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Fifty years of *Plant Pathology*

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Introduction

It is hard to realise that until the publication of *Plant Pathology* in 1952, the United Kingdom had no journal dedicated to plant pathology and, until 1981, plant pathologists had no UK learned society. The American Phytopathological Society first published its journal, *Phytopathology*, in 1911. Most UK papers on research related to plant pathology found their way to the *Transactions of the British Mycological Society* (first published in 1897) or the *Annals of Applied Biology* (first published in 1914). The early history of *Plant Pathology* is inextricably linked to the Ministry of Agriculture, Fisheries and Food (MAFF) and its advisory service the National Agricultural Advisory Service (NAAS) formed in 1946, later to become, in 1971, the Agricultural Development and Advisory Service (ADAS). Some of the key dates have been recorded elsewhere (Hardwick, 1998).

A meeting of a joint subcommittee of NAAS plant pathologists and entomologists on publications, held on 7 January 1947, recommended that a new technical periodical be published by MAFF devoted to agricultural entomology and plant pathology. Present were: Dr W A R Dillon-Western, Mr W E H Hodgson, Mr S G Jary, Mr W C Moore, Mr L Ogilvie, Mr L N Staniland, Dr I Thomas and Dr J H Western. They recorded:

"The need for such a publication is great, and the subject, though very wide, is a self-contained one. As envisaged, such a 'Plant Pests and Diseases Reporter' or a 'Plant Health Gazette' would in no way conflict with scientific journals such as the 'Annals of Applied Biology'. Among the subjects that might be included in a periodical of this nature are:

(i) Short but informative scientific articles on pests and diseases new to the country.

(ii) The results of co-operative survey work (e.g. the special onion diseases surveys of 1943 and 1945).

(iii) Preliminary results of field trials of considered value, yet not suitable for existing scientific journals (contributions of this nature find their way at present into Agriculture, Grower, Fruitgrower, Gardeners, Chronicle, etc.)

(iv) Some of the most interesting and informative items on the prevalence of pests and diseases now included in the Monthly Summaries issued from Plant Pathology Laboratory.

(v) Information about the Ministry's Approval Scheme for Insecticides and Fungicides, with lists of approved products.

(vi) Explanatory notes on D.I.P. Acts and Orders, and Health Certification Schemes.

(vii) Digests of English and foreign literature on topical subjects."

On 13 February 1948, the first meeting of the NAAS Conference of Advisory Entomologists and Plant Pathologists Joint Sub-Committee on Publications was held, and W C Moore (Moore, 1969) was elected Chairman. At the meeting it was agreed that the Plant Pathology Laboratory at Harpenden ('Path Lab', now incorporated into the Central Science Laboratory at York) would complete a specimen number of the proposed journal from existing material. It should contain 30–40 pages and include illustrations. It was thought that such a publication would be issued quarterly. Members were asked to think of an appropriate name for the periodical. At its meeting on 19 December 1949 it was reported that the proposal for a technical journal had received support from people within the Ministry and that one of the occupants of the new posts at Path Lab, sanctioned by the Treasury, could act as the technical editor of the journal.

In 1949, W C Moore became Director of the Path Lab and in 1950 recruited E C Large from NAAS, who was then based at Cambridge, to promote the systematic collection of quantitative data and assessment keys for individual diseases. Large was formerly a colloid chemist who had developed a dry bentonite-copper-oxychloride fungicide for use either as a dust or spray. He had been appointed in 1941 as assistant to A Beaumont at Seale-Hayne Agricultural College in Devon to work on the control of potato late blight (*Phytophthora infestans*) (Colhoun, 1993). Moore's idea was for Large's unit to provide a technical service for the NAAS Disease Assessment Committee, previously run by the British Mycological Society (BMS). Moore also wished to capitalize on Large's writing abilities and he was to edit the proposed new journal. Large was, of course, by then famous for his work *Advance of the Fungi*, a book that was to influence many a budding biologist into a career in plant pathology (Large, 1940). Large's account of the potato blight epidemic that was to ravage Europe, and

Table 1. Editors and Senior Editors of *Plant Pathology*

Dates	Editor
MAFF Editors	
1952–63	E C Large (plant pathologist)
1952–69	A H Strickland (entomologist)
1964–75	J J Baker (plant pathologist)
1969–81	M Gratwick (entomologist)
1976–81	D L Ebbels (plant pathologist)
BSPP Senior Editors	
1982–84	B E J Wheeler
1985–89	P R Scott
1990–94	M J Jeger
1995–2000	R Johnson
2000–	R C Shattock

particularly Ireland, in the middle of the 19th century remains one of the most vivid.

