

BUFFEL GRASS CONTROL GUIDE

Weed Management Branch
Department of Lands, Planning and Environment



CONTENTS

IDENTIFICATION	3	CONTROLLING BUFFEL GRASS	16	Commonly used herbicides	26
Distribution	4	Grass condition and management techniques	16	Adjuvants	28
Dispersal	4	Appropriate resourcing and focus	18	IMPLEMENTING A CONTROL PROGRAM	29
Habitat	4	Suggested tools and priorities by infestation severity	19	SUGGESTED CONTROL WORKFLOW	32
Common look-alikes	5	Management techniques	20	MANAGING/DISPOSING OF TREATED WEEDS	33
Introduced species	5	Short-term control techniques	20	ADVICE FOR COMMON SCENARIOS	34
Native species	7	Long-term control techniques	22		
Companion grassy weeds	9	Controlling buffel grass with herbicides	24		
Buffel grass ID support options	11	Using chemicals safely	24		
Life cycle	12	Complying with the law	24		
Weed hygiene	14	Spray conditions	25		

This technical guide is designed to assist individuals and organisations in the Northern Territory who wish to actively control buffel grass. The management of buffel grass in a pastoral context is beyond the scope of this guide. Information provided in this guide is advice only and does not constitute a direction under the *Weeds Management Act 2001*.

IDENTIFICATION

Buffel grass is a highly variable species. Detailed ID fact sheets can be found on [Flora NT](#) and [Weeds of Australia](#), see the Buffel Grass ID Support Options section of this guide (page 11) for further assistance.



Habit

- tufted perennial grass
- 0.1–1 m tall and wide.

Leaves

- leaf blades flat, long, and bright green-bluish green in moist conditions
- straw-coloured when dormant/stressed
- sometimes hairy or red-tinged near base
- hairs where leaf blades meet the main stem and sheath.

Seed heads

- spike or foxtail shaped (2–15 cm long, 1–2.5 cm wide)
- colour variable/green/red tinged/deep purple/straw coloured
- zig-zag shaped mature axis of seed head after burrs detach.

Burrs

- 1–4 spikelets, 1 seed each, surrounded by inner ring of mostly flattened soft bristles and an outer ring of finer bristles
- one flattened bristle significantly longer than the others.

DISTRIBUTION

Limited point data submitted to the NT Weed Management Branch suggests that buffel grass is widespread across the lower two-thirds of the Northern Territory. Infestations are usually concentrated around settlements, transport corridors, and drainage lines.

DISPERSAL



Wind

Blown mostly along transport corridors and patches of bare ground by natural gusts and vehicles.



Water

Infrequent but dramatic downpours disperse seeds through natural and constructed drainage systems.



Attachment

Buffel grass bristles easily become lodged in clothing, animal fur, tools, and vehicles when traversed through or contacted.

HABITAT

Prefers:

- areas of high moisture/nutrient density:
 - drainage lines, river/creek flats, flood outs
 - beneath gum trees, desert oaks, and some *Acacia* species
 - around structures
- high pH arid/semi-arid soils:
 - sands, loams, structured red/dark clays
- disturbed ground and transport corridors.

Slower to invade:

- cracking clays
- deep sands
- saline chenopod shrublands.

Adapted to:

Most other arid central Australian environments.

COMMON LOOK-ALIKES

INTRODUCED SPECIES



Mossman River Grass (*Cenchrus echinatus*) _____ **STATUS: CLASS B WEED**

Similar features:

- habit
- seed heads

Distinguishing features:

- produces stalkless spiny (painful) burrs
- one row of larger flattened spines fused at base.



Gallons Curse (*Cenchrus biflorus*) _____ **STATUS: NOT DECLARED**

Similar features:

- habit
- seed heads

Distinguishing features:

- produces spiny (painful) burrs with external grooves
- flowers green and brown but never purple.

INTRODUCED SPECIES



Fountain Grass (*Cenchrus setaceus*) _____ **STATUS: CLASS B WEED**

Similar features:

- habit (when young)
- seed heads.

Distinguishing features:

- very narrow, long, drawn out leaves
- longer seed heads (6–30 cm)
- burrs with only fine bristles, not joined at base, some distinctly hairy.



Birdwood Buffel (*Cenchrus setiger*) _____ **STATUS: NOT DECLARED**

Similar features:

- habit
- seed heads.

Distinguishing features:

- produces stalked burrs (not spiny)
- one row of larger flattened spines joined at base for up to a quarter of their length
- never purple
- no more than 0.8 m tall.

COMMON LOOK-ALIKES

NATIVE SPECIES



Woolly Oat-grass
(*Enneapogon polyphyllus*)

Similar features:

- mature seedheads appear similar shape to juvenile buffel grass
- widespread with overlapping habitat, often co-mingling.

Distinguishing features:

- woolly seedheads green to grey to straw coloured but never red or purple
- annual or short-lived perennial <50 cm tall.



