dicotyledons and often under different names.

Other viruses first reported in Australia, like carrot motley dwarf (8), lettuce necrotic yellows (9), and broad-bean wilt (7), since have been found in other geographic regions. The vectors of carrot motley dwarf, and lettuce necrotic yellows are introduced aphid species, *Cavariella aegopodii* (8), and *Hyperomyzus lactucae* (9) respectively. This indicates that these viruses were also introduced, according to principle (v). However, passionfruit woodiness virus (10), and subclover stunt virus (5), have not yet been reported from other geographic areas. This may mean they have not been recognised in these areas, or that these viruses came from the Australian indigenous flora (principle iiib). The fact that no field resistance or tolerance has been found for passionfruit woodiness virus in the three indigenous species of Passiflora in Australia (4), suggests that the virus may have been introduced in species of *Passiflora* from both, or either the Old World (3), or the new World. An investigation into the resistance and tolerance of these species may throw light on the source of this virus. It would be challenging and perhaps rewarding to apply the ecological principles to this and similar viruses so far only reported from Australia, and upon which the hypothesis partly stands or falls. It is hoped that the challenge of this hypothesis will stimulate further research to refute or substantiate it.

References

(1) Bennett, C.W. (1952) — Origin and distribution of new or little known virus diseases. *(U.S.D.A. Plant Disease Reporter Supplement* **211**:43.

(2) Burnet, F.M. (1960) — Principles of Animal Virology. (Academic Press : New York).

(3) de Wild, W.J.J.D. (1970) — The indigenous Old World Passifloras. *Blumea* **20**:222-50.

(4) Green, P.S. (1972) — Passiflora in Australasia and the Pacific. *Kew Bulletin* **26**: (3) 539-58.

(5) Grylls, N.E. and Butler, F.C. (1959) — Subterranean clover stunt, a new virus disease of pasture legumes. *Australian Journal of Agricultural Research* **10**:145-59.

(6) Holmes, F. O. (1951) — Indications of a New World origin of tobacco mosaic virus. *Phytopathology* **41**:341-49.

(7) Stubbs, L.L. (1947) — A destructive vascular wilt virus disease of broadbean *(Vicia faba L.)* in Victoria. *Journal of the Department of Agriculture, Victoria* **46**:323-32.

(8) Stubbs, L.L. (1948) — A new virus disease of carrots : Its transmission host range and control. *Australian Journal of Scientific Research Series B* **1**:303.

(9) Stubbs, L.L. and Grogan, R.G. (1963) — Necrotic yellows : a newly recognised virus disease of lettuce. *Australian Journal of Agricultural Research* **14**:439-39.

(10) Taylor, R.H. and Kimble, K.A. (1964) — Two unrelated viruses which cause woodiness of passionfruit. *Australian Journal of Agricultural Research* **15**:560-70.

(11) Vavilov, N.I. (1949) — The origin, variation, immunity and breeding of cultivated plants. *Chronica Botanica* **13**:1-364.

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BOOK REVIEW

Annual Review of Phytopathology

Volume 11, 1973. (Edit. K.F. Baker.) 559 pages. $US12 (U.S.A.) and $US12.50 (elsewhere)
Annual Reviews Inc., Palo Alto, California, U.S.A.

Contents:

Volume 11 of the Annual Review of Phytopathology maintains the tradition of this series as an invaluable contribution to plant pathology and is essential reading for all plant pathologists. The selection of topics and authors continues at the same high level resulting in another well-balanced volume.

As can be seen from the Table of Contents, the volume begins with a prefatory chapter of general interest then deals in depth with specific subjects under the headings of Historical Perspective, Appraisal of Plant Disease, Pathogens, Morphology and Anatomy, Physiology of Host-Pathogen Interaction, Epidemiology, Influence of Environment, Chemical Control, Biological and Cultural Control, Breeding for Resistance and concludes with an article on extension plant pathology under a Special Topics heading. Detailed author, subject and cumulative indexes are included.

The contributions that especially impressed this reviewer with their timelines in view of present trends in our subject were Hutchinson's review on volatile fungal metabolites, Mosse's on vesicular-arbuscular mycorrhiza and Day's on genetic variability of crops.

A.M. Smith.

RECENT PUBLICATIONS

Crop Loss Assessment Methods — FAO Manual on the evaluation and prevention of losses by pests, disease and weeds. Loose leaf. 276 pages. £5.

In 1967 a Symposium on Crop Losses was convened by FAO to emphasize the need for the development and use of experimental methods to estimate crop losses quantitatively. It was attended by government representatives and individuals from 36 countries and recommended that a manual of methods for estimating crop losses should be prepared by FAO.

This recommendation has been implemented by the Plant Protection Division of FAO, helped by five working groups, and in order to provide a world-wide coverage, many correspondents were also enlisted to search the literature from their areas and to compile summaries of work on crop loss methodology.

The manual includes information on current crop loss methodology covering important cereal, legume, root, plantation, grass, oil, fruit and vegetable crops. It is printed in loose-leaf form so that supplements can be added as new methods are developed.

There are 24 illustrations and 250 references.

Supplement 1. Loose-leaf. 94 pages. £1.50

This is the first supplement to the Manual described above. It contains 6 pages of updated information, 5 pages of updated content indexes, 8 pages of new information, 28 new methods and 3 new growth stage keys, and an Erratum to the Manual.

There are 2 plates, 16 illustrations and 92 references.

The above publications are available from Commonwealth Agricultural Bureaux, Central Sales, Farnham House, Farnham Royal, Slough SL2 3BN, England.