On 24 February 1950, a meeting was held between Path Lab and MAFF officials to consider the proposal for the journal with the suggested title 'Plant Health Record'. On 29 August 1950 Moore, assisted by Large, prepared a Memorandum concerning the content of the journal for submission to Establishments Branch of MAFF and Her Majesty's Stationery Office (HMSO) with a new proposed title of 'Crop Protection Record' in medium or Royal octavo size to be issued quarterly at first, but later monthly or bimonthly if necessary. The proposed editorial arrangements were that a senior scientist on the staff of Path Lab should act as technical editor, and the NAAS Conference of Advisory Entomologists and Plant Pathologists would act as a standing technical editorial board to referee manuscripts (refereeing remained informal and in-house until the mid-1960s when referees were selected, according to their expertise, from organizations across the UK). It was proposed that an initial run of 1000 copies be printed, with free circulation to Government specialist officers in entomology and plant pathology, and to individuals or departments at research stations and universities who made a contribution to the MAFF intelligence service on pests and diseases. Also, it would be sent to divisions in departments of agriculture within the Commonwealth and to official foreign government plant protection institutes. It was proposed that it would be offered as a saleable publication to libraries and individuals in the UK and abroad. Moore, on 28 September 1950, recorded in a letter that the Civil Service Commission had assigned to Path Lab a "suitable man for the entomological side of the assessment work" who would act as editor of the entomological papers. He was A H Strickland who was then on leave from the Gold Coast (Ghana).

In a hand-written memo of 3 February 1951, E C Large reported that Establishments had turned down the Technical Journal without consulting HMSO or Treasury. The Treasury must sanction all new publications, and Establishments considered that there was no case for the proposal to be forwarded to the Treasury. Moore wrote to Establishments on 13 February 1951 making a strong case for its publication. There followed a period of lengthy correspondence between Path Lab and officials at MAFF, Treasury and HMSO concerning details of content and proposed distribution, culminating in a letter from the Treasury in August 1951 conveying agreement to its publication. They indicated that the journal should pay its way and the number of free issues should be kept to a minimum.

On 28 August, Dr Joan Moore (Anonymous, 1986), in her capacity as Secretary of the Publications Sub-Committee, wrote to its members indicating that staff at Path Lab had considered the tentative title of 'Crop Protection Record' and no one was content; they therefore proposed the title 'Plant Pathology'. Decisions were taken on 3 September 1951 that the main title be 'Plant Pathology' with a subtitle 'A periodical for Plant Diseases and Pests' and that the size should be Royal octavo, with up to 40 pages, published quarterly in March, June, September and December. From the outset, a double page of art paper bearing black-and-white photographs was present in the centre of each issue. The first issue was printed on 27 March 1952 with 36 pages at the price of four shillings (20p) per issue. Demand for the first volume was such that the print run was increased from 1000 to 1250 for issues in Volume 2.

Moore (1952) set out the purpose of *Plant Pathology* in his introduction to the first issue:

"THE SCIENCE OF PLANT PATHOLOGY is concerned with all pathological conditions in plants and plant produce, whatever causal agent is involved. It therefore provides common ground for the mycologist, entomologist, virus worker, helminthologist, bacteriologist, nutrition or soil chemist, meteorologist, and plant physiologist, each specializing along his own lines, but collaborating closely with workers in cognate branches. The periodical PLANT PATHOLOGY, like the science from which it takes its name, will be wide in its scope. It will contain original contributions on plant diseases caused by fungi, bacteria, viruses and eelworms; on plant pests, including those of stored products; on damage by rodents and birds; and on nutritional and physiological disorders. It is intended primarily for the prompt publication of information on the incidence, distribution, recognition and control of plant diseases and pests in Britain. It will record survey work, including estimates of crop losses, and contain much matter of topical interest on preliminary experiments and their provisional interpretation, of forecasts, and on precautionary measures.'