Barley Mitchell Grass
(*Acrethra pectinata*)

Similar features:

- mature habit.

Distinguishing features:

- distinct seed head.



Button Grass
(*Dactyloctenium radulans*)

Similar features:

- sprawling seedling shape similar to some buffel grass seedlings.

Distinguishing features:

- distinct windmill-shaped seed heads, annual <20 cm tall.

NATIVE SPECIES



Desert Bluegrass
(*Bothriochloa ewartiana*)

Similar features:

- mature habit.

Distinguishing features:

- distinct seed head.



Queensland Bluegrass
(*Dichanthium sericeum*)

Similar features:

- mature habit
- prevalent along watercourses.

Distinguishing features:

- distinct seed head.



Northern Mulga Grass
(*Paraneurachne muelleri*)

Similar features:

- seed heads similarly fluffy.

Distinguishing features:

- seed heads green or brown, never red or purple, upright habit, thin leaves.

COMPANION GRASSY WEEDS



Hairy Lovegrass (and other introduced lovegrasses) (*Eragrostis trichophora*)

And: *E. barrelieri* (Pitted lovegrass), *E. cilianensis* (Stinkgrass), *E. mexicana* (rare), *E. minor* (Smaller Stinkgrass), *E. tenuifolia* (rare)

Notes:

Quick to establish on roadsides, often after buffel grass is removed, more aggressive and less palatable to stock but lower fuel load.

Control:

Treat as per buffel grass, or with rates specified for “African lovegrass”.



Common Couch (*Cynodon dactylon*)

Notes:

Cohabits with buffel grass in drainage lines, dominates creeks and rivers, difficult to control.

Control:

Requires stronger herbicide mixes, rates given on most labels.

COMPANION GRASSY WEEDS



Red Natal Grass (*Melinis repens*)

Notes:

Infests creek and river channels, notable red feathery seed heads.

Control:

Treat as per buffel grass.



Sheda Grass (*Dichanthium annulatum*)

Notes:

Infests drainage lines, replacing native *Dichanthium* species.

Control:

Treat as per buffel grass.

BUFFEL GRASS ID SUPPORT OPTIONS



Log an entry to NT WeedMate App and include a photo.



Take a photo, record location details and call the NTG Buffel Grass Team on 8951 9210 or email weedinfo@nt.gov.au



Take a sample (with location details) in a sealed container or bag to your local Weed Management Branch or Herbarium.

WEED MANAGEMENT BRANCH

Alice Springs

AZRI Building
Stuart Highway
South
Alice Springs
NT 0871

PO Box 2130
Alice Springs
NT 0870

8951 9210

Tennant Creek

33 Leichhardt
Street
Tennant Creek
NT 0861

PO Box 846
Tennant Creek
NT 0861

8962 4322

Katherine

First Floor
Big Rivers
Government
Centre
5 First Street
Katherine
NT 0850

PO Box 2390
Katherine
NT 0851

8973 8862

Darwin

Level 1
Goyder Centre
25 Chung Wah
Terrace
Palmerston
NT 0831

PO Box 496
Palmerston
NT 0831

8999 4567

NT HERBARIUM

Alice Springs

Alice Springs
Desert Park
Larapinta Drive
Alice Springs
NT 0870

PO Box 2130
Alice Springs
NT 0871

8951 8791

Palmerston

Herbarium
Building
The Boulevard
Palmerston
NT 0830

PO Box 496
Palmerston
NT 0831

8999 4516

LIFE CYCLE



Seedlings and regrowth

Will grow any time of year with enough soil moisture. Requires >20 mm rain to grow away from active drainage lines.

Slashing, grazing, fire, and disturbance often encourages some growth, even in dry times.

More vigorous growth occurs in warm seasons (October to March). Green growth visible within 1–6 weeks of rainfall/disturbance event.



Mid-growth

Plant turns bright green and rapidly grows from boot to knee height in the right conditions.

Most susceptible to herbicide.

Most prolific growth after summer rains.



Max growth/seed production

Flowers produced within 1–3 months of a disturbance event (fire, rain, slashing, disturbance).

Seeds produced and fall when ripe.



