Combined Proceedings IPPS 68:242-247. 2018.

New Zealand: Native Plants, Headford Propagators, Waimate, and a Muscle Car

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Keywords: *Astelia chathamica*, medicinal plants, *Leptospermum scoparium*, *Myosotidium hortensia*.

Abstract

IPPS-New Zealand Region member Megan Robinson was the recipient of the 2018 New Zealand Region/Western Region exchange fellowship. Megan traveled from her home in Waimate, New Zealand, to the IPPS-Western Region Annual Meeting in Hawaii to participate in the Pacific Rim Conference. Megan works for Headford Propagators. Megan shares some information about Headford Propagators, New Zealand native plants, her hometown, and her interests outside of horticulture.

INTRODUCTION

My name is Megan (or Megs to my friends) and I'm a kiwi girl from New Zealand. I grew up in my little hometown of Waimate and am currently working at Headford Propagators as a nursery worker. I would like to tell you a bit about my nursery back home, my home country of New Zealand, and some of the native plants we grow at our nursery. I will also include some information about my hometown and my other interests outside of horticulture.

I started at Headford Propagators Ltd. in September 2015. My bosses are Grant and Robynne Hayman, who some of you may have met through IPPS. We are a production nursery growing and supplying liner plants of both New Zealand natives and ornamentals for plantings. Our plants are mostly sold in 5-cm or 7-cm pots or are grown under contract to suit customers' requirements.

Headford Propagators is located in South Canterbury, New Zealand. Our location provides an excellent climate for growing strong, resilient plants. We are at a latitude of 45° South. We have long days, especially during the spring and summer months, intermittent breezes, a good water supply, proximity to glacial rivers, and a

central location that makes us competitive in the nursery industry.

New Zealand has the ninth longest coastline in the world (15,134 km), and no part of the country is more than 128 km (79 miles) from the seaside. About one-third of the country is protected national park land.

HEADFORD PROPAGATORS

Before I tell you more about our present nursery, I would like to share some background information, history, and how Headford Propagators has come to be the outstanding nursery it is today. In 1988, Grant, being the worker, and Robynne, a stay-at-home mum, owned a small trucking business with three trucks. Everything was going well until Robynne got a phone call informing her that Grant had been in an accident. He had just finished unloading logs from the truck when the bolster fell onto his foot and crushed it. This led to a removal of one of his toes and six weeks of bed rest with his leg up in the air in the hospital. After six weeks, Grant got the news that he could no longer drive a car, let alone a truck. With this, they had to sell up, that is, they sold their three trucks and whatever necessary to make ends meet for their family. Grant was on a New Zealand ACC policy which meant the government would pay to get an accident victim back to work. He had the option of taking a horticulture course, which he was very interested in doing, and with this Robynne could go back to nursing. Grant received a National Diploma in Horticulture certificate and, most importantly, this made the idea of building a nursery from scratch a reality. Headford Propagators started from a farming block in 1994, which was originally a sheep and crop farm. Grant bought the house, shed, yards with about 50 acres of flat land close to the coast. This was an opportunity for Grant and Robynne to build a business with very open minds. This is typical of the opportunities available in New Zealand for motivated people.

The Headford Propagators team is made up of about 30 people. Some of the nursery crew are married couples and some have been working at Headford Propagators for over 15 years. We all have designated areas and jobs but help out each other wherever necessary. In our nursery, we have two double-skinned houses and a large shade house. One house has heat beds inside for cuttings and is run by the propagation team. The other house is for newly potted plants and is run and looked after by the potting team. The double-skinned houses protect plants from the cold, especially on nights in winter which can get to -7°C (44.6°F). We also have a single-skinned house, outside standing areas, and an extensive range of stock plants. We grow a wide range of species, including New Zealand native shrubs and grasses, wetland plants, hedging shrubs and *Buxus*, a small selection of ornamental exotic shrubs, *Agapanthus*, and mondo grass.