And so *Plant Pathology* was produced relatively unchanged for 30 years under the ownership of MAFF as one of its scientific journals and published by HMSO.

1952–81

Editorial responsibilities during MAFF's ownership were shared between entomology and plant pathology colleagues acting simultaneously at the Plant Pathology

Laboratory, Harpenden (Table 1). The first 30 years of *Plant Pathology* is a history of discovery and practical advice, charting and informing on both specific and wider issues that affected UK agriculture and horticulture. It was fitting that the first paper in *Plant Pathology* was on a highly practical subject, of immediate concern to growers and written by Large (1952a). It was on seeking replacements for sulphuric acid as a potato haulm desiccant, initiated because of a then world shortage of sulphur, and a desire to find materials that could be used through ordinary farm equipment. It is interesting to note that half a century later sulphuric acid is still the preferred material and is used on 70% of potato crops (Bradshaw *et al*., 1999).

There were some key papers published during these 30 years, including those of Large on disease/yield-loss relationships and the control of potato late blight (*Phytophthora infestans*) (Large, 1952b; 1953; 1956). Understanding of the development of plants in relation to the environment and disease progress is important, and Large (1954) published an illustrated key of the Feekes scale of development stages in cereals that became the standard reference for pesticide application. It was only replaced as the national standard by the decimal key of Zadoks *et al*. (1974) 20 years later.

The study of cereal diseases also became important when it was perceived that yields were beginning to suffer as a consequence of disease. National surveys, first of spring barley and then of winter wheat, were established to identify the major diseases (King, 1972; 1977). Large & Doling (1962) measured the effects of cereal mildew (*Erysiphe graminis*) on yield, and Jenkins *et al*. (1972) examined the use of fungicides for the control of diseases of spring barley in south-west England. Intermittent surveys of diseases in horticultural crops were also undertaken (Fletcher & Harris, 1979).

Of the many surveys published on pest damage, the most comprehensive were those on yield losses in Brussels sprouts caused by the cabbage aphid (*Brevicoryne brassicae*) in England and Wales in 1946–55 (Strickland, 1957), and on wireworm (*Agriotes lineatus*) damage to potato crops in England and Wales in 1954–60 (Strickland *et al*., 1962). Crop losses caused by cereal pests were also featured, and the impact of the grain aphid (*Rhopalosiphum padi*) on wheat ears was investigated. Results of this work have had a major impact in identifying both crop development stages and infestation levels as a guide to the justified use of aphicides for the control of this pest (George & Gair, 1979). A 25-year study of the carrot fly (*Psila rosae*) in eastern England (Coppock, 1974) provided information on the incidence of damage to carrot crops, as well as basic data on the life history and seasonal activity of the pest, with a view to considering nonchemical means of control.

The emerging crisis to wildlife in the early 1960s, as a result of the widespread use of persistent organochlorine compounds, such as aldrin, dieldrin and heptachlor, led to the publication of two supplements, collated by A H Strickland, on possible chemical alternatives (Anonymous, 1965, Anonymous, 1967).

Developing rapid diagnostic tests was an important area of interest, particularly for the plant health services. For example, Graham (1963) described a serological test for black leg (*Erwinia carotovora* ssp. *atroseptica*). Also of interest to plant health were the introduction of alien pests and diseases and their eradication or containment. During the late 1970s the American serpentine leaf miner (*Liriomyza trifolii*) was accidentally introduced into commercial nurseries in England and Wales, but was successfully eradicated after a rigorous campaign (Bartlett & Powell, 1981). Baker (1967) reported on the first outbreaks of chrysanthemum white rust (*Puccinia horiana*) in 1963 and the attempts made to eradicate the disease. The ability to illustrate symptoms of this disease highlighted the value of the journal's provision for black and white photographs.

Assistance with pest identification was provided by keys on British aphids of economic importance (Stroyan, 1952), root-lesion nematodes occurring in Britain (Corbett, 1970), and lepidopterous larvae attacking aerial parts of brassica crops in the UK (Emmett, 1980).

Guile (1966) published a paper on cyst chromogenesis in pathotypes of the potato cyst nematode (*Heterodera rostochiensis*) that stimulated further studies at Rothamsted and elsewhere on morphological differences between the pathotypes, and the recognition that there were two species, namely *H. rostochiensis* and *H. pallida*. Cooke (1973) showed that ectoparasitic nematodes of the genera *Longidorus*, *Trichodorus* and *Paratrichodorus* were pests of economic importance to the growing of sugar beet.

