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J. G. ten Houten

On the occasion of the 25
years' Jubilee of his
directorship of the Institute
of Phytopathological Research

On Friday September 27, 1974, Prof. Dr J. G. ten Houten celebrated the completion of 25 years of his directorship of the Institute of Phytopathological Research (IPO). Four days later he stepped down from this office to dedicate his full time to teaching at the Wageningen Agricultural University. Although Ten Houten does not yet retire, the impressive farewell party prepared by his colleagues and friends marked the end of his career in plant pathology. It is appropriate here to look back at this period of his life and to record the many important services Ten Houten has rendered to plant protection both in the Netherlands and abroad.

Although it is not my intention to dwell on the development, flowering and fruition of the IPO, it is difficult, if not impossible, to evaluate Ten Houten's efforts without turning to the Institute. For Ten Houten in the first place has been the Director of IPO, and has, right from the beginning, preferred this role to that of a position in University teaching and research for which no less a personality than Prof. Johanna Westerdijk thought him fit. He thereby limited himself and on the other side gave himself a free hand in applying his gifts in leadership and administration to the well-being of his Institute and its staff, and also to a wide circle of related and neighbouring bodies and activities in which he was asked to participate or which he initiated himself.

This social involvement is perhaps part of Ten Houten's nature and has been shaped by fortunate circumstances. Born to a well-to-do provincial family, and endowed with an industrious mind and a well-balanced education, he could have contented himself with earning a prominent place in business or administration and continuing successfully what former generations had established. But an early association with the Netherlands' Young Naturalists League and the privilege of being engaged – and later married – to a person with the intellectual and humane qualities of Dr Anneke Panne-

koek, has induced him to 'squeeze his talents' on behalf of wider moral and social interests.

And inasmuch as a man is a product of his 'nature' and his 'nurture' and is a child of his time, Ten Houten has admirably coped with the ever changing conditions and turmoil of the middle 20th century. This success has no doubt been facilitated by his completely open mind and his near-to-naively honest approach to the details of his involvements. And although his anger may sometimes rise when others do not follow the correct lines he so clearly has drawn, it is soon tempered by a warm and outgoing personality. Another factor in his success has been his untiring effort and working capacity, combined with a dutiful and dedicated attitude in life. And last but not least, there is his ability to maintain long-lasting friendships, which makes so many of us feel his debtors.

Johan Gerard ten Houten was born in Winterswijk. He studied biology at the University of Utrecht, where he majored in plant taxonomy in 1935. Plant pathology at that time could be taken only as a secondary subject. In the same year he married, and, as jobs in biology were rare at that time, worked for two years with the pharmaceutical firm of Brocades in the commercial sphere. He thereupon undertook to work for his thesis under professor Johanna Westerdijk, at Baarn. The Ten Houtens were soon bound to Westerdijk in close ties of friendship and admiration, as were so many of her former students. It is, however, no exaggeration when I state that Ten Houten occupied a special place in Prof. Westerdijk's appreciation. He obtained his Ph.D. in 1939 with a thesis entitled: 'Kiemplanteziekten van Coniferen' (Diseases of Conifer seedlings). He thereupon became an applied entomologist at the Koloniaal Instituut (now: The Royal Institute for the Tropics) in Amsterdam, where he did research on insecticidal plant products.

In December 1939 he was appointed by the agricultural company N.V. Javo as a phytopathologist/entomologist with responsibility for the control of pests and diseases of the fiber crop Rosella in Java, Indonesia. There he soon made some interesting discoveries on factors promoting the occurrence of *Phytophthora* foot rot and on the transmission of *Phoma* leaf disease by flea beetles. He always maintained his interest in Rosella, and after the war published a chapter on this crop in 'De landbouw in de Indonesische archipel' (1950), and advised the Tunesian government in 1960 on the experimental introduction of Rosella as a potential crop for that country.

Ten Houten's work in Java was interrupted in 1942 by the events of the Second World War, and he became a prisoner of the Japanese. In the jungle camps of the Molluc Islands he assisted the medical staff in starting the production of yeast to prevent vitamin B deficiency. He often refers to this period as the one which taught him the relativity of human effort and the real values of human character.

