C-28 Determinants as host specificity and cell-to-cell and long distance movement of *Cucumber mosaic virus* on wild and cultivated soybeans. Jin Sung Hong[1,2], Chikara Masuta[2], Jang Kyung Choi[3], and Ki Hyun Ryu[1]. [1]Plant Virus GenBank, PVGABC, Division of Life and Environmental Sciences, Seoul Women's University, Seoul 139-774, Korea; [2]Graduate School of Agriculture, Hokkaido University, Kita-ku, Kita 9, Nishi 9, Sapporo 060-8589, Japan; [3]Division of biological Environment, Kangwon national University, Chunchon 200-701, Korea

Many virus genes responsible for viral infection steps (replication, cell-to-cell and long-distance movement) have been identified in various virus-host combinations. Systemic infection of soybean-adapted *Cucumber mosaic virus* (CMV) strain (namely, *soybean stunt virus*; SSV) and non-adapted CMV-Y requires RNA3, which encodes the 3a movement protein and coat protein. CMV soybean strains (SSVs) were inoculated onto wild soybeans and cultivated soybeans to investigate their infectivity toward understanding of the co-evolution of SSV and soybean. SSV inoculation resulted in systemic infection in most of the wild soybeans used while general CMV could not. Pseudorecombinants between SSV-C and CMV-Y were constructed in vitro by exchanging the three genomic RNAs. Inoculation of the wild types and their pseudorecombinants to cultivated and wild soybeans suggested that the infection of the viruses in a plant comes into being through a complex interaction of the virus-host plant. Whereas, the determinant gene of SSV for in wild and cultivated soybean the systemic infections was determined to 3a gene and/or 2b gene.

C-29 Detection and Diagnosis of *Cucumber green mottle mosaic virus* by DAS-ELISA Kit from Watermelon Plants. Chang Ki Shim[3], Baeong Il Yoon[1], Ki Soo Han[1], Dong Kil Kim[1,2] and Hee Kyu Kim[1,2] [1]Division of Applied Biology & Environmental Sciences, [2]Research Institute of Life Science Gyeongsang National University, Jinju 660-701, Korea; [3]Organic Farming Technology Division, Dept. of Crop Life Safety, National Institute of Agricultural Science and Technology's, RDA, Korea.

We constructed monoclonal antibody based DAS-ELISA system for CGMMV, an important Tobamovirus causing a widespread epidemic of watermelon in greenhouse agriculture. A CGMMV particle was detected from the rind of watermelon fruit by DAS-ELISA of CGMMV-HY1, but not from the flesh of watermelon. Average of seed