- **THE RIGHT TREE!**
- **THE RIGHT MANAGEMENT!**
- **THE RIGHT PLACE!**

POPLAR SILVOPASTORALISM

~~**TIME FOR A NEW APPROACH**~~

OVERTIME
FOR A NEW APPROACH

Ewan McGregor, Waipawa

A LESSON UNHEEDED
First, a little story about the wrong tree, the wrong (or no) management, in the wrong place.

The old Patangata County Council, which was absorbed in two stages into the present Central Hawke's Bay District Council, its area now covering the coastal portion of the Council, decided in the mid-1960s to plant radiata pines along the rural roadsides. Some were placed over areas of suspect stability, but most were not. They thereafter were subject to, for want of a better term, management. Some had belated and unprofessional silviculture, some were topped at an early stage to produce multiple leaders, while others had large branches removed only after the objection of stock trucks operators. (The branches, for reasons that remain obscurer, were then being put through a shredder, a costly process.)

Today they these trees are massive and have no marketable value whatsoever. The Whirinaki pulp mill would not want them if they were delivered to its yard. They close the roads after a wind storm blows off the branches, and occasionally the tree itself, and they are an unsightly imposition on our pleasant pastural landscape. The cost of removal is way beyond the means of the local council. (To remove just a couple of trees would close the road for a day, and if sealed, would damage the surface.) So much for the projection for them to be 'eventually harvested to help offset rates'. *These trees have a hundred years of life - and growth – still in them. Then they will start to die. What then?* Well, okay, the intention was good, but vision was absent.

The folly of the above-cited tree planting was apparent several decades ago, but was its lesson heeded? It was not! Over that time millions of poplar poles have been planted over Hawke's Bay hill county farmland (and elsewhere, but I'll focus on my region). Public funds assisted the process. I'd estimate that at least 90% have had no silviculture at all. In a situation like this, as I will explain, *no management* qualifies as the *wrong management*. But yes, certainly the intention was good. It was to conserve the soil. However, *these trees have a hundred years of life - and growth – still in them. Then they will start to die. What then?* (Where have you read that?)

THE LIFE AND DEATH OF THE FRIMLEY POPLAR. WHAT CLEARER LESSON DO YOU WANT?

There is an unequivocal warning of what I am talking about, and it is the life and death of the (now late) ‘Frimley Poplar’, *populous deltoideus*, planted in Frimley Park (then garden) in circa 1870 – died in September 2023.

The Frimley Poplar in its heyday, reputedly the world’s biggest poplar tree, and the biggest deciduous tree in New Zealand. (Note above-ground root pad)

Over the last few years, it was starting to show its age. It had become hazardous and needed to be felled and removed. The time had come for the owner, the Hastings D C, to do so.

Nearly all gone, except for the massive above-ground root pad.

Yes, this was a huge tree, but growing on flat land and unobstructed for heavy machinery, so its removal not such a big job. Right? The HDC has come back to me with the cost. Are you sitting down for this? "Cost to remove Frimley Poplar = $20,601.60 excl gst." That for just one tree!

For 25 years I have cited this tree as a warning of the folly of farmers, (me included initially) planting, with regional council encouragement (and funding), poplars over farmland with no management aimed at, hopefully, a profitable extraction so as to have an exit strategy when the trees are past their 'used by' date. RIP the Frimley Poplar, but ***I*** won't!

Will this move the HBRC to consider its poplar planting program, and <u>develop a full lifecycle strategy</u> that, along with other institutions, starts with a suitable breeding program, planting and silvicultural procedures, and timber market development? I hope so, but the history of a 'poles-in-the-ground' program that goes no further than planting and protecting the pole, is discouraging. I ask the reader to imagine farmland that has been planted in poplars in good faith, but then left unattended when they have reached a hundred years of age, if not before. Will it be "simply beyond our resources to remove them", as the present mayor of CHB has been forced to accept regarding the roadside pines? I believe it will – a horrifying legacy that we bequeath to the future owners of the land.

We must see poplars planted to protect our farmland as a crop, to be <u>harvested</u> at an opportune time. Like any crop, this means management and care aimed at maximising profit. This demands a total change of mindset of both the farmer and the Hawke's Bay Regional council.

WHY ARE WE PLANTING POPLARS OVER OUR HILLS ANYWAY? AND ARE WE PLANTING ENOUGH?