In 1946, Ten Houten and his family were repatriated and he became the head of the Biological Department of the Biocide Section of the Royal Shell Laboratories in Amsterdam. Here he supervised the screening program on pesticides and contributed towards its instrumentation.

On September 1, 1949, the Board of the newly established Institute of Phytopathological Research (IPO) in Wageningen appointed him as its Director. It soon became clear that this was a most fortunate choice, and that Ten Houten had the gifts of mind

and heart which were required to build an institute, and to lead the research community with all its managerial and human aspects.

How has Ten Houten done in the 25 years that have elapsed since, and what have been his accomplishments in plant pathology?

First and foremost, he has identified himself with the IPO. He has shaped and developed the institute, he has given it all feasible managerial cares, and he has represented the institute at both the national and the international level. I know that many other people have been indispensable for the well-being and fruition of the IPO, and that there are certainly those who perhaps more than Ten Houten have been material in assuring the maintenance of its scientific standards, its relevance to contemporary agricultural problems, its careful administration, and its social atmosphere. Nevertheless, and in full recognition of the contribution of the IPO workers at all levels, I want to state here that the IPO would never have become the outstanding institute it may proudly claim to be, were it not for Ten Houten's talented leadership and untiring effort. This is not to understate the role of the Governing Board of IPO in all phases of its development. But, having been for twenty years a member of this Board myself, I am in the position to acknowledge that the initiatives were mostly Ten Houten's, that his propositions were always based on most careful argument, and that at Board meetings he always showed himself to be astonishingly well informed of even details of the multifarious work at IPO.

I now proceed to Ten Houten's own scientific effort in plant pathology and protection. In his recent Prefatory Chapter in the Annual Review of Phytopathology, Ten Houten states: 'As director of the Institute of Phytopathological Research at Wageningen I have obtained a broad experience – although rather superficial – of most of our disciplines, and it always struck me how closely related plant pathology is to agricultural practices'. This statement clearly reveals Ten Houten's orientation in phytopathology.

If we divide the period of ten Houten's activities in Wageningen in three octennia the following trend becomes evident. During the period 1950–1958 ten Houten still carried out some research of his own. During a study trip in Germany he came across disease symptoms of collar rot of apple trees caused by the fungus *Phytophthora cactorum* which he recognised to be identical with those occurring in the Netherlands. This led him to a series of investigations into the aetiology, control and prevention of this disease, including trials on varietal resistance. But in addition, his publications and lectures ranged from evaluation of losses (he recognized very early that this subject was to have major impact on research and control policy) to horticultural research, social impact of plant pathology, aerial spraying and (from 1953 on) air pollution by industrial gases.

In this period Ten Houten saw the first and foremost task of his institute in the speedy solution of pest control problems by available technology, supported by applied biological research and agronomic development studies. Basic long-term research on pests and pathogens he considered to belong to the sphere of institutes of purely scientific research and university training.

In the second period, 1959–1966, he became increasingly involved in the study of the agricultural impact of air pollution. As the institute, under the stimulating in-

fluence of its sub-director Dr H. J. de Fluiter, became more and more committed to research on integrated control, Ten Houten actively participated in shaping cooperative research efforts in this line and paid attention to 'biological balance'. In this period, more leeway was given to long-term and basic research at IPO.

During the third period, 1967-present, it became evident that Ten Houten's early interest in air pollution had been a far-sighted one, and that this would give him and his institute a leading position in research on this subject in the Netherlands. The problems became aggravated to agriculture and public health due to the colossal industrial concentration and the exponential increase in the number of automobiles. Notwithstanding the limitations set on personnel and finances, Ten Houten managed to procure very adequate facilities. In 1971, he was nominated Extraordinary Professor in Environmental Sciences (air pollution) at the Wageningen Agricultural University.

By acquiring new knowledge and by giving expert advice Ten Houten has provided yeoman service to many Dutch farmers, and especially to horticulturists, in their struggle to protect their produce from damage by industrial and vehicular emissions.

With regard to Ten Houten's national activities in the organizational sphere, we must recognize the virtual impossibility of being complete, so many and manifold have been (and still are) his activities. He has frequently served as a chairman and as a secretary, and, (a rare gift indeed) Ten Houten does very well in both offices. In the sphere of research he has been a chairman of several Dutch working groups, e.g. on apple scab (*Venturia inaequalis*), fruit tree virus diseases, the potato cyst nematode (*Heterodera rostochiensis*) and on the influence of air pollution on flower bulb crops. He served for many years as chairman of the insect pathology section of the Netherlands Working Party on Integrated Pest Control. He was a secretary of the Netherlands Department of Agriculture's Advisory Committee on Plant Disease Resistance.

