

THE ROYAL COMMISSION ON HISTORICAL MANUSCRIPTS

Report on the correspondence and papers of

KENNETH MANLEY SMITH

(1892 - 1981)

virologist

deposited in the
National Environment Research Council Institute of Virology
Oxford

Reproduced for the Contemporary Scientific Archives Centre
(CSAC 91/2/83)

by

THE ROYAL COMMISSION ON HISTORICAL MANUSCRIPTS
Quality House, Quality Court, Chancery Lane,
London, WC2A 1HP

1983

All rights reserved

No 83/6

CONTEMPORARY SCIENTIFIC ARCHIVES CENTRE

under the guidance of the Royal Society's
British National Committee for the History of Science, Medicine and Technology

Catalogue of the papers and correspondence of

KENNETH MANLEY SMITH, CBE, FRS

(1892 - 1981)

Virologist

Compiled by

Jeannine Alton and Julia Latham-Jackson

Deposited in the Kenneth Smith Library,
Natural Environment Research Council Institute of Virology, Oxford

1983

All rights reserved

The work of the Contemporary Scientific Archives Centre, and the production of this catalogue, are made possible by the support of the following societies and institutions:

The Anatomical Society of Great Britain and Ireland

The Biochemical Society

The British Pharmacological Society

The Charles Babbage Foundation for the History of Information
Processing

The Institute of Physics

The Institution of Electrical Engineers

The Nuffield Foundation

The Physiological Society

The Royal Society of London

K.M. Smith
CSAC 91/2/83

2

LIST OF CONTENTS

Page

GENERAL INTRODUCTION

3

SECTION A BIOGRAPHICAL AND PERSONAL A.1 - A.14

5

SECTION B RESEARCH NOTES AND NOTEBOOKS B.1 - B.33

7

SECTION C PUBLICATIONS C.1 - C.72

13

C.1 - C.13 BOOKS

13

C.14 - C.72 ARTICLES AND REVIEWS

16

SECTION D LECTURES AND BROADCASTS D.1 - D.19

21

SECTION E CORRESPONDENCE E.1 - E.13

24

INDEX OF CORRESPONDENTS

26

GENERAL INTRODUCTION

PROVENANCE

The major part of the material was received from Mr. M.T. Smith (son) via the Natural Environment Research Council Institute of Virology, Oxford.

Items A.8 - A.14 were received from Dr. B. Kassanis, author of the Memoir of Smith for the Royal Society (Biographical Memoirs of Fellows of the Royal Society, 28, 1982), a copy of which is included at A.1.

DESCRIPTION OF THE COLLECTION

Smith lived to a great age, and was prolific in writing and research to the end of a life devoted to his chosen field of plant and insect viruses.

The surviving material offers only a partial picture of his career. Little personal or biographical material remains, though it is not generally known that in 1947 he was offered the post of Head of the Mycology Division at the Indian Agricultural Research Institute, New Delhi (see A.3). Smith's own research is quite well documented in Section B, and his research reports, plans and annual schemes of work at different dates are of interest (see B.5, B.8, B.23, B.28). He is known to have organised many exhibitions, but the only record of these are the correspondence at E.3, E.4, and some sample captions at B.29.

Smith wrote many books, several of which became standard textbooks regularly reprinted or updated for new editions. Samples (only) of this activity, including the continuing work of his seventies and eighties and also his own scrapbook of reviews, are at C.1 - C.13. The shorter articles and reviews at C.14 - C.72 are all additional to the technical papers listed in the Bibliography of the Memoir and give an idea of the extensive writing load Smith undertook for a more general readership.

Very few lectures, conference papers or broadcast scripts remain, and are preserved in Section D. The surviving correspondence in Section E is also disappointingly sparse.

ACKNOWLEDGEMENTS

We are grateful to:

Mr. M.T. Smith and Dr. B. Kassanis for making the material available;

Dr. J.I. Cooper of the N.E.R.C. Institute of Virology, for help and information;

Mr. C.F. Rivers, for information.

SECTION A

BIOGRAPHICAL AND PERSONAL A.1 - A.14

A.1

Obituaries:

The Times, 12 June 1981.

Memoir, by B. Kassanis FRS (Biographical Memoirs of Fellows of the Royal Society, 28, 1982).