Poplar planting over pastureland was apparently initially done by a pioneer farm forester, Merric Williams during the WW2 years, on Ngahere station, Omakere, CHB. This began before the formation of the H B Catchment Board, (HBCB), in 1944. The poplars were Lombardy, sourced from the prunings of orchard shelter belts on the Heretaunga Plains. In the 1950s the HB Catchment Board began in earnest to promote poplar planting, beginning with the fastigiate Lombardy, but by the mid-1960s were changing to central leader dominant clones, the main one then being I (Italian) 78s. In 1974 poplar rust arrived, blown across from Australia, and plantings were suspended for the best part of a decade while new rust-resistant varieties were developed. The planting then resumed in earnest. (During the hiatus planting switched to willows.)

WE MUST SAVE THE HILLS

A logging gang is setting up operations in the Kaweka Forest when this puny guy shuffles in and asks for a job. Understandably, the gang boss is skeptical and says, "You realise that this is a pretty tough game?" Thereupon, the chap grabs a chainsaw and heads to a nearby large pine tree. He yanks it into life and within a minute the great tree crashes to the ground.

The logger is mightily impressed. “Where did you learn your chainsaw skills?”
“In the Sahara Forest,” came the reply.
“You mean the Sahara Desert?”
“Well, it is now!”

Not a joke – well, maybe a bit of a one – but it *could* be true. (Well, okay, it couldn’t.) In any case, it carries a warning. It is considered that the Sahara was once covered in low, scrubby forest. Then man intervened. First, he introduced goats. This was followed by sheep, and, in turn, cattle. Today it’s camels. Here in New Zealand, we must ask, ‘What are we doing to our hills’? ‘How much more of this can they take’? In just 150 years we have dramatically changed them from what they were after hundreds of thousands of years. What will they look like in a thousand years? Indeed, in a hundred?

1938

1963

1988

2011

2023

How much longer can we allow this to happen? Our forebears cleared the land of trees to, initially, grow wool, then, after the advent of refrigerated shipping, meat and dairy produce. They acted in good faith, but overdid the clearance. The process ended as recently as the 1980s, when government subsidies had been encouraging the process ceased. Now we must return trees to the hills. This is easier said than done. We are talking about privately owned productive land, and the landowner will need to be induced to introduce trees to the land – if he can afford it. Or, sell it to someone who will, which is likely to be a forestry (read pine) enterprise.

Yes, from the medium-term perspective, we've done some great work through 6/7 decades of planting. But has it been enough? The answer is in the illustrations above, and it has to be a resounding 'NO'. And let us not forget that what is illustrated is just the destruction of the hills. How many images are there of the effect on the flood plains following king hit storms. But the remedy begins on those hills.

Here I see three general alternatives.

Blanket productive exotic forest, probably radiata, though not necessarily, and, therefore, the cessation of farming. This is a time that the radiata frontier is advancing over farmland, much of it over lower country where soil instability is not an issue. This is causing much public concern, if not alarm, as it shoulders into touch the social infrastructure and overwhelms the open and nurtured pastoral landscape. It also has

resulted in post-harvest slash problems down-stream which the public rightly finds intolerable.

(But we must not be too hard on radiata pine. It has been since the 1950s the predominant material for building construction through to fencing and horticultural material, and in addition, earns a sizable part of our foreign exchange. To condemn the species while one lives in a home built of pine seems rather hypocritical to me. Nevertheless, the public clearly does not want blanket forestry to replace good, stable picturesque farmland. In any case, does it have to be pines? Other species also make a claim to blanket productive forestry, such as redwood, douglas fir, and eucalyptus, even natives like totara, kauri or puriri. (Rimu and matai maybe, great timbers but very slow growth-rates), but radiata has the inside running with the commercial forester. However, the wider issues of blanket forestry remain whatever the species.)

Then there's the issue of carbon credits. I'll come to that.

Return to indigenous bush. In many instances this may be appropriate, but there are huge challenges. Firstly, for it to happen on a large scale will require not just a change of land ownership, but for it to be taken out of economic production. Like the alternative above, this will mean the weakening, if not the loss of the social infrastructure of vast areas of rural New Zealand. In any case, planting of extensive areas is unrealistic. Most land would need to be left to revert. Either way, attending to weed and animal pest problems would huge, if not impractical. And what's the cost of buying out existing land owner? You can't just commandeer it. (But it must be said, our native bush is one of the finest forests in the world. It's a pity, of course, that more of it was not left.)

