the virus was *Tomato bushy stunt virus*(TBSV).

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