A.2

Ms. loose pages of a diary, and miscellaneous notes for an account, of visit to U.S.A. n.d. but almost certainly during visit to Princeton, 1939.

A.3

Miscellaneous items, 1947-48.

Includes letter, 1947, offering Smith the post of Head of Division of Mycology, Indian Agricultural Research Institute, New Delhi.

Invitation to serve on Crop Committee, Advisory Council on Scientific Research and Technical Development, Ministry of Supply.

A.4

Miscellaneous items, 1953-59.

Notice of Royal Society Leeuwenhoek Lecture, given by Smith, November 1953.

Award of C.B.E., 1955-56.

Election to Honorary Fellowship, Downing College, Cambridge, May 1953.

Greetings on retirement, signed by members of laboratory, December 1959.

A.5

Miscellaneous items, 1970-81.

Election as Honorary Member, Society for Invertebrate Pathology, 1970.

Election as first 'Honorary Member' of Natural Environment Research Council Insect Pathology Unit, 1973. (This became the N.E.R.C. Institute of Virology in 1980.)

A.6

Photographs of Smith, colleagues, laboratories, including building of Plant Virus Research Unit, Cambridge.

Biographical and personal

- A.7 Miscellaneous press-cuttings.
- A.8-A.14 Information and recollections, assembled by B. Kassanis for his Memoir of Smith for the Royal Society.
- A.8 Arnott, H. J., on Smith's work at Cell Research Institute, Texas.
- Bishop, A.
- Bold, H. C., on Smith's period at Texas.
- A.9 Kassanis, B., includes notes of conversations with Lady Bawden.
- Lauffer, M. A. . Recollections of Smith in 1930s and in later years.
- A.10 re Markham, R. Smith had agreed to write the Memoir of Markham for the Royal Society, but was unable to complete the work. Includes a letter from Markham's widow, and various items passed on by John Innes Institute (photograph, photocopy of recollections of Smith drafted by Markham, at home, during his last illness).
- A.11 Matthews, R. E. F. Includes photocopies of some letters from Smith.
- A.12 Pingree, J., on Smith's period at Imperial College, London, with photocopies of early testimonials.
- Rivers, C. F.
- A.13 Samuel, G.
- Smith, M. T.
- Williams, R. C.
- Wyckoff, R. W. G., mainly on Smith's work on electron microscopy.
- A.14 Miscellaneous

SECTION B

RESEARCH NOTES AND NOTEBOOKS B.1 - B.33

- B.1 Hard-backed notebook, inscribed 'K.M. Smith. Zoology. R.C.S.', with miscellaneous drawings of specimens.
Smith studied at the Royal College of Science, 1911-14.
- B.2 Green folder, inscribed 'K.M. Smith. R.C.S. Sections. Geology'.
- B.3 Tagged folder inscribed 'Halticidae Flea Beetles', of bibliographical notes and references running 1913-20; 40 numbered pages.
- B.4 Red hard-backed folder, inscribed on spine 'Potato Virus Notes', containing ms. and typescript notes on the literature, various dates mainly 1921-31.
- B.5 Miscellaneous annual schemes of work, notes of experiments and tests to be carried out, proposed publications, etc. on viruses, c.1927-32.
Includes:
'Suggestions for Virus Disease Work', n.d.
Notes at Virus Disease Conference, 1927.
'Scheme of Work for 1928'.
'Points to emphasise in 1929 work'.
'Potato Mosaic and Tobacco. 1929 Programme'.
'Outline of Virus Work for 1930'.
'Scheme of work for 1931'.
'Suggestions for Virus Work 1931-32'.
2 pp. outline for Virus Studies on X and Y viruses, n.d.
This material was originally included with the literature notes at B.4.
See B.8, B.23, B.28 for similar material at later stages of Smith's career.
- B.6, B.7 Work on aphides.
- B.6 Correspondence and notes on aphides, 1928-30.