Silvopastoralism. This is what I want to concentrate on as it offered the ability to stabilise vulnerable land, while at the same time allows the continuance of pasture production and the social vibrance that goes with it, and protection of our unique picturesque rural landscape – what's that worth?

What is 'silvopastoralism'? It is more specific that agro-forestry which is the integration of trees into farming systems, such as shelterbelts. Silvopastoralism means trees – silvics – integrated over productive pasture. Or one could go further and refine it as *timber production* over productive pasture. This means managed – silvicultured – trees. We, at least in Hawke's Bay, are successfully doing the former and have for many years. The latter? As stated, not so much. Of course, any deciduous genera with a timber value we can consider. Oak makes a compelling claim in that it has a good growth-rate in this country and an established timber appreciation. There are other possibilities. It is just that they need to be established from rooted plants rather than a pole cutting, and which need to be protected from stock. It can be done, but on a limited

scale. (See below.) The focus here will be poplar, due to its absolutely unique combination of characteristics making it the obvious choice for this landuse on a wide scale.

So, what is this combination of characteristics?

- Vigorous grower,
- Instinctive apical form,
- Deciduous,
- Acceptable timber genus – the most widely cultivated genus for timber globally,
- Proven under our conditions through widespread and decades-long cultivation,
- Propagates in situ from a pole (ultra large cutting) allowing continued grazing. Alternatively, 1.5-metre-high staked sapling? (See below.)
- Widely-spreading shallow rooting pattern ideal for soil conservation, enabling wide space placement.
- Has the ability to achieve clear log form (with pruning, if not through branch shedding) at wide spacing.

But this is the clincher – continued grazing, making this the tree of the pastoralist. (The normal practice of establishment on sheep/cattle farms has involve paddock by paddock planting with sheep only grazing for maybe two years. This poses a problem with all-cattle or cattle-dominant systems. Nevertheless, with heavyweight poles and Dynex sleeves, or maybe the use of electrics, poles under cattle can be established.) This form of forestry gives the farmer the ability to continue farming, protect his soil, and with management, a timber crop in 25-plus years (depending of growing conditions and preference). It means that he can target those parts of a paddock that need planting. If this represents a limited portion of the paddock, he can exclude cattle from the planting with a temporary hot wire.

But does it have to be poles? Poles don't come cheap. Currently a 3m 'A' grade pole will set you back $14. A 'B' grade (normally cut to 2.5m) is $12. A Dynex sleeve is $8.00. The HBRC consider a protected A grade pole in the ground to be worth $33 and they'll subsidise half that cost where eligible. (In 1968 I planted my first poles, ex the H B Catchment Board. Cost of pole, 15 cents, cost of planting, 15 cents. No protection in those days. Total cost 30 cents. Subsidy at 50% left 15 cents. I did the planting, so the subsidy paid for the pole. Has our currency inflated that much!)

AN ALTERNATIVE TO POLES

As an alternative to a pole, can it be a rooted sapling high enough to be above the reach, initially, of sheep? Absolutely, but it will need a stake until established, say at two or three years. I suggest that the survival

rate, especially in a very dry season, will be better than a pole, but yield to that being proven in practice.

Eric Appleton says this of his nursery supply; “Pricing in 2023 for 90-1.2m rooted plants 50 to 999 plants $3.85 each + GST. 1000+ $3.65 + GST. Freight extra at cost. 1.2-1.5m rooted plants 50 to 999 plants $4.10 each + GST. 1000+ $4.10 + GST. Strapped on pallets for larger shipments.” Add to this will be bark protection (as with a pole), and a stake. The best, but the most expensive will be a waratah, but stakes can be reused after serving their purpose at, say, year two.

One of 20 rooted poplar cutting of varying varieties run in conjunction with Appleton’s Tree Nursery, Nelson to trial establishment with sheep grazing. (Sleeve to be applied.)

And the same system may be applied to the lightweight 1.5 metre off-cuts in the pole nurseries. What do they cost? Do they even charge for them? Are they just shredded to waste? These kawa poplars (above) at 5 years old, were established from lightweight poles 1.5 metre high secured with a wooden stake. Apart from the removal of competing leaders at year two, no pruning since (But yes, now’s the time to do it, and it’s done. Easy!) These examples also demonstrate the outstanding instinctive form of this variety – an erect dominant leader reaching for the sky and light branching, even at wide spacing. Did they have a role, even at this age, in protecting this hillside in Gabrielle?

WHAT I ADVOCATE.

