hurunui natives

Land-use options & One Billion Trees fund information for landowners

In December 2018 the Afforestation Grant Scheme was replaced by the One Billion Trees fund (1BT). The Permanent Forest Sink Initiative is currently being changed but will continue under the Emissions Trading Scheme (ETS) as an option for post 1989 native or exotic forests. Improvements aim to make it easier for landowners to transfer post 1989 forest into the ETS at any stage.

LAND-USE OPTIONS

(1) Grazing options:

- What classes of stock & stocking rate.
- Removing cattle (i.e. sheep only grazing) hastens natural regeneration in hill country native vegetation. However it also leads to faster closing in of vegetation, reducing the scope for sheep grazing and more rapid spread of weeds.
- One planting option under grazing is possible – poplar/willow poles. However it is advisable not to have adult cattle grazing for 2 years until poles are well established. See below under planting options (exotic trees) for 1BT funding.

(2) Retiring options:

- Retire from grazing and allow natural regeneration. A good option for areas that will reasonably quickly naturally revert to native bush & where there isn't a significant weed &/or pest threat. Minimum area 5 hectares, 1BT funding of $1000 per ha + erosion ($500) & fencing ($500) top ups per ha can be applied for.

(3) Planting options

1. Exotic species such as pine, conifers, poplars & eucalypts. Minimum 5 ha, 1BT funding per ha $1500 + $500 per ha erosion top up can be applied for.
2. Native plantings. Two options (1) indigenous mix minimum 1 ha $4000 per ha + erosion ($500) & fencing ($500) top ups per ha can be applied for (2) Manuka/Kanuka minimum 5 ha $1800 + $500 top up for erosion prone.

Important considerations when retiring or planting areas.

- **Take a holistic view looking at all factors –** financial, biodiversity, aesthetics, erosion, pest threat, water quality & quantity & future management implications e.g. forest harvest.
- **Removing stock grazing significantly changes the ecosystem**. Landowners are often surprised what happens when areas are retired from grazing especially the resultant spread of weeds. Fire risk & habitat for pests are other downsides. Do not rush into removing stock grazing without having a good understanding of the consequences.
- **Weeds.** Have a good understanding of the weed threat particularly wilding pines, old mans beard & Muehlenbeckia australis. Where old mans beard is present, Muehlenbeckia australis is prolific or some other significant weed threat is present then conifers are the best planting option. Native plantings are not advised within 2 kilometres of old mans beard infestations. This is particularly relevant for any plantings near rivers – Hurunui, Waiau, Pahau etc. Blackberry is also rapidly becoming a major problem & acts as a perfect host for old mans beard & Muehlenbeckia australis to establish at a later date.
- **Pests.** Deer are an increasing problem and can do significant damage to native plantings in particular. We don't recommend native plantings where a significant deer problem exists & long term deer control is unlikely to happen. Native plantings up to 6 years old are particularly vulnerable to stag antlers damage. High deer numbers can cause a lot of damage to conifers (stag antler damage) and to poplars & eucalyptus from browsing. Rabbits or hares can be a severe problem in some sites particularly with natives.
- **Forestry regulations** have recently become a lot stricter & will increase compliance & mitigation costs especially in steeper hill country. It is unclear what impact future regulations will have on your ability to harvest particularly in steep country, erosion prone, high landscape/biodiversity value or water quality sensitive catchments. There are a range of forestry consultants/joint venture options providing different levels of service & charging structures. Get different quotes & talk to other landowners about who are the best.

Summary

- ✓ Have a very good understanding of the management implications & long term future viability of your decisions particularly when looking at planting options.
- ✓ Take a holistic view when looking at land-use options.
- ✓ Get good advice & understand the types & costs of services offered.
- ✓ Ecosystem change is constant & unpredictable. New weed incursions are inevitable. Native plantings are particularly vulnerable. Be prepared for the unexpected.
- ✓ Native planting on much of our steeper Hurunui hill country is likely to be unsustainable unless it has low weed/pest threat or weed & pest control is timely & ongoing. In many cases assisted reversion is more practical possibly with some strategic planting.

Table 1: Cost estimates for different planting options per hectare based on minimum requirement of 750 stems per hectare (see table 2) and 1billiontree funding options.

GST exclusive	Cost per plant	Cost per ha	Maintenance first 12 months	Funding base rate per ha	Top ups available	Minimum area
Native planting mix (larger pot grade – 1.5L)	$13	$9,750	$850 (3 sprays)	$4,000	$1,000	1 ha
Native planting mix (smaller root trainer grade)	$6	$4,500	$850 (3 sprays)	$4,000	$1,000	1ha
Manuka/Kanuka only (larger pot grade – 1.5L)	$13	$9,750	$850 (3 sprays)	$1,800	$500	5 ha
Manuka/Kanuka only (small RT grade)	$6	$4,500	$850 (3 sprays)	$1,800	$500	5ha
Pine	.80c	$600	$200	$1,500	$500	5 ha
Other conifers	$7	$5,250	$200 (1 spray)	$1,500	$500	5 ha
Poplar – poles (grazed)	$40	$30,000	$400 (1 spray & re ram)	$1,500	$500	5 ha
Poplar – wands (ungrazed only)	$10	$ 7,500	$300 (1 spray)	$1,500	$500	5 ha
Eucalypts (plug grade)	$5	$3,750	$850 (3 sprays)	$1,500	$500	5 ha

Notes:

- Cost are for pre plant spray (where needed), plants supply & planting (GST excl) in rolling hill country.
- These are average costs based on our planting work. It is provided as a guide so that landowners can compare plants at the same stocking rates for establishment costs,

maintenance & funding. Actual costs will vary depend on plant grade, travel distance to planting site, terrain for carting plants & planting, ease of access etc.

- Two different size options are provided for natives. As a general rule the smaller grade are cheaper up front but are more vulnerable to weeds, pests & climatic extremes; have a higher mortality rate & require a longer period of maintenance to establish.
- Maintenance is for only the first 12 months. For all plants the first 5 – 10 years of establishment are vulnerable to deer damage. Poplar poles are usually safe from deer after 2 years. Natives are forever vulnerable to old mans beard, Muehlenbeckia australis & wilding pines.
- The top up fundings per ha are for erosion prone land $500 & fencing cost $500. The native planting mix option has both top ups. All other planting options only the erosion top up is available.

Table 2: Stocking rate requirements for 1billiontree funding options

Planting a mix of native species	An established stocking rate of at least 750 stems per hectare is achieved within 4 years of planting (of this, at least 300 stems per hectare should be tall tree species)	A stocking rate of at least 600 stems per hectare is maintained within 8 years of planting (of this, at least 250 stems per hectare should be tall tree species)
Planting mānuka/ kānuka only	An established stocking rate of at least 750 stems per hectare is achieved within 1 year of planting	A stocking rate of at least 600 stems per hectare is maintained within 4 years of planting
Planting exotic species	An established stocking rate of at least 750 stems per hectare is achieved within 1 year of planting	A stocking rate of at least 400 stems per hectare is maintained within 4 years of planting
Native Regeneration	An established stocking rate of at least 750 stems per hectare is achieved within 4 years of the Management Plan being enacted (of this, at least 300 stems per hectare should be tall tree species)	A stocking rate of at least 600 stems per hectare is maintained within 8 years of planting (of this, at least 250 stems per hectare should be tall tree species)

Note: there is flexibility in the assessment process to vary any of the above i.e. a higher funding rate than the base rate for high scoring projects or a lower established stocking rate for poplars for erosion or natives.