Research notes and notebooks

- B.7 Spiral ring-backed notebook of experiments on Rosette aphid.
Dates mainly run August 1938-July 1940. From April 12 [1939] the notes are headed 'Rockefeller Institute' (see Memoir, p.456).
105 numbered pages, and some loose pages at rear of book. There is a partly written-up account of the experiments on p.61.
- B.8 Report by Smith on work 1935-36.
Programme of work for 1937-38.
- B.9-B.14 Work on virus-free potatoes.
The material deals with a scheme to encourage a supply of virus-free seed potatoes as a useful food source in wartime, and also to experimental trials to determine the spread of X and Y potato viruses.
- B.9, B.10 Correspondence with colleagues, officials, agricultural colleges, growers and farmers re participation in virus-free seed potatoes scheme, supplies of tubets, yields and results in various localities. Some of the letters were addressed to F.L. Engledow and were passed on by him, sometimes with annotations.
- B.9 September 1939-June 1940. Includes a detailed account of the proposed scheme, February 1940.
- B.10 July 1939-January 1942. Includes reports of yields.
- B.11 'Studies on the spread of certain plant viruses in the field'.
Draft for paper, published in Ann. appl. Biol., 30, No.4. (Paper not listed in Bibliography of Memoir.)
- B.12-B.14 Miscellaneous reports and papers of Agricultural Research Council Conferences on Potato Diseases, including various reports on the Cambridge experiments.
- B.12 1943-44. Includes reports on Smith's researches.
- B.13 1945.
- B.14 1947. Mainly reports on various research projects.

Research notes and notebooks

- B.15-B.21 Work on inactivation of plant viruses and insect transmission.
This work was carried out in collaboration with D.E. Lea, and later with R. Markham (see Memoir, pp.465-467).
- B.15 Red hard-backed notebook inscribed on cover 'Rosette Transmission'. The original date inside the front cover is April 1924, and several pages have been cut out; the relevant series of experiments is headed 'Aug. 1943. Aphis Transmission of Rosette'.
- B.16 Loose pages of notes and experiments, some in Smith's hand and some in the hand of D.E. Lea, with an accompanying letter dated September 1943.
Material originally enclosed in B.15 above.
- B.17 Further ms. notes by Lea on 'Insect Transmission. Notes for possible expts.', 1944.
- B.18 Ms. notes by Smith
'Negative Mottle Transmissions with *M. persicae*', list of experiments 1938-44.
'Salient Facts in Aphis-transmission of Rosette', tabulation of experimental results.
- B.19 Extensive ms. account of work on 'Insect transmission of viruses', 99 pp. in the hand of D.E. Lea, 1943.
The work is described on p.1 as 'experiment of KMS discussed by KMS, RM [Roy Markham], DEL 30 vii 43'.
- B.20 Draft for paper by Smith and Lea on 'The transmission of plant viruses by aphides', published in Parasitology, 37, 1946.
Typescript with ms. corrections and diagrams by Lea.
- B.21 'Memo. for KMS on lesion counting', 1947, typescript with a few ms. corrections probably in the hand of D.E. Lea.

Research notes and notebooks

- B.22 Folder inscribed 'Virus Yellow's Sugar Beet Committee'.

Correspondence and papers, 1945-48, on the Virus Yellow's Sub-committee of the Sugar Beet Research and Education Committee, Ministry of Agriculture and Fisheries.

The Sub-committee was set up in January 1946, Smith being a member from its inception.

Includes miscellaneous reports and research papers, and a few ms. notes by Smith.
- B.23 Research reports, 1942-47.

Includes published note on work at Plant Virus Research Station, Cambridge, 1942.

'Progress report for year ending September 30, 1943'.

'Statement of additions and improvements required' (for Plant Virus Research Station), 1945.

Report on 'Plant Virus Research Station', with a ms. note 'Sept. 1947'.
- B.24 Material relating to the Virus Research Unit of the Agricultural Research Council, 1948. The change of name was adopted when the A.R.C. took over the Station from October 1947, and reflected its greater involvement in insect virus research (see Memoir, p.456).

Includes:

'Twenty One Years of Plant Virus Research'. 4 pp. note by Smith describing inauguration of the Unit in April 1948.

'The Virus Research Unit of the Agricultural Research Council at Cambridge', note by S. Frey, C.F. Rivers and Smith.

'Plant Virus Research Station (now Unit)', 1 p. note of the main contributions of the Station, 1927-48.

'The Importance of Electron Microscopy to the Study of Viruses', 1 p. memorandum, July 1948 (unsigned, but by Smith).

Copy of letter from Smith to N.M.V. Rothschild on staff requirements at Unit, November 1948.