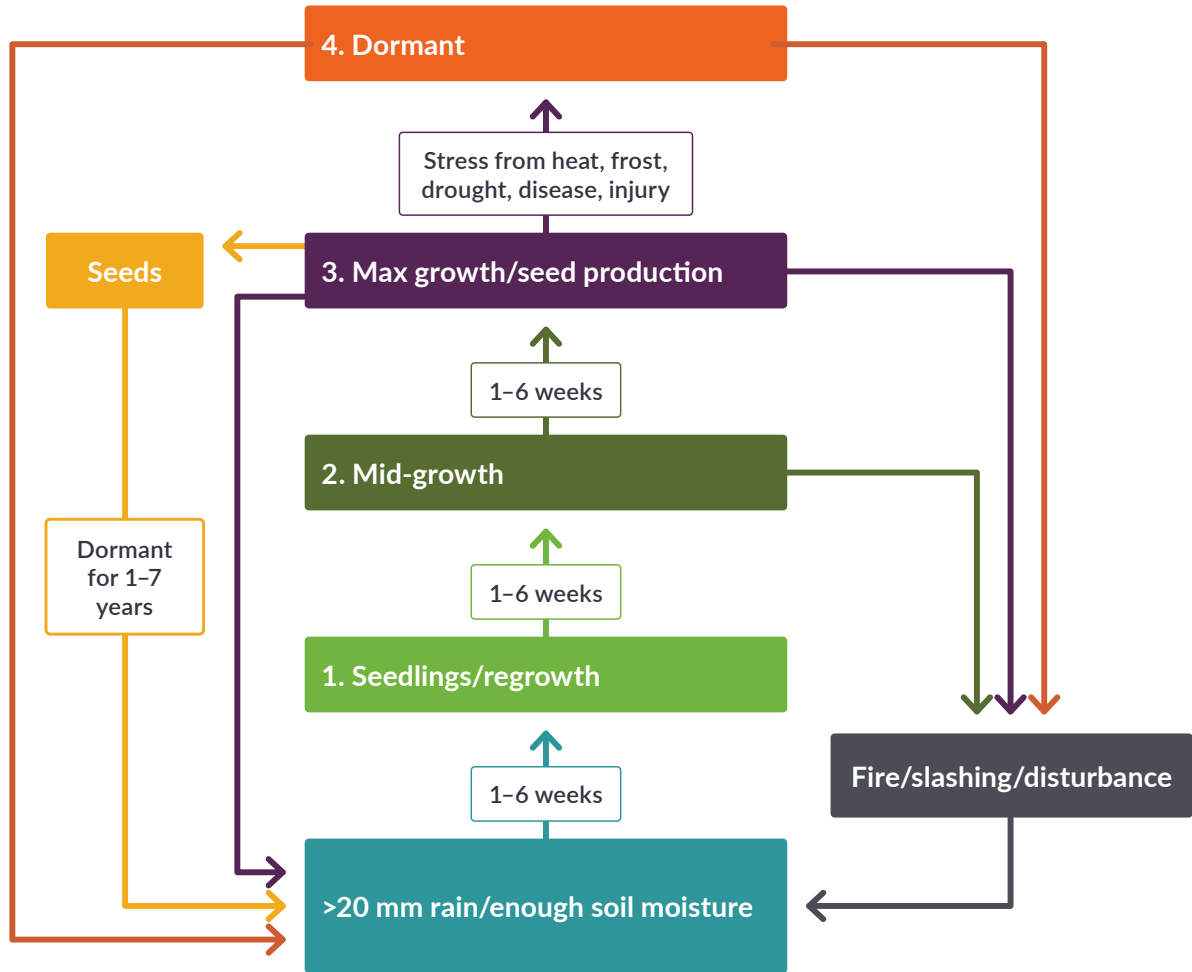
Dormant

Plant turns brown in response to drought, frost, injury or stress.

Extreme fire hazard.

Remains dormant until next disturbance event (fire, rain, slashing).

Seeds remain viable for up to 7 years.



WEED HYGIENE

Personal

- ✓ Avoid walking through areas of mature buffel grass
- ✓ Check clothing, particularly pants, gloves, pockets, and socks for buffel grass seed
- ✓ Wear clothing that reduces the chance of dispersal; avoid fluffy or rough materials, wear sock protectors
- ✓ Remove and destroy seeds prior to entering a work site
- ✓ Remove seeds before leaving site at the end of the work session



See the Weed Management Branch's [website](#) for more information on weed hygiene.

Vehicles, plant and equipment




- ✓ Check vehicles are clean and free of seed before entering a weed-free area
- ✓ Avoid driving through buffel grass
- ✓ Avoid driving off tracks
- ✓ Remove buffel grass seeds from vehicles by hand, gurney or with pressurised air before leaving a worksite
- ✓ After works, complete a vehicle inspection and wash down on a flat accessible area far from drains or waterways, with particular attention to vehicle bash plates, wheels, radiator grills, and moving parts
- ✓ Periodically spray washdown sumps and bays with glyphosate to kill regrowth from imported buffel grass matter



CONTROLLING BUFFEL GRASS

Environmental conditions in Central Australia, together with buffel grass's high level of adaptation to its environment, make control efforts difficult to sustain. Fire history, land use, surrounding environments, and weather all shape the presence and management of buffel grass in the landscape. These factors influence the condition of the plant and therefore its control.

