

# Reply to the 2011 Plant Raisers' Award citation

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It was a great pleasure to be present in Blenheim on the evening of 14th April to personally accept the Royal New Zealand Institute of Horticulture's prestigious Plant Raisers' Award for 2011<sup>2</sup>. The world of plants is a fascinating and rewarding domain that has provided me with a life of passionate interest and dignity far beyond my expectations. Over the decades I have greatly appreciated the friendship, support, and encouragement I have received from individual members of the Institute with my indulgences into the world of plants. To be formally recognised by the Institute for my plant evaluation and selection activities is an enormous honour that is greatly appreciated.

An interest in plants is a highly addictive and deeply satisfying habit. Plant selectors and breeders have at times spoken passionately of the fulfilment they experience through successfully introducing a novel plant into general cultivation for the benefit of the entire community. Plants are so ubiquitous and familiar to everyone they rarely get the credit they deserve. However, plants are a fundamental requisite for the sustenance of the human race. Plants, directly or indirectly, are critical for the existence of humanity by providing essential life-sustaining oxygen, food, fibre, starches, sugars, fuel wood, saw wood, shelter, chemicals, medicines, waxes, flowers, essential oils, and not least at all, spiritual comfort. Be it an inconspicuous grain-producing grass or a mighty timber tree, the selection of superior variations of plants and their introduction into cultivation have provided humanity with both a source of sustenance and never-ending pleasure.

The cultural wealth of an individual or a whole community can be defined

and quantified by the effort they expend on every facet of human endeavour. The wide spectrum of activities includes plant-based pursuits (e.g., agriculture, aquaculture, crop production, floriculture, gardening, horticulture, silviculture, and viticulture), the sciences (e.g., astronomy, chemistry, electronics, energy production, engineering, mathematics, medicine, and metallurgy), the arts (e.g., language, literature, painting, poetry, and the performing arts), education and religion. While all of these activities are of crucial importance for the well being of society, the survival of humanity is critically dependant on the cultivation and utilisation of plants. Plants selected from their natural habitat through the ages by the people of all races and cultivated as crops throughout the world today indisputably constitute humanity's greatest cultural treasure. These plant-based pursuits rank amongst humanity's greatest achievements.

It has been widely speculated that the selection of plants from their natural habitat and their introduction into cultivation was the very catalyst for the domestication of humanity. There can be little doubt that if the cultivation of plants is not the oldest of humanity's civilising activities after hunting and gathering it indisputably ranks amongst the noblest of cultural pursuits.

In addition to the cultivation of life-sustaining crops, the growing of plants (for no other reason than they provide spiritual comfort and benign companionship) is a custom that has been universally practiced since the dawn of human civilisation. Whether it is the cultivation of a leafy herb in an urn placed on a windowsill or a fully landscaped estate, the multifaceted activity of gardening has endowed all of humanity with immeasurable

cultural enrichment throughout the ages. The universal admiration of flowers engenders respect for beauty and the perfection of nature. Gardening and the cultivation of plants are cultural activities that are paramount for the health and wealth of a nation.

I feel enormously privileged to have been able to spend the greater part of my life passionately involved with the scrutiny, selection, and introduction of plants into cultivation, with a special emphasis on New Zealand natives. The inspiration for this effort came from my childhood at Massey, in north-west Auckland during the 1940s. I was blessed during my early years to be raised in an environment resplendent with plants at every quarter. The fire-induced gumland that my father cleared from his 10-acre block to create a poultry farm along Don Buck Road was a source of endless stimulation regardless of being contemptuously referred to as 'impoverished scrubland' by all and sundry. I have vivid memories as a four year old selecting my first native plant – a māpou (*Myrsine australis*) seedling discovered growing under a *Cryptomeria japonica* shelterbelt – and holding it captive in a rusty tin can for a number of years.

The highly modified native plant ecology covering our neighbour's properties and the roadside had previously been repeatedly burnt by gum-diggers, residents of Don Buck's Camp to facilitate their quest for kauri gum prior to the land being opened up for settlement. While the 'scrub'-covered, podsolised, mineral-leached clay gumland soil of west Auckland may have broken the hearts of a few generations of farmers and horticulturists (before it was inundated under a tsunami of suburbia), it was a place rich in inspiration creating an opportunity for an adventurous

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<sup>2</sup> Graeme Platt's award citation and a list of his plant selections were published in the *New Zealand Garden Journal*, 2011, Vol. 14, No. 1, pp. 19–22.

childhood. The trees my father planted to provide shelter for his poultry and for aesthetics created an ideal place for my brother, two sisters and I to run feral during the 1940s and 1950s (Fig. 1). The vegetable garden and orchard that both my parents maintained not only sustained us but provided a place of never-ending interest and a source of fresh, healthy, between-meal culinary treats.



