2-16. Mite Complex in Apple Orchards under Different Management Practices

Chuleui Jung, Si-Yong Kim, Soon-Won Lee[1], and Joon-Ho Lee

Entomology program, School of Agricultural Biotechnology, Seoul National University; [1]Taegu Apple Research Institute, National Horticultural Research Institute, RDA

The effect of orchard management practices on the occurrence of apple pests and their natural enemies was studied in 14 apple orchards in Kyungbuk during the season of 2001. Fourteen orchards were selected as conventionally managed orchards, IPM orchards, and abandoned orchards. Focus was given to the phytophagous mites-predatory mites complex; *Tetranychus urticae, Panonychus ulmi,* rust mites, tydeid mites, tarsonemids, and phytoseiid mites. There was general trends found that *P. ulmi* was becoming as important as *T. urticae* in apple and that where predatory mites were found at least in the mid of the season, phytophagous mites never increased to the level which can cause economic damage. Phytoseeid and stigmaeid mites were the main groups of predatory mite. At least 13 species of phytoseiid mites were found from apple orchards. Many cases indicated that rust mites outbreak in early season provided favored condition of predatory mite increase. Implication and further study area are discussed.