Research notes and notebooks

- B.25 Black ring-backed notebook of experiments and results, mainly on filtration of plant viruses, chiefly *Nicotiana*. Various dates April-August, no year.
- At rear of book, miscellaneous pages of research notes and ideas, on plant and animal viruses and including reference to electron microscope photographs.
- B.26 Blue ring-backed notebook, inscribed on cover 'Polyhedral Diseases', containing various experiments dated 1947-52.
- At rear of book, notes for lectures on proteins.
- B.27 Miscellaneous suggestions for work on insect viruses, experiments and queries.
- 3 separate items.
- Originally tucked into B.26 above.
- B.28 Research reports, 1951-56:
- 'Report to Molteno June '51-June '52'.
- Undated report, refers to work on clothes moths, c.1952.
- 'Report June 1953'.
- 'Molteno report 1954'.
- Undated report, 1955.
- 'Molteno Ann. Rept.' 1956.
- B.29-B.33 Miscellaneous.
- These are retained as samples of Smith's material for publications and exhibitions at various periods.
- B.29 Miscellaneous labels and captions for exhibitions, some from Manchester period, others on insect vectors and electron microscopy work from later research.

Research notes and notebooks

- B.30, B.31 Two exercise-books of photographs of plants and insects.
- B.32 Envelope of photographs, 'Own Prints', of Datura Virus, etc. on French Beans.
- B.33 Microphotographs of plant and insect viruses, mainly 1952-55, most identified and dated, and inscribed 'Agricultural Research Council, Cambridge'.

SECTION C

PUBLICATIONS C.1 - C.72

C.1 -C.13 BOOKS

C.14-C.72 ARTICLES AND REVIEWS

C.1 - C.13 BOOKS

In addition to his technical papers, Smith wrote many textbooks; some of these became standard works which went into several editions and remained in print for several decades. Furthermore, Smith's sustained active interest in virus research during his retirement was matched by continuing authorship, his last book Introduction to Virology, written partly in collaboration, appearing in 1980 when he was eighty-seven.

The surviving manuscript material, which does not necessarily document all Smith's books, varies in content from research correspondence and drafts to correspondence with publishers. It is presented in chronological order of publication. In addition, there are Smith's own scrapbooks of reviews of his publications and activities at C.11 - C.13.

C.1

Plant viruses

First published in 1935 (Methuen), this was one of Smith's most successful books, reaching a 6th edition (Chapman & Hall) in 1977, reprinted 1979.

The correspondence is of incoming letters only and covers the third to the sixth editions. Though none of Smith's letters survive, it is clear that he was very punctual in meeting all deadlines and also very thorough in updating his work for successive editions. The material deals with publication arrangements, contracts and royalties, reviews, etc., and includes brief discussion of other works by Smith, Beyond the Microscope, Viruses and Introduction to Virology (qqv.).

The correspondence runs 1960-79 and is contained in Smith's original folder which bears a note of the various editions.

Publications

- C.2-C.4 A textbook of plant virus diseases
- This book was first published in 1937 (Churchill) and had reached its third edition (Longman) in 1972. A fourth edition in collaboration with A.A. Brunt was in preparation.
- C.2, C.3 Correspondence, 1936-37, from colleagues sending specimens, photographs, etc. for first edition.
- C.2 B - H
- C.3 Mc-Z
- Brief correspondence with publisher re book, 1937, is also included here.
- C.4 Correspondence, 1977-81, re third and fourth editions, with publisher (Longman) and co-author A.A. Brunt.
- C.5, C.6 The virus: life's enemy
- First published by C.U.P., 1940, with later reprints and foreign editions. The original title had been 'The virus enemy'.
- C.5 Ms. drafts of Chapters IV (part), V, VI, VII (part) of book as published, with some change of numbering.
- C.6 Miscellaneous draft notes for first edition.
- Ms. draft appendix, c.1946, probably for 1948 reprint.
- C.7 Beyond the microscope, Penguin 1943, revised 1952.
- List of contents (some variation from chapters as published) and ms. drafts for Chapters I-IV.
- Ms. draft for new material for 1952 revision, list of new figures required.
- C.8 Virus diseases of farm and garden crops, Worcester Press, 1945.
- Letter from Smith to publisher suggesting amendments to book, 1946 (perhaps for possible reprint).
- Two original photographs for book.
- Press-cutting of review.