I would like to see a programme to comprehensively investigate trial and research silvopastoralism systems involving scientific institutions, regional councils, commercial interests, farm foresters and practitioners. To this end funding sources will be approached, such as the 'Sustainable Food and Fibre Futures' fund, and/or corporate sponsorship.

The programme to include:

1. **Develop varieties** that lack the characteristic of sprouting from a pruning wound, and to source propagation material from trees that show evidence of branch shedding.

Great scientific work has been done since the 1950s in developing various clones of poplar for soil conservation, but it has been focused on disease and pest resistance, survivability and vigour. The evidence of the success of this in the field can be seen over our hill country today. But, as far as I can see, no consideration, at least of any consequence, has been given to develop clones more suited to timber production. This means timber quality, and a clearwood log. (Some of the poplar promotional brochures put out by the HBRC in the past emphasises the soil conservation role of pole planting objectives, and include little more than a footnote saying that poplar has a timber potential. I'm inclined to the view that it should be the other way around.)

The two varieties that I have had a long experience with are veronese and kawa, both really fine examples of the genus with excellent central-leader form. The former is a little more robust than the latter, and more likely to establish in a tough year. But it produces a proliferation of sprouts from a pruning wound whereas kawa may have the odd branch that sprouts, so it is much more easily managed to a clear stem. I am told that the HBRC is cutting back on the production of kawa poles, evidencing an absence of regard for clear log production. Nothing's changed. If it grows, that's all that matters.

This illustrates the point. Following pruning. the kawa has sent out a single shoot that was easy to remove, and was. Two veronese in the background, all planted on the same day and pruned maybe three years before the photograph. It's all very well saying to get back and remove the sprouts, but it's unlikely to happen. Getting there in the first place seems a big enough task. There will still be a log to harvest, but what of its value compared to a clearwood.

I have seen many individual examples of poplars that have naturally developed a clear stem and have photographed them and brought these trees to the attention of Council in an endeavor to stimulate interest in this vital characteristic to get timber quality at wide stem spacing. It's been a waste of time. All research and promotion have been focused on the trees' suitability for soil conservation. The radiata industry selected for timber quality decades ago, and look at the difference that has made. What commercial plant species hasn't been bred for better harvest quality? Poplars in New Zealand, that's what! But then, here it's not even seen as a commercial tree, apart from some enthusiasts, whose support I appreciate.

These three trees, along with a number of others, are of assumedly neglected poplars (and almost certainly unplanted) on the river berm downstream from Waipukurau. They have dramatically different form from those planted since the 1950s over farmland. Surely these are dream logs to the miller.

By way of contrast, compare this poplar, also growing on a river berm, which is worthless, (unless, of course, we can develop a market and use for chips. Now, that would be a breakthrough!).

2. **Identify farmers who are willing to devote land for trialling** of silvopastoralism. Poles/plants to be supplied by regional councils, silviculture to be undertaken by the landowner, and tree to remain his/her property.

3. **Develop New Zealand's capacity to exploit the international market for poplar timber**. This may be challenging, but surely helped by the startling fact that poplar is the world's most cultivated genus for timber. This should be of interest to New Zealand Trade and Enterprise. One avenue that is worth exploring would be to see if there is any poplar processing enterprise interested in establishing a presence in New Zealand. (This, remember, is how the Whirinaki mill came into being in 1973.) In 1994 I visited a medium-sized poplar mill in the Po Valley, Italy; one of four owned by the company. The owner showing me around. (Italy is a world leader in poplar utilisation.) This was a fully up-to-date enterprise dealing only in poplar. Everything that left the plant was a processed product, including various fibre boards made from the branches etc. Would someone like this be interested? There's one way to find out. China too, is full of poplars, and maybe interested.

4. **Research the effect of poplar cultivation on pasture production**. My impression is that as the tree grows pasture production is likely to be enhanced, but up to a point, after which it will start to decline as the tree canopy becomes dominant. If this is so, and proved through scientific study, Then the farmer will understand that his first interest, livestock raising, will not be impeded. When the trees become an impediment to pasture growth they can be commercially harvested, and the process renewed. (What of the slash problem? Yes, that will need to be addressed,

but lessened through timely pruning and considerably wider spacing – 1.e. fewer trees.)

This table and forms were placed on the lawn for a Christmas function 2021. This was the effect two months later. (Definitely not this last summer!) This is why AgResearch needs to be part of this exercise. What does shade do for pasture growth? General observation is that grass is always greener over the fence if deciduous trees are growing there. So why not grow them on this side of the fence? The way to a farmer's wife's heart is through flowers, but for the farmer, its grass.