**Fig. 1** The Platt siblings in 1948. Frances is in the peddle-car (left), Graeme and Evelyn are sitting in the home-made box-cart and Brian (right) is standing.

After I commenced selecting, propagating and growing trees, shrubs, herbs and grasses professionally during the late 1960s, in preparation for opening a native plant nursery at Albany during the early 1970s, it became evident that much of the propagation stock readily available at the time was of mediocre quality compared to the lavish bounty scattered naturally throughout the countryside. The limited range of native plant nursery stock offered for sale elsewhere had either been randomly harvested from the bush floor as naturally germinated seedlings or the majority of cultivars were a blend of deviant mutations and variegated junk. At least four plants touted as New Zealand natives at the time proved to be of exotic origin. Commercially available native seed failed to germinate due to the cleaning and storage techniques traditionally used for dry seed being employed indiscriminately for fleshy 'wet' seed. Necessity dictated journeys out into the countryside to source quality native plant gene stock, a practice that developed into a lifetime habit (Fig. 2).

For a period of twenty years during the late summer and early autumn I travelled extensively the length and breadth of New Zealand and to a number of offshore islands sourcing seed and cuttings for propagation

as nursery stock (Fig. 3). The five or six journeys I carried out annually provided an invaluable opportunity to scrutinise the country's flora in its natural habitat. Experience quickly established that the most useful variations of plants (those suitable for amenity horticulture) didn't grow in verdant closed canopy bush. Nature exemplifies perfection because there is no possibility of an alternative; any plant that is not adapted to the conditions where it first germinates as a seedling is ruthlessly eliminated, removing its inferior genes for all time. Selecting genetic stock from a locality where the climatological conditions were equal or similar to the harsh variable conditions that exist in suburban gardens saved a lot of angst. The genetic stock that proved to thrive under conditions of cultivation across suburbia were sourced from rocky headlands, exposed north facing hillsides, cliff faces, windswept foreshores and roadside banks, places where plants were subject to the harsh realities of nature's seasonal wrath.



**Fig. 2** Graeme and Rosemary Platt's 5-hectare Kyle Road property on Auckland City's North Shore where they live a carbon-neutral life amongst an assortment of arboricultural treasures, silviculture experiments and natural bounty.



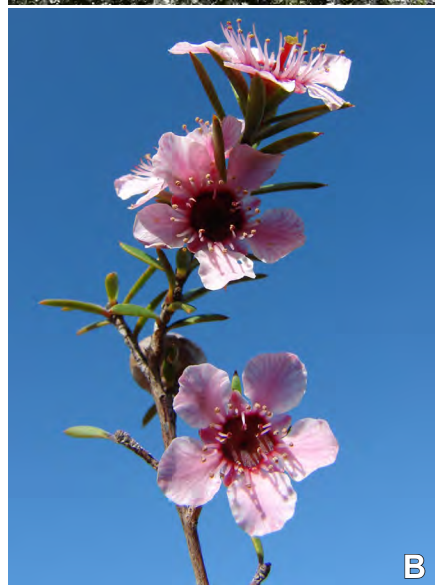
**Fig. 3** A batch of a Poor Knights form of *Pittosporum cornifolium* being propagated and grown at a West Auckland nursery. This outstanding selection was sourced from Aorangi Island of the Poor Knights Group during 1995.

Any desire I may have initially harboured to systematically breed superior cultivars of native plants for amenity purposes soon vanished after concluding that it would take a thousand years to breed plants equal to the quality that already existed in their natural habitats. The quest to locate superior propagation stock soon became the primary objective of my plant hunting journeys. Every improvement found only shifted the goalpost further along the track to excellence (Fig. 4A–C). While the pursuit of excellence is admittedly subjective, a prerequisite for success requires a comprehensive overview of the entire parameters of the plant species under consideration. An excellent cultivar must have one or more superior attributes over the best selection already in cultivation. With the selection of superior variations of pōhutukawa (*Metrosideros excelsa*; Fig. 4C) for example<sup>3</sup>, flower colour, size, quantity, consistent annual fecundity, growth habit, leaf shape and size, all require comprehensive consideration. There is little, if any, point in selecting and propagating a pōhutukawa that produces magnificent flowers once every five years on a tree that suffers from a scruffy habit of growth. Selecting superior forms of plants for introduction into cultivation necessitates that the entire spectrum of a plant's physiology must receive every consideration. Not least of the virtues to consider is the ability of the plant to flourish in the environment where it is to be planted.