Publications

- C.9 Virus-insect relationships, Longman, 1976.
- The title originally proposed by Smith was 'Insect viruses and insect diseases', later changed to 'A textbook of insect virus diseases' and subsequently (April 1975) to that of the eventual publication.
- General correspondence from publishers re acceptance of book, agreement and royalties, publication schedule, etc., 1973-78.
- C.10 Introduction to Virology, Chapman & Hall, 1980.
- General correspondence from publishers and co-author (D.A. Ritchie) who contributed two chapters on molecular biology. Includes initial comments on the viability of the proposed book, one of them by Ritchie.
- Also included are a few references to the good sales of the 6th edition of Plant Viruses (see C.1) and a possible 7th edition provisionally scheduled for 1981.
- C.11-C.13 Reviews and press-cuttings.
- C.11 Black ring-back notebook of press-cuttings of reviews of Smith's books, exhibitions and researches, and including some of his own letters to the press, reviews of work by others, etc., 1921-35.
- C.12 Spring-back folder of reviews of Advances in Virus Research, ed. K.M. Smith and M.A. Lauffer, Academic Press, 1953.
- C.13 Large bound scrapbook of press-cuttings of reviews of Smith's works, with some ms. lists of journals, etc. by Smith and a few letters of congratulation from colleagues, 1931-80.
- Most of the material is gummed on to the pages, but there are some loose press-cuttings and letters at the end of the volume.

Publications

C.14 - C.72 ARTICLES AND REVIEWS

The material in this sequence is all additional to the technical papers listed in the Bibliography of the Royal Society Memoir (pp.472-477). It is addressed to a wider public, including the farming and gardening communities, drawing attention to new discoveries in the virus field.

It is presented as a chronological sequence, in so far as this can be ascertained from the documents or any supporting correspondence.

- C.14 'Some virus diseases of plants'.
6 pp. typescript, n.d., c.1942-43.
- C.15 'Viruses and insects'.
14 pp. typescript article for Discovery, n.d., c.1943.
- C.16 'Raising "Virus-free" Potatoes'.
4 pp. typescript article for Monthly Science News,
n.d., c.1943.
- C.17 'The size of influenza A virus'.
Letter to Editor for publication in The Lancet arising from
review of Smith's book Beyond the microscope, with 1p. ms.
notes on influenza, 1943.
- C.18 Miscellaneous advisory leaflets on plant virus diseases
prepared for official use during Second World War.
- C.19 Letter to Editor, The Times, on virus research, April 1944.
- C.20 'Virus diseases of crops'.
Typescript article for Jl. R. agric. Soc., July 1944.
- C.21, C.22 Two reviews of F.C. Bawden: 'Plant viruses and virus
diseases', 2nd ed., for Nature and J. Path. Bact., 1944.
- C.23 Report on D.Phil thesis on potato viruses, n.d., c.1944.
- C.24 Request for article in Endeavour, July 1944 (published as
'Plant viruses', 1945).

Publications

- C.25, C.26 Two articles for The Gardeners' Chronicle, 1945.
- C.25 'A new virus disease - black ring - of the tomato', April.
- C.26 'Dahlias and the problem of virus infection', June.
- C.27, C.28 Two draft articles for Sport and Country, n.d., c.1945.
- C.27 'The invisible enemy', 6 pp.
- C.28 'What is a virus?', 8 pp.
- C.29 Note for Nature on Nobel Prize-winners for Chemistry, 1946.
- C.30 'The Plant Virus Research Station', 2 pp. note for Sport and General Press Agency, November 1946.
- C.31 'Nature of virulence in plant viruses'.
3 pp. typescript draft, n.d., c.1946.
- C.32 'Turnip yellow mosaic virus'.
Typescript and ms. draft, n.d., c.1946.
- C.33 'The virus diseases of potato and other crops'.
4 pp. typescript, n.d., c.1946 (refers to tomato black-ring).
- C.34 'Virus diseases of potatoes and their importance to the commercial grower'.
11 pp. draft article for the Journal of the Institute of Corn and Agricultural Merchants, with accompanying correspondence.
The article was commissioned and written in 1946 for the first number of the Journal which did not appear until May 1947.
- C.35 'Some facts in the relationship between insect and plant viruses'.
Brief report by Smith for Fourth International Congress for Microbiology, Copenhagen, 1947 (see E.8).
- C.36 Review of M.A. Lauffer: 'Viruses', Archives of Biochemistry, 1947.

