

Replies to Letters to the Editor:

BUFFEL IN MULGA – *Richard Silcock*

I agree mostly with Noel O'Dempsey and with John and Lindy (*see last issue*).

What I would add is that the need for phosphorus (P) is intertwined with a dislike of very acidic soils and a need for available calcium. I have some pot trial data which show exchangeable calcium and aluminium are as important as available phosphorus in limiting buffel seedling growth. The main control is still via seedling establishment initially; but available soil nitrogen controls the vigour of established plants and their seed set. Without plenty of seed, the probability of seedlings establishing when things are good is reduced.

Buffel seed does not last in the soil very long and after a few months has no cunning germination control mechanisms to prevent it from germinating on small falls of rain. By contrast, mulga mitchell has some fancy control mechanisms that will prevent its seeds from germinating on small falls of rain. Buffel seeds are also highly prized by ants.

Buffel grass grows well on very low P soils in northern Mexico — soils with available P below 5 ppm. So phosphorus is not the whole story in a global context. These Mexican soils are only slightly acidic and are derived from granite. I suspect they have quite good levels of calcium in the soil. Buffel grows best on non-clay soils in South Africa which is different to our original experience in Australia. So, you cannot completely transpose adaptation from one part of the world to another, based only on a narrow set of information.

As for liking the sound of people, it certainly thrives under non-selective defoliation by a motorised lawn mower. It also likes a flog/rest type of management and sheep dung. I have had buffel plants flowering three weeks after sowing into sheep dung mixed with mulga soil in mid-summer.

Buffel is also relatively unpalatable to horses and roos, so animals living near the house will eat other things before they chew the buffel hard. Buffel will not persist under *Acacia* trees, such as mulga and gidgee, that have an extensive shallow root system. I don't think shade is the reason for its demise under mulga because it grows under popular box trees.

All in all it adds up to a combination of factors that favour buffel, except out in the big mulga paddocks. We have almost no clues about diseases and microscopic pests that may also be contributing to the overall situation.

PS. One day I will find the time to formally publish this information for our kids' edification.

BUFFEL IN MULGA COUNTRY -

Kathy Rule

At 'Woodside' Charleville we have successfully established buffel in some country where people did not think it would grow.

Use the following as a guide:

1. Seed directly off the dozers to take advantage of the soil disturbance (couple of bags trickling into the dozer tracks).
2. Use sufficient seed to do the job including flying on additional seed after (or before) pulling.
3. Use fresh seed to take advantage of the variable germination. Stored seed tends to germinate all at the same time.
4. Lock-up the paddock completely to let the seedlings come away and do not let stock in until after the buffel has established and seeded.
5. Spell and burn the paddock.
6. Seed again into the ash.
7. Be conservative with your stocking rates on the developing buffel pastures
8. Sheep tend to be harder on the buffel than cattle

If you would like to discuss any of these points further, please contact Kathy on 4654 3432.