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한국에서의 포플러 모자이크 바이러스 檢出*[1]

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Detection of Poplar Mosaic Virus in Korea*[1]

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1980年 9月, 水原 林木育種研究所의 포플러苗圃에 植栽되어 있는 *Populus deltoides* 클론中에서 잎에 모자이크病徵을 나타내는 個体가 數本 觀察되었다. 모자이크病 斑組織의 汁液을 dip法에 依해 2% 燐酸텅스텐으로 Negative 染色하여 電子顯微鏡으로 檢鏡한 結果, 外國에서 포플러 모자이크 바이러스로 報告된 것과 같은 크기를 가진 길이 660~670㎚되는 바이러스粒子가 多數 觀察되었다.

Several plants of *Populus deltoides* 'R—89' exhibiting symptoms of poplar mosaic described earlier by several researchers (1, 2, 3) were observed in the poplar nursery of the Institute of Forest Genetics at Suweon, Korea during September, 1980.

The symptoms produced a mosaic or discolored yellow spottings in mature leaves with veinal and petiolar necrosis and leaf curling (Fig. 1 and 2). Leaves with mosaic symptoms were collected and leaf-dip preparations from chlorotic area were examined for the presence of virus particles with an electron microscope. Electron micrographs of the negatively stained leaf-dip preparations revealed numerous elongated virus particles ranging 200—1300nm in length (Fig. 3). Of 156 particles measured randomly, 68 particles (43.6%) were in the range of 660—670nm in length (Fig. 4). The values obtained fell well within the range of those described for poplar mosaic virus (PMV) by other researchers (1, 2, 3). No viruslike particles were observed from poplar leaves without mosaic symptoms. Further studies on the properties of the PMV isolate and control of the disease are underway.

LITERATURE CITED

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Fig. 1. and **2.** Symptoms of poplar mosaic on the leaf of *Populus deltoides* 'R—89'. Note diffuse spottings on the leaf and vein necrosis with leaf curling.

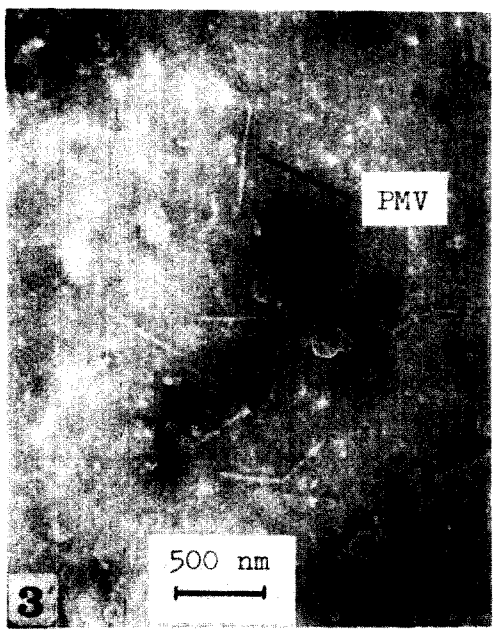

Fig. 3. Electron micrograph of negatively stained poplar mosaic virus particles from leaf-dip preparation.

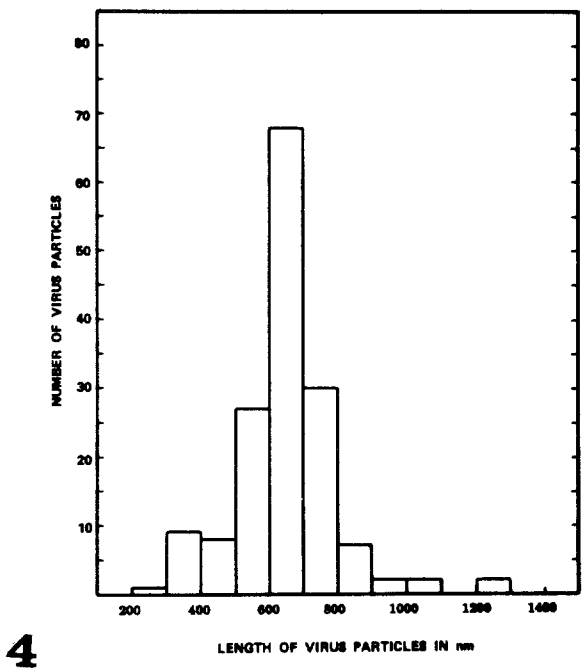

Fig. 4. Length distribution of poplar mosaic virus particles in negatively stained leaf-dip preparations.