

**Fifth
Canadian
Bioenergy
R & D Seminar**

**Cinquième
Séminaire
Canadien R & D
Bioénergétiques**

Edited by
S. HASNAIN

ELSEVIER APPLIED SCIENCE PUBLISHERS

0041296

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Bioenergy R & D Seminar

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S. HASNAIN

National Research Council of Canada



ELSEVIER APPLIED SCIENCE PUBLISHERS
LONDON and NEW YORK

ELSEVIER APPLIED SCIENCE PUBLISHERS LTD
Ripple Road, Barking, Essex, England

Sole Distributor in the USA and Canada
ELSEVIER SCIENCE PUBLISHING CO., INC.
52 Vanderbilt Avenue, New York, NY 10017, USA

British Library Cataloguing in Publication Data

Canadian Bioenergy R&D Seminar

(5th: 1984: Ottawa)

Fifth Canadian Bioenergy R&D Seminar =

Cinquième séminaire canadien R&D bioénergétiques

I. Biomass energy

I. Title II. Hasnain, S.

662'.6 TP360

ISBN 0-85334-318-7

WITH 238 TABLES AND 338 ILLUSTRATIONS

© ELSEVIER APPLIED SCIENCE PUBLISHERS LTD 1984

CODEN PBSED7

NRCC No. 23490

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Science Publishers Ltd, Ripple Road, Barking, Essex, England

Printed in Great Britain by Galliard (Printers) Ltd, Great Yarmouth

0041296

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FIFTH CANADIAN BIOENERGY R&D SEMINAR

CINQUIÈME SÉMINAIRE CANADIEN R&D
BIOÉNERGÉTIQUES

Proceedings of the Fifth Canadian Bioenergy R & D Seminar, held at the Westin Hotel, Ottawa, Canada, 26-28 March 1984

Compte-rendu du Cinquième Séminaire Canadien R & D Bioénergétiques, qui s'est tenu à l'Hôtel Westin, Ottawa, Canada, 26-28 mars 1984

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Preface

The Fifth Bioenergy R&D Seminar held at Ottawa on 26–28 March 1984, was the best attended of this series of successful seminars on the Canadian Government funded biomass research effort. Over 300 participants from Canada, US and Europe, took part in a lively debate, involving specially invited speakers and a program of poster presentations. The interest was a tribute to the internationally recognized research being actively pursued in Canada by government, universities and private industry.

The purpose of these seminars has been to create a network of Canadian researchers working on Bioenergy related problems and to promote an exchange of information and technology transfer. This practice has been the cornerstone of the Canadian Bioenergy Program strategy which strives to coordinate and integrate R&D activities.

The Proceedings include the papers of the invited speakers who presented reviews, perspectives, directions and issues. The manuscripts of the poster presentations are organized under a number of headings: Resource Assessment; Silviculture; Environmental Impacts; Energy Crops; Socio-Economic-Technical Studies; Reverse Osmosis; Planting, Harvesting and Collection; Handling, Transportation and Pretreatment; Cosolvents and Industrial Chemicals; Coproduction of Fuel and Fodder; Biogas; Gasification; Combustion; Liquefaction and Pyrolysis; Alcohol and Other Fuels; and Cellulases and Amylases.

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Préface

Le Cinquième Séminaire de Recherche et Développement en matière de Bioénergie, qui s'est tenu à Ottawa du 26 au 28 mars 1984, a marqué le record de participation de cette série de séminaires organisés dans le cadre de l'effort de recherche, soutenu par le gouvernement canadien, dans le domaine de la biomasse. Plus de 300 participants, venus du Canada, des Etats-Unis et d'Europe, ont pris part aux débats animés par des orateurs spécialement invités, ainsi qu'au programme de présentation visuelle. Cette marque d'intérêt était tout à l'honneur des activités de recherche, mondialement reconnues, déployées par le gouvernement canadien, ainsi que par les universités et le secteur privé de l'industrie.

L'objectif de ces séminaires était de créer un réseau de chercheurs canadiens, intéressés par les problèmes liés à la bioénergie, et de promouvoir l'échange des informations et le transfert technologique. Pierre angulaire de la stratégie employée par le Programme Canadien de Bioénergie, cette pratique s'efforce de coordonner et d'intégrer les activités de recherche et de développement.

Dans le compte-rendu des séances, sont compris les exposés des différents orateurs sollicités qui ont présenté des revues, des perspectives, des directives et soulevé des débats. Les textes des présentations visuelles sont regroupés sous les rubriques suivantes: Evaluation des ressources; Sylviculture; Effet environnementaux; Plantes productrices d'énergie; Études socio-économiques-techniques; Osmose inverse; Plantage, récolte et ramassage; Manutention, transport et prétraitement; Solvants carburants et chimiques industrielles; Coproduction de combustible et de fourrage; Biogaz; Gazéification; Combustion; Liquéfaction et pyrolyse; Alcool et d'autres carburants; et Cellulases et amylases.

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PLENARY PRESENTATIONS
PRÉSENTATIONS DE SÉANCES PLÉNIÈRES

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