The nursery also has a seed propagation area. One of the off-site jobs some of us do through the warmer months is seed collecting. We go to various places and collect seeds needed for the nursery. This seed is then processed and put in the seed area or plastic houses, depending on the variety. I have worked in all areas of production, doing jobs from seed processing to propagation, potting, and even dispatch. My main role at Headford Propagators is being second in charge of the potting department, where I work alongside my wee team. Nicky is mostly in charge and Denise also assists. During our winter season, five to six members of our team work daily during poplar season, removing plants from the ground. The rest of us process the different varieties of poplars. This includes trimming the roots, cutting to look sleek and to the measurement required, and then bundling into groups of 25. The bundles are either placed into cages which are delivered

on to various customers or they get healed into sawdust to stop root growth and keep them alive until removed as required. The processing crew has daily targets that must be reached.

HEADFORD PROPAGATORS FREIGHT BUSINESS

Along with the nursery at Headford Propagators, there is also a freight business running alongside the nursery. We ship plants and do general freight with our regular nationwide service. Only a small part of what we freight is grown in our nursery. We freight all plants, from cell size to monstrous bagged or boxed trees. We have 11 trucks. Most have specialised curtain sides. Our freight services are used by many growers to move green goods throughout New Zealand.

I remind you that New Zealand has two main islands, so the trucks have to take a 3.5-hour ferry ride to cross one of the roughest seas in the world. The freight service does have its challenges.

Headford Propagators has evolved quite a bit since 1994 from a piece of farmland to an outstanding, very busy, and well-respected business. We are well-known nationwide, not only for plants, but also our specialised freight business as well.

NATIVE TREES AND PLANTS OF AOTEAROA

The native trees and plants of Aotearoa (the Māori name for New Zealand) make up much of what we grow. It is said that there are 200 native, edible plants in New Zealand. Eighty percent of our trees, ferns, and flowering plants are endemic, that is, found only in New Zealand. About 10% to 15% of the total land area of New Zealand is covered by native flora, from *Agathis australis* and *Podocarpus totara* to rainforest dominated by rimu (*Dacrydium cupressinum*), beech (*Fuscospora* spp., and *Lophozonia menziesii*), tawa (*Beilschmiedia tawa*), matai (*Prumnopitys taxifolia*), and rata (*Metrosideros* spp.), and ferns and flax (*Phormium* spp.). There are dunelands with their spinifex (*Spinifex sericeus*) and pingao (*Ficinia spiralis*), alpine and subalpine herb fields, and scrub and tussock. Although New Zealand looks like a small country, this is only because it is dwarfed on the world map by Australia.

Chatham Islands

A very special place in New Zealand is the Chatham Islands, which are off the east coast of the country. The Chatham Islands have been isolated for more than 80 million years, long enough to develop many plants found nowhere else. There are said to be 388 indigenous terrestrial plant species on the Chatham Islands. Forty-seven (about one-eighth) are endemic, meaning they cannot be found anywhere else in the world. Endemic species include forest trees and several giant herbs and seaweeds. Even the local flax is unique.

Most well-known among the endemics are the Chatham Island forget-me-not (*Myosotidium hortensia*), Chatham Islands kakaha (*Astelia chathamica*), and soft spear-grass (*Aciphylla dieffenbachii*). These are all plants we grow at the nursery because they are quite ornamental.

What makes Chatham Islands plants unique is that the plants show a much higher proportion of coloured flowers than those from mainland New Zealand. The leaves of Chatham Islands species are also often flesh-ier, and the trees are bigger than their New Zealand counterparts. The plants do not tend to show juvenile forms.