Poplars as they can be. These mixed kawa and veronese poplars were planted in 1999 and have received, as can be seen, silviculture up to 4-5 meters. They are close to millable size, but have many more years of growth before pasture production diminishes. In the meantime, they are protection the soil and potentially can be accrediting the landowner with carbon credits, with no imposition on his livestock operation.

What a waste in a timber-hungry world!

These are I-78s, planted in 1973 – had the rust in their first year but gradually shrugged it off. No pruning until year nine when we had a drought, and hungry cattle. Every day I would prune with a light chainsaw from the ground. This was the large branches that emerged from the top of the pole, and any double leader (about 25%). Branches above were left, but were much lighter. Logs were exported but the price was below that of pine. The market was not, and is not, geared to compete with the ubiquitous radiata.

TWO NEW FACTORS

CARBON CREDITS – AN OPPORTUNITY OR A MONSTER?

The creation of the carbon credit market is the *quid pro quo* to the taxing to punish those who discharge carbon into the atmosphere. This, on the face of it seems fair enough – one offsets the other - but it stands to have far-reaching unintended consequences. What if planting trees – pines most likely, being the cheapest option – solely for carbon farming becomes more profitable than conventional farming for food production? The price of carbon credits fluctuates, (but then, so does farming profitability), however, when it is seen as generally more profitable than farming then the consequences become momentous, and rather difficult to reverse. Is this not already happening? Where would the conversion to untended permanent exotic forestry end? This has the potential to sweep over our picturesque and productive rural landscape like a giant tsunami, taking the established social communities with it – along with the

economy of food production. This cannot be allowed to happen. Disqualifying radiata as the tree of choice won't help. Other species will be planted. (It is not just that radiata is cheap to establish, but they will be marketable, even if untended, for timber if the carbon credit market is at some point in the future, canned. It must be appreciated that while carbon trading is not a subsidy, it is there by the grace of the politicians.)

Herein lies the great strength of silvopastoralism. It gets more trees onto the landscape for environmental and commercial reasons, along with the qualification for carbon credits, but maintains the established farming status quo and everything that goes with it.

NEW REGULATIONS MAY LIMIT FORESTRY OVER STEEP LAND WHERE SLASH CONTROL IS IMPRACTICAL

Environmental implications of forests established over land where erosion, sediment flowing into waterways and the movement of slash are leading to controls on commercial forestry, restriction planting over steep land where extraction disciplines are difficult, if impossible. So, what is the future management of such land? Continue to be farmed, or abandoned? Here silvopastoralism with poplars makes a compelling claim. The pastoral sward is maintained, and the subsoil protected by the widely-spreading roots of poplars. This will make environmentally acceptable extraction more achievable, rotations being less frequent, extraction possibly selective, and fewer stems to the hectare, being around one third that of radiata.

CONCLUSION

My hope is a research programme involving field trials over various sites and regions, but especially in the lower half of the north Island where hill country erosion is an issue. This will involve all interested parties, being regional councils, research institutions, (including AgResearch and Scion) and timber interest, N Z Trade & Enterprise (to explore international markets), Farm Forestry Assn, and obliging farmers. It will need research funding, and participating farmer silvicultural management, the tree becoming the property of the landowner.

We must have an escape plan to extract the trees when their effect has crossed over from positive to negative. Crucially, a pathway will be the creation of confidence in the production of poplar timber. That needs management and promotion. My observation of poplar in Europe (1994) and China (2011) convinces me that there are real possibilities here. As stated, the ideal would be to attract an overseas processor here to exploit our (admittedly) existing unmanaged poplars.

Growing poplars, then, for timber while grazing productive livestock – silvopastoralism – is potentially a most economic use of the land, while at

the same time protecting it environmentally. This includes the maintenance of a vibrant social infrastructure of residential ownership and management, now increasingly being threatened by the advance of blanket dedicated forestry – read pines. The socio-economic rural landscape that we have in Hawke's Bay has been built up over 170 years since the arrival of the first sheep. It can be lost in a season. Yes, pine forestry definitely has its place, but not everywhere.