The development of sex-attractant traps to monitor pea moth populations (Macaulay, 1977) was a major advance in the control of this pest. The traps enabled growers to predict when sprays should be applied and when they were unnecessary.

During this period there were great advances in the biological control of cucumber pests. Early experiments demonstrating successful control of the red spider mite (*Tetranychus urticae*) by its predator *Phytoseiulus riegeli* (Legowski, 1966) eventually led to large-scale commercial trials of an integrated control programme that combined chemical and biological agents (Gould, 1971). Work on mass-rearing the two key biological agents was published by Scopes (1968, 1969).

Other key papers included Hirst *et al*. (1955) on the use of volumetric spore traps for identifying ascospores of *Venturia inaequalis* as the main source of apple scab and indicating their value in disease forecasting. Smith (1956) published his potato late blight forecasting scheme, which was to replace the Beaumont Period and remains the standard scheme for the UK.

An important role for the journal was the publication of a section on 'New or unusual plant diseases and pests in England and Wales'. The series began with the second

issue of Volume 2 in 1953 (e.g. Storey & Wilcox, 1953). This provided a vehicle for the publication of short reports on interesting occurrences of established pests and diseases and on those that were new to a region or host. 'England and Wales' was dropped and 'unusual' changed to 'uncommon' in Volume 5, issue Number 2. A further change to 'New or unusual records of plant diseases and pests' occurred in the first issue of Volume 27.

Weather has a crucial effect on the incidence of pests and diseases and, for the first 30 years, each volume of *Plant Pathology* was an important source of meteorological data for the previous year. Twice yearly, the Agricultural Section of the Meteorological Office provided a summary, with histograms, of the weather for the previous 6 months in six regions of England and Wales.

As well as the science, the pages also contain, to the discerning, a history of the advisory services and their scientists. Any student or research worker setting out on a new project could benefit from scanning the contents of these volumes, as they contain many gems of information that may prevent the proverbial 're-inventing of the wheel'.

MAFF, BMS, AAB, FBPP, BSPP and Blackwell

In 1966, to meet the demand of British plant pathologists to have their own learned society, the Federation of British Plant Pathologists (FBPP) was born under the parental control of the Association of Applied Biologists (AAB) and BMS, with Joan Moore as its first Chairman. By 1971 FBPP was considering producing its own journal and a dialogue took place between the FBPP and Path Lab concerning the future direction of *Plant Pathology*. FBPP wished to see it expanded and proposed greater involvement, including financial backing. This was not initially received favourably by Path Lab, as FBPP was concerned only with plant diseases and not pests – half the subject area of *Plant Pathology*.

In October 1979, as part of the policy of privatization favoured by the government under the leadership of Margaret Thatcher, the Ministry was in discussion with private publishing houses as to the part they could play in publishing Ministry material. Robert Campbell of Blackwell Scientific Publications expressed particular interest in *Plant Pathology* as he had been looking into the possibility of launching a British journal of plant pathology following a proposal put forward by FBPP, principally through Bryan Wheeler, Chris Rawlinson and Peter Scott. This proposal now received a positive response from Path Lab. On 3 December 1979, John Jenkins, a committee member of the FBPP and an ADAS Regional Plant Pathologist, wrote to the Director General of ADAS (Dr Keith Dexter) proposing a meeting to discuss the respective interests of the Ministry and FBPP in publishing *Plant Pathology* as a commercial venture. Path Lab was now generally supportive of the proposal, providing ADAS had a permanent representative on the Board of Editors, ADAS members of the Board had a final say on the standard of papers published by ADAS, and the journal was open to papers from the ADAS entomology discipline.

On 19 December 1979, Blackwell made a formal proposal to MAFF to acquire *Plant Pathology* from HMSO. This proposal had been developed with members of FBPP, who would provide the editorial skills required.

In January 1980, the retiring Chairman of FBPP, Tom Preece, wrote to members seeking their views on whether FBPP should have a journal of its own. At the same time AAB and BMS (the parent societies of FBPP) were approaching MAFF to see if they could take on the role of publishers of *Plant Pathology*. On 24 March 1980, MAFF received a formal proposal from AAB that it should publish *Plant Pathology*.

