

## P R E F A C E

The 4th International Symposium of CIEC jointly held at and by the Federal Research Centre of Agriculture (FAL) under the patronage of the German Federal Minister of Food, Agriculture and Forestry has fully satisfied the political and professional expectations. The numerous presentations and vivid discussions by and among the participating scientists pointed out both the possibilities of an appropriate utilization of farm residues and municipal wastes as well as the environmentally imposed limitations.

The results have to be seen against the present background of unsolved agricultural problems in the European Economic Community. Due to an excessive production of important food items alternatives have to be discussed which also include reducing the cultivated land used for agriculture or the intensity of crop production. Such new frame conditions will necessarily influence the use of wastes and residues in agriculture, too. Increasing environmental conscience and requirements can also be expected to place limitations on waste utilization.

During this symposium particular consideration was given to the problems of slurry, the still increasing liquid manure output from modern animal husbandry. There is no doubt that its treatment and utilization can be improved provided that the scientific knowledge existing is made better use of in agricultural practice. However, as soon as the animal stock has exceeded an acceptable proportion to the available agricultural land, administrative intervention or even state regulations cannot be ruled out any longer. Besides considering water protection, other emissions have to be taken into account as well.

The agricultural utilization of municipal wastes appears reasonable from the viewpoint of public economy, but finds its limitations as soon as it can no longer be reconciled with the dominant requirements of soil and water protection. This symposium has shown that although a lot of knowledge has accumulated in this field of research, newly arising questions are still to be solved. In addition to the outstanding contributions by the participants from 28 countries, the success of this symposium must also be attributed to the activities of the FAL and its institutions. This applies not only to an excellent organization but also to the scientific engagement of the hosting research institutes. In retrospect, Braunschweig-Voelkenrode was an ideal place for convening this conference.

It is to be hoped that these proceedings do not only document the present state of knowledge but will also further stimulate progress and the exchange of ideas in this politically most important field.

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