

Clatus Martin Nagel, 1906–1982

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It is difficult, and yet a pleasure, to write a brief biography of a close personal and family friend, Clatus M. Nagel. Clatus was born November 10, 1906, on a farm at Anselm, ND. He was the youngest of three sons born to Franz and Margaretha (Christmann) Nagel. He graduated from the Sheldon, North Dakota high school in 1925, from North Dakota State University with a B.S. degree in science in 1929, and from Iowa State University with M.S. and Ph.D. degrees in plant pathology in 1932 and

1938, respectively. He remained at Iowa State University through 1942 first as assistant in plant pathology, later as Agent, Division of Cereal Crops and Diseases, Bureau of Plant Industry, USDA. During 1943, he was employed as a plant pathologist by the Naco Fertilizer Company in Orlando, FL. He joined South Dakota State University in 1944 as assistant plant pathologist in the Agricultural Experiment Station and was named professor and head of a new department, plant pathology, in 1947. He remained head until 1969 when that department was merged with agronomy to form a Plant Science Department. He retired in December 1975 as Professor Emeritus, and continued with corn studies on a reduced schedule. He died at age 75 from a heart attack on January 20, 1982, at his home in Brookings, SD.

Dr. Nagel's contributions to plant pathology have been varied and significant. While he was a graduate student at Iowa State University under the direction of S. M. Dietz and I. E. Melhus, he worked on the epiphytology and control of *Cercospora* leafspot of sugar beets; he demonstrated that soil is the source of primary inoculum and that the disease could be controlled by wider than normal spacing of plants within and between rows. Working with other investigators, he demonstrated that *Cercospora*-diseased sugar beet leaves were photosynthetically inefficient and that highest sugar yields at harvest were obtained when sugar beets were planted early and when beets were lifted within several days after a rain, rather than later. During this time he also helped assess the extent of mold-induced loss in corn stored by the Commodity Credit Corporation (USDA).

After spending a year in Florida working on chemical control of citrus diseases, he moved to Brookings in 1944 where he joined Dr. W. F. Buchholtz, a close personal friend from graduate school days. Dr. Buchholtz was the first full-time research plant pathologist hired (in 1940) by that experiment station, and in a short time he had set a firm foundation for the need of expanded phytopathological research within the state. After Dr. Buchholtz returned to the plant pathology staff at Iowa State University in 1946, Dr. Nagel helped establish and became professor and head of the Department of Plant Pathology with research, teaching, and extension responsibilities within the College of Agriculture. With local and USDA financial support, he soon assembled a supporting staff, which at its peak comprised nine plant pathologists and about

20 support junior personnel, which conducted 16–20 experiment station research projects. The staff was also responsible for teaching undergraduate and graduate courses in plant pathology.

Dr. Nagel thoroughly enjoyed promoting plant pathology both within the university and statewide. Through his own early extension efforts he became well known within farm organizations and legislative bodies. These contacts were valuable in the acquisition of a plant pathology building with attached greenhouse facilities in 1955. He supported his staff both within and outside the university, actively helped to meet their teaching and research facility needs, and at times offered personal assistance in the conduct and reporting of research. He obtained NSF financial support and provided facilities for Gerald Thorne's inventory of the nematodes of the Northern Great Plains and also for a Conference of College Teachers of Plant Pathology under the sponsorship of the American Phytopathological Society.

In addition to administrative duties, Dr. Nagel also conducted significant independent research within the Experiment Station. For example, while studying the decline of cottonwoods (*Populus* spp.) from rust caused by a species of *Melampsora* in farm shelter belts, he discovered and released a cottonless, rust-resistant cottonwood (cultivar Siouxsland) that was widely accepted, cloned, and planted in the North Central region of the United States. In cooperation with Dr. W. F. Buchholtz, he discovered and established within a nursery a virus-free, nonsprouting strain of *Prunus hortulana* for use as an understock for hardy plums and ornamental *Prunus* species. In still another effort, through replicated field trials over several years, he demonstrated that damage from wheat streak mosaic could be minimized or avoided by delaying the August fall wheat planting to mid-September and early October. However, his most sustained effort was in the development and release of root-rot resistant, stiff-stalked corn inbreds, which in hybrid combination conferred yield improvement capabilities under droughty situations.

At the age of four, Clatus contracted poliomyelitis, which affected both legs and required use of a brace on one and a crutch for the other. Clatus successfully adjusted to this disability; he was single, outgoing, self-reliant, cheerful, witty, friendly, field-orientated, and well-liked. Owing to his encouragement and support, a number of undergraduate students that helped him with field and greenhouse work chose careers in plant pathology or some related speciality. He enjoyed hunting and fishing in the company of others, and he was an ardent spectator and supporter of local collegiate sports. He built a home in 1950 on a 2-acre plot with shade and fruit trees, which he cared for mostly by himself. He supported his church, belonged to Kiwanis, was president of the North Central Division of the American Phytopathological Society, and served on several national committees of that society. He was also a member of AAAS, AIBS, American Society of Naturalists, Sigma Xi, and Gamma Sigma Delta. His oldest brother, Roy, preceded him in death by 20 days. He is survived by another brother Arno of Lisbon, ND, and by six nieces and nephews. A memorial research assistantship is being established in the Plant Science Department at South Dakota State University.