

Van den Boogaard, R.: **Variation among Wheat Cultivars in Efficiency of Water Use and Growth Parameters.** - CIP, Den Haag 1995. 155 pp. ISBN 90-393-0799-7.

This thesis was conducted at the University of Utrecht and addresses the variation in physiological and morphological traits among cultivars of wheat in relation to their ability to grow in a dry environment. The emphasis was on variation in water use for growth, and on the pattern of allocation of biomass to leaves, stems and roots during vegetative growth. After short Introduction, Chapter 2 shows how the biomass allocation pattern is related to the relative growth rate on one hand and to water use efficiency on the other one. Water use efficiency was considered on a leaf level as the ratio of photosynthesis to transpiration and on the whole plant level as the ratio of biomass production to total water use. Chapter 3 is devoted to carbon and nitrogen economy and Chapter 4 to association of water use efficiency with photosynthetic characteristics (Rubisco activity and rate of electron transport). Chapters 5 and 6 concern the ability of cultivars to avoid drought and the effect of water stress on relative growth rate of the plant and of different organs and on water use efficiency. The allocation pattern and water use under Mediterranean field conditions is described in Chapter 7. The main results, summarized in Chapter 8, showed the possibility to increase wheat yield in a dry environment by selection for a fast growth of the leaf area and efficient use of water on leaf level in parallel.

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Lobban, C.S., Harrison, P.J.: **Seaweed Ecology and Physiology.** - Cambridge University Press, Cambridge - New York - Oakleigh 1997. 366 pp., GBP 19.95 (paperback). ISBN 0-521-40897-0.

The successful textbook of ecology and physiology of macroscopic multicellular marine red, green and brown algae (for review see Biol. Plant. **38**: 396, 1996) appeared after three years as a reprinted paperback edition. Students will certainly welcome unchanged content at a much lower price (19.95 vs. 50.00 GBP).

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