Publications

- C.37 'Recent work on the plant viruses'.
3 pp. note for Science Illustrated, not published, with accompanying correspondence, July-October 1947.
- C.38 'The viruses in laboratory, garden and farm'.
10 pp. typescript article for The Countryman, autumn 1947, with a letter requesting article, May 1947.
- C.39 'Twenty years of plant virus research'.
14 pp. typescript article for 'School of Agriculture Memoir, October 1947'.
- C.40 'Viruses'.
8 pp. typescript article for Chambers Encyclopedia, November 1947.
- C.41 'Virus diseases of the tomato'.
8 pp. typescript article for 'Jl. of Min. of Ag.' [Agriculture], 1948.
- C.42 Review of J.P. Doncaster and P.H. Gregory 'The Spread of Virus Diseases in the Potato Crop', for Agriculture, with a little accompanying correspondence, September 1948.
See C.47 for another review.
- C.43 Miscellaneous reviews for N.A.A.S. Abstracts, n.d., 1948-49.
- C.44 'Some important plant virus diseases'.
2 articles, 6 pp. and 2 pp., for N.A.A.S. Quarterly Review, March 1948.
- C.45 'Virus Diseases'.
6 pp. article for N.A.A.S. Quarterly Review, October 1948.
- C.46 'Virus Diseases'.
10 pp. contribution to book, n.d., c.1948-49.
- C.47 Review of Doncaster and Gregory 'The Spread of Virus Diseases in the Potato Crop' for N.A.A.S. Quarterly Review, March 1949.
See also C.42.

Publications

- C.48 'A new virus disease of Tropaeolum and other plants'.
Note for The Gardeners' Chronicle, May 1949.
- C.49 'Report by Representatives of the Royal Society at the
Vth International Congress, Istanbul, 1949' (May).
4 pp. typescript draft.
- C.50 Miscellaneous short reviews for N.A.A.S. Quarterly Review,
September 1949.
- C.51 'Virus Diseases of the Sweet Pea'.
5 pp. article for 'Sweet Pea Annual 1949'.
- C.52 14 pp. typescript draft, with ms. heading 'Article for
Discovery, written November 1949'.
- C.53 Miscellaneous short reviews for N.A.A.S. Quarterly Review,
December 1949.
- C.54 'Caterpillar Viruses'.
6 pp. typescript, n.d., probably for journal of Amateur
Entomologists' Society, c.1950.
- C.55 Review of F.C. Bawden, 'Plant Viruses and Virus Diseases',
3rd ed., for Nature, 1950.
- C.56 Book review, no title or date, discussing 'trends in virus
research during the year 1950'.
- C.57 'A note on the electron microscopy of the turnip yellow
mosaic virus'.
4 pp. typescript, latest reference 1951.
- C.58 Miscellaneous shorter reviews for N.A.A.S. Quarterly Review,
1951.
- C.59 Review of S.E. Luria, 'General Virology', for Science
Progress, 1953.
- C.60 Review of Sorauer, 'Handbuch der Pflanzenkrankheiten',
c.1954.
- C.61 'Colour breaks in flowers'.
6 pp. typescript article for Discovery, May 1954.

Publications

- C.62 'Viruses in the control of clothes moth larvae'.
5 pp. typescript article, n.d., c.1954.
- C.63 'Intracellular inclusions in insect virus diseases'.
14 pp. typescript draft, with references and legends to figures, n.d., latest reference 1954.
- C.64 'Insect viruses'.
8 pp. typescript draft, with references and legends to figures, n.d., latest reference 1954.
- C.65 'Cutting ultra-thin sections for electron microscopy', note for Discovery, July 1955.
- C.66 'Viruses and cabbage white butterflies'.
3 pp. article for Farmer and Stockbreeder, n.d., but refers to invasion of cabbage white butterflies in 1955.
- C.67 'The sub-microscopic structure of insect virus particles'.
12 pp. typescript article, n.d., latest reference 1955.
- C.68 'Tobacco mosaic virus: chemical or organism?'.
5 pp. draft article, n.d., c.1956.
- C.69 'Viruses and crop protection'.
4 pp. draft article for Chemist and Druggist, January 1956.
- C.70 'A possible new method of control for the cabbage white butterflies'.
6 pp. draft article, late 1955 or 1956.
- C.71 9 pp. draft article for New Scientist on control of insect pests by viruses, n.d., 1956 (uses some similar material to C.70).
- C.72 'Viruses and insect pests'.
10 pp. draft article for Times Science Review, October 1956.