GRASS CONDITION AND MANAGEMENT TECHNIQUES

Colour:	BRIGHT GREEN	GREEN >50%	YELLOW
Example:			
Condition:	Actively growing	Growth slowing/some stress	Moderately stressed/dormant
Hand weeding:	Yes		
Herbicide:	Yes	With adjuvant only	Ineffective
Slashing:	Yes, follow up spray or hand weeding required within 6-12 weeks		
Fire:	Hard to burn		Yes, follow up required

GREY/WHITE



Severely stressed by herbicide or frost

GREY



Dead

BLACK



Burnt

Wait 6 weeks or until effective rain then remove regrowth

Too difficult, check again in 6 weeks

Ineffective, monitor regularly and treat regrowth

Yes, monitor and treat regrowth

N/A



APPROPRIATE RESOURCING AND FOCUS

It is critical to consider the scale of an infestation when planning control of buffel grass. Areas with small infestations or isolated plants may be targeted for eradication locally. For areas with a heavier infestation the purpose of work may shift to the protection of assets (built, natural, or cultural).

Importantly, land managers must remember to start small and build up gradually. For larger infestations only tackle what you can follow up on. The following is a guide only to assist land managers to determine what activities may be appropriate or feasible under different scenarios.

SUGGESTED TOOLS AND PRIORITIES BY INFESTATION SEVERITY

Hand tools: Mattocks, brush cutters, knapsack sprayers, Controlled Droplet Applicators, chest mounted spreaders.

Vehicle equipment: Mowers, slashers, high volume spray units.

Broadacre equipment: Graders, slashers, boom sprayers, wicking booms, high volume spreaders, aerial application.

Area size (ha)	Individual plants / localised hotspots (1%–10%)	Patchy (11%–50%)	Dominant (>50%)	Linear infestations (tracks, roads, fences, infrastructure)
<1 ha (100x100 m)	Tools: Hand tools Priority: Eliminate from area			
1–10 ha	Tools: Hand tools and vehicle equipment Priority: Eliminate from area	Tools: Vehicle equipment Priority: Protect and expand areas of native resilience/ significance	Tools: Vehicle and broadacre equipment Priority: Maintain firebreaks, protect critical assets	Tools: Broadacre equipment Priority: Maintain firebreaks, tracks, and assets with broadacre control
10–100 ha	Tools: Vehicle and broadacre equipment Priority: Eliminate isolated individuals then prioritise areas of native resilience/significance		Tools: Broadacre equipment Priority: Protect critical assets, create and maintain firebreaks	
>1 km ² (Landscape scale)	Tools: Vehicle and broadacre equipment Priority: Eliminate isolated individuals, protect critical assets	Tools: Broadacre equipment Priority: Protect critical assets, create and maintain firebreaks to divide infestation into manageable control zones		

MANAGEMENT TECHNIQUES

SHORT-TERM CONTROL TECHNIQUES

The following techniques do not kill buffel grass. They are temporary measures that can reduce biomass and fuel loads in the short-term, but if applied incorrectly or without diligent follow-up, can increase the risk and severity of buffel grass infestation in the longer term.

MOWING, SLASHING AND BRUSH CUTTING

Impact:

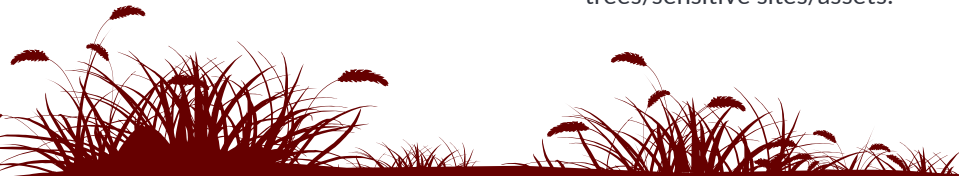
- all/some standing flammable material removed
- viable seeds are strewn to ground or attach to vehicle/clothing/ animals
- native plants have more access to sunlight
- effective until next rainfall and seeding event (3–6 months).

Best practice:

- slash at least 2 months before or after spraying to reduce fuel load/ encourage growth
- slash buffel grass-free collars around old trees as a priority
- perform before seed set
- follow up work with herbicide/ manual removal
- begin work at the outside of the infestation and work toward the centre
- rake loose material away from trees/sensitive sites/assets.

Risks/limitations:

- must be performed at least every 6 months
- encourages new growth within 6 weeks, fuel loads replenished in 1–2 years
- seed spread
- negates herbicide effect if performed too soon after spraying.



MANAGEMENT WITH FIRE

Fire is regulated by Bushfires NT (BFNT) and the NT Fire and Rescue Service (NTFRS). When working with fire, always act in line with the relevant legislation. For more information on burns, breaks, and permits, contact your local fire authority.

Important considerations for fuel management

Fuel load:

Cured fuel loads: **2–9 T/ha DM**

Fuel height: up to **1 m** tall

Continuity: **90%** ground cover in favourable conditions.

High-risk areas:

Areas of high nutrient and moisture load:

- beneath large trees
- along drainage lines and creek flats
- around infrastructure and transport corridors.

Fire as a management tool

Impact:

- fuel load removed
- surface seeds destroyed
- encourages new plant growth (native and weeds)
- regrowth in less than 6 weeks
- fuel reduction for 1–3 years.