While all this was going on there was much discussion and negotiation on who was to edit the journal, and with what objectives. It was generally agreed by all parties that there was no place for two British journals of plant pathology. There was an obvious desire on the part of British plant pathologists for a scientific journal that would be a focus for publishing original scientific research on plant pathology in the UK. The FBPP did not consider that the current editorial policy of *Plant Pathology* met this need, and AAB was concerned to preserve the position of the *Annals of Applied Biology*. The Presidents of the AAB and BMS wrote to the Ministry requesting a moratorium on the sale for 4 months so that negotiations could continue. The Ministry was by then becoming increasingly weary of the whole process, and wished to close a deal. All of this elicited the comment from a senior MAFF official that, "Our scientific brethren seem adept at weaving inextricable webs". This put pressure on the FBPP to come to a speedy agreement with the AAB and BMS.

On 22 December 1980, Bryan Wheeler (Chairman of FBPP) wrote to members stating the position that FBPP wished to see a new international journal of plant pathology published in Britain by a commercial publishing house. The AAB and BMS were opposed to this. However, FBPP saw an opportunity to achieve this end by developing *Plant Pathology* into an international publication. An initial proposal to MAFF was that AAB publish *Plant Pathology* and FBPP provide the editorial board. It was always Blackwell's intention that editorial responsibility for an international plant pathology journal should be in the hands of a learned society, and it had been in negotiation with FBPP for some time. In an attempt to meet the aspirations of FBPP, AAB and BMS made an offer that there could be an 'offshoot' of the *Annals of Applied Biology* or the *Transactions of the British Mycological Society* that FBPP could edit.

The FBPP was faced with three options for a plant pathology journal: (i) an offshoot from the *Annals*; (ii)

an offshoot from the *Transactions*; or (iii) editing *Plant Pathology* for Blackwell. The third option was clearly preferred, and FBPP proposed this course of action to the Councils of AAB and BMS. In a letter of 8 February 1981 to the Ministry, Dr Chris Rawlinson (Secretary of FBPP) indicated that the Committee was determined to proceed with the signing of a publishing agreement with Blackwell. However, as the FBPP had no legal or financial identity outside its parent bodies it was seeking to make the necessary arrangements with them for independence so that the agreement could be signed. If that was not forthcoming, members of FBPP would found a separate society in order to sign the agreement. In a letter dated 6 February 1981, Blackwell indicated that it would be happy to sign the publishing agreement with FBPP or its successor.

On 10 February 1981, John Jenkins, Chairman of FBPP, sent an urgent message to members proposing that FBPP enter into agreement with Blackwell to develop the journal *Plant Pathology*. He indicated that if the Councils of AAB and BMS would not release FBPP from its dependence on them, arrangements would be made to found a new body which would sign the agreement. The Presidents of AAB and BMS also wrote to members indicating that they were against the agreement and seeking members' comments. To resolve this impasse a referendum of FBPP members was held. The result showed substantial majority support for signature of the agreement with Blackwell by a new body. There followed a period of protracted negotiation between MAFF, AAB and Blackwell Scientific Publications (acting with FBPP). Much of the negotiation for MAFF was handled by Dr Geoffrey Burgess (Head of the Biology Division of the Agricultural Science Service of ADAS). As it became clear to MAFF that both AAB and Blackwell/FBPP would alter the nature of the journal, the Ministry decided to go for the most profitable option. By a narrow margin this was to be the sale to Blackwell for £6000 of the title and subscription list. The sale was completed on 9 April 1981, and Blackwell Scientific Publications assumed responsibility for publication of *Plant Pathology* from the first issue of Volume 30.

A new society was therefore formed to sign a publishing agreement with Blackwell, and the FBPP ceased to exist. The new society was the British Society for Plant Pathology (BSPP) which came into being on 8 April 1981. Bryan Wheeler, as Chairman of the BSPP Steering Committee, wrote to prospective members setting out details of the 'new' *Plant Pathology* and inviting former members of FBPP and colleagues to make a financial donation to fund the new society, so becoming Founder Members, and also to take out a subscription. *Plant Pathology* was to be an international publication, developed from the MAFF journal and maintaining the sequence of volumes. Under the terms of the publishing agreement with Blackwell, BSPP would receive the greater part of any surplus made by the journal, thereby providing a financial platform for the development of the Society. With a streak of confidence, BSPP negotiated a clause that would give it the right to buy the journal from Blackwell after 5 years at half its market value. At the time, with negligible funds available to the Society, the likelihood of this materializing must have seemed remote.

