

## Grassing the bare patches – Small Farms Network Capital Region

### Farm 1 – Jennie (Bywong)

#### Techniques

Previous soil test results for 0-10cm for similar areas were pH (CaCl) of 4.3 with sandy loam soil type.

- **Lime** (Aglime250 Superfine) was applied at rate of 150g/m<sup>2</sup> (equivalent to 1.5 tonne/ha).
- **Superphosphate** (SuPerfect) was applied at rate of 12.5gm<sup>2</sup> (equivalent to 125kg/ha)
- Ryecorn Crimson Clover **green manure** was seeded at rate of 20g/m<sup>2</sup> and mown when mature.
- QPRC soil conditioner **compost** was applied over surface in approximately 1cm deep layer.
- **Ripping** was done with single tine behind small tractor to depth of approximately 150-200mm. Rip lines were located along contour and approximately 1.5m apart.

#### Treatments applied

Control plot (photo from August 2020)

- no action

Common improved plot

- Lime
- Green manure crop
- Jute mesh
- Compost

Variation 1 – minus jute mesh

- Lime
- Green manure crop
- Compost



Variation 2 – business as usual approach

- Lime
- Superphosphate

Variation 3 – ripping

- Ripping
- Lime (along rip lines)
- Green manure crop

Variation 4 – cultural burning

- Dry grass burned using low intensity fire in April/May 2021 based on techniques learned in Cultural Burning workshops
- No further intervention

## Observations

### Farm 1 Control plot - October 2020

- Plants observed: Sweet vernal grass, wallaby grass, white clover, common storks bill (erodium species), Austrostipa spp., Crassula sieberiana, mosses, liverwort and hares foot clover.
- Dry matter: 875 kg/DM/hectare
- Estimated ground cover: 50-70%

### Farm 1 All plots - 28 March 2022 (end of project)

Plot	Dry matter assessment	Estimated % ground cover	Species composition
Control 1	1276	100	Hairy panic, native love grass (Eragrostis brownii), windmill grass, Austrostipa, clover germinating, small amount of sorrel (less than 10%)
Control 2			Same as above/no difference observed in the treatments
Common improved plot (lime, GM, jute, compost)	1010	100	Sorrel 80%, fog grass, oxalis, hairy panic, clover
Variation 1 (lime, GM, compost)	933	100	Clover, sorrel, hairy panic, cocksfoot, windmill grass, native love grass, wallaby grass
Variation 2 (lime, GM, ripping)	982	100	Hairy panic, Austrostipa, native love grass, club grass
Variation 3 (lime, superphosphate)	1139	100	Chloris truncata (windmill grass), wallaby grass, hairy panic, clover, Austrostipa, clover
Variation 4 (cultural burning)	1011	80	Chloris truncata, hairy panic, native love grass, phalaris, Austrostipa, Cats ear flat weed, lomandra

**Farm 1**  
**Common improved plot (front)**  
**and variation 1 (rear)**  
**– 3 November 2021**



## Farm 2 – Harji (Sutton)

### Techniques

Previous soil tests were pH (water) of 6.0 with sandy loam soil type, which equates to pH (CaCl) 5.0.

- **Lime** (Ag Superfine) was applied at rate of 40g/m<sup>2</sup> (equivalent to 400 kg/ha).
- Rye corn and Crimson Clover **green manure** was seeded at rate of 20g/m<sup>2</sup> and mulched when mature.
- QPRC soil conditioner **compost** was applied over surface in approximately 1cm deep layer.
- **Scarifying** was done with a tine behind small tractor to depth of approximately 5-10 cm.
- **Grass seed** was mix of Cocksfoot and Acid Tolerant Phalaris sown Autumn 2021.

### Treatments applied

(Photos from Spring 2020)

Control plot

- no action
- ½ with grass seed



Common improved plot

- Lime
- Green manure crop (mulched)
- Jute mesh
- Compost
- Grass seed





#### Variation 1 – minus jute mesh

- Green manure crop (mulched)
- Compost
- Grass seed



#### Variation 2 – compost tea

- Compost tea  
(2L tea mixed with 8L of water)
- Grass seed



#### Variation 3 – grass clippings

- Mulched with grass clippings
- Green manure crop (mulched)
- Grass seed

## Observations

#### Farm 2 Control Plot – 13 October 2020

- Plants observed: Cape weed, Patterson's Curse, hares foot clover, burr medic and rye grass. The area was mostly covered with weeds.
- Dry matter: 763 kg/DM/hectare
- Estimated ground cover: 25-70%

**Farm 2 All plots 28 March 2022 (end of project)**

<b>Plot</b>	<b>Dry matter assessment</b>	<b>Estimated % ground cover</b>	<b>Species composition</b>
Control	1363	75-80	Mostly hairy panic, club grass, red legged grass, paspalum, St John's Wort, slender pigeon grass, Seteria parviflora, Windmill Grass, Austrostipa
Control 2	1207	80-90	Hairy panic, red leg grass, St John's Wort, Seteria parviflora, seed of Wallaby Grass, Austrostipa
Common improved plot	1085	95	Cocksfoot, club grass, plantain, Seteria parviflora (Slender Pidgeon Grass), hairy panic, and flat weed.
Variation 1 (GM, compost)	1573	90	Cocksfoot, flat weed, rye corn seed heads, hairy panic on margins only
Variation 2 (compost tea only)	644	55-65	Austrostipa, hairy panic, cocksfoot seedlings
Variation 3 (lawn clippings and green manure)	929	80-85	Hairy panic, paspalum, Austrostipa, cocksfoot seedlings, paspalum

## Farm 3 – Allan (Bywong)

### Treatments

Control plot (photo from August 2020)

- no action
- ½ with grass seed

Common improved plot

- Lime
- Green manure crop (mulched)
- Jute mesh
- Compost
- Grass seed



Variation 1 – minus jute mesh + ripping

- Lime incorporated by ripping to 10cm depth
- Green manure crop (mulched)
- Compost
- Grass seed

Variation 2 – minus jute mesh + poultry manure

- Lime
- Green manure crop (mulched)
- Compost
- Pelletised poultry manure
- Grass seed



Farm 3 site – October 2020



## Observations

### Farm 3 Control Plot – 2 February 2021

- Plants observed: kangaroo grass, wallaby grass, moss, hairy panic, native forbs, sheep sorrel
- Dry matter: 1258kg/DM/ha

### Farm 3 All plots – 28 March 2022

Plot	Dry matter assessment	Estimated % ground cover	Species composition*
Control not mowed	915	80	Microlaena, Austrostipa, other natives
Control mowed	same as above	90	As above
Common improved plot (lime, GM, jute, compost)	822	50-75	Cocksfoot, sheep sorrel, reeds
Variation 1 (lime, GM, compost, ripping 10 cm)	820	50-75	Cocksfoot, sheep sorrel, reeds
Variation 2 (lime, GM, compost, dynamic lifter)	820		Cocksfoot, sheep sorrel, thistles
Acid Patch below the site	330	25	Wallaby grass, century, thistle, Bog Sedge <i>Schoenus apogon</i>

\* Grass identification was difficult because kangaroos had grazed groundcover short.

### Farm 3 Photos from 28 March 2022



Bare patch (above)



Looking across the site (right)