Robert M. Smock

October 21, 1908 — April 22, 1986

The name remained the same on the office door for nearly fifty years. The bearer of that name, whose professional life changed emphasis through the years and was punctuated with a variety of rewarding personal adventures, was Robert Smock. He enjoyed a bountiful career of personal interaction and postharvest pomology.

Although Bob had an interest in laboratory physiology, exemplified by his published observations of orchard, handling, and storage factors that influenced the respiration rate of apples, applied research was the hallmark of his career in pomology. Most practical pomologists would consider their careers to be a success if they made one major contribution to the fruit industry. Bob made two.

The first was his research on, and development of recommendations for the controlled-atmosphere (CA) storage of apples. From the late 1930s to the early 1950s his CA research was carried out under the physically adverse conditions imposed by the location of his storage laboratory in the wet basement of an old barn. He developed recommendations for the temperature and concentrations of oxygen and carbon dioxide to be used during CA storage of most apple cultivars grown in the United States. These recommendations are currently followed by most CA operators in North America and by many CA operators in other apple-growing regions. In addition to developing recommendations for the CA temperature and atmosphere, he personally worked with fruit growers for several years to develop recommendations for the construction, gas sealing, testing for air tightness, and operation of commercial CA rooms. The growth of the commercial CA industry in New York and New England, which preceded and set the example for the establishment of CA operations elsewhere in North America, can be attributed almost exclusively to Bob Smock's adherence to the philosophy that changes are brought about by the actions of dedicated people.

The physiological disorder *storage scald* caused multimillion-dollar losses to the world's apple industry every year until Bob discovered that diphenylamine and ethoxyquin, used as postharvest treatments, controlled the disorder. This was his second major contribution. He spent several years screening scores of antioxidants before he found those two compounds, which consistently gave complete control of storage scald. He then acted through the U.S. Department of Agriculture to obtain the toxicological data to clear the compounds with the Food and Drug Administration, and he cooperated with commercial chemists to develop suitable formulations. Finally, since these were the first postharvest-prestorage materials to be applied to apples, he worked with growers to develop suitable application equipment.

Other noteworthy research contributions include his early work with waxing apples and *bitter pit* and his later work with enhancement of red color development and with the influence of mineral nutrition and plant growth regulators on apple quality and condition. Bob was a member for several years of the small school of researchers who thought that nonethylenic apple volatiles may influence the development of storage scald. The lack of consistency in his research data led to his withdrawal from that school, which soon thereafter became defunct. Current research suggests that that theory was correct—that a volatile from apples may induce other apples to develop storage scald.

Although his formal credentials classified him as a professor of pomology, a semester in his classroom or a few intimate visits to his office left most students and professionals with the impression that he was also a distinguished professor of human relations. His philosophy that education is supposed to engender a little curiosity and that research should be fun, not work, inspired several generations of undergraduate and graduate students. It is not at all surprising that he was the first person to have received the L. M. Ware Award for Distinguished Teaching (1964) from the American Society for Horticultural Science.

Bob was mistaken in thinking that "the only reward (p*rofessor perfectus*) one can look forward to is to be flattened into a herbarium specimen and put away on a shelf and never looked at again." Although he did not admit it, he was a *professor perfectus* (cv. emeritus). During the years of retirement, there was a meshing of his vocation (pomology) and avocation (human interactions). He maintained an active research program, but most of his time, we observed, was spent following the calling of his heart, that is, counseling undergraduate students and teaching English to foreign students.

Gene H. Oberly, Loyd E. Powell, G. D. Blanpied