Thus, through the rough and tumble of this intriguing piece of scientific politics, a new international journal and a new learned society were born. Each depended on the other. Furthermore, the whole deal depended on the interplay between scientists and the commercial publishing sector. Since the scientists themselves had no capital to work with, this relationship was essential to initial progress. The key players in this ultimately successful bid to break away from previous constraints were Robert Campbell for Blackwell Scientific Publications, and Bryan Wheeler, Chris Rawlinson and Peter Scott for the scientists.

1982–2001

1982 saw publication of the first issue of *Plant Pathology* edited by BSPP, completely redesigned and fully international in scope. Its first Senior Editor was Bryan Wheeler (Anonymous, 1991), Reader in Plant Pathology at Imperial College, University of London. In his editorial preface Wheeler (1982) set out the aims and objectives of the 'new' journal. The journal would publish research papers and critical reviews on all aspects of our science and from any country. Scripts would be subjected to peer review and a 10-strong Editorial Board was created, including Marion Gratwick and David Ebbels from the MAFF days, also with a Deputy Editor (Peter Scott of the Plant Breeding Institute, Cambridge). An Advisory Board of 23 distinguished scientists was established encompassing 15 countries to provide its international credentials. (The Advisory Board was disbanded in 1992, together with the post of Deputy Editor, with many becoming members of the Editorial Board; in 1999 there were 40 members of the Editorial Board from eight countries.)

Some continuity was retained with the original journal, including the numbering of volumes and publication of short reports on 'New or unusual records' of plant diseases. Also, but only for 3 years, papers would be accepted on pests from the UK and the Republic of Ireland. However, the publication of weather records was dropped. Publication of 'New or unusual records' ceased in 1994. This was largely because no-one could be found to pick up the editorial work following Brian Sutton's and Roger Cook's retirement as editors of this section. Because of popular demand for a vehicle for publication of such records, in 2000 BSPP established a new web-based publication, *New Disease Reports*, edited by Claire Sansford of the Central Science Laboratory, York. These are collectively published twice a year in *Plant Pathology*.

It was fitting that the first issue edited by BSPP should be prefaced by a personal reflection by P H Gregory on

Figure 1 The four covers of *Plant Pathology* (bottom to top: the original cover during publication by HMSO from 1952 to 1981; the first cover under editorship of BSPP from 1982 to 1997; the change in size and cover design to advertise and commemorate the 7th International Congress of Plant Pathology held in Edinburgh in 1998; and the first issue in the current cover format from 1999).

E C Large and the previous 30-year history of the journal (Gregory, 1982). Gregory highlighted the achievements of Large in developing methods of measuring diseases and assessing crop losses, and also in establishing the value of surveys in providing data on identifying which diseases are worth controlling and how to forecast their occurrence and development.

The journal flourished from its new start in 1982. As a result, BSPP became financially secure so that during 1986, under the 5 year clause in its agreement with Blackwell, negotiations took place concerning purchase of the journal by BSPP. These led to agreement that half the market value of the journal was £20 000, and on 1 January 1987 the ownership of the journal passed into the hands of the now well established Society for this amount. Blackwell Scientific Publications (later Blackwell Science) would continue to publish the journal for an agreed period. It was fitting that the negotiations for the purchase were undertaken in Bryan Wheeler's Presidential year and with Peter Scott as Senior Editor.

A further change in the management of the journal occurred in 1987 when it was decided to pay the Senior Editor an honorarium, in compensation for the work involved with an increasingly popular journal, and in the light of increasing reluctance of employers to shoulder the burden of these extramural activities. The Senior Editor could no longer be an Officer of the Society, as under charity laws officers could not benefit financially from their position. An Extraordinary General Meeting was convened at the University of East Anglia to agree the necessary changes to the Society's constitution. The Senior Editor is now an appointment of the Board of the Society and continues to be for a 5 year term.

