

Undersander, D., Martin, N., Cosgrove, D., Kelling, K., Schmitt, M., Vedberg, J., Becker, R., Grau, C., Doll, J.: **Alfalfa Management Guide**. - American Society of Agronomy, Crop Science Society of America, Soil Science Society of America, Madison 1991, 41 pp. softcover US \$ 4.50.

The publication emphasizes three key areas of the alfalfa establishment, production and harvesting. The establishment section reviews proper selection of a field from the point of view of the soil type, drainage and slope, autotoxicity and perennial weeds, the soil testing for content of nutrients and acidity prior to planting, and a selection of a good cultivar by its yield potential, persistence disease resistance and forage quality. It is closed by planting of alfalfa stands where the attention is devoted to the time of seeding, field preparation, seeding depth and rate, companion crops, seeding equipment including the technique of reduced tillage and no-till planting. The production section deals with fertilization, manure management, weed control, diseases monitoring, insect controlling and when to plough down fields. The nutrient needs, especially the demands for nitrogen, phosphorus, potassium, calcium, magnesium and micronutrients are described there. The question when and how to apply herbicides is answered in the section about the weed control and the weed management before planting in the seeding year and in the established alfalfa. The chapter about diseases contents very clear characterizations of the most dangerous kinds, as anthracnose, *Aphanomyces* root rot, bacterial wilt, *Fusarium* wilt, *Phytophthora* root rot, root-lesion nematodes, *Sclerotinia*, spring blackstem, summer blackstem and *Verticillium* wilt, with the maps of their distribution and severity in the U.S.A. and with colour photographs of their symptoms. The chapter about pests deals with alfalfa weevil, potatoe leafhoppers, aphids, plant bugs, grasshoppers and blister beetles and is completed with good photographs, too. The harvesting section examines the forage quality, harvest management, and feeding considerations of hay and haylage. A great attention is given to the seasonal cutting strategy and to the winter injury.

The booklet contains practical tables, figures and diagrams and all this together with the clearly arranged text which includes the latest scientific knowledge can be a good helper for the growers, extension agents and students of agronomy.

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Van Wirdum, G.: **Vegetation and Hydrology**. (Thesis of University of Amsterdam). - Datawyse, Maastricht 1991. 310 pp.

This thesis deals with the ecological relation between the vegetation of rich-fen quagmires (quagfens) in North-West Overijssel (The Netherlands), and hydrological factors. The author found that the occurrence of meso-oligotrophic, alkaliphilic fen vegetation with many seepage indicators is mostly not due to discharging groundwater, but often due to a combination of downward seepage with a lateral flow of surface water. The attention is drawn to the possible importance of the processes that were not yet considered before, especially a gradual desalting of the parts of the area formerly influenced by slightly brackish water. Although this report pertains to quagfens, the mechanisms shown here as well as the methods and mathematical models used have broader applications in ecological research.

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