The importance of exotic plants and animals sourced globally for the existence of society cannot be overstated. In my opinion, the introduction of the potato into New Zealand by Captain Cook on his second voyage on board the *Endeavour* was the third most significant event in the history of New Zealand. The first being the arrival of Polynesians and the second being the subsequent arrival of Europeans. I consider the fourth most significant event in New Zealand history to be the introduction of sheep by Samuel Marsden on the occasion of his first voyage to New Zealand aboard the *Active* (Fig. 5).

<sup>3</sup> Documented most recently in the *New Zealand Garden Journal*, 2010, Vol. 13, No. 1, pp. 10–22.

With the minor exception of New Zealand spinach (*Tetragonia tetragonioides*), this country hasn't developed a single native plant species as a commercial crop. The ongoing selection and dissemination of superior forms of plant and animal gene stock is a fundamental human right due to humanity's vital dependence on plants as providers of the means of life.



**Fig. 4** Some outstanding wild-sourced selections made by Graeme Platt. **A**, *Leptospermum scoparium* 'Karekare', a pure white-flowered cultivar selected from Lone Kauri Road, inland from the beach at Karekare, Auckland in the 1970s. **B**, *Leptospermum scoparium* 'Julianne', a natural pink-flowered selection of var. *incanum* made from the Aupouri Peninsula near Te Kao, Northland in the early 1980s. **C**, An avenue of *Metrosideros excelsa* 'Vibrance' cultivated at the Auckland Regional Botanic Gardens. This outstanding cultivar was selected in about 1985 from Waiumu Bay, Coromandel Peninsula.

Due to the uncontrolled proliferation of the human race and the consequent reckless plundering of the planets' natural resources, the global

community is fast running out of options. If everyone living in the world today was sufficiently privileged to have the same standard of living that we currently enjoy in New Zealand, there would be no resources remaining to be shared between anyone. The Green Revolution of the 1960s saw a small number of highly motivated visionary plant breeders commence scientifically to produce superior strains of cropping plants such as barley, maize, potatoes, rice, soy beans, sugar cane and wheat. This proved to be one of the greatest events in the history of humanity, increasing the health and prosperity of countless millions of people all over the world.



**Fig. 5** Direct descendents of the fine-wooled Merino sheep first introduced into New Zealand by Samuel Marsden on his first visit aboard the *Active* during December 1814. These sheep are employed as lawn mowers on the Platts' property.

There is now a greater need for another Green Revolution, this time to provide more of civilisation's essential needs with a wholly sustainable regime utilising plants wherever possible. The production of sustainable supplies of liquid and gaseous transport fuels is now crucial for the survival of both the environment and human civilisation as we know it. Fuel wood provided humanity with a supply of energy since the commencement of civilisation; fuel wood will be a major provider of renewable energy in the future. New Zealand's fuel wood industry needs to be brought into the 21st century. Methane, methanol and ethanol are the sustainable carbon-oxygen cycle transport fuels of the future. Methanol can be produced from *Pinus radiata* as a sustainable source of carbon-neutral liquid bio-fuel to power the country's motor vehicles. Methane gas power stations should be developed in warmer northern locations by digesting free-floating aquatic plants such as water hyacinth (*Eichhornia crassipes*),

kariba weed (*Salvinia molesta*), water lettuce (*Pistia stratiotes*), indigenous *Azolla filiculoides* and the exotic *Azolla pinnata*.

This allows the rampant growing qualities of these aquatic plants to work in our favour by hydroponically growing them as fuel and feedstock rather than working against us as environmental weeds. The hydroponic production of free floating aquatic plants could be fully automated using town and city sewage as a source of basic nutrition and a means of conveying the plants through a production system. Furthermore, these aquatic plants could be used to recover the entire NPK nutrient supply from city and town sewage to be reused on the land instead of polluting the ocean around our coast.