The environmental influences on the Chatham Islands include its oceanic setting, which has a profound influence on plant life. Winds sweep the islands, bringing gales, salt spray, cloudy skies, common showers, and occasional blasts of cold air, but temperature

extremes, droughts, frosts and snow are very rare. Sunshine hours are about half of those of the sunny parts of the New Zealand mainland. Plants are adapted to these conditions. Protective leaf and twig furriness is a feature of the tree and shrub daisies, and the indigenous trees have the ability to layer themselves after having been blown over. Other species have developed giant leaves. Chatham Islands karamu (*Coprosma chathamica*), which grows into a forest tree, is by far the largest species in this genus of shrubs. Akeake (*Olearia traversii*), which we also propagate by cuttings, is one of the largest tree daisies on earth. This may be due to the climate, long isolation, and high soil fertility.

Propagation of Chatham Islands Forget-Me-Not

We produce *Myosotidium hortensia* from seed. When the seed is sprouted, we delicately pull the seedlings from the seed trays with a butter knife and, trying not to disturb the other small seedlings, we place them on a tray which is layered with paper. They are then potted into 7-cm plastic pots or 7-cm peat pots and placed into our plastic house where the plants will be grown. These plants have glossy green leaves and produce blue or white flowers as they get older. Plants grow to about 40 cm and require some shade or a location that is not too dry.

Propagation of Chatham Islands Kakaha

We grow *Astelia chathamica* from seed and, when ready to pot, we pot them into 7-cm pots. We plant with soil just up to the crown of the plant and leave about a 1-cm gap and sprinkle shingle on top of the soil in the pot. Plants have a striking form with silvery-green, flax-like leaves. They get grown in a shade house.

MEDICINAL USES OF PLANTS WE PROPAGATE AND GROW AT HEADFORD PROPAGATORS

Something I have always found interesting about native trees and wild plants, even before I started working at Headford Propagators, is the medicinal use of plants and how some plants can have physical healing and also specific uses. I became interested in this when I was a kid and learned what stinging needle was the first time. A way to reduce the skin irritation of stinging needle is to use a dock leaf. I discovered more about medicinal use of plants from a book I read recently titled "Native Plants and Wild Plants of Aotearoa". These medicinal uses were recognized by the Maori people long before the Europeans arrived.

***Coprosma robusta* (Karamu)**

Karamu nourishes the urinary tract and provides healing for the sexual organs of both women and men. Karamu is nourishing for the kidneys as well.

***Sophora microphylla* (Kowhai)**

Kowhai is beneficial for the kidneys as a homeopathic and has anti-cancer properties. It may be boiled up as a tea and is useful for skin issues, itching, and other sensitivities. My mum has this in her garden back home.

***Podocarpus totara* (Totara)**

Totara nourishes the womb, uterus, and ovaries. It may be used as a circulation tonic and for uplifting and grounding at the same time. It may also be used to prepare a digestive and kidney tonic.

***Phormium tenax* (Harakeke, New Zealand Common Flax)**

Common flax is found throughout New Zealand, especially in wet areas. Flax is unique to New Zealand and is one of our most ancient plant species. Common flax grows up to 3 m high and its flower stalks can reach up to 4 m. It has seed pods that stand upright from the stems. Flax is used in soaps, hand creams, shampoos, and a range of other cosmetics. There have even been experiments conducted to make flax into wine! Flax was the most important fibre plant for the Māori in people of New Zealand. Floats or rafts were made out of bundles of dried flower stalks. Flax also had many medicinal uses. The sticky sap or gum that flax produces was applied to boils and wounds and used for toothache. Flax leaves were used in binding broken bones and matted leaves were used as dressings. Flax root juice was routinely applied to wounds as a disinfectant.

***Leptospermum scoparium* (Manuka, Tea Tree)**

Tea tree is more universally known for its health properties than many of our other native plants. It may be used as a kidney tonic and blood cleanser (by clearing toxins from the system). It nourishes the urinary tract and can help with motion sickness. Tea made from the leaves is also a useful mouthwash and is said to reduce fevers. Skin disorders can be treated by rubbing the ashes of burnt manuka on the skin. An infusion made from the bark is used as a sedative and to treat burns. The inner bark boiled in water is used as mouthwash. Inhalation of leaves placed in boiling water is used for colds.

