Struik, P.C., Vredenberg, W.J., Renkema, J.A., Parlevliet, J.E. (ed.): **Plant Production on the Threshold of a New Century**. - Kluwer Academic Publishers, Dordrecht - Boston - London 1994. 501 pp.

The book has been published as a 61st volume of the series "Developments in Plant and Soil Sciences". It is proceedings of papers presented in the International Conference at the Occasion of the 75th Anniversary of the Wageningen Agricultural University, held in Wageningen in 28 June - 1 July, 1993. In the Opening Session J.C. Zadoks pointed out the importance of plant breeding and genetics, the development of new technologies, molecular biology, ecotechnology and agrotechnology. Both, science and technology can support production processes, especially in the way of sustainability towards environment and its protection. These are also great contribution for work of plant breeders. The author regards also the economic aspect of modern technologies and processes. The perspective of modern technologies is based on harmonic dynamic balance in the nature as a product of sustainability of agricultural production as well as sustainable dynamic of the population. Analyses of changes in agriculture in the future are being done according to possible utilisation of natural resources. The practical application has been verified with support of mathematical models and interdisciplinary studies. A possible reduction in the application of biocides is in the focus due to performing of new crop rotations, growing of suitable varieties, split up application of nitrogen and other mineral nutrients. The theory of ecological agriculture is up-to-dated and adjusted including involvement of fallow land in crop rotations. The possible influence on the quality of agricultural products is discussed. The Session on Farm Management Aspect is dealing with possible utilisation of the "plants for the future". A detailed description of a model of alternative agriculture is given according to the experience from England. There are four possible ways of agriculture farming: small family farms focused on alimentary crop production, animal husbandry or both combined and on the other hand, the large-scale production technologies to be able to provide strategic raw material resources. In other sessions, the production potential of various world countries is evaluated, beginning with Denmark, the Netherlands and end up with India and Indonesia. The comparison is made between intensive fully mechanised and specialised agriculture enterprise and small family farms. Very challenging is the article assessing a possibility of micropropagation culture in the breeding programme in forestry, horticulture and agriculture. The main contribution of *in vitro* selection is an excellent health condition of new cultivars. A laboriousness of this technique and its position in marketing structure is evaluated. We were mainly interested in the paper Introduction to a Bio-economic Production Model for Sugar Beet Growing (p. 155-122). The paper is summarising possible treatments in sugar beet crop during vegetative period, when it is possible to control the processes connected with sugar accumulation in roots. The Session on Cropping System Aspects is focused on greenhouse crops, rice and sustainable ecological complexes, heterogeneity in cereals, health condition of crops and the nutrient utilisation in growth processes, dynamic of nitrogen and nutrients flow in the soil. The object of interest is the contribution about low-input technologies, based on low costs and their relation to Liebig rule about factors in minimum. The Session on Plant and Crop Physiological Aspects is dealing mainly with a problem of stress and the aspects of breeding for abiotic stress. Scientists are working for better understanding in processes of photosynthesis in defined environment on the molecular level. There are some investigations concerning the role of fytohormones in the process of potato tuberisation. Totally 35 posters are included in miscellaneous.

The book is an extremely valuable contribution for knowledge development of the specialist in the field of general and special crop production, horticulture, genetics and breeding.

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