Best practice:

- maintain breaks around and subdivide infested burn area
- slash fuel-free rings around priority assets and trees
- burn in cool conditions
- only burn what you can follow up with herbicide within 1–3 months.

Risks/limitations:

- fire rarely kills buffel grass, it reinvigorates and refreshes declining plants
- in mixed buffel grass/native grass landscapes, repeated burning promotes the dominance of buffel grass while progressively eliminating fire-sensitive native vegetation
- burning poses extreme risks to life, property, and the environment when incorrectly performed.

LONG-TERM CONTROL TECHNIQUES

HAND REMOVAL

Impact:

- immediate death of plant
- standing fuel load removal
- increased access to light, moisture and nutrients for plant growth
- mixed weed and native germination within 6 weeks of next rain or immediately in moist areas.

Best practice:

- start work at most resilient point on site (i.e. hilltops and native patches) and work outward
- clear no more than 1 ha/person/year
- perform before seed set
- minimise soil disturbance
- return and follow up work at least once every 3–6 months.

Risks/limitations:

- very labour intensive
- can cause erosion issues from soil instability in some areas
- may induce mass buffel grass germination in fertile areas
- work not followed up will return worse than initial infestation
- large buffel grass piles may present a concentrated seed source or fire hazard.



CHEMICAL CONTROL

Impact:

- death or injury of plant by systemic foliar or residual root uptake pathways
- suppression of infestation with minimal soil disturbance
- encourages native competition
- varying timeframes of impact depending on chemical used.

Best practice, risks and limitations:

See next section, Controlling buffel grass with herbicides (page 24).

CONTROLLING BUFFEL GRASS WITH HERBICIDES

USING CHEMICALS SAFELY

Always use appropriate Personal Protective Equipment (PPE) as specified by the product label when mixing or applying chemicals.

Only spray during appropriate environmental conditions (per product label and advice on next page) to ensure there is no spray drift and/or off target impacts.

Always consult with neighbours when spraying near boundaries, ensure there is no cross-boundary spray and be mindful of neighbouring organic farms.

COMPLYING WITH THE LAW

Buffel grass is not specifically listed on the labels of any NT-registered herbicides, however users may apply herbicides under the general directions of that label. Most herbicides feature application instructions for its relative Kikuyu grass (*Cenchrus clandestinus*) or for other perennial grasses in non-crop situations. These instructions may be followed to treat buffel grass.



For further information see:
[Using chemicals to control buffel grass.](#)

SPRAY CONDITIONS

The below guidelines can assist in maintaining safe and effective spray application when using herbicides to treat buffel grass. For more information see fact sheets from:



Department of
Agriculture and Fisheries



Grain Research Development
Corporation (GRDC)

Metric	Min.	Max.	Reason
Grass condition (% green)	50%	100% green	Foliar herbicides interrupt photosynthesis so dormant hayed-off plants will not take in or transport herbicides.
Grass size	Boot height (~15 cm)	Knee height (~50 cm)	Wait for full crop of seedlings to emerge and sufficient growth to occur to avoid missed spots and misidentification. At greater grass size more herbicide is required for full coverage, and dead grass post spraying may pose a dangerous fuel load. Consider burning or slashing first, then spray regrowth.
Delta T (°C)	2	12 (up to 15 with adjuvant)	Rapid evaporation before hitting target if too high. Dense fog and droplet drift if too low.
Temperature (°C)	0	35	Droplet evaporation if too high. Freezing risk if too low, plants likely too stressed to take up herbicide.
Wind speed (km/h)	5	20	Off target impacts if too high. Near calm conditions can signal temperature inversions or unstable air, which may increase spray drift.

COMMONLY USED HERBICIDES

Refer to individual chemical labels for detailed instructions and warnings.

Buffel grass application rates are suitable for lovegrasses. A higher rate is recommended for couch grass.

Type and action	Chemical	Application
Broad spectrum systemic foliar spray	Aquatic rated Glyphosate 360 g/L	<ul style="list-style-type: none"> foliar spray, effective until next rain germination event safe in all areas.
	Glyphosate 450 g/L	<ul style="list-style-type: none"> foliar spray, effective until next rain germination event avoid application near standing water.
	Glyphosate K 540 g/L	<ul style="list-style-type: none"> superior form of glyphosate with higher concentration and improved absorption by plants avoid application near standing water.
	Pine Oil (Bioweed)	<ul style="list-style-type: none"> kills seeds on the plant as part of a herbicide mix.
Grass selective systemic foliar spray	Fluazifop-p 212 g/L (Salvo)	<ul style="list-style-type: none"> controls juvenile/regrowing grasses in mixed vegetation or recently burnt/slashed areas.
	Fluazifop-p 128 g/L (Fusilade)	
Grass selective root uptake residual	Granular Flupropanate 89.6 g/kg	<ul style="list-style-type: none"> delayed root uptake, residual herbicide activated by rain 6–18 month of grass suppression avoid application near drainage lines.
	Flupropanate 745 g/L	
Broad spectrum root uptake residual + foliar spray	Imazapyr 240 g/L	<ul style="list-style-type: none"> combination foliar spray and residual herbicide kills all standing and emerging plants for 12–24 months avoid application near drainage lines or under significant vegetation.

