

# AFRICAN LOVEGRASS OPTIONS FOR CONTROL

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# African Lovegrass (*Eragrostis curvula*)

Is it a weed & if yes WHY ????????

CAN WE TOLERATE A CERTAIN POPULATION LEVEL

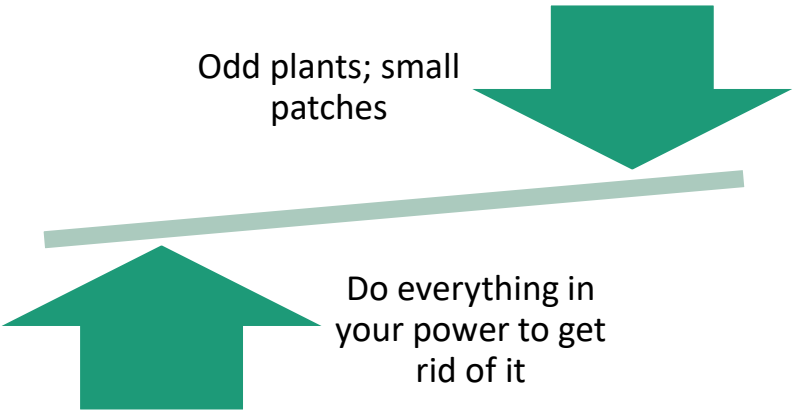
- economics
- legislation

## 7 Agronomic types *E. curvula*

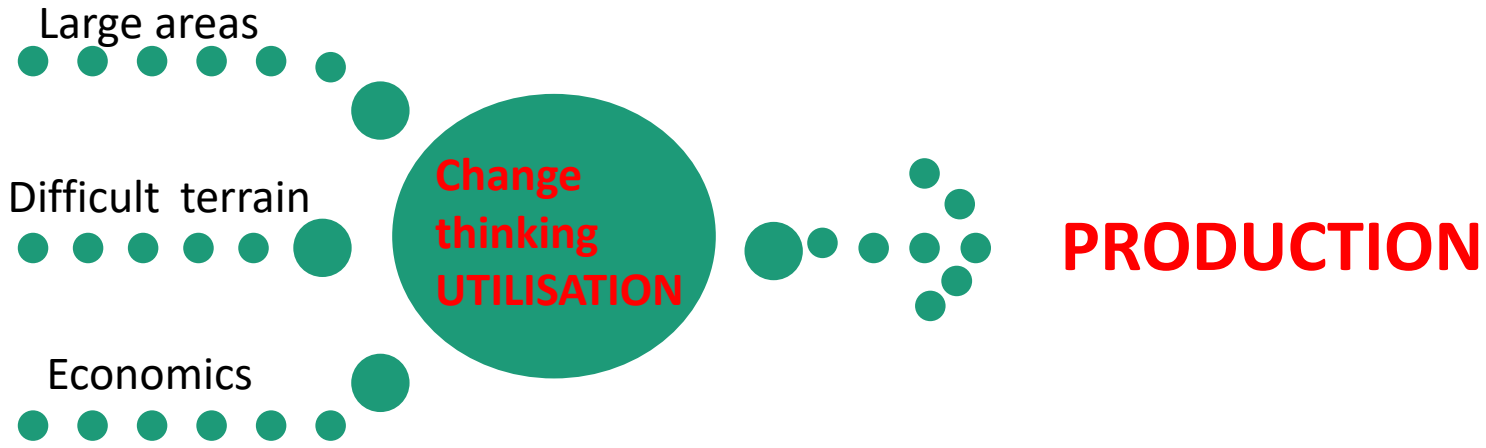
1. *E. curvula* (tall, tussock, green)
2. *E. chloromelas* (bluish types)
  - short
  - intermediate
  - tall
3. *E. robusta* (aerial roots)
4. *E. conferta*

**ALL NOW CALLED *Eragrostis curvula***

# My advice in a nutshell is: *no matter which type*



**BUT ????**



**Learn to manage to restrict spread and maximize utilization/production**

# HAVE TO STOP WEEDS GETTING A HOLD ON YOUR PROPERTY IN THE FIRST PLACE

3 main principles to follow which will assist



## Hygiene

- Livestock (quarantine paddocks)
- Vehicles (leave at farm gate)
- Vigilance (power lines, trees [birds])
- Pests (rabbits, foxes, kangaroos, neighbour stock, dogs "working")



## Grazing Management

- Groundcover - maintain 80 – 100% (depending on time of year [weeds / white clover germination])



## Fertiliser Management

- Vigorous competition (type, amount, timing)

# Control Options

Learn the life cycle – target weak link/s - (*usually germination and seeding periods*)

Match control strategies to the biology of the weed



Source MLA

# Control Options

- Think “why do I have this problem”.  
Some thing/s in the system favours the weed invading or increasing.  
**MANAGEMENT.**
- As size and time of infestations increases the more tools and methods that will need to be used.

