

Management of Kent Gamba Grass

B. G. Lemcke, Principal Livestock Management Officer and A. G. Cameron, Principal Agronomist Pasture Development, Darwin

INTRODUCTION

This Agnote deals with the management of Kent gamba grass in the Top End of the Northern Territory.

Kent gamba grass (*Andropogon gayanus* cv Kent) is a tall tropical grass which has been widely used in the Top End of the NT for over 20 years. It has gained considerable favour with pastoralists because of its ability to feed and fatten livestock at high stocking rates during the wet season. A description of the grass and information on suitable climate, soils and fertilising are provided in DPIFM Agnote No E8 *Gamba Grass*.

There are legitimate concerns that this grass may create management problems if it spreads from sown paddocks into non-grazing land.

CHARACTERISTICS

The particular characteristics of Kent gamba grass include the following:

1. It is a tall bunch/tussock grass with open spaces between the tussocks in pastures. It can grow to 4 m.
2. It requires a well-prepared seedbed to give a good establishment for use as pasture.
3. Seedling survival is good over the dry season and interplant spaces in a pasture can be quickly filled by new seedlings.
4. It regenerates quickly from perennial crowns following storms early in the wet season, particularly if they have been grazed or slashed.
5. The green leaf is very palatable to livestock during the wet season.
6. It is relatively rank, thick-stemmed and unpalatable during the dry season when it dries out, particularly if underutilised, not grazed or not slashed during the wet season.



7. **It poses a significant fire risk if not grazed or lightly grazed because of its high fuel load. The spatial and height characteristics of the sward produce an intense fire, particularly if it is accompanied by wind.**
8. It is extremely tolerant to dry season and early wet season fires.
9. When adequately fertilised, it produces good quantities of viable seed.
10. The seed is light and fluffy and can be spread by prevailing winds, but wind dispersal is clearly not the major means of long-range dispersal. Most of the seed falls within 5 m of the plant.
11. It does not readily establish in undisturbed native vegetation. Establishment and spread is slow in undisturbed native pastures.
12. **It does establish and spread in disturbed areas, such as roadsides, overgrazed native pasture areas, previously fertilised paddocks, areas subjected to mowing, slashing or grading. A stand will thicken up along roadsides but will not usually spread from the disturbed zone.**

WHERE TO SOW

DPIFM does not support new sowings of gamba grass.

Kent gamba grass is **not** recommended for small rural blocks where there are insufficient numbers of animals and lack of stocking flexibility to adequately control the growth of the grass. The aim is to control the grass growth during the wet season to prevent it becoming tall, thick-stemmed and rank in the dry season. The fire hazard can be more acute on small blocks.

On pastoral properties, only a small proportion of the property should be sown with Kent gamba grass to allow stock numbers to be concentrated on it during the wet season. Up to a maximum of one quarter of a property may be sown with Kent gamba grass. Paddocks should be of a size which can be heavily stocked with all available animals on the property, should the need arise.

Paddocks should be sited so that the prevailing south-easterly winds during the May-July period, when the bulk of the seed is produced, do not carry seed from the property onto adjacent properties. **The adjacent property may not be engaged in livestock production and Kent gamba grass may be regarded as a weed.**

GRAZING

Adequately fertilised Kent gamba grass may need up to four animals per hectare to keep it in check during the high growth period of January to April. An alternative is to use higher stocking rates than this for shorter periods, with rest periods for re-growth.

Grazing should ideally maintain height at around 60-90 cm. It is better to lightly graze the pasture at the start of the wet season to allow the plants to produce a reasonable amount of leaf before it is heavily stocked. Early heavy grazing is likely to reduce grass and animal productivity over the wet season.



Inadequate grazing pressure allows gamba grass to grow too tall

A small amount of leaf material in the clumps/tussocks indicates that the pasture has been too heavily stocked. The new seedlings which establish between the old tussocks are favoured by grazing stock early in the wet season.

REJUVENATION OF PASTURE

New tillers form on the outside of clumps. The insides of large old clumps die. Appropriate management for small paddocks which contain a high proportion of these large old clumps is to slash early in the wet season. In larger paddocks, burning every three to four years early in the wet season (October - early December) would be an alternative management option to rejuvenate an unproductive pasture. Good firebreaks and back burning are recommended for this process.

HAYMAKING

Good quality hay can be made from Kent gamba grass paddocks which have been grazed until mid season. The grass should be cut early, before it sets seed or seed may be distributed through the hay. Application of nitrogen fertiliser on paddocks where grazing has been discontinued will improve the potential quality of the hay produced.

CONTROL IN NON-PASTORAL AREAS

In non-pastoral areas, Kent gamba grass is most commonly found as isolated plants or group of plants on roadsides where it has fallen from a passing vehicle or has been spread by the wind or road maintenance activities. The plants are easily identified. The growth habit distinguishes Kent gamba grass from other improved and native grasses.

These, and other unwanted plants, can be controlled by spraying early in the wet season. Plants should be sprayed well before May - June to prevent them from seeding. Early spraying makes it easier for the herbicide to penetrate to the centre of the crowns of established tussocks.

The plants should be sprayed with glyphosate (36% a.i) at a dilution at 1:100 L water when they are actively growing. The addition of an anionic wetting agent to the spray mix will enhance the effectiveness of the glyphosate. Isolated plants can be treated with a 4 mL shot of Velpar L®.

If the plants are tall, rank and dry, the mature material present needs to be removed to encourage fresh regrowth which can then be sprayed. The mature material can be removed by cutting, mowing, slashing or burning. Care should be taken in the timing of slashing, cutting or mowing treatments. If possible, mechanical treatments should be carried out either before the grass has set seed or after all seed has dropped, as the light seeds may be trapped on machinery and drop off later in other areas. If seed is present on Kent gamba grass when it is slashed, machinery should be cleaned before proceeding to other areas.



Roadside gamba grass may need to be controlled by spraying

Burning to remove dry rank growth must be carried out with adequate firebreaks around clumps or areas of Kent gamba grass, as the subsequent fire can be extremely hot.

Care should be taken when grading firebreaks, fence-lines and roadsides, as the disturbed, bare areas created by the grading are good seedbeds for gamba grass to establish during the following wet season.

When attempting to control or eliminate unwanted Kent gamba grass, follow up by checking the area for two or three wet seasons to control new seedlings that may appear in the area.

WARNING

Pasture plants have the potential to become weeds in certain situations. To prevent that, ensure that pasture seeds and/or vegetative materials are not inadvertently transferred to adjacent properties or roadsides.

Please visit us at our website:

www.nt.gov.au/dpifm

Department of Primary Industry, Fisheries and Mines

© Northern Territory Government, 2006

ISSN 0157-8243

Serial No. 672

Agdex No. 131/10

Disclaimer: While all care has been taken to ensure that information contained in this Agnote is true and correct at the time of publication, the Northern Territory of Australia gives no warranty or assurance, and makes no representation as to the accuracy of any information or advice contained in this publication, or that it is suitable for your intended use. No serious, business or investment decisions should be made in reliance on this information without obtaining independent/or professional advice in relation to your particular situation.