Nátr, L.: **Koncentrace CO_2 a Rostliny.** [CO_2 Concentration and Plants.] - ISV Nakladatelství, Praha 2000. 257 pp. In Czech. ISBN 80-85866-62-5.

The global climate change including upward trend in atmospheric CO_2 concentration is evident. Therefore, it is not surprising that the investigation of plant responses to CO_2 concentration belong to the most important problems solved in plant physiology. As a consequence a huge amount of papers have been published recently in this field. Therefore a book summarizing up-to-date knowledge of climate change and its implications on plants is certainly welcome.

After a short Introduction, two chapters are devoted to observed and predicted changes in global climate, to variations in atmospheric CO_2 concetration during the past 400 000 years, and to contemporary emissions of CO_2 and other greenhouse gases due to human activities. The next chapter briefly surveys the most important methods for the measurement the short-term and long-term effects of CO_2 on plants. The fifth chapter deals with the effects of CO_2 on photosynthetic, photorespiration, dark respiration, and transpiration rates, and on stomatal conductance. It is focused on elucidation of acclimation of photosynthesis caused by long-term cultivation of plants under elevated CO_2 concentration. The sixth chapter is devoted to the effects of CO_2 on assimilate distribution and plant growth, and to interactions of CO_2 with other factors, *e.g.*, temperature, mineral nutrition, water regime, and pathogens. The seventh chapter pays attention to specificity of responses to elevated CO_2 concentration in individual plant species or plant groups. This chapter also includes comparison of plants with C_3, C_4 and CAM carbon metabolism pathways. The following chapter describes natural localities with elevated CO_2 concentration. The effects of low or extremely high CO_2 concentration are mentioned in chapter nine. Prediction of plant behaviour in the future climate is not possible without mathematical models and some of them are clarified in chapter ten. The last chapter deals with the effects of elevated CO_2 on soil properties and soil organisms.

The main drawback for many potential readers is the Czech language. It is a pity that an English summary, and plant and subject indexes are missing.

In conclusion, this book is indispensable for Czech-reading advanced students and researchers in plant physiology, ecology, agronomy, horticulture, and forestry. However, its main mission is to stir up public opinion.

J. POSPÍŠILOVÁ (*Praha*)