Risks	Broadacre (boom) spraying		Spot spraying	
	Boom rate (L/ha)	Tank mix (L water/ha)	mL/15L backpack	mL/100L tank
<ul style="list-style-type: none"> injuries to desirable plants with leaves in spray contact requires full coverage to kill. 	6	25-100	150	1000
<ul style="list-style-type: none"> injuries to desirable plants with leaves in contact requires full coverage to kill toxic to amphibians in direct contact with herbicide. 	4.8	25-100	120	800
	4	50-80	100	700
<ul style="list-style-type: none"> injuries to desirable plants with leaves in contact. 	1% of mix	N/A	150	1000
<ul style="list-style-type: none"> injuries to desirable grasses with leaves in contact. 	4	250	150	1000
	6.6		240	1600
<ul style="list-style-type: none"> suppression of all grasses, where herbicide applied potential injury to sensitive trees transported in drainage lines washed out of soil profile in heavy (>120 mm) rain events. 	15 kg/ha	N/A	N/A	N/A
	3	800-2000	45	300
<ul style="list-style-type: none"> injuries to non-target plants with roots in application area. 	6	>50	45	300

Tips to improve spray results:

- ✓ Mix chemicals with adjuvant and dye where possible. Use of adjuvant can significantly increase success rates while dyes make it easier to track application.
- ✓ Spray to “run off”, with dilute mixes on all green parts of the plant to prevent half-kills.
- ✓ During the hot season, begin work at dawn and stop work when Delta T reaches 12 (15 with adjuvant), or at 35°C.
- ✓ Never spray wet plants, or when rain is forecast in the next 48 hours.
- ✓ Use efficient equipment like Wicking tools and Controlled Droplet Applicators in areas far from water sources.

ADJUVANTS

Adjuvants are chemical additives which change the behaviour of herbicide solutions to improve results. Adjuvants include products sold as wetters, stickers, penetrants, thickeners, surfactants, acids and buffers. These products can significantly increase the effectiveness of spraying in Central Australia as they assist to overcome challenges such as poor water quality, arid summer conditions and limited spray windows.

COMMONLY USED ADJUVANTS

Manufacturer	Product	Backpack (mL/15L)	Tank mix (mL/100L)
Apparent	AMS	300	2000
Loveland	Genwet1000	2	100
Agrion	Spreadwet1000		
VicChem	Hot Up	150	1000
VicChem	Outright770	150	1000
Loveland	Li700	75	500
Apparent	Buffer 700		
Nufarm	Pulse	30	200

IMPLEMENTING A CONTROL PROGRAM

BEFORE YOU START

General requirements:

1. obtain permission from the landholder or public land manager
2. consider any sacred site implications.



Refer to the [Aboriginal Areas Protection Authority](#).

To apply chemicals, you should:

- obtain permission from the landholder
- comply with the directions on the chemical label
- maintain records of volumes and locations where applied.



See the [Department of Agriculture and Fisheries website](#) for more information.



nrmaps.nt.gov.au

1. SURVEY

Conduct desktop research on NR Maps and other resources to identify:

- property boundaries and access points
- tracks and firebreaks
- drainage lines
- topography and features
- vegetation types and landforms
- weed and biodiversity records
- fire history

Conduct a site assessment and map:

- ground truth of desktop survey
- weed density and native vegetation
- points of greatest and least native resilience
- actual scale, and feasibility of work with available resources.

2. PLAN

- Read planning advice documents published by the Weed Management Branch
- determine and rank priority control zones based on asset protection, native vegetation quality, spread corridors or topography
- general weed management principles involve:
 - work from the “good edge” of native vegetation toward the centre of the infestation
 - start at seed sources and move away (typically from the top to bottom of hills or catchments)
 - defend priority assets, and prevent weed spread
- limit the control zone to a site which can be visited twice annually for up to 5 years with resources currently available
- create a map to track progress.

3. PRIMARY CONTROL

Indication:

Plan is realistic and mapped to work within means and resources.

What:

- establish an isolation buffer around the control zone using existing firebreaks or weed-free areas
- break up large infestations with cleared and sprayed weed-free breaks
- clear vegetation around key assets
- burn, slash or hand remove standing dormant or dead plants (yellowing to grey)
- spray or dig out green plants and regrowth.

When:

Environmental and logistical conditions for the technique used are met.

4. SECONDARY CONTROL (FOLLOW UP)

Indication:

Primary control zone successfully treated once, majority of standing weeds destroyed.

What:

- periodic sweeps of control zone to treat missed spots and regrowth
- monitor and map native vegetation recovery
- take progress photos.

When:

1–3 months after effective rain (20 mm) or minimum twice yearly for at least two summers.