SECTION D

LECTURES AND BROADCASTS D.1 - D.19

D.1 -D.4 LECTURES AT CAMBRIDGE

D.5 -D.14 INVITATION LECTURES AND PAPERS

D.15-D.19 BROADCASTS

D.1-D.4 LECTURES AT CAMBRIDGE

D.1 pps. 17-29 of set of lectures, dated February 1936.

D.2 Set of four lectures, one dated 1951, and including bibliography updated to 1960.

D.3 Set of six lectures, n.d., 1950s, and including bibliography updated to 1960.

D.4 Three lectures for microbiologists, n.d., 1950s.

D.5-D.14 INVITATION LECTURES AND PAPERS

D.5 'Viruses and virus diseases'.

These were the Masters Memorial Lectures, given in 1948 and published in Jl. R. hort. Soc., 74, 1949.

Folder includes two typescript drafts and proof for published version, all with various ms. alterations.

D.6 'What is a virus?'

4 pp. typescript and ms. draft for paper given at 'Cocoa and Choc. Conf.', August 1949.

D.7 'The control of plant virus diseases'.

Paper for unnamed conference. Includes miscellaneous emendations from F.C. Bawden, and a letter of comments from him, April 1951.

D.8 'The problem of latency and cross-infection in the polyhedral virus diseases of insects'.

Paper given by Smith at a Symposium on Some Present Problems of Virology, Lausanne, May 1953.

Smith attended as a representative of the Society of General Microbiology, and a 2 pp. report by him on the symposium is included.

Lectures and broadcasts

- D.9 Lecture on insect virus diseases, given in Madrid, March 1954.
Smith gave a course of seven lectures, but only the Spanish translation of one of them survives.
Folder includes notice of complete course, and short report by Smith on his visit.
- D.10 'Morphology of insect viruses'.
Short note for paper or conference, headed 'Lausanne May 1955'.
- D.11 'Advancing frontiers of virus research'.
9 pp. typescript, and a 'Shortened version for Italy, August 1955', 8 pp.
- D.12 Nine lectures on plant and insect virus diseases, given at Milan, 1956, under the auspices of The British Council.
English and Italian versions of lectures, brief report on visit.
- D.13 Undated lectures (all ms.):
'Roy. Soc. Trop. Med.'
8 pp. slide lecture on viruses.
11 pp. lecture on 'Purification'.
- D.14 'Soil transmission'.
3 pp. slide lecture on viruses.
'Virus Strains'.
- D.15-D.19 BROADCASTS
- D.15 'Insects in relation to disease in our crops'.
Typescript and ms. talk dated May 1924.
- D.16 2 pp. draft on swollen-shoot disease in Africa, probably for 'Science Notebook', c.1944.
- D.17 'Potatoes and the X Virus'.
Contribution to 'Science Notebook - Chapter 114', broadcast in various B.B.C. overseas programmes, March 1945.

Lectures and broadcasts

- D.18 Talk on virus diseases of crops.
Typescript draft with ms. note 'B.B.C. Script for Turkey',
n.d., c.1952.
- D.19 'Cabbage-whites and viruses: a new method of biological
control'.
Contribution to B.B.C. Home Service 'Science Survey',
October 1955.

SECTION E CORRESPONDENCE E.1 - E.13

Very little correspondence has survived. It is all related to virus research and is presented as an alphabetical sequence, dated and indexed.

