

Fields of green – wetlands offer excellent grazing

By Michelle Nel

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Perhaps one of the best uses for a wetland is to allow livestock to enjoy its lush grazing, advises the Mondi Wetlands Programme. Just be careful not to let them overgraze it. Some farmers also burn wetlands to encourage fresh, new grass. Once again this has to be done carefully.

A big bonus offered by wetland grasslands to farmers is that their carrying capacity (the amount of animals they can feed) can be higher than surrounding drylands. “This is excellent news; if land has a value people are more likely to look after it,” says David Lindley, national manager of the Mondi Wetlands Project (MWP).

What’s more, if managed correctly, grazing, trampling and burning certain types of wetlands – particularly those which are covered by a dense mat of sedges and grasses – encourages biological diversity. This means that a greater variety of grasses (which will in turn benefit grazing) and other plants will grow. However, if poorly managed, grazing and burning are two of the greatest destroyers of wetlands because they can remove all the protective plants and leave the wetlands open to erosion.

On average, the grazing capacity in a wetland is 1,5 times higher than in a non wetland area, but this depends on many things such as the types of grasses growing in the wetland (wetlands with grasses of high nutritional value will feed more animals) and the way the water flows in a wetland (areas of the wetland where water flow is concentrated are not good for grazing as they are high erosion risk areas). In extreme cases the carrying capacity can be up to five times higher than the surrounding dryland. Working out carrying capacity can be complicated so it is best to consult your nearest agricultural extension officer or the MWP.

WISE GRAZING

What you should do:

- Use wetlands for grazing mainly in the dry season so that cattle do not churn up very wet soils, making them susceptible to erosion
- Keep cattle on the outer edges of a wetland, away from the permanently flooded areas.
- Watch carefully for overgrazing. There are many tricks you can use to avoid overgrazing. Here are a few ideas and you need to choose which suits you best.
 1. One way to avoid overgrazing is to rotate the grazing over different parts of the wetland, much like having grazing camps. You can let your livestock eat a part of the wetland until the grass is short (about four to eight centimetres high). Then move them on to another area until that area has also been grazed down to that level. It has been suggested that you let animals graze three quarters of the wetland and keep one quarter absolutely free of cattle for a whole year. The next year you choose another quarter for resting, the following year another quarter, until after four years, each part of the wetland has had a year to rest. One way of convincing the cattle to stay off the resting patch is to burn the rest of the wetland and let the cattle in once the fresh, new grass appears.
 2. If it’s not possible to keep the cattle in one area, then let them into the wetland for 14 days and let the wetland rest for 24 days.
 3. Or you could graze the whole wetland for three years and allow a full growing season rest period every four years.
 4. Choose wetlands on flatter ground for grazing since the soils are not as easy to churn up and erode as on steeper slopes. This will reduce the chances of erosion occurring.

What you shouldn’t do

- Do not allow grazing in the rainy season or when the ground is very wet since the cattle may dig up lots of soil and make the water muddy, polluting it for downstream users. They may cut channels with their hooves which can erode into dongas and dry out the wetland.

- Don't let cattle into the wettest part of the wetland where they can cause disturbance to the highly sensitive 'core' of the wetland, and often get stuck.
- Don't allow heavy grazing without any rest periods. It may cause valuable, sweet (or highly nutritional) grasses to be replaced by less tasty or useful species.
- Don't let animals overgraze, or the protective plant cover of the wetland will be removed resulting in erosion and the drying out of the wetland.
- Avoid the following kinds of wetlands for grazing because they erode easily when disturbed by trampling and grazing: for example wetlands with loose soil, on steeper slopes and where water starts concentrating into a channel.

Caution : overgrazing and excessive trampling can cause gully erosion which destroys the wetland.

Solution : find out how to correctly graze a wetland. (e.g. carrying capacity, when to graze, for how long, and resting periods).

THE BURNING ISSUE – TAKE EXTREME CARE

Burning wetlands often goes hand in hand with grazing since it can produce more fresh, green grass for animals. Wetlands are burnt for other reasons too: to get rid of alien plants (plants from other countries that get out of control and squeeze out useful South African plants) and to reduce the risk of run-away fires. **Caution:** Burning holds as many risks as it does benefits, so before you burn a wetland, consult your local agricultural extension officer or MWPP co-ordinators to talk about which kinds of wetlands are suitable for burning, what the climate and weather should be like on the day you burn, how often you should burn, and other important information.

What you should do

- You can burn the wetland about every second year if the rainfall is more than 800 mm per year. Burn every third or fourth year if you are in a very dry part of the country (less than 800 mm per year).
- If you can, divide your wetland into burning blocks and burn only half of each block. This leaves the unburnt part to provide wildlife refuge. Where this is not practical, and you have a few wetlands near each other, burn one whole wetland and leave the others unburnt.
- It's a good idea to use cool fires, so burn when the grass is moist after rain, or in the evenings or early mornings after dew.
- Burn at the beginning of the growing season, just after the first rains so that plants can regrow quickly.
- Burn with the wind as this is more controllable and less damaging to plant growth points. If you burn against the wind it raises ground temperatures, can damage the growing points of plants, and encourages the fire to move sideways and get out of control.
- Keep records of when you burn, where you burn and the conditions under which you burnt so that you can improve your burning techniques and share the knowledge with your neighbours.

What you shouldn't do

- Avoid burning in early winter because there will be less plant matter to protect the water and lots of it will evaporate.
- Never burn a wetland when it is dry; it can result in underground fires if the wetland soils have a high organic content. If the wetland plants are damaged by a very hot fire, they will not grow again in the growing season. Extremely hot fires can even kill wetland plant root systems. With no protective cover, soil erosion sets in. A head cut can develop (this is an erosion channel which eats back against itself and can develop into a drain which can eventually dry out the wetland). If it is an extremely dry year, rather don't burn, wait for the following year.
- Another reason to avoid hot fires is they may kill off certain plants and change the range of different plants that grow in the wetland. This can reduce its usefulness for grazing. You will also destroy other biodiversity such as insects, birds and animals.
- Never burn if winter breeding animals (such as wattled cranes) have not completed breeding.

Caution : incorrectly burning wetlands can cause headcut and gully erosion, water loss from evaporation, and decreased biodiversity

Solution: find out how to burn your wetland correctly (e.g. frequency of burning, when to burn and how to burn)

The MWP Wise Use and Community Programmes help people use their wetlands sustainably. They work with the forestry, livestock and crop industries, and rural communities.

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