**CHEMICALS ALONE USUALLY DON'T WORK FOR  
LASTING RESULTS**

**So how do we tackle the problem**

- Depends on the size of the infestation

# Strategies

## Isolated plants

### 1. Chemical – spot spray

#### a. Fluproponate (eg Tussock, Taskforce etc)

200 – 300 ml/100 litre (availability?? March)

*14 day grazing withholding (14 day slaughter)*

#### b. Glyphosate (eg Roundup, Gladiator etc)

1 in 100 to ~1 in 200 depending on product strength (360 – 100ml/10L; 540 – 67ml/10L)

*Nil withholding period*



### 2. Physical – mattock/ho



**Pocket of seed to resow area; mark area [GPS] for regular checking**





## Strategies cont.

### Medium Infestations (to large for spot spraying)

1. **Chemicals** - easiest, most used tool, probably overrated for effectiveness

**A. Fluproponate [745g/l] (eg. Tussock, Taskforce etc)**  
[availability March]

- selective? (rate sensitive)
- residual (species sensitive) long term control (ALG)
- timing less critical
- expensive
- withholding period concerns
- legumes affected; need 100mm rain before adding pasture seed

**2 – 3 l/ha (high water rate >80l/ha; non-ionic wetter 0.2%)**

➤ ***Withholding periods ( grazing 14 days spot spray, 4 mths blanket spray; slaughter interval 14 days; goats & lactating cows no grazing ever)***



## Strategies cont. [Chemicals]

### **B. Glyphosate (eg Roundup; Gladiator etc)**

- nonselective (cropping → pasture)
- non residual
- timing critical (plenty green leaf; flowering)
- relatively cheap
- minimum withholding period for plant back

**2- 6 l/ha (water >80 l/ha; wetter double rate 5 l/1000)**

# Strategies cont. [Chemicals]

## Application Technique

1. Boom/blanket spray
  - ✓ water rates
  - ✓ wetting agents/rates
  - ✓ kill all AGL types
- Glyphosate – nonselective
- Fluprofonate - selective



## Strategies cont. [Chemicals]

2. Wipers (wick, carpet, roller types) – only work on tall AGL types

➤ selective (grazing), minimum cost





# Strategies cont. [cropping]

## 2. Cropping

- Suitable country only
- Aim – reduce mother plants & soil seed bank (high seed yield 15,000 – 20,000/sq. metre)
- Seed of most plants last 15+ yrs – depend on depth (deep longer survival), seasonal conditions (germination, diseases), insects, seed scarification

**Crop 2 – 3 yrs then resow to perennial competitive pasture**

- Make sure grazing or grain crop doesn't allow seedlings/surviving mother plants to seed
- Herbicide within crop can help (Fluproponate)
- Temperate or tropical pastures

# Strategies cont. [cropping]

How long before re-invasion

Depends on:

- ❖ Management
  - ✓ grazing,
  - ✓ fertiliser,
  - ✓ change from previous management
  - ✓ strategic/low rates chemicals during pasture phase
- ❖ Seasonal conditions

5 – 10 yrs before repeating process

# Strategies cont.

## 3. Grazing Management

- Can reduce infestations (high density stocking rate, medium rest)
- Dependent on AGL type
  - Tall tussocky type – yes (sheep)
  - Short bluey type - no



## 4. Burning

- Generally, increases density particularly C4 grasses (summer species – African Lovegrass, Coolatai grass, Whiskey grass)
- Regular burning reduces competition and palatable species





# Strategies cont.

## 5. Slashing/Mulching

- Little effect on control
- Can be very effective in improving palatability & quality  
    ➔ utilization
- can increase % of more desirable species (management)  
    (open up canopy)
- expensive





# Biological Control

## Initial investigations underway

- African lovegrass (*Eragrostis curvula*) is one of the weed targets in which the NSW Environmental Trust is co-investing. Kerinne Harvey of NSW Department of Primary Industries is leading this sub-project, which involves collaborators from Rhodes University in South Africa.
- African lovegrass has never been a target for biocontrol anywhere in the world. This project is focusing on key initial stages to assess prospects for implementing a biocontrol program for this weed in Australia.

First stage implemented by mid 2022