The journal remained relatively unchanged in format until 1998, when the opportunity arose for a change of cover design to promote the 7th International Congress of Plant Pathology held in Edinburgh and organized by BSPP. With a change in cover came a change in format from 'small format' (248 × 172 mm) to sub-A4 (276 × 210 mm). Following the commemorative Congress volume a new cover design was instituted which,

while retaining the traditional blue background, included a photograph from one of the papers included in that issue or from other sources (Fig. 1). In the original small format there were just under 400 pages in 1982, with four issues. It expanded to more than 600 pages by 1985, and to 650 by 1991, and was changed to six issues per year in 1992, with almost 800 pages. It reached a maximum of more than 1100 pages in small format. The sub-A4 format converted from 1100 to an estimated 804 pages, and in 1998 there were 810 pages. Thus *Plant Pathology* has shown a gradual increase in volume to three times its original size, indicating its increasing popularity as a vehicle for publication.

Under the editorship of BSPP the style and content of the journal have moved from one of practical national relevance to a journal of international significance, with over 70% of papers originating from overseas. Its subject area is still mainstream plant pathology but, while it has gained a reputation for publishing quality scientific investigations, it has lost some of the intimacy it had with recording the solving of immediate problems facing the agricultural and horticultural industries. This is a sadness for some. The change from practical field-based towards more laboratory-based work can be traced through papers such as those describing ELISA for the diagnosis of spiroplasmas (Archer *et al*., 1982; Eden-Green, 1982), also the gradual introduction of newer diagnostic tests such as monoclonal antibodies and molecular genetic techniques (Baulcombe *et al*., 1984). Genetic transformation of DNA (Madhosingh & Orr, 1985); cloning of genes (Rosner *et al*., 1986); and the increasing use of molecular techniques for population studies of pathogens and diagnostic techniques were reported early in their development (e.g. Priestley *et al*., 1992). Population studies in relation to pathogens of wild hosts have also featured (Burdon & Jarosz, 1992). In the 1980s there were several papers recording the development of fungicide resistance in plant pathogens when it first became an important problem (e.g. King & Griffin, 1985; Locke & Fletcher, 1988). Throughout the life of the journal the epidemiology of plant diseases has been prominent, and this has become more mathematical and model-based (e.g. Jeger, 1983) and 'chaotic' (Shaw, 1994). Also the influence of plant structure on disease development is of increasing consideration to epidemiologists (e.g. Lovell *et al*., 1997), not forgetting the dispersal of plant pathogens, particularly by rain splash (Walklate, 1989; Walklate *et al*., 1989). A link with the 'old' journal was the publication of computer mapping of beet cyst nematode, and this also provided an early example of the use of geographic information systems (GIS) (Whiteway *et al*., 1982). Field-based mycological papers were also included, a good example being a paper on *Armillaria* that altered thinking on the ubiquitous *A. mellea* (Rishbeth, 1982).

In honour of Denis Garrett (Anonymous, 1984), one of the giants of British and, indeed, international plant pathology, issue Number 4 of Volume 30 was dedicated to him on the occasion of his 80th birthday (Scott, 1986). Following his death in 1989 (Anonymous, 1990) the Society instituted the Garrett Lecture (Hardwick, 1993). This was to be given each year by a distinguished overseas plant pathologist. The first lecture was delivered by Dr Jim Cook of Washington State University and published in *Plant Pathology* (Cook, 1994). The journal also published letters to the Editor (e.g. Scheffer, 1982); reviews (e.g. Harrison, 1988); book reviews (e.g. Bailey, 1982); Addresses by the Presidents of BSPP (e.g. Wood, 1984); short biographies of the Society's new Honorary Members (e.g. Anonymous, 1984); and the occasional obituary (Anonymous, 1990).

And the next 50 years? Who can tell. Publishing will change. Authors of manuscripts accepted for publication are now asked to submit copies on floppy disks as well as hard copies. In 1997 *Plant Pathology* became available online, as are its relatives, *New Disease Reports* and *Molecular Plant Pathology*, with hard copy available for those who still like to smell, feel and read the printed page. As long as there are scientists with a thirst for knowledge of their environment and the interaction between diseases of plants and their causes, there will be a need for a vehicle to communicate those ideas; what better place than in a journal with the unique title of that science – *Plant Pathology*?

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