In recent years, manuka has gained attention for a tea made from its nectar. Specifically, honey that honey bees produce using nectar from the manuka tree has shown remarkable antibiotic properties. It can be used to treat minor wounds and cuts and to fight infections. Manuka honey is produced by European honey bees (*Apis mellifera*) foraging on the manuka which grows uncultivated throughout New Zealand and south-eastern Australia.

PLANTING ONE BILLION TREES

You might think THAT New Zealand has plenty of trees, but our government (under the current Prime Minister Jacinda Ardern) has set a goal of planting one billion trees over 10 years (between 2018 and 2027). Forestry has a range of benefits, such as helping to diversify income, invest in the future, improve land productivity, reduce the effects of climate change, improve water quality, moderate river flows, provide important habitats for a range of native species, and enhance natural landscapes. Grant, my boss, says that this is a great opportunity for our industry, so Headford Propagators is gearing up to meet the increased demand.

INFORMATION ABOUT WAIMATE AND ME

Now I would like to to tell you a little about my hometown and my other interests.

Waimate

I have grown up in the district of Waimate in a rural area called Willowbridge, which is about 10 minutes from the small town of Waimate. Waimate is a town in South Canterbury, New Zealand. It is situated just inland from the eastern coast of the South Island and not far from the Waitaki River. The population is roughly about 4,000 people. Waimate is well known for its population of Bennett's wallabies. These marsupials were introduced from Australia and now live wild in the countryside surrounding the town. It is, in fact, a pest now, but has remained fairly local as it does not cross rivers. Waimate is also recognized for the White Horse Monument, which was built in 1968. Retired farmer Norman Hayman, who is one of my boss’s ancestors, returned from a European

holiday inspired by a Friesian cow statue in Holland. It is a silhouette of a white horse that can be seen on the hills behind the town. It commemorates the Clydesdale horses that helped to break in the land in earlier days. The monument's lookout has panoramic views of the town and the district's green plains out towards the Pacific Ocean. The district is a very productive agricultural area with a mix of pastoral, cropping, dairy farming, and fruit and vegetable growing areas.

In March 2018, our engineer Bill Scott painted four beautiful murals on the Waimate silos. The silos were built in 1934, are 35 m high (including the little house on top). The four murals were painted to become a tourist attraction for Waimate. The four paintings represent: Margaret Cruickshank joining World War 2 hero Eric Bachelor, Chief Te Huruhuru, Michael Studholme, and Norman Kirk. Margaret Cruickshank was the first woman to be registered as a doctor in New Zealand. She sacrificed her life while fighting the 1918 influenza pandemic. She served Waimate from 1897 until her death in 1918 at age 45. The meeting of Chief Te Huruhuru with Michael Studholme occurred in 1854. Michael Studholme was the first European settler in Waimate. Norman Kirk was a former Prime Minister in the 1970s. All these people are buried in Waimate in the old Waimate Cemetery.

My Other Interests

I grew up in a car yard with my dad, mum, and brothers. My dad is a mechanic and so was my grandad. I have always loved the mechanic trade and ever since I can remember I was sitting up with my dad under the hood of a car passing him tools of all sorts. I grew up with my two brothers and what we always loved doing was building new things, from go-carts to paddock bashers to double-ended cars. All this has led up to my dream of buying and owning a muscle car. I've had my car for about two years, with about a year and a half on the road. It is a 1982 Ford Fairlane with a Cleveland v8 engine. Burt Munro (who you may know as the World's Fastest Indian if you have seen the movie) was cousin of my dad's grandma Isabelle Munro.

FINAL THOUGHTS

It has been an absolute pleasure to be a part of this IPPS conference, meeting new IPPS members from around the world, and seeing the familiar faces of those I already know. I just want to say a big thank you to the IPPS for giving me this opportunity, I never thought in my lifetime I would travel, not only overseas, but to a beautiful, exotic, and dreamy place like Hawaii.

And bring on the rest of the exchange program! I can hardly wait!