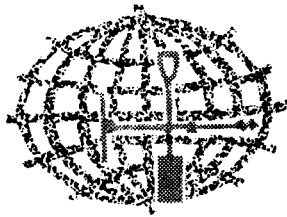


TRANSACTIONS
of
JOINT MEETING OF
COMMISSIONS IV & V
INTERNATIONAL SOCIETY OF
SOIL SCIENCE



PRINTED IN NEW ZEALAND BY
WRIGHT & CARMAN LIMITED, WELLINGTON

TRANSACTIONS
of
Joint Meeting of Commissions IV & V
INTERNATIONAL SOCIETY
OF SOIL SCIENCE

Massey University College of Manawatu,
Palmerston North, New Zealand

13-22 November 1962

Editor: G. J. Neale

INTERNATIONAL SOIL CONFERENCE,
SOIL BUREAU, P.B., LOWER HUTT, NEW ZEALAND

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Man and the Soil: The Challenge of the Past.

KELLOGG, CHARLES E.

Man and the Soil: The Challenge of the Future.

Published in *Proceedings of the New Zealand Society of Soil Science, Volume 5, 1962.*

Available from:

The Secretary,
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Private Bag, Lower Hutt,
New Zealand.

Price 5/- (60c) post free.

SPECIAL SESSION ON WORLD SOIL MAPS

This Session was led by Dr R. Dudal, FAO, Rome. A report in cyclostyled form is available on request from the Secretary of the New Zealand Society of Soil Science at the above address.

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OPENING ADDRESSES

The Governor-General, Brigadier Sir Bernard Fergusson:

His Excellency sent the following message:

I am extremely sorry not to be able to attend the International Soil Conference, but it is just not possible for me to come within the first week of my arrival in New Zealand.

This is the first time in the half century that these Conferences have been held that the Southern Hemisphere has been chosen as the meeting place. I know that New Zealanders are well pleased that their country has been selected, and that they are justified in regarding this as a tribute to the contribution of their scientists in this vital field of knowledge.

The problems you are to study are of the first importance. In many parts of the world heavy penalties have had to be paid for neglecting or ignoring them. They are no longer local; they have swiftly become global. Your discussions will concern the whole world and all its peoples.

I send you my best wishes that your deliberations may be fruitful in every way.

The Prime Minister, the Rt. Hon. K. J. Holyoake:

This meeting marks another step among the nations of the world towards a common solution of the great problems that confront mankind.

The very cornerstone of New Zealand's foreign policy is co-operation and mutual assistance to help banish want, lack of opportunity, and discord; and to create a fuller life of opportunity for the whole family of mankind. This conference is a basic contribution in that direction.

While hunger exists on such a vast scale the increase of world food resources must be a primary objective of international co-operation.

Grasslands experts aim to do this by making two blades of grass grow where one grew before, and, by making the desert blossom as the rose, at least to sustain one blade of grass where none grew before. The grasslands expert depends on the soil scientist for guidance on the best use of this most basic element of human life and sustenance.

We in New Zealand appreciate to the full the vital importance of the soil and the grass it yields. Our whole economy—and in fact our whole society—is sustained by the products of our grasslands.

Opening Addresses

In 1956 the International Grassland Congress was held in New Zealand when I was Minister of Agriculture. Today in a spirit of international cooperation we carry the work of that congress further forward in an allied field.

Soil scientists in New Zealand have always shown a very cosmopolitan approach towards soil research. They have taken what may be termed their basic soil philosophy from the Russians, their practical approach to soil in the field from the British, and many of their standards of soil characteristics, and much of their soil nomenclature, from the Americans.

All these aspects have been absorbed and integrated to produce a distinctive New Zealand approach to soils. The application of this approach has been one of the factors responsible for the efficiency of our grassland farming.

During the pre-Conference tours you will have had the opportunity of judging our approach and its results for yourselves.

I know that this Conference will give material assistance to furthering study of the soil, and that as part of the fight against hunger this will help the cause of all mankind.

The Leader of the Opposition, the Rt. Hon. W. Nash:

Mr Nash spoke on world hunger and affirmed the principle that no section of the world's people had the right to conserve for its own use resources which could be used to relieve hunger in other peoples.

"In the space of approximately half an hour since these proceedings commenced, at least 188 people have died of hunger somewhere in the world.

"Every day some 9,000 of the world's people die of hunger. About 1,000 million people live in a constant state of hunger. By the year 2,000 A.D. there will be 6,000 million people in the world, and we have to double production from the world's soils if we are to feed them."

In the midst of this want, we had the astounding position that there were countries in the world that did not know what to do with their food surpluses. The distribution of the food surpluses in the world at present would make a contribution only. It would not solve the problem in its entirety.

