

Taxonomy of plant virus and role of the ICTV database

Ki Hyun Ryu

Plant Virus GenBank, PVGABC, College of Natural Science, Seoul Women's University, Seoul
139-774, Korea

The International Committee for Taxonomy of Viruses (ICTV), which was formed over 30 years ago, aims to develop a single, universal taxonomic scheme for all viruses or, in other words, "the classification of viruses and the assignment of names to taxa". Plant Virus taxonomy is in charge of Plant Virus Subcommittee, a substructure of the ICTV. The ICTV has been most successfully pursuing that aim and its mammoth 'Seventh Report' records details of the names it has collated and approved, and of the classification, it has devised. The current 7th ICTV report published in 2000 contains plant viruses of 951 species in 79 genera in 17 families, though 24 of the 79 genera are floating genera, that is, they are not included in any established families. Proposed name of new or existing viruses are vote for the accepted taxonomic proposals by ICTV Executive Committee meeting. The approved results have been published as the ICTV reports providing standard names and taxa of viruses all over the world. A number of new plant viruses have been identified or reclassified in the genus or species level, and new genera and families have been proposed. Forthcoming 8th ICTV report will covers more than 1,050 species. As a general rule based on the 7th Report, virus names are written started with a capital and in italic like *Tobacco mosaic virus*. If a virus name contains proper noun, the word is also capitalized e. g. Grapevine Algerian latent virus. Styles such as tobacco mosaic virus polymerase, a preparation of tobacco mosaic virus, some species of tobamoviruses, or the potyviruses are also allowed. However, only the virus name with distinct species status can be italicized. Tentative species, that is, viruses not classified into established genera by ICTV are not written in italic. Style with genus name, i.e., tobacco mosaic tobamovirus are abolished. Family and genus names are also written in italic. However, recently, binomial naming, non-latinised virus binomials (NLVB), has been proposed to the ICTV. This proposal is being debated and has not been endorsed by the ICTV. A huge number of new viruses has been isolated and described in the published papers and databases, and certainly many of them are the same species and mistakes or for taxonomy in the genus and species levels. ICTV have a substructure for responsibility and working for virus database of ICTV (ICTVdB), ICTV dB subcommittee. ICTVdB have been evolved timely for virologists in the world. ICTVdB recently propose to the ICTV EC all the proposals for new species must be based on isolate data entered into ICTVdB. In this talks, the role of ICTVdB as well as taxonomy of plant viruses are discussed.

(E-mail : ryu@swu.ac.kr)