New Zealand is currently importing 73% of its food and shamelessly borrowing more than \$NZ300 million dollars a week to finance its unsustainable follies. The world's total reserves of food are dropping to dangerously low levels and are currently hovering on the brink of a crisis. Urgency dictates that a fully sustainable carbon-neutral economy is developed to provide for our future. There are numerous opportunities for economic prosperity and job creation at every turn. For example, an organic fertiliser industry needs to be developed drying and processing seaweed. In particular, the kelp growing naturally around the coasts of Otago and Southland could be harvested sustainably, and a sugar industry utilising sugar cane cultivated in Northland and sugar-beet produced throughout the rest of the country. New Zealand's grain industry needs to be dramatically expanded using barley, dry-land rice, maize, millet, oats, sorghum, soybeans and wheat.

The censorship of innovation in New Zealand by ERMA (now the Environmental Protection Agency), other Government departments, and the mindless resource consent processes administered by overpaid, botanically and ecologically illiterate bureaucrats is draining the life out of New Zealand. Science, innovation, entrepreneurship and consequent prosperity can only take place in an atmosphere of intellectual freedom where embryonic ideas can be incubated and nurtured into life.

Unfortunately, bio-innovation and economic progress in New Zealand is at present crippled by incompetent bureaucrats who, having been authorised with punitive statutory powers far beyond their level of proficiency, create expensive log-jams at every turn.

The right of people to select and grow plants for every purpose is established by common law throughout the entire history of humanity. New Zealand's future

is dependent on plants to create the resources upon which the country needs. It is imperative that the fundamental human right of New Zealanders to source, select, cultivate and possess plants is unconditionally restored.

The Royal New Zealand Institute of Horticulture's commitment to horticulture and the world of plants has made an indispensable contribution to the opulence of human endeavour in New Zealand. It has

never been one of my objectives to garner recognition for my adventures into the plant world; my actions were exclusively motivated by my passion for plants. While being awarded the RNZIH Plant Raisers' Award for 2011 is an enormous personal honour, more importantly it is formal recognition of the widespread adoption of native plants over the last forty years by the people of New Zealand. I thank the Institute for the generosity and goodwill they have bestowed on me.

## Sir Victor Davies and the New Zealand Institute of Horticulture

*Alan Jellyman<sup>1</sup>*



**Fig. 1** Victor Caddy Davies.

Victor Caddy Davies (OBE, AHRIH, NDH(NZ); Fig. 1) was a loyal and active member of the New Zealand Institute of Horticulture from its inception in the 1920s<sup>2</sup> and throughout Victor's long life. He was made an Associate of Honour in 1952 and received his knighthood for services to horticulture in 1977. He was a remarkable plantsman and did much to promote the use of native flora in our gardens.

Victor Davies was born in 1887, the youngest of six children of Arabella and William Bolland Davies; a family of early settlers in New Plymouth. His father was a keen horticulturist and seedsman and his maternal grandfather Captain Robert James was an orchardist in Auckland. Without the support of his mother from a relatively early age he shared a love of the native flora with his older brother Bob collecting plants near his Frankley Road home and trying to name them. He was befriended by the Arden family who lived nearby and had a home with a large English style garden. Francis Hamar Arden was a well known artist and horticultural advisor to the then fledgling Pukekura Park Board. This family was influential in Victor's youthful development.

Although Victor never went to secondary school he was privately tutored in Latin, an area of learning that was to be a valuable tool for his future career.

By chance James Robertson Duncan had established the Duncan Exotic Nursery on three hectares of land in Westown in 1899 and was looking for an apprentice. The Duncan family had a long history in landscape gardening

and the nursery industry. James Duncan's father, Andrew, had a thriving business in Christchurch and was the third Mayor of that city. By the time James purchased his land in New Plymouth at the age of 30 years he had gained wide experience in several key nurseries in New Zealand and Australia and was a well read scholar of horticultural literature.

It was fortuitous that the young Victor Davies was to become the first apprentice to such an erudite horticulturist as James Duncan. As a 15 year-old he moved away from his home and lived in a small shed on the nursery site studying and learning his native plants by night and the nursery trade by day. Starting at eight shillings per week, working Monday to Friday and Saturday mornings, he flourished.

The profound deafness of James Duncan resulted in an increasing reliance on Victor to deal with the customers, thus developing his plant knowledge and salesman skills. Soon after completing his apprenticeship in 1908 he was appointed nursery foreman, managing a winter staff of 12. Duncan invited him into partnership with effect from 1 January 1910 when the company name

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<sup>2</sup> "The New Zealand Institute of Horticulture" was incorporated on 18 July 1923, "The NZ Institute of Horticulture Act 1927" passed its final reading on 6 October 1927, and in 1939 the Institute was granted a Royal Charter and adopted the name "The Royal New Zealand Institute of Horticulture".