

Nederhoff, E.M.: **Effect of CO₂ Concentration on Photosynthesis, Transpiration and Production of Greenhouse Fruit Vegetable Crops.**- CIP, Den Haag 1994. 213 pp.

This thesis was conducted at the Glasshouse Crops Research Station, Naaldwijk. The effect of the CO₂ concentration of the greenhouse air in the range 200 to 1100 µmol mol⁻¹ was investigated in tomato, cucumber, sweet pepper and eggplant. In chapter 1 the history of CO₂ enrichment in greenhouses is reviewed and the current methods for CO₂ supply are described. Chapter 2 deals with the effect of elevated CO₂ on net photosynthetic rate. A set of regression equations relating net photosynthetic rate to irradiance, CO₂ concentration and leaf area index was fitted to the experimental data. The empirical equation approximating relative increase in photosynthetic rate by additional CO₂ was derived. The data concerning the effect of CO₂ on stomatal conductance and transpiration rate are presented in chapter 3. Multiple regression equations were also fitted to the measured data. The relation between stomatal conductance and transpiration rate was expressed by a coupling factor. The effect of CO₂ enrichment on growth and production was analyzed in the last chapter.

The readable text is accompanied by many figures and tables. This book would be very useful to all interested in theoretical and practical problems linked with CO₂ enrichment or global climate change.

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Coward, H., Hurka, T. (ed.): **Ethics & Climate Change. The Greenhouse Effect.** - Wilfrid Laurier University Press, Waterloo 1993. 199 pp. US \$ 35.00.

In 1990 an interdisciplinary team assembled at the Calgary Institute for the Humanities under the leadership of Harold Coward and Thomas Hurka to begin work on an ethical analysis of possible responses to the greenhouse effect. This book reviews the scientific evidence on the greenhouse effect. It suggests that human activities (use of oil and coal to fuel cars and produce electricity add some three billion tons of carbon to the atmosphere each year) caused the past increase in temperature and that continuation of present practices may cause even greater increases in the next century, perhaps around 2.4 °C by 2070. Following the scientific analysis the book offers religious, economic, personal, corporate, international and technological responses to the challenge of global warming. All of this discussions assume that our response to the greenhouse effect can involve either adaptation or avoidance. With adaptation we keep burning fossil fuels, let global temperatures rise, and make whatever changes this requires: move people from environmentally damaged areas, built sea walls, and so on. With avoidance we stop warming either by reducing our use of fossil fuels or by carbon dioxide recovery after combustion. It is unlikely that either pure strategy is acceptable: pure adaptation may be dangerous and pure avoidance enormously expensive. Therefore an ethically acceptable goal must involve some mixture of adaptation and avoidance.

The problem of global warming has generated considerable scientific study, however this seems to be the first attempt to focus on an ethical analysis of the problem. As such, it may evoke considerable interest from around the world.

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