van Kooten, O., Snel, J.F.H. (ed.): **Plant Spectrofluorometry: Applications and Basic Research**. – Rozenberg Publishers, Amsterdam 2002. ISBN 90 5170 609 x. 86 pp.

On the occasion of the retirement of Prof. dr. W.J. Vredenberg from the Plant Physiology Group of Wageningen University, a two-day symposium was organised in Wageningen, the Netherlands. The booklet contains eight papers presented on 17-18 April 2002 by invited speakers from the Netherlands (14 authors), Czech Republic (1 author), and Germany (1 author). The topic of the symposium was identical with the title of the symposium book.

The book is opened by a good photograph of this excellent scientist in biophysics and plant physiology, the pioneer especially in photosynthesis research. A brief story of his scientific career was written by van Kooten. Individual papers differ in contents, style, length, and quality. The first paper (by O. van Kooten and H. Peppelenbos) deals with the use of pulse amplitude modified chlorophyll fluorescence to determine the rooting potential of *Chrysanthemum* cuttings during storage. It brings original results on this topic that are of practical importance. In the next paper U. Schreiber (Germany) uses mainly results of his Würzburg laboratory (presented in 13 figures) to elucidate the hypothesis on the mechanism of Q_B quenching. As evident from the list of 103 references, this is more or less an important review paper. The following paper (R. van den Boogaard *et al.*) brings data on the effects of irradiance on photosynthetic electron transport and CO_2 fixation in tomato. According to the not very original topic (diurnal courses of photosystem 2 efficiency and CO_2 uptake, changes in chlorophyll content and *a/b* ratio, leaf absorbance) and style (no abstract, only 1 reference!) this is probably a student work.

The fourth paper (C. Kempenaar and H.A.G.M. van den Boogaard) deals with weed control and the so-called MLHD (Minimal Lethal Herbicide Dose) concept. It shows that also reduced herbicide doses may be effective in sugar beet crops. The efficacy is evaluated shortly after herbicide application using an *EARS* Plant Photosynthesis Meter. Non-invasive detection of embryonic chlorophyll in a single *Capsicum annuum* seed during germination (H. Jalink *et al.*) uses a diode laser based device for fluorescence determination. Embryonic chlorophyll is synthesised in two regions of the embryo. The technique may be used as a molecular marker detecting metabolic activity and seed vigour. Use of chlorophyll fluorescence for early detection of *Phytophthora* infection in four potato genotypes is described by A. Schapendonk *et al.* This is a preliminary information, without a clear conclusion and abstract.

In a brief comment, L. Nedbal (Czech Republic) asks if "Money-making with chlorophyll fluorescence?" is possible. Based on personal experience he emphasises that it is not easy to get an adequate profit from research leading to the production of new fluorescence devices. Nevertheless, may be that in the future...

In the last paper J. Snel *et al.* recall the history and activities of GreenScreen, a Plant Research International facility for rapid and non-invasive physiological assessment of quality and vitality of plants. Its facilities enable multiple imaging of plant stress, contain a Phytolab and spectral laboratory for analysing plant performance, quality, and vitality by non-destructive measurements. GreenScreen deals also with sustainable greenhouses, validation of genetically modified plants, crop protection, and plant pathogen diagnosis.

Because Wim Vredenberg is, among his other activities, also active member of the Editorial Board of Photosynthetica, I use this occasion to thank him for past and future work and wish him much health and happiness in life.

Z. ŠESTÁK (*Praha*)