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 Book Reviews
 

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van Wijk, A.J.P.: *Breeding for Improved Herbage and Seed Yield in *Setaria sphacelata* (Schumach.) Stapf and Hubbard ex Moss*. Agricultural Research Reports No. 900. Wageningen: Centre for Agricultural Publishing 1980. xii, 147 pp., 51 figs., 44 tabs. Soft bound hfl. 35,-.

*Setaria sphacelata* (Schumach.) Stapf et Hubbard ex Moss is an important pasture crop in tropical and subtropical areas. Unfortunately, like other generatively propagated tropical grasses, it has a low seed yield, and also a poor nutritive value. With the commercial release of the first ecotype of this crop in Kenya in 1957, seed multiplication and breeding programmes were carried out. In the present research report, the author describes his various investigations of this *Setaria* plant, conducted between 1973 and 1977 at the National Agricultural Research Station in Sitale, Kenya, as a part of a new breeding programme initiated in 1971.

The history of *Setaria* cultivation and breeding is outlined in Chapter 1. The following two chapters deal with studies of the relationships between the plant characteristics and such properties as in-vitro digestibility and yield of herbage and seed. In Chapters 4 and 5, the performance of plants with different growth habits (erect, lax, and prostrate) under different growing and harvesting conditions (mono vs. mixed culture, different spacings and cutting frequencies) are compared. Chapter 6 is devoted to the description of simultaneous selection for both herbage and seed yield by means of selection indices. A number of statistical techniques are used to summarize the results. The book is concluded with a chapter proposing a scheme for a breeding programme of *Setaria* which could also be recommended for the breeding of other crops. The bibliography consists of 157 references.

H. Knüpfner, Gatersleben

Webster, C.C., Wilson, P.N.: *Agriculture in the Tropics*. Tropical Agriculture Series. London: Longman 1980. 640 pp., 80 figs., 89 tabs. Hard bound £ 12.95.

'Agriculture in the Tropics' covers in a remarkably complete way every aspect of tropical agriculture, including livestock. Practically every imaginable aspect has been included, sometimes even rather unimaginable items such as the influence of social structures and customs. Not many aspects are left out, however, items such as crop protection are hardly even mentioned. On the whole, the book proves to be an absorbing introduction and survey of tropical agriculture in a broad sense. It discusses its topic in considerable depth and contains a very complete bibliography which at the time of appearance of the first edition (1966) must have been a great help in localising relevant literature. The largely revised second edition (1980) has added a number of more recent references (up to 1977). The majority of references nevertheless date from before 1966, and for a review of recent literature the newly revised edition remains somewhat outdated.

Some viewpoints also need up-dating. In discussing the world food problem, it is stated that 'the recent development of the new high yielding varieties of rice, wheat, maize, sorghum and millet holds great hope of increasing cereal production'. The experiences with, and evident drawbacks of this green revolution, which might have tempered this great hope in the mean-time, are not discussed. Neither is it indicated that, for instance, the large scale introduction of green revolution varieties has unexpectedly and seriously reduced the availability of traditional varieties of many crops needed for further breeding. Crop improvement is discussed only superficially although three out of the 18 chapters are dedicated to livestock improvement.

On the whole, the book is an excellent but somewhat outdated introduction to Agriculture in the Tropics.

P.A. Oomen, Wageningen