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EDITORIAL

Dr Donald A. Williams* in an address to the Institute of Agricultural Science, at Wellington on 19 October, clearly stated the three major water problems in New Zealand.

Firstly, he mentioned the considerable flooding problem which is attacked by river control works only; in his opinion the fantastic man-induced erosion would cause continual aggradation of river beds—forcing us to heighten stopbanks indefinitely.

Secondly, he stressed the neglect of water conservation, i.e., the maintenance of a near-optimum level of moisture in our soils. He admired our tremendous grass production, favoured by a benign climate, but considered that our production increase would soon level off if our water conservation problem was not solved.

Thirdly, he thought that water resources planning was inadequate—being seemingly governed by the water or power demands of stress periods.

The forthcoming water symposium, organised by the Institute of Engineers, will, we hope, give a definite answer to the third point. However items one and two are not specifically catered for in this symposium. In a previous editorial (Vol. 3, No. 1) attention was drawn to catchment storage manipulation as a practical complement to river control works. Many are aware of this possibility but appear powerless to act. With regard to water conservation, even the awareness is absent. In certain quarters some need is felt for irrigation in extremely dry areas, but this is the limit of the national perception.

It is not sufficiently realized that the increased production possible, in the long run, by raising fertility, is negligible compared with the increased production possible by maintaining near-optimum soil moisture levels.

An immediate and vigorous research programme should therefore be initiated to:

- (i) Investigate flood amelioration by catchment storage manipulation.
- (ii) Determine the optimum soil moisture levels for grass and crop production on our major soils, and develop methods of maintaining our lands about their optimum soil moisture levels.

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