APPENDIX ONE

SILVOPASTORALISM USING NON-POPLARS

Poplars must be the first choice given its unique combination of characteristics, and realistically, the only choice for widespread cultivation. But can we use other (preferably) deciduous species? Yes, of course we can, but a different technique to large pole establishment. Growth rate will be slower, but, nevertheless, faster than is generally the case globally. Some offer high value timber, and a species mix will offer colour to the eye. Establishment will be challenging and slower to reach a size able to withstand cattle grazing. But it can be done if there's a will.

Mesh surrounds to protect young trees can be costly, but I have been fortunate enough to have been given (or rather, I have grabbed) a very large number of discarded poultry cages, destined for the scape metal merchant. These I have converted. I have protected thousands of trees in this way. (Over the years countless cages have dumped as the poultry industry has been required to readjust, and it still is. A lost opportunity.) But growing on a sapling to be above the reach of sheep (and staked), as is the case with the poplar trial explained above, is a workable alternative.

These trees, liriodendron and liquidambar are entering their third season since planting with sheep only grazing.

Five-year-old pruned liquidambars on grazed land

Six-year-old dawn redwoods (*Metasequoia*) in a wet area. (Yes, they're now in need of a pruning lift.) This is a species, I understand, with an excellent timber quality, and a good growth rate. I expect these to be millable by age 30, but they are planted for amenity values. I prune them to enhance their appearance and eventually they will face decline, and will provide a future landowner with valuable logs. Wet feet will not worry this species. Indeed, they can grow in water.

This English oak is 45 years old. What would a current farmer's son or grandson do with a couple of hundred trees like this in 2070? And all through that time the land was grazed, and stable? (Oaks are deep-rooted trees – good for soil stabilisation, and drought resistance.) Pine by all means for the framing; stained oak for the paneling and furniture!

APPENDIX TWO

What are the future possibilities of developing the river berms of Hawke's Bay? The creation of these wonderful riding and walking tracks along the tops of stopbanks has allowed the public, at least those that use them, to get to view them. From what I see I would rate them as a weed-

infested disgrace. If a farmer had land like that he would be condemned by his peers.

Non-descript trees on a Tukituki River berm, but with the most magnificent naturally grown and unmanaged poplar in the middle. Is there a better-formed poplar on the planet than this? Why hasn’t propagating material been taken from this tree? And yes, it has been brought to the attention of those that could exploit its genetic qualities. Such lack of interest is incompressible to me.

The berm on the western side of the river below the Waipukurau traffic bridge has an assortment of long, rank grass, wilding willows, poplars and wattles, some recently planted willows and earlier planting (maybe 40 years) of a stand of poplars. This was presumably planted as a trial by the Catchment Board, and otherwise forgotten, but could tell us of the possibilities.

The four photos below are taken from the cycleway over a distance of 1-5 kilometers downstream of Waipukurau on the western side of the Tukituki. This is the mix of, for the want of a better term, ‘landuse’.

Below: Left top; wilding pines. Left right; indescribable.
Bottom left; recently planted willows, (why not poplars?) Bottom right, planted poplars, circs 1970s. Good from form close planting, but needed thinning internally.

This is, presumably, a sister planting of poplars riverside on the south side of the Tutaekuri to that of the Tukituki. Thise are wider spaced and good form but show the evidence of no pruning. (The cycleway runs through it, a glimpse of which can be seen center-right.)

What, then, would be the effect on flood control of space-planted managed poplars along the berms with periodic grazing, say, once or twice a year, with cattle, prevented, it must be hastily added, from entering the river though a temporary electric wire. Done, of course after the poplar poles are sufficiently established. This would control the weeds and rank grass. Poplars have extensive near-surface rooting, and planting would be at a space where the roots would overlap. The control weeds and long grass would facilitate the flow along the berms in time of flood. What have the experts got to say about this?

The object would be for the trees to be harvested at an appropriate time, whenever that may be. Harvesting on such flat land, close to highways, would be something that loggers lie in bed dreaming about.

POPLARS CAN CHANGE THE LANSCAPE. WE MUST MAKE SURE IT IS FOR THE BETTER.

1965

2023

.

Silvopastoralism for the future. The prospects are exciting!

Ewan McGregor, Woodland Hills, Hautope, Waipawa
Poplar grower since 1968.
Former deputy chairman of the HBRC.
Churchill Fellow 1994 to study poplar cultivation and utilization in North America and Europe.
Regional Coordinator NZ Landcare Trust, 1997-2000.
NZ Landcare Trust Innovative Forester Award, 2013.
HB Farm Forester of the Year, 1995.
HB Rural Environmental Award, 2000.
ewan-mac@xtra.co.nz