



NC 10/68

INTERNATIONAL BIOLOGICAL PROGRAMME

Minutes of Meeting of Working Group for Section PP (Photosynthetic) held in Canberra on 15 November 1967.

PRESENT: Drs. Slatyer (Chairman), Anderson, Connor, Denmead, Herwell, Jones, Puckridge.

Apology: Dr Linacre.

- 1 First Annual Research Conference: It was agreed that the first annual research conference of Section PP should be held in Canberra on Friday, 24 May 1968. The conference would dove-tail with meetings of the Australian Society of Plant Physiologists and the Australian Ecological Society to be held in Canberra about this time. The conference would be concerned with

Estimation of Community Photosynthesis.

Although the working group recognised that the annual conferences are intended to be relatively informal meetings of those people directly concerned with Section PP, it was felt that because of the other meetings in Canberra at that time, it would be desirable to include in this conference, all interested people.

The group suggested the following structure and (tentative) list of speakers for the conference:

Estimation

Estimation of community photosynthesis by micrometeorological approaches - D. Angus

Estimation of community photosynthesis by field enclosures - D. Puckridge

Problems of measurement in spatially heterogeneous communities - I. McIlroy

Prediction and checks

Time integration of instantaneously collected data - C. Rose

Specification of canopy geometry - Margaret Anderson

Transfer processes in relation to surface parameters -  
( O.T. Denmead  
( J. Philip

Transfer processes within the canopy - I. Cowan

Distribution of photosynthetic products in relation to crop development -  
( I. Wardlaw  
( M. Canny

- 2 Australian Attitude to Simple Experiments: These experiments call for serial sampling of spaced individual plants of selected genotypes, e.g. sunflowers, beans, a maize hybrid, grown without limitations from available soil water or nutrients. The aims did not appear to be clearly defined to the committee but the general impression was that regression analyses would be made of the results to try to determine the influence of climatic parameters on 'growth'.

It was agreed that when a promised circular on 'simple' experiments from the international organisers of IBP became available in Australia, copies should be distributed to Australian participants in Section PP to determine the extent of Australian interest. The matter should be discussed at the next meeting of the group.

- 3 Conference on Crop-Climate Relationships: The suggestion of Mr C.D. Kohn that there is a need for a conference of this type in Australia was considered. The meeting felt that, in fact, such conferences occur reasonably frequently in the country; the conference proposed for next year (item 1) is one such example. One outcome of Mr Kohn's proposal has been the submission to J. Aust. Inst. Agric.Sci. of a document on climatological and physiological measurements in field experiments prepared by Dr M.C. Anderson on behalf of the working group.

It was decided to review the desirability of an IBP sponsored session at the next Cereal Agronomy Conference (August 1969) at the working group's next meeting when the response to the document could be assessed.

- 4 Reference Wheat Genotype: Dr Puckridge communicated that Dr Finlay of the Waite Institute anticipated no trouble in producing and distributing sufficient seed of the Reference variety, Pittock 62, by the end of next season (1968) if initial seed supplies could be got from Mexico and through the Australian quarantine in time. Those requiring seed are asked to contact Dr Finlay about their needs.
- 5 P.T. Check Sheet: An example check sheet circulated by the International P.T. committee and intended to provide site documentation, was examined. It was felt that it would be appropriate for PP participants to complete and return the forms to the Australian PCT committee when they became generally available.
- 6 Reports of Progress: Various members reported informally on current IBP-oriented activities. The reports indicated that those groups which were already working on appropriate projects at the outset of the IBP are well set up and operational. Others have yet to firm.

No outstanding deficiencies were apparent. The general consensus was that Australian progress in 3rd level experiments is good but the effort would be helped greatly by more moneys for this purpose becoming available.

Dr Slatyer undertook to communicate Australian progress in PP activities including the proposed 1968 conference, (item 1) to 'Biosphere'.

- 7 Other Business: Two deficiencies in the operations of the present working group were criticised: the need for the circulation of formal agendas for meetings beforehand, and the need for a minute secretary at meetings.

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16 February 1968