- | | | |
|----------|--|------------------|
| E.1 | Bawden, F. C. | 1946 |
| E.2 | Bennett, C. W. | 1939, 1946, 1954 |
| | Correspondence 1939 is re research carried out by Smith at Riverside, California, during his visit to U.S.A., and encloses record of results. | |
| E.3, E.4 | British Museum (Natural History) | 1945-47 |
| | Correspondence and papers re exhibition of 'The Story of the Viruses', organised by Smith and held at the Museum. | |
| E.3 | Smith's notes for exhibits, and for an 'Introductory talk', perhaps on same occasion. | |
| E.4 | Correspondence with colleagues, technicians, etc. re organisation of exhibition. | |
| | Also included here is a request for an article on the subject for <u>British Science News</u> , 1948. | |
| E.5 | China, W. E. | 1927 |
| E.6 | Consejo Superior de Investigaciones Cientificas | 1946 |
| | Invitation to lecture in Spain, which Smith accepted, but later declined. | |
| | See D.9 for a later visit. | |
| E.7 | Dykstra, T. P. | 1932 |
| | Letter and photographs of viruses, and enclosing a letter on mosaic diseases addressed to R.N. Salaman. | |
| | Granados, R. R. | 1969 |
| E.8 | International Association of Microbiologists | 1946-47 |
| | Invitation to Smith to deliver a paper and to act as Vice-President of the Section on Plant Pathology and Mycology at the Fourth International Congress for Microbiology, Copenhagen, July 1947. | |
| | Laing, F. | 1947 |

INDEX OF CORRESPONDENTS

ALBAREDA, José	E.6
ANDREWES, Sir Christopher (Howard)	E.4, E.12
ARNOTT, Howard J.	A.8
BAWDEN, Sir Frederick (Charles)	D.7, E.1, E.12
BENNETT, C. W.	C.2, E.2
BISHOP, Ann	A.8
BJØRNEBOE, M.	E.8
BLOUNT, W. P.	E.4
BOLD, Harold C.	A.8
BRIERLEY, Philip	C.2
BRUNT, Alan A.	C.4
BUCHWALD, N. Fabritius	E.8
BURNET, Sir (Frank) Macfarlane	E.12
BUTLER, Sir Edwin John	B.10
CARTER, Walter	C.2
CHINA, W. E.	E.5
DALLING, T.	E.4
DARLINGTON, Cyril Dean	E.12
de GRYSE, J. J.	E.9
DONCASTER, John Priestman	E.4
DOOLITTLE, S. P.	C.2
DYKSTRA, T. P.	E.7
FILDES, Sir Paul	E.11
FINDLAY, G. M.	E.12
FORSTER-COOPER, Sir Clive	E.4
GLOVER, Ronald	E.4
GRANADOS, Robert R.	E.7
GRAY, Sir James	E.4
GYE, W. E.	E.4

Index of correspondents

HADDOW, Sir Alexander	E.12
HARRIS, Ralph O.	C.2
KASSANIS, Basil	A.9
KNIGHT, Bert Cyril James Gabriel	E.12
LAING, Frederick	B.6, E.4, E.8
LAUFFER, Max A.	A.9
LEA, Douglas E.	see B.16-B.21
MAC CLEMENT, W. D.	E.9
McCLEAN, A. P. D.	C.3
MACLEOD, D. J.	E.9
MARAMOROSCH, Karl	E.9
MARKHAM, Roy	See A.10, A.11, E.10
MATTHEWS, Richard Ellis Ford	A.11
MATSUMOTO, Takashi	E.10
MIDDLETON, Sir Thomas H.	B.9, B.10
MUNGOMERY, R. W.	C.3
MUNRO, J. W.	B.6
NIXON, Harold	E.10
NODA, Haruhiko	E.10
PAL, B. P.	C.3
PINGREE, Jeanne	A.12
REID, Edgar C.	E.10
RITCHIE, Donald A.	C.10
RIVERS, Claude F.	A.12
ST. JOHN-BROOKS, R.	E.12
SALMON, E. S.	C.3
SAMUEL, Geoffrey	A.13, B.10
SKEAT, W. O.	E.4
SMITH, Marcel Travers	A.13
TAYLOR, George	E.13
THOMSON, Andrew D.	E.13

Index of correspondents

VENKATARAYAN, S. V.	C.3
WATERSTON, James	B.6
WHITBY, Sir Lionel	A.4
WILLIAMS, Robley C.	A.13
WYCKOFF, Ralph Walter Graystone	A.13
ZAUMAYER, W. J.	C.3