REGIONAL NEWS

Reserve holdings of the **Australian Plant Disease Reporter,** and the **Annual Plant Disease Survey** compiled in the Plant Pathology Section of the N.S.W. Department of Agriculture are to be discarded. Application for missing numbers and sets of these may be made to the Chief Biologist, P.M.B. 10, Rydalmere, N.S.W. before 30th April, 1974.

In December, **Dr. Dorothy Shaw,** Chief Plant Pathologist in Papua New Guinea, lectured on the coffee rust eradication carried out in PNG in 1965, at the invitation of FAO at a meeting on Coffee Rust in Costa Rica. The meeting was attended by delegates from Central and South American countries, as well as pathologists from Kenya and Ethiopia. Papers on various aspects of coffee rust were presented, particularly on chemical control and coffee breeding. Although the initial outbreak in Brazil was of Race II, which attacks all the New World coffees, at least three races have now been recorded there. The rust has swept through Brazil and into Argentina and Paraguay in less than three years.

Dr. J. Bowyer, at present in the Department of Microbiology, University of Queensland, St. Lucia has been appointed to the position of Lecturer in the Department of Plant Pathology and Agricultural Entomology, University of Sydney. He will take up the appointment in January 1974.

Dr. R.J. Cook, USDA Research Plant Pathologist, Washington State University, Pullman, will spend six weeks of his nine month stay in Australia with Dr. A.M. Smith and colleagues at the Biological and Chemical Research Institute, Rydalmere. The remainder of his study leave will be spent with Dr. A. Rovira and colleagues, C.S.I.R.O., Adelaide and visiting other research centres.

Dr. S.D. Garrett, who recently retired from the University of Cambridge also spent part of his three month stay in Australia with the soil microbiology group at Biological and Chemical Research Institute, Rydalmere.

Mr. Ian McIver who recently resigned from the Biology Branch of the N.S.W. Department of Agriculture has gone into private practice as a general consultant on pest and disease problems of home gardens. His laboratory is at 60 Duke Street, Forestville, 2087.

Mr. L.C. Jones has resigned from the Victorian Wheat Research Institute to take up the position of Senior Executive Officer in the Pesticides Sub-section (Food Services Branch) of the Department of Primary Industry, Canberra. Mr. Jones will serve as Executive Officer and Secretary of the Technical Committee on Agricultural Chemicals and receive, assess and recommend on submissions from manufacturers for the use of agricultural chemicals/pesticides, and will serve as Secretary of the Co-Ordinating Committee on Pesticides. He will assist in co-ordinating State and Commonwealth responsibilities in the registration, regulation and use of pesticides and prepare associated briefs.

Dr. John Brown Of the Botany Department of the University of New England was recently promoted to the position of Associate Professor.

OVERSEAS NEWS

Dr. Colin McKeen (a charter member of APPS) has been appointed to the position of National Co-ordinator for Plant Pathology in the Canada Department of Agriculture. Dr. McKeen moved to this position after spending 27 years at the Harrow Research Station in charge of Vegetable diseases. He was Head of the Plant Pathology section from 1962 until his appointment as National Co-ordinator for plant pathology.

New Members July—December, 1973

Williams, Mr. P.F.	Dept. of Agric., Box 192B G.P.O., Hobart, Tas. 7001.
Young, Lt. A.M.	C/- Wardroom, H.M.A.S. Nirimba, R.A.N.A.T.E., Quakers Hill, N.S.W. 2764.
Simpson, Mr. J.A.	P.O. Box 154, Bulolo, P.N.G.
Osborn, Mr. R.K.	Victorian Plant Research Inst., Swan St., Burnley, Vic. 3121.
Library	Dept. of Agric., Jarrah Rd., South Perth. W.A. 6151.
Victorian Mushroom Laboratories	Frankston Road, Carrum Downs. Vic. 3200.
Dow Chemical (Aust.) Pty. Ltd.	P.O. Box 384, North Sydney, N.S.W. 2060.
Sivasithamparam, Mr. K.	Dept. Soil Science, Univ. of W.A., Nedlands. W.A. 6009.
Fang, Mr. C.S.	Dept. Soil Science, Univ. of W.A., Nedlands. W.A. 6009.
Chou, Dr. S.C.K.	Forest Research Institute, Rotorua. N.Z.
Boughton, Dr. V.H.	Botany Dept., Univ. of Queensland, St. Lucia, Qld. 4067.
Reezen, Mr. A.	31 Fraser St., Middle Park, Vic. 3206.
Library Branch	Dept. of Primary Industries, William St., Brisbane, Qld. 4000.
Vermont Chemical & Seed Pty. Ltd.	37 Levanswell Rd., Moorabbin, Vic. 3189.
Univ. of Sydney, Dept. Agric. Botany	Agricultural Research Station, P.O. Box 180, Castle Hill, N.S.W. 2154.
McLennan, Dr. E.I.	6/9 Glen Street, Hawthorn, Vic. 3122.
Ralph, Mr. W.E.	Plant Quarantine Branch, Dept. of Health, P.O. Box 100, Woden, A.C.T. 2606.
Moller, Dr. W.J.	Dept. Plant Path. Univ. of California, Davis, Calif. 95616.
Zentmeyer. Prof. G.A.	Dept. Plant Path. Univ. of California, Riverside, Calif. 92502. U.S.A.
C.S.I.R.O. Central Library	314 Albert St., East Melbourne, Vic. 3002.
Rogers, Mrs. V.	Swane Bros. Pty. Ltd., Galston Rd., Dural, N.S.W. 2158.
Teulon, Mr. J.	Swane Bros. Pty. Ltd., Galston Rd., Dural, N.S.W.. 2158.
National Librarian	National Library Service, Private Bag, Wellington, N.Z.