5. MAINTENANCE WORK

Indication:

After two consecutive summers with no significant germination events.

What:

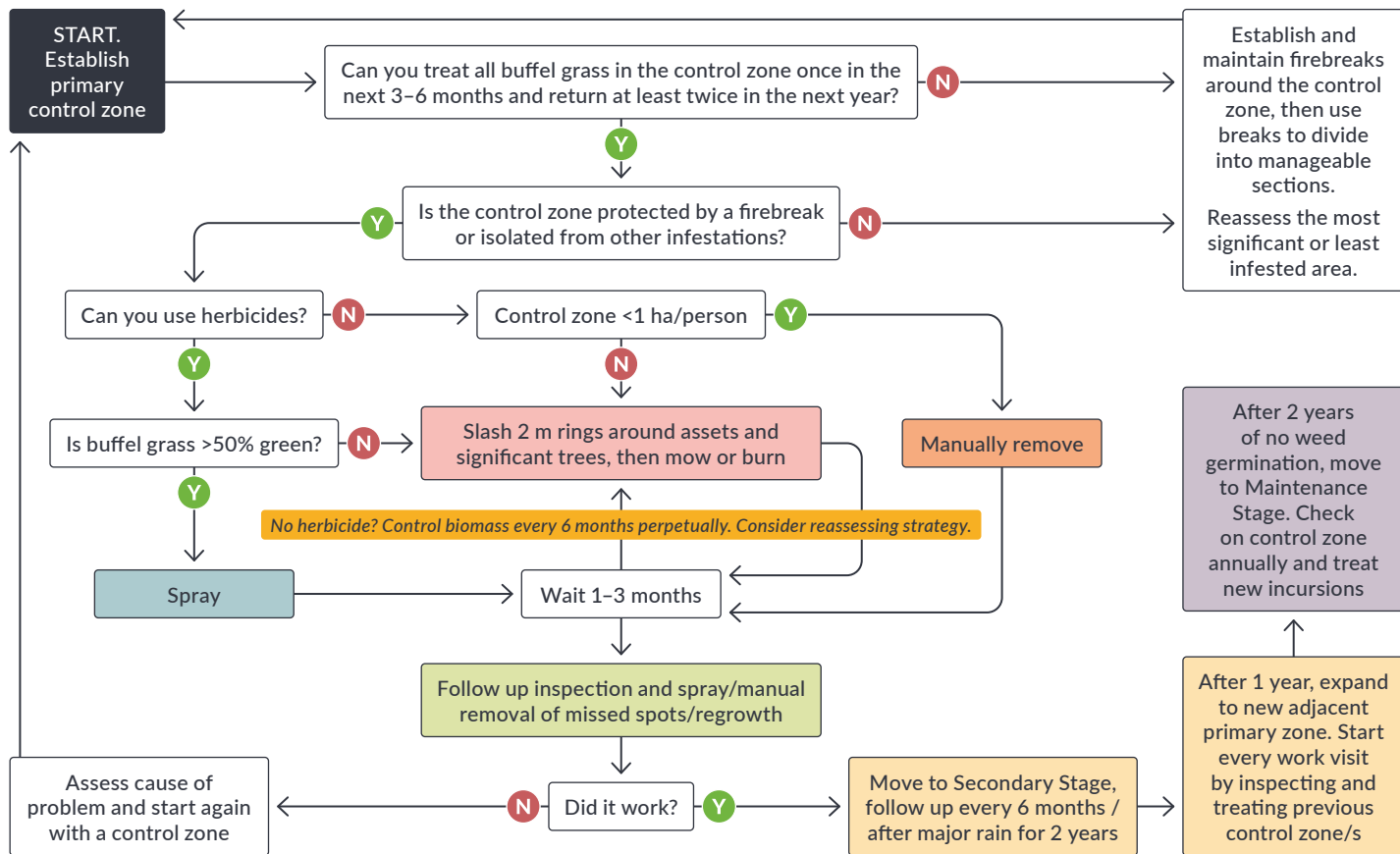
- monitor and treat any new germinations
- record native habitat recovery or control zone deterioration on map and with photos
- plan expansion into adjacent areas.

When:

1–2 times annually for 3–5 years, ongoing monitoring.

SUGGESTED CONTROL WORKFLOW

Y Yes N No



MANAGING/DISPOSING OF TREATED WEEDS

When managing or disposing of buffel grass material you have treated (by chemical application, hand pulling, slashing or brush cutting) aim to:

- minimise seed spread offsite by isolating, destroying, and monitoring treated material onsite
- avoid unnecessary soil disturbance or over-clearing
- avoid building concentrated fire hazards near sensitive vegetation, assets, or other fuel loads.