In the sphere of recruitment of technical assistance he was a chairman of the Advisory Committee for the Education of Botanical Laboratory Assistants.

In the area of professional organizations he was from 1951–1957 President of the Netherlands Society for Plant Pathology and has been since 1968 President of the Royal Netherlands Society for Agricultural Science.

In the sphere of high level national councils, he was from 1971–1974 an Advisory Member of the National Agricultural Research Council TNO, and since 1972 a member of the Council for Waterways and Roads.

When we finally turn to Ten Houten's international activities, we might first mention the essential role he played in advising our Belgian colleagues on the organization of the First Annual International Symposium on Phytopharmacy and Phytiatry in Ghent in 1949, and his active participation in many of these symposia from then on.

From 1968–1973 he was Secretary General of the newly established International Society for Plant Pathology. He promoted international cooperation as chairman (1971–1973) of the Plant Protection Commission of the International Society for Horticultural Science, and as chairman of Organizing Committees of International symposia, e.g. on Bacterial Diseases in Plants (1971) and on the Influence of Air Pollution on Plants and Animals (1968), and of the International Congress of Agricultural Aviation (1966).

The list of Ten Houten's activities in the professional field is impressive. He graduated at a time when society had hardly a place to offer a biologist. He lived to feel the hardships of war, and later experienced the changes in society which suddenly seemed to open unlimited horizons for biological research. And by helping to shape biological research on behalf of crop protection, he has carried the torch of our predecessors, such as Ritzema Bos, Westerdijk, Quanjier, and Leefmans, in a honourful way: he has been instrumental in broadening the social impact of plant pathology.

We all join in wishing Ten Houten many more fruitful years in teaching at Wageningen University, now that the heavy burden of his Directorship of IPO has been taken from his shoulders.

J. de Wilde*

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Book review

L. Bos & G. S. Roosje (ed.): *Van plantenziektenbestrijding naar gewasbescherming. Een bezinning naar aanleiding van 25 jaar IPO-onderzoek.* (With a summary: From disease and pest control to crop protection; a reflexion on the occasion of 25 years IPO research). 123 pp., Meded. No. 666, Instituut voor Plantenziektenkundig Onderzoek, Wageningen, 1974. Price Dfl. 15.

In the preface of this book, written to commemorate the 25th Anniversary of the Institute of Phytopathological Research (IPO), Wageningen, the Netherlands, the chairman of the board stresses that this book is more than a survey of the research on crop protection carried out at IPO during the last quarter of a century. From this period lines of development are extrapolated into the future as well. Thus, important material is provided for the institute's future research policy, and a contribution is made towards a general insight into crop protection problems.

In the course of time, emphasis has shifted from control of individual disease agents to more integrated systems of crop protection exploiting natural regulatory systems and genetic plant resistance.

Four chapters (2-5) deal with diseases and pests in general, their importance and the indispensability of scientific research. Diseases and pests are defined as natural phenomena that come to the fore especially in crops where natural diversity is restricted (2). Exact data on crop losses due to diseases and pests are rare, but there are many examples indicating their tremendous direct and indirect impacts on agriculture and human society as a whole (3). The future of diseases and pests in a highly technical and chemically regulated agriculture or in a more biologically treated agriculture are hard to predict. Since crop husbandry is continuously changing and there is an increasing international exchange of plants materials and products, the distribution and occurrence of diseases and pests continuously change, demanding constant attention by scientists (4). Most applied research in crop protection has been concentrated at IPO and has certainly contributed to the increase in agricultural production in the Netherlands (5).

In five chapters (6-10) IPO research on prevailing trends in diseases and pests is discussed.

During the first years of IPO, research on insects and mites aimed at refining the chemical control of important pests in various crops. Research on biological and integrated control started in 1956, attempting to benefit agriculture by employing natural regulatory mechanisms.

In nematode research (7) study of population dynamics has been emphasized as an essential basis for practical control.

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