Software review

Tropical Forages — Selection of Forages for the Tropics 'SoFT'

Produced collaboratively by CSIRO Australia, DPI&F Queensland, CIAT Colombia and ILRI, 2005. CD-ROM. Available free from CSIRO, 306 Carmody Road, St Lucia, Qld 4067, Australia. ISBN 0 643 09231 5.

I am an extension officer with the Condamine River Regional Nature Resource Management body, acting as their technical officer and managing the grazing land management project for the region.

In examining the package, I aimed to determine how it could help me in selecting grass and legume species adapted to the alkaline clay soils of the Darling Downs, Queensland, Australia. The area is in the subtropics (27.50°S) and varies in elevation from 700 masl at Toowoomba in the east to about 300 m at Dalby-Chinchilla in the west. Mean annual rainfall exceeds 700 mm along the eastern ranges and is about 625 mm in the western region. The rainfall is summer-dominant and frosts are frequent in the dry cool winters.

The features I looked for in the package included: ease of use; ease of understanding; and a clear, concise description of the species nominated. I like to look at photos with captions that describe what I am looking at, lots of pictures and as few words as possible. My aim was to use the information obtained as extension aids during interaction with farmers, graziers and agribusiness people. As well as selecting the species for the area, I examined a number of fact sheets in detail.

What I liked

Things I liked about the package included:

- *The package was user friendly*. It was easy to use and everything needed was described very well. However, the package would not run on my home computer as it was not connected to the Java system. I could not solve the problem but ran the program on my work computer, which is connected to the network.
- *Information was well set out and in the correct sequence*. I liked the steps in the selection process — setting out all parameters relating to the region of choice; nominating the type of species required, *e.g*. an erect, perennial grass for a heavy clay soil; and then obtaining a number of options.
- *The parameters (key) for describing the area and plant type were comprehensive* — climate, soil type, use of forage, type of plant required (annual/perennial, prostrate/erect, tufted, shrubby *etc*.), persistence, weed potential, control methods (if required later) and so on. It was all there.
- *What was lacking in the key was made up for in the detailed descriptions of individual species*, *e.g.* sensitivity to frost and tolerance of heavier soil conditions relative to other species.
- *Lists of 'best bet' species for the described region were adequate* — but not complete (more of this later). The description of the species then narrowed down the selection in the minds of the searchers.
- *Glossary provides an explanation for new/unusual terms or abbreviations.* This can be accessed by clicking on the highlighted word in the text of the forage fact sheets, a very good tool. I could not find an explanation of this feature in the package and found it by accident. This feature should be highlighted somewhere.
- The photos are very good, especially when they can be enlarged dramatically by clicking on the photos themselves. More descriptive captions would be an improvement.

Suggestions for improvement

- All possible species for a given situation do not always emerge. When I described the clay soils of the Darling Downs, *i.e*., latitude, longitude, elevation, soil description, type of grass required (erect or prostrate) *etc*., no suggested species emerged. I know that rhodes grass, Gatton panic, Bambatsi, Bisset creeping blue grass, Floren, purple pigeon grass, *inter alia*, grow well here. This appears to be a deficiency in the package. When I checked the descriptions given for these species, the descriptions suggest that the species should have been advanced as options.
- Some 'undesirable' species are suggested as possible options. When I changed some parameters and altered the soil type to 'medium' (loam to clay loam), 4 species were suggested, the first of which was *Eragrostis curvula* (African lovegrass). This species is regarded as an environmental weed on the Darling Downs, in a similar category to Giant Rats Tail grass. I consider it should not be listed in possible options. The weed potential is mentioned and discussed, but it really should be highlighted a lot more than it is.
- For use of fact sheets by extension people, agribusiness, retailers, farmers *etc*., common names should be included with the scientific names used in different countries, *e.g. Cenchrus* is known as buffel grass in Australia but has other common names in other countries.
- Fewer words and better captions on the photos would make it more appealing.
- Check some of the data quoted — some statements conflict with my experience. Not all varieties are given — ordinary Angleton grass was not described but Floren was, and there are big differences in palatability between them.
- Some important practical information for species was missing, *e.g.* animals do not readily eat lablab.

This appears to be an acquired taste, particularly for dairy cows. Wastage of lablab can be reduced if it is grown as a pure stand rather than in a mixture with forage sorghum, since most sorghums are more palatable than lablab and trampling of the legume can be high. Lablab makes good hay. One of its key features is the large seeds, which can be sown into moisture at a maximum depth of 7 cm in clay soil.

- Mention is needed that zero-till technology suits summer-growing forages that can be sown into moisture (large-seeded grasses and legumes). This is particularly appropriate in the dry land farming regions of tropical and subtropical Australia.
- Acronyms should not be used unless explained in the text, *e.g.* ADF. I did find the explanation in the glossary, when I accidentally clicked on the abbreviation.
- There were some typographical errors as well as misalignment of headings with information given. These do not reflect well on quality control.
- In one species fact sheet (buffel), when describing temperature requirements, a statement was made that growth rates increased rapidly when temperatures were 15/10°C–30/25°C. I could not interpret this!!!

Overall impression

The package is very good and should prove very useful for anyone seeking information about tropical forage species. It is a valuable aid in identifying suitable species for sowing in a particular environmental situation, *e.g.* Darling Downs of Queensland. However, it is best suited for people with a good technical knowledge, *e.g.* those who have had significant training or experience in agriculture (researchers, extension officers, consultants). It would serve as a useful tool for training students in understanding pasture species and how they fit into particular environmental niches.

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