"We must overcome underproduction and hunger. Hunger is more devastating than war. I believe that this Conference and soil research can make a major contribution towards solving the hunger of the world and giving to every human being a chance to live a normal life."

The Minister of Scientific and Industrial Research, the Hon. W. B. Tennent:

Mr Tennent said that reasons New Zealand had been chosen as the venue of the Conference were the wide variety of its soils within

a comparatively small area and because land use here was being closely related to the information being obtained from soil surveys.

Reviewing the evolution of soil science in New Zealand, the Minister paid tribute to the pioneer workers before soil science was organised on a national basis. He told of the formation of the Soil Reconnaissance Division of the Department of Scientific and Industrial Research in 1930 to meet the crisis of acute malnutrition in stock on certain volcanic ash areas in the North Island, which was threatening to spell the end of farming on those soils. The mapping of these areas and delineation of the boundaries of the soils responsible for this so-called "bush sickness" had made it possible to write "finis" to the scourge when Western Australian work had shown that affected stock would respond to minute quantities of cobalt.

Early work of the Soil Reconnaissance Division had established the value of soil surveys and out of this organisation had grown the Soil Bureau. Over the past 30 years a very considerable fund of knowledge on soils and their potentials had been built up.

"Today we are proud of the work in this field of the Soil Bureau, Cawthron Institute, Lincoln and Massey Colleges, the Rukuhia, Invermay, and Winchmore research stations of the Department of Agriculture, and the N.Z. Fertiliser Manufacturers' Research Association. We also have good reason to be proud of the way in which the information provided is being applied by the Department of Agriculture and the Forest Service for the benefit of farming and forestry."

The Minister of Agriculture, the Hon. B. E. Talboys:

No branch of agricultural research was of more fundamental importance to New Zealand's economy than the study of soils, their needs, and their potential for production. In the application of soil science to agriculture New Zealand's soil and agricultural scientists had established an invaluable working partnership.

"The great quartet upon which our farming efficiency is based are the soil, the plant, the animal, and the farmer himself. Our soil research organisations were established to tackle problems of vital importance to our farmers and to our agriculture—problems concerned with soil fertility and plant and animal nutrition. And the considerable success achieved to date has been in large part due to the mapping and classification of our soils on a national basis. This project and others in the sphere of soil research have been closely integrated from the outset with the requirements for efficient development of our soils for farming and forestry."

Mr Talboys quoted the project, now completed by the Soil Bureau, the Department of Agriculture, and the Forest Service, for the general mapping of soils and assessing their productive potential.

The information provided by this team work had been of inestimable value in planning research projects and in farm advisory work aimed at increasing the productive capacity of soils. Another example of scientific collaboration had been the contribution by the Soil Bureau's biology division to the work which had resulted in identification by Ruakura Animal Research Station workers of sporidesmin, the poisonous principle responsible for facial eczema.

The soil testing service operated by the Department of Agriculture was another instance of fruitful collaboration between soil and agricultural scientists for the benefit of farmers; farm advisory officers took samples and when tests had been made they interpreted the results to farmers.

The correlation of the results of some thousands of field trials by the Department of Agriculture with the Soil Bureau's soil maps had enabled areas of New Zealand which were deficient in copper, molybdenum, and sulphur to be defined and their boundaries mapped.

"I believe that this purposeful scientific teamwork in the solution of the problems of our agriculture is probably the most effective tool we have for building production from our soils."

The Mayor of Palmerston North, Mr G. M. Rennie:

Mr Rennie welcomed delegates on behalf of the 43,000 citizens of Palmerston North, who were proud that the city had been chosen as the venue for the Conference, and realised that this was a tribute to the high place that Massey College held in agricultural science.

Prof. Dr F. Scheffer, Past President Commission IV:

It is a great honour for me to express thanks in the name of the many members of our Society who have come to New Zealand from all over the world, at the kind invitation of the New Zealand Government and of New Zealand soil scientists, to participate in the 1962 Conference of Commissions IV and V.

First, we thank the Government sincerely for its invitation and the warm reception that make it possible for us to visit and appreciate this most interesting country with its beautiful scenery, and to discuss freely our scientific problems, not only with scientists, but with everybody met on the tours or here in Palmerston North.

We express our deepest gratitude for the opportunity to renew contacts with many well-known scientists and to find new friends in your colleges and research stations, and, speaking in the language of soil science, to increase the exchange-capacity of friends.

We thank his Worship the Mayor of Palmerston North for his very friendly welcome to your famous University City. Living here in Massey College we have found everything we need for debating, discussion, and interchange of ideas.

We from overseas have come full of high expectations, as joint meetings of Commissions IV and V have been rare in our Society's history. We have been greatly interested, on the one hand, in your