1969 EPIDEM developed—first computer simulation for the development of a disease epidemic is created—early blight on tomato and potato

1969 Journal of Nematology is initiated in January. This is the first nematology journal published in the U.S.—S. D. Van Gundy was the first editor


1970 Norman Borlaug receives the Nobel Peace Prize for his lifelong work on semi-dwarf wheat which led to increased food supply, preventing hunger and famine. Borlaug improved semi-dwarf wheat varieties, but more importantly, was instrumental in introducing these varieties into India, Mexico, and Pakistan, igniting the “green revolution”.

1970 Southern corn leaf blight epidemic caused more than 1 billion dollars in loss to the corn industry. New race of Cochliobolus heterosporus (Helminthosporium maydis) is highly virulent on corn with the Texas male sterile cytoplasm (race T).

1970 Discovery of major gene resistance in a wild forest pathosystem—sugar pine (Pinus lambertiana) resistant to white pine blister rust (Cronartium ribicola = Pinus lambertiana var. lambertiana). In 2003, this was shown to be part of a gene-for-gene system with other white pines and rust biotypes.

1971 Coconut lethal yellows arrives on the mainland of Florida, killing thousands of trees. This disease was originally discovered in the Florida keys in the 1950s and by 1975, 75% of the coconut palm trees in Dade County were infected or dead. This phytoplasma originated in the Florida Keys in the 1950s and eventually adopted as the formal genus name. The term “spiroplasma” was coined and is used to describe this group of prokaryotes. The viroid is discovered. A small, single-stranded, non-protein-coding RNA lacking a coat protein is identified in the development of a disease epidemic is created—early blight on tomato and potato.

1971 Discovery of a coryneform bacterium as the probable causal agent of ratoon stunting disease of sugarcane.

1972 First commercial biological control. Nonpathogenic Agrobacterium rhizogenes (A. radiobacter var. radiobacter) isolate K84 used to control pathogenic Agrobacterium tumefaciens (A. radiobacter var. tumefaciens) on peach seedlings. When applied to stone fruit tree seedlings as a root dip, it protected them from infection by pathogenic strains of this bacterium.

1972 Causal agent of Pierce’s disease discovered. A rickettsia-like organism (Xylella) that is restricted to the xylem tissue.

1972 Discovery of Bdellovibrio—bacterial parasites of bacteria.

1972 Discovery of Ti plasmid of Agrobacterium tumefaciens and its role in crown gall.

1972 Discovery of a canopy. The Annual Proceedings of The American Phytopathological Society. The proceedings publication was discontinued with the 1977 issue.

1972 Discovery of spiroplasma. A helical, motile, wall-less prokaryote. The term “spiroplasma” was coined and is eventually adopted as the formal genus name.

1972 First extensive genetic studies with this organism. The establishment of genetic transformation systems for plants and stimulated interest in the molecular genetics of plant pathogens.

1972 Pseudomonas syringae strains found in decaying litter were discovered to be active ice nuclei, catalyzing the formation of ice in supercooled water.

1972 Turbulent gusts of wind are demonstrated to play a role in the removal of spores and their escape from a canopy.

1973 Development of a disease epidemic is created—early blight on tomato and potato.

1973 Causal agent of Pierce’s disease discovered. A rickettsia-like organism (Xylella) that is restricted to the xylem tissue.

1973 Discovery of Xylella fastidiosa—bacterial parasites of bacteria.

1974 Discovery of Ti plasmid of Agrobacterium tumefaciens and its role in crown gall.

1974 APS published the first issue of the Annual Proceedings of The American Phytopathological Society. The proceedings publication was discontinued with the 1977 issue.

1974 Discovery of Ti plasmid of Agrobacterium tumefaciens and its role in crown gall.

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1974 Discovery of a coryneform bacterium as the probable causal agent of ratoon stunting disease of sugarcane.

1974 APS Manual of Operations is approved. This manual provides the job descriptions for officers, councilors, directors, and committee chairs.