	Benefit	Risk
Burning	<ul style="list-style-type: none"> • destruction of seeds and infested matter onsite • encourages regeneration of native vegetation. 	<ul style="list-style-type: none"> • out of control fire.
Breakdown in-place	<ul style="list-style-type: none"> • maintained soil stability • no disturbance-induced mass germination • reduced spread offsite. 	<ul style="list-style-type: none"> • regrowth of injured plant • cured fuel load contribution • smothering native plants • viable seeds remain.
Hand removal (in-place, not piled)	<ul style="list-style-type: none"> • minimal contribution to fuel load • fast organic breakdown/ termite consumption • reduced spread offsite. 	<ul style="list-style-type: none"> • re-rooting after rain • viable seeds remain • disturbance induces mass germination of weed seeds.
Piling	<ul style="list-style-type: none"> • centralised for easy monitoring • breaks down slowly in environment • reduced spread offsite. 	<ul style="list-style-type: none"> • concentrated fuel load • concentrated seed source • soil destabilisation.
Disposal off-site (general, NOT green waste)	<ul style="list-style-type: none"> • removal of seed source and fuel load. 	<ul style="list-style-type: none"> • seed spread by transport.

ADVICE FOR COMMON SCENARIOS



Open grasslands, shrublands and sand dunes

Challenges:

- large continuous infestations across alluvial plains
- many isolated patches in fertile pockets under sparse trees.

Priorities:

- treat isolated plants and patches
- break up large areas into manageable control zones with weed-free breaks
- gradually widen breaks and weed free areas by boom/spot spraying or manual removal, then begin treatment of each zone, starting with the most resilient or most important zone.

Considerations:

- mix foliar systemic herbicides with root uptake residuals for long term effect away from sensitive sites.



Woodlands and forests

Challenges:

- thick woody vegetation preventing clear access
- weed concentration under trees.

Priorities:

- treat isolated plants and patches
- protect significant trees with 2 m weed-free rings
- break up large areas into manageable control zones with weed-free breaks
- work outward from trees and breaks or from native vegetation toward the centre of the infestation.

Considerations:

- use root uptake residual herbicides well away from the base of significant trees.

Steep hills and slopes



Challenges:

- inaccessible seeding plants up slope
- difficult terrain
- weeds growing between rocks.

Priorities:

- hill tops and high points with isolated infestations
- break up infestations along steep drainage lines as they will carry fires uphill rapidly
- start at peaks and work downslope.

Considerations:

- weeds wedged between rocks are difficult to remove by hand
- avoid over clearing hills and introducing erosion
- Systemic foliar herbicides are preferred on inclines where there is risk of residual runoff.

Dry rivers, creeks and drainage lines



Challenges:

- concentrated moisture and nutrient loads encourage thick infestations
- erosion-prone banks and gullies
- sensitive habitat.

Priorities:

- isolate thick infestations from surrounding land with weed-free breaks
- protect large trees with weed-free rings
- begin work as far up stream as possible.

Considerations:

- avoid soil disturbance on banks and erosion-prone areas, only hand weed when necessary
- do not use root uptake residual herbicides
- only use aquatic rated herbicides in active frog habitat
- do not spray wet plants, or if rain is forecast in the next 4 days.

Running/standing water, rock holes and waterholes



Challenges:

- concentrated moisture and nutrient loads encourage thick infestations
- erosion-prone banks and gullies
- sensitive habitat.

Priorities:

- destroy outlier plants and seeds immediately
- protect fire sensitive vegetation with weed-free rings and control zone with a weed-free break
- isolate thick infestations from surrounding land with weed-free breaks.

Considerations:

- avoid soil disturbance on banks and erosion-prone areas, only hand weed when necessary
- do not use root uptake residual herbicides near water places
- only use aquatic-rated herbicides
- do not spray wet plants, or over any standing water.

Culturally/environmentally sensitive sites



Challenges:

- access requirements/opportunities
- sensitive habitats.

Priorities:

- work within site or species regulations and requirements
- destroy outlier plants and seeds immediately
- maintain strict weed hygiene practices
- protect fire sensitive habitat and objects with weed-free rings and control zone with a weed-free break.

Considerations:

- work only within scope of cultural or environmental permissions
- avoid soil disturbance
- do not use root uptake residual herbicides
- only use aquatic-rated herbicides
- do not spray wet plants, or over any standing water.

Backyards, verges, residential areas



Challenges:

- many seed sources
- animals and passers by
- high nutrient and moisture load.

Priorities:

- hand weed where possible
- keep areas of high foot traffic weed-free.

Considerations:

- do not use residual herbicides
- keep animals and children away from sprayed control zone for at least 12 hours
- keep spray drift out of adjacent properties.

Fencelines, roadsides, firebreaks and tracks



Challenges:

- seeds spread by vehicles
- high nutrient and moisture load encourage thick infestations
- lengthy infestations.

Priorities:

- destroy outlier plants immediately
- where appropriate, boom spray green vegetation with a mix of systemic foliar and root uptake residual herbicides
- start uphill or at the “clean” end of the infestation and work back toward the core.

Considerations:

- do not allow spray to drift under significant trees or desirable vegetation or onto any non-consenting adjoining property
- ensure strict weed hygiene practices.

