

Weedy Sporobolus grasses – Best Management Practices

The 5 Weedy Sporobolus grass species are;

Giant rats tail grasses – *Sporobolus pyramidalis*
and *Sporobolus natalensis*

Giant Parramatta grass – *Sporobolus fertilis*

American rats tail grass – *Sporobolus jacquemontii*

The above four (4) Weedy Sporobolus grasses are now declared Category 3 Restricted Matter (Invasive plants) under the new Queensland Biosecurity Act 2014

Dwarf Parramatta grass (*Sporobolus africanus*) is no longer a declared plant under the new Act

Best Management Practices

Very low populations of GRT eg up to 100 plants/ paddock

Grub out the stools, bag them up, tie the bags, remove from the paddock and destroy the intact bag. Hand apply flupropanate granules very precisely @ 1.5 gms/ m² to the site of each of the grubbed plants (plus a pinch of legume seed eg Wynn cassia)

Low to Medium populations of GRT eg up to 2000 plants/ ha

An 'effective spot-spray threshold' is about 1000 to 2000 plants/ hectare eg 1 to 2 plants/ 10 square metres (about the size of a small bedroom).

Target the single 'scout' plants in the paddock first, and then progress towards the higher population clumps of GRT grass.

Spot-spray with flupropanate eg Taskforce[®]/ Tussock[®] at 2 mls/ L of water

Dense populations of GRT eg more than 2000 plants/ ha

On arable land – boomspray with glyphosate, then cultivate and crop the paddock for several years; spot-spray the headlands with Taskforce[®]/Tussock[®]

On marginal arable land – fodder crop for a couple of seasons using reduced tillage techniques to minimise soil erosion; spot-spray the headlands as above

On non arable land – precision aerial (either fixed wing or helicopter) application of flupropanate granules @ 15 kg/ ha

Note: boomspraying with flupropanate is only recommended by skilled operators

Spot-spray techniques

Spot-spraying with Taskforce[®]/ Tussock[®]: if additives such as glyphosate herbicide were to be added as a chemical marker to the spray mix, then only do so at a very low application rate eg 2 mls/ L (ie the same rate as for flupropanate)

Flupropanate herbicide is best used alone in the spray mix

'Tramlining' methods, with or without GPS support, are significantly more effective than spot-spraying paddocks 'higgledy piggledy' at random. 'Tramlining' does not require the addition of a spray marker, either a chemical or a colour dye marker

Avoid spot-spraying with flupropanate during the summer wet season. However, during the summer wet season only, spot-spraying with glyphosate herbicide @ 20 mls/ L is the only alternative herbicide treatment

Withholding periods for grazing and slaughter

The herbicide flupropanate is a highly soluble and predominantly root uptake chemical

The grazing withholding period for spot-spraying is at least 14 days

The grazing withholding period for broadacre treatment eg boomspray or aerial applied granules, is at least 4 months

Pasture spelling for about 12 months after broadacre treatment is recommended to allow time for the non-target companion pasture grasses to fully recover from the after-effects of the flupropanate herbicide treatment. Premature grazing may damage the good grasses.

The slaughter withholding period for cattle grazing in a flupropanate treated paddock is at least 14 days (to allow time for the animals to urinate any chemical residues)

Preventing the spread of GRT seed

Quarantine cattle for a minimum of 5 days when moving them from infested to clean paddocks or to another property (up to 30 000 seeds in the dung on day 1)

A designated 'quarantine' paddock should be by-passed in the normal rotational grazing cycle and specially reserved for grazing by contaminated cattle moving from infested to clean paddocks. Wet-season spell this 'quarantine' paddock every year to maintain optimum pasture density and surface mulch groundcover. Regularly check for the emergence of new GRT plants and remove them by hand eg grubbing & bagging, before seeding

A stockproof fence plus a 10 m wide clean buffer strip (& kept clean) has been shown to hold 99% of GRT seed spread. Tractor-mounted pressurised wick-wipers do this job well.

Clean down all machinery & vehicles with (firstly) air and water pressure cleaners to remove any attached seed or plant material before moving to clean paddocks or clean properties

Dry Season spraying &/ or applying aerial granules

Spray flupropanate herbicide &/or apply aerial flupropanate granules in the lower rainfall winter/ spring months eg May to November, to reduce the risk of heavier falls of rain washing the highly soluble herbicide away from the root-zone before plant uptake.

Pasture Recovery Techniques

Healthy & competitive pastures will provide the best long-term control of WSG infestations. Consider pasture improving heavily infested paddocks in the year prior to flupropanate treatment to increase overall pasture grass competition; or alternatively oversow the treated paddock in the summer post-treatment while the GRT tussocks are slowly dying.

Pastures dominated by stoloniferous grasses eg pangola, African star, kikuyu etc, will compete more strongly with GRT infestations than tussock forming grasses eg setaria

Katambora Rhodes, Bisset bluegrass and Wynn cassia are examples of recommended pasture species for oversowing at double (x2) to triple (x3) the normal seeding rates

Note: Pasture legumes are not affected by flupropanate herbicide, but also be aware that flupropanate has a plant-back delay period for sown pasture grass seedlings

Forward Budgeting

For an effective control program, always budget in advance for the cost of follow-up herbicide treatments. For example, aerial treatments with flupropanate granules will require follow-up aerial treatment